

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878 Date of issue: 26/03/2015 Revision date: 20/03/2024 Version: 2.8

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form : Substance
Substance name : Exomide V
EC-No. : 931-329-6

CAS-No. : 68603-42-9, 68155-07-7 (related CAS numbers)

1.2. Relevant identified uses of the substance or mixture and uses advised against

1.2.1. Relevant identified uses

Main use category : Consumer use, Professional use, Industrial use

Industrial/Professional use spec : Wide dispersive use Use of the substance/mixture : non-ionic surfactants

Title	Use descriptors
AISE-Formulation of Detergents/Maintenance Products; Granular Detergent - Regular (large scale)— AISE M1.1, M2.1, M3.1, M4.1, M5.1, M6.1, M7.1, M8.1, M9.1 (ES Ref.: 1.0)	SU3, SU10, PROC1, PROC2, PROC3, PROC4, PROC5, PROC8b, PROC9, PROC14, PROC15, ERC2
AISE-Formulation of Detergents/Maintenance Products; Granular Detergent - Regular (small scale) AISE M1.3, M2.3, M3.3, M4.3, M5.3, M6.3, M7.3, M8.3, M9.3 (ES Ref.: 2.0)	SU3, SU10, PROC1, PROC2, PROC3, PROC4, PROC5, PROC8b, PROC9, PROC14, PROC15, ERC2
AISE-Formulation of Detergents/Maintenance Products; Granular Detergent - Compact (largel scale) AISE M1.4, M2.4, M3.4, M4.4, M5.4, M6.4, M7.4, M8.4, M9.4 (ES Ref.: 3.0)	SU3, SU10, PROC1, PROC2, PROC3, PROC4, PROC5, PROC8b, PROC9, PROC14, PROC15, ERC2
AISE-Formulation of Detergents/Maintenance Products; Granular Detergent - Compact (medium scale) AISE M1.5, M2.5, M3.5, M4.5, M5.5, M6.5, M7.5, M8.5, M9.5 (ES Ref.: 4.0)	SU3, SU10, PROC1, PROC2, PROC3, PROC4, PROC5, PROC8b, PROC9, PROC14, PROC15, ERC2
AISE-Formulation of Detergents/Maintenance Products; Granular Detergent - Compact (small scale) AISE M1.6, M2.6, M3.6, M4.6, M5.6, M6.6, M7.6, M8.6, M9.6 (ES Ref.: 5.0)	SU3, SU10, PROC1, PROC2, PROC3, PROC4, PROC5, PROC8b, PROC9, PROC14, PROC15, ERC2
AISE-Formulation of Detergents/Maintenance Products; Granular Detergent- Low Viscosity (large scale) AISE M1.7, M2.7, M3.7, M4.7, M5.7, M6.7, M7.7, M8.7, M9.7 (ES Ref.: 6.0)	SU3, SU10, PROC1, PROC2, PROC3, PROC4, PROC5, PROC8b, PROC9, PROC14, PROC15, ERC2
AISE-Formulation of Detergents/Maintenance Products; Granular Detergent - Low Viscosity (medium scale) AISE M1.8, M2.8, M3.8, M4.8, M5.8, M6.8, M7.8, M8.8, M9.8 (ES Ref.: 7.0)	SU3, SU10, PROC1, PROC2, PROC3, PROC4, PROC5, PROC8b, PROC9, PROC14, PROC15, ERC2

Safety Data Sheet

Title	Use descriptors
AISE-Formulation of Detergents/Maintenance Products; Granular Detergent - Low Viscosity (small scale) AISE M1.9, M2.9, M3.9, M4.9, M5.9, M6.9, M7.9, M8.9, M9.9 (ES Ref.: 8.0)	SU3, SU10, PROC1, PROC2, PROC3, PROC4, PROC5, PROC8b, PROC9, PROC14, PROC15, ERC2
AISE-Formulation of Detergents/Maintenance Products; Granular Detergent - High Viscosity (large scale) AISE M1.10, M2.10, M3.10, M4.10, M5.10, M6.10, M7.10, M8.10, M9.10 (ES Ref.: 9.0)	SU3, SU10, PROC1, PROC2, PROC3, PROC4, PROC5, PROC8b, PROC9, PROC14, PROC15, ERC2
AISE-Formulation of Detergents/Maintenance Products; Granular Detergent - High Viscosity (medium scale) AISE M1.11, M2.11, M3.11, M4.11, M5.11, M6.11, M7.11, M8.11, M9.11 (ES Ref.: 10.0)	SU3, SU10, PROC1, PROC2, PROC3, PROC4, PROC5, PROC8b, PROC9, PROC14, PROC15, ERC2
AISE-Formulation of Detergents/Maintenance Products; Granular Detergent - High Viscosity (small scale) AISE M1.12, M2.12, M3.12, M4.12, M5.12, M6.12, M7.12, M8.12, M9.12 (ES Ref.: 11.0)	SU3, SU10, PROC1, PROC2, PROC3, PROC4, PROC5, PROC8b, PROC9, PROC14, PROC15, ERC2
Industrial Use of Laundry products AISE P110.1, P110.2 (ES Ref.: 12.0)	SU3, SU10, PC35, PROC2, PROC8b, ERC8a
AISE- Industrial use of Me-salts in conversion coating - Nickel AISE P1001a.1.1, P1001a.2.1, P1001b.1.1, P1001b.2.1, (ES Ref.: 30.0)	SU3, SU10, PC14, PROC2, PROC8a, PROC8b, PROC10, ERC5
AISE- Industrial use of Me-salts in conversion coating - Zinc, Chromium, Copper, Manganese AISE P1001a.1.2, P1001a.2.2, P1001b.1.2, P1001b.2.2, (ES Ref.: 31.0)	SU3, SU10, PC14, PROC2, PROC8a, PROC8b, PROC10, ERC5
COLIPA - Formulation of low viscosity liquids (shampoo, hair conditioner, shower gel, foam, bath) (large scale) COLIPA M1.1, M2.1, M3.1, M4.1, M5.1.1, M5.1.2, M6.1, M7.1, M8.1 (ES Ref.: 32.0)	SU10, SU21, PC39, PROC1, PROC2, PROC3, PROC5, PROC8a, PROC8b, PROC9, PROC14, PROC15, ERC2
COLIPA - Formulation of low viscosity liquids (shampoo, hair conditioner, shower gel, foam, bath) (medium scale) COLIPA M1.2, M2.2, M3.2, M4.2, M5.2.1, M5.2.2, M6.2, M7.2, M8.2 (ES Ref.: 33.0)	SU10, SU21, PC39, PROC1, PROC2, PROC3, PROC5, PROC8a, PROC8b, PROC9, PROC14, PROC15, ERC2
COLIPA - Formulation of low viscosity liquids (shampoo, hair conditioner, shower gel, foam, bath) (small scale) COLIPA M1.3, M2.3, M3.3, M4.3, M5.3.1, M5.3.2, M6.3, M7.3, M8.3 (ES Ref.: 34.0)	SU10, SU21, PC39, PROC1, PROC2, PROC3, PROC5, PROC8a, PROC8b, PROC9, PROC14, PROC15, ERC2

Safety Data Sheet

Title	Use descriptors
COLIPA - Formulation of Fine Fragnances - Cleaning with water (medium scale) COLIPA M1.4, M2.4, M3.4, M4.4, M5.4.1, M5.4.2, M6.4, M7.4, M8.4 (ES Ref.: 35.0)	SU10, SU21, PC39, PROC1, PROC2, PROC3, PROC5, PROC8a, PROC8b, PROC9, PROC14, PROC15, ERC2
COLIPA - Formulation of Fine Fragnances - Cleaning with water (small scale) COLIPA M1.5, M2.5, M3.5, M4.5, M5.5.1, M5.5.2, M6.5, M7.5, M8.5 (ES Ref.: 36.0)	SU10, SU21, PC39, PROC1, PROC2, PROC3, PROC5, PROC8a, PROC8b, PROC9, PROC14, PROC15, ERC2
COLIPA - Formulation of Medium Viscosity Body Care Products (medium scale) COLIPA M1.6, M2.6, M3.6, M4.6, M5.6.1, M5.6.2, M6.6, M7.6, M8.6 (ES Ref.: 37.0)	SU10, SU21, PC39, PROC1, PROC2, PROC3, PROC5, PROC8a, PROC8b, PROC9, PROC14, PROC15, ERC2
COLIPA - Formulation of Medium Viscosity Body Care Products (small scale) COLIPA M1.7, M2.7, M3.7, M4.7, M5.7.1, M5.7.2, M6.7, M7.7, M8.7 (ES Ref.: 38.0)	SU10, SU21, PC39, PROC1, PROC2, PROC3, PROC5, PROC8a, PROC8b, PROC9, PROC14, PROC15, ERC2
COLIPA - Formulation of Non-liquid Creams, high viscosity Products (large scale) COLIPA M1.8, M2.8, M3.8, M4.8, M5.8.1, M5.8.2, M6.8, M7.8, M8.8 (ES Ref.: 39.0)	SU10, SU21, PC39, PROC1, PROC2, PROC3, PROC5, PROC8a, PROC8b, PROC9, PROC14, PROC15, ERC2
COLIPA - Formulation of Non-liquid Creams, high viscosity Products (medium scale) COLIPA M1.9, M2.9, M3.9, M4.9, M5.9.1, M5.9.2, M6.9, M7.9, M8.9 (ES Ref.: 40.0)	SU10, SU21, PC39, PROC1, PROC2, PROC3, PROC5, PROC8a, PROC8b, PROC9, PROC14, PROC15, ERC2
COLIPA - Formulation of Non-liquid Creams, high viscosity Products (small scale) COLIPA M1.10, M2.10, M3.10, M4.10, M5.10.1, M5.10.2, M6.10, M7.10, M8.10 (ES Ref.: 41.0)	SU10, SU21, PC39, PROC1, PROC2, PROC3, PROC5, PROC8a, PROC8b, PROC9, PROC14, PROC15, ERC2
COLIPA - Formulation of body care soap (large scale) COLIPA M1.14, M2.14, M3.14, M4.14, M5.14.1, M5.14.2, M6.14, M7.14, M8.14 (ES Ref.: 42.0)	SU10, SU21, PC39, PROC1, PROC2, PROC3, PROC5, PROC8a, PROC8b, PROC9, PROC14, PROC15, ERC2
COLIPA - Formulation of body care soap (medium scale) COLIPA M1.15, M2.15, M3.15, M4.15, M5.15.1, M5.15.2, M6.15, M7.15, M8.15 (ES Ref.: 43.0)	SU10, SU21, PC39, PROC1, PROC2, PROC3, PROC5, PROC8a, PROC8b, PROC9, PROC14, PROC15, ERC2
COLIPA - Formulation of body care soap (small scale) COLIPA M1.9, M2.9, M3.9, M4.9, M5.9.1, M5.9.2, M6.9, M7.9, M8.9 (ES Ref.: 44.0)	SU10, SU21, PC39, PROC1, PROC2, PROC3, PROC5, PROC8a, PROC8b, PROC9, PROC14, PROC15, ERC2
COLIPA - Wide Dispersive Use in 'Down the Drain' products - hair and skin care products (Consumers and Professionals) Fraction of EU tonnage to region: 0,053 - End use of cosmetic products (ES Ref.: 45.0)	SU10, SU21, ERC8a

Safety Data Sheet

Title	Use descriptors
COLIPA - Wide Dispersive Use of Aerosol products for hair and skin care (Non-propellants) Fraction of EU tonnage to region: 0,053 - End use of cosmetic products (ES Ref.: 46.0)	SU10, SU21, ERC8a
Manufacture of amides, C8-C18 (even-numbered) and C18 (unsatd.), N, N-bis(hydroxyethyl) (ES Ref.: 47.0)	SU3, PROC1, PROC2, PROC3, PROC4, PROC8a, PROC8b, PROC9, PROC15, ERC1
Professional Use of Laundry products AISE P102.1, P102.2, P103.1, P103.2, P105.1, P105.2, P106.1, P106.2, P111.1, P111.2, P112.1, P112.2, P113 (ES Ref.: 13.0)	SU22, PC35, PROC1, PROC8a, PROC11, ERC8a
Professional Use of Laundry products (Reactive) AISE P108.1, P108.2, P109.1, P109.2 (ES Ref.: 14.0)	SU22, PC35, PROC1, PROC8a, ERC8b
Professional Use of Dishwash AISE P202.1, P202.2, P203.1, P203.2, P204.1, P204.2 (ES Ref.: 15.0)	SU22, PC35, PROC1, PROC2, PROC8a, PROC8b, ERC8a
Professional Use of General surface cleaning products AISE P301.1, P301.2, P302.1, P302.2, P303.1, P303.2, P304.1, P304.2, P305.1, P305.2, P306.1, P306.2, P307.1, P307.2, P308.1, P308.2, P309, P310, P311, P312.1, P312.2, P313.1, P313.2, P314.1, P314.2, P315.1, P315.2, P316.1, P316.2, P317 (ES Ref.: 16.0)	SU22, PC35, PROC8a, PROC10, PROC11, PROC13, ERC8a
Professional Use of Floor care products AISE P401.1, P401.2, P402.1, P402.2, P403.1, P403.2, P404.1, P404.2, P405.1, P405.2, P406, P407, P408, P409.1, P409.2, P410.1, P410.2, P411 (ES Ref.: 17.0)	SU22, PC31, PC35, PROC8a, PROC10, PROC11, ERC8a
Professional Use of Maintenance Products AISE P601, P602, P603, P604, P605.1, P605.2, P606, P607, P608, P609 (ES Ref.: 18.0)	SU22, PC31, PC35, PROC2, PROC8a, PROC10, PROC11, ERC8a
Professional Use of Vehicle cleaning Products AISE P701.1, P701.2, P702.1, P702.2, P703.1, P703.2, P704.1, P704.2, P705.1, P705.2, P706.1, P706.2 (ES Ref.: 19.0)	SU22, PC35, PROC4, PROC8a, PROC10, PROC11, ERC8a
Professional Use of Food beverage and pharmacos products AISE P808.1, P808.2 (ES Ref.: 20.0)	SU22, PC35, PROC8a, PROC10, ERC8a
Professional Use of Façade/surface cleaning products AISE P901.1, P901.2 (P902.1, P902.2) (ES Ref.: 21.0)	SU22, PC35, PROC8a, PROC11, ERC8d
Professional Use of Medical Devices AISE P1102.1, P1102.2, P1103.1, P1103.2, P1104.1, P1104.2 (ES Ref.: 22.0)	SU22, PC35, PROC8a, PROC10, PROC11, PROC13, ERC8a

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Title	Use descriptors
Laboratory Use AISE P1200 (ES Ref.: 23.0)	SU22, PC21, PROC15, ERC8a
Professional Use of Hand Cleaners AISE P1300 (ES Ref.: 24.0)	SU22, PC39, PROC19, ERC8a
Consumer use of washing and cleaning products AISE C9, C8.1, C7.1, C6, C5, C3.2, C3.1, C2, C15, C14, C13, C12, C11.1, C10.1, C1 (ES Ref.: 25.0)	SU21, PC35, ERC8a
Consumer use of washing and cleaning products (Reactive) AISE C8.4, C8.3, C4 (ES Ref.: 26.0)	SU21, PC35, ERC8b
Consumer use of washing and cleaning products (Sprays) AISE C8.2, C7.2, C22.2, C16, C11.2, C10.2 (ES Ref.: 27.0)	SU21, PC35, ERC8a
Consumer use of air freshener products AISE C18, C17 (ES Ref.: 28.0)	SU21, PC3, ERC8a
Consumer use of polishes AISE C20.2, C20.1 (ES Ref.: 29.0)	SU21, PC31, ERC8a

Full text of use descriptors: see section 16

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

EOC Surfactants Durmakker 35

BE- 9940 Evergem - Oost Vlaanderen

Belgium

T+3255235858 - F+3255235859

reach@eocgroup.com - www.eocgroup.com

1.4. Emergency telephone number

Emergency number : +32479110190

Country	Organisation/Company	Address	Emergency number	Comment
Austria	Vergiftungsinformationszentrale	Stubenring 6 1010	+43 1 406 43 43	
Belgium	Centre Anti-Poisons/Antigifcentrum c/o Hôpital Militaire Reine Astrid	Rue Bruyn 1 1120	+32 70 245 245	Please dial: 070 245 245 for any urgent questions about intoxication (free of charge 24/7), if not accessible, dial: 02 264 96 30 (standard fee)

Safety Data Sheet

Country	Organisation/Company	Address	Emergency number	Comment
Bulgaria	Национален токсикологичен информационен център Многопрофилна болница за активно лечение и спешна медицина "Н.И.Пирогов"	бул. Ген. Едуард И. Тотлебен 21 1606	+359 2 9154 233	
Croatia	Centar za kontrolu otrovanja Institut za medicinska istraživanja i medicinu rada	Ksaverska Cesta 2 p.p. 291 10000	+385 1 234 8342	Information available 24/7 in Croatian and English
Cyprus	Κέντρου Δηλητηριάσεων		1401	Operating hours 24 hours / 24 hours, 7 days a week
Czech Republic	Toxikologické informační středisko Klinika pracovního lékařství VFN a 1. LF UK	Na Bojišti 1 120 00	+420 224 919 293 +420 224 915 402	
Denmark	Giftlinjen Bispebjerg Hospital	Bispebjerg Bakke 23E Opgang 20 C 2400	+45 82 12 12 12	
Estonia	Mürgistusteabekeskus Terviseamet	Paldiski mnt 81 10614	16662 +372 7943 794	Calling the hotline is anonymous and at the cost of a local call.
Finland	Myrkytystietokeskus	Stenbäckinkatu 9 PO BOX 100 00029	+358 800 147 111 +358 9 471 977	Open 24 hours a day 0800 147 111 (free of charge) 09 471 977 (normal rate call)
France	Centre Antipoison et de Toxicovigilance de Nancy Hôpital Central	29 avenue du Maréchal de Lattre-de-Tassigny 54035	+33 3 83 22 50 50	
Germany	Giftnotruf der Charité - Universitätsmedizin Berlin CBF, Haus VIII (Wirtschaftgebäude), UG	Hindenburgdamm 30 12203	+49 (0) 30 19240	
Greece	Poisons Information Centre Children's Hospital P&A Kyriakou	11762	+30 21 07 79 37 77	
Iceland	Eitrunarmiðstöð Landspítali	101	+354 543 22 22 +354 543 10 00	Around the clock, every day
Ireland	National Poisons Information Centre Beaumont Hospital	PO Box 1297 Beaumont Road 9	+353 1 809 2566 (Healthcare professionals- 24/7) +353 1 809 2166 (public, 8am - 10pm, 7/7)	
Italy	Centro Antiveleni di Roma CAV Policlinico "Umberto I", Università di Roma	Viale del Policlinico, 155 00161	+39 06 4997 8000	
Latvia	Valsts ugunsdzēsības un glābšanas dienests Toksikoloģijas un sepses klīnikas Saindēšanās un zāļu informācijas centrs	Hipokrāta 2 1038	112 +371 67 04 24 73	works 24 hours a day
Lithuania	Apsinuodijimų informacijos biuras	Šiltnamių g. 29 04130	+370 5 236 20 52 +370 687 53378	

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Country	Organisation/Company	Address	Emergency number	Comment
Luxembourg	Centre Anti-Poisons/Antigifcentrum c/o Hôpital Central de la Base - Reine Astrid	Rue Bruyn 1 1120	+352 8002 5500	Free telephone number with a 24/7 access. Experts answer all urgency questions on dangerous products in French, Dutch and English
Malta	Medicines & Poisons Info Office	Mater Dei Hospital MSD 2090	+356 2545 6508	
Netherlands	Nationaal Vergiftigingen Informatie Centrum	Huispostnummer B.00.118 Postbus 85500 3508 GA	+31 88 755 80 00	Only for the purpose of informing medical personnel in cases of acute intoxications (24 hours a day, 7 days a week)
Norway	Giftinformasjonen Helsedirektoratet	P.O. Box 7000 St. Olavs Plass 130	+47 22 59 13 00	Operating hours 24 hours / 24 hours, 7 days a week
Poland	Pomorskie Centrum Toksykologii Szpital MSWiA	UI. Kartuska 4/6 80-104	+48 58 682 04 04 +48 58 309 83 83	
Portugal	Centro de Informação Antivenenos Instituto Nacional de Emergência Médica	Rua Almirante Barroso, 36 1000-013	+351 800 250 250	
Romania	Department of Clinical Toxicology Spitalul de Urgenta Floreasca	Calea Floreasca	+40 21 230 8000	
Slovakia	Národné toxikologické informačné centrum Univerzitná nemocnica Bratislava, pracovisko Kramáre, Klinika pracovného lekárstva a toxikológie	Limbová 5 833 05	+421 2 54 77 41 66	
Slovenia	Center za klinično toksikologijo in farmakologijo Univerzitetni klinični, Center ljubljana	Zaloška 7 1000	112 +386 522 52 83	
Spain	Servicio de Información Toxicológica Instituto Nacional de Toxicología y Ciencias Forenses, Departamento de Madrid	C/José Echegaray nº4 28232	+34 91 562 04 20	(Toxicological emergencies only). Information in Spanish (24/7)
Sweden	Giftinformationscentralen	Solna Strandväg 21 171 54	112 – begär Giftinformation	

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Skin corrosion/irritation, Category 2 H315
Serious eye damage/eye irritation, Category 1 H318
Hazardous to the aquatic environment – Chronic Hazard, Category 2 H411

Full text of H- and EUH-statements: see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP)





GHS05

GHS09

CLP Signal word : Danger

Hazard statements (CLP) H315 - Causes skin irritation.

H318 - Causes serious eye damage.

H411 - Toxic to aquatic life with long lasting effects.

Precautionary statements (CLP) : P264 - Wash hands, forearms and face thoroughly after handling.

> P273 - Avoid release to the environment. P280 - Wear protective gloves, eye protection.

P305+P351+P338+P310 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a

POISON CENTER. P391 - Collect spillage.

2.3. Other hazards

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII

This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

Contains no PBT and/or vPvB substances ≥ 0.1% assessed in accordance with REACH Annex XIII

SECTION 3: Composition/information on ingredients

3.1. Substances

: Exomide V Name

: 68603-42-9, 68155-07-7 (related CAS numbers) CAS-No.

EC-No. : 931-329-6

Name	Product identifier	%
Amides, C8-18 (even numbered) and C18-unsatd., N, N- bis(hydroxyethyl)	EC-No.: 931-329-6 REACH-no: 01-2119490100- 53	100

Full text of H- and EUH-statements: see section 16

3.2. Mixtures

Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Check the vital functions. If unconscious place in recovery position and seek medical

advice. In case of respiratory arrest, administer artificial respiration. Cardiac arrest: perform resuscitation. Victim conscious with laboured breathing: half-seated. Victim in shock: on his back with legs slightly raised. Vomiting: prevent asphyxia/aspiration pneumonia. Prevent cooling by covering the victim (no warming up). Keep watching the victim. Give psychological aid. Keep the victim calm, avoid physical strain. Take victim to a doctor if

irritation persists.

First-aid measures after inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing.

Respiratory problems: consult a doctor/medical service.

Do not apply (chemical) neutralizing agents. Take victim to a doctor if irritation persists. First-aid measures after skin contact

Wash with plenty of water.

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

First-aid measures after eye contact : In case of contact with eyes, rinse immediately with plenty of water and seek medical

advice. Do not apply (chemical) neutralizing agents. In case of eye irritation consult an

ophthalmologist.

First-aid measures after ingestion : Rinse mouth thoroughly with water. In case of ingestion. Take to hospital.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/effects after skin contact : Causes skin irritation. Symptoms/effects after eye contact : Eye damage / irritation.

4.3. Indication of any immediate medical attention and special treatment needed

If exposed or concerned, get medical advice and attention.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Water. Carbon dioxide (CO2). sand. All extinguishing media can be used.

5.2. Special hazards arising from the substance or mixture

Explosion hazard : None known.

5.3. Advice for firefighters

Precautionary measures fire : Keep upwind. Do not inhale explosion and combustion gases.

Firefighting instructions : Collect contaminated fire extinguishing water separately. This must not be discharged into

Protection during firefighting : Wear a self-contained breathing apparatus and chemical protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Protective equipment : Gloves. face shield. protective clothing. Contact with walking surface may result in formation

of slippery film/falling hazard.

Emergency procedures : Wash contaminated clothing immediately. Keep public away from danger area.

6.1.2. For emergency responders

Protective equipment : Wear protective gloves/protective clothing and eye/face protection.

Emergency procedures : Avoid contact with skin, eyes and clothes.

6.2. Environmental precautions

Prevent soil and water pollution. Prevent spreading in sewers.

6.3. Methods and material for containment and cleaning up

For containment : Contain leaking substance, pump over in suitable containers. Small quantities of liquid spill: take up in non-combustible absorbent material and shovel into container for disposal.

: Contain leaking substance, pump over in suitable containers. Clean up any spills as soon as

Methods for cleaning up possible, using an absorbent material to collect it. Collect in closed and suitable containers

for disposal. To clean the floor and all objects contaminated by this material, use plenty of water. Take off contaminated clothing.

Other information : Comply with local regulations for disposal.

6.4. Reference to other sections

Disposal: see section 13.

20/03/2024 (Revision date) EN (English) 9/179

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Comply with applicable regulations. Remove contaminated clothing immediately. Clean

contaminated objects and areas thoroughly observing environmental regulations. Keep away from sources of ignition - No smoking. Handle in accordance with good industrial hygiene and safety procedures. Discharge into the environment must be avoided. Keep container tightly closed. Either local exhaust or general room ventilation is usually required.

Hygiene measures : Handle in accordance with good industrial hygiene and safety procedures. Use good

personal hygiene practices.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Clean bulk tanks periodically to prevent accumulation of bacteria.

Storage conditions : Protect against: frost. Protect against direct sunlight.

Storage temperature : see technical datasheet

Storage area : Store in a dry area. Comply with applicable regulations. Collect spillage.

Packaging materials : Plastic.

7.3. Specific end use(s)

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

No additional information available

8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

Amides, C8-18 (even numbered) and C18-unsatd., N, N- bis(hydroxyethyl)	
DNEL/DMEL (Workers)	
Long-term - systemic effects, dermal	4,16 mg/kg bodyweight/day
Long-term - local effects, dermal	0,09 mg/cm²
Long-term - systemic effects, inhalation	73,4 mg/m³
DNEL/DMEL (General population)	
Long-term - systemic effects,oral	6,25 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	21,73 mg/m³
Long-term - systemic effects, dermal	2,5 mg/kg bodyweight/day
Long-term - local effects, dermal	0,056 mg/cm ²
PNEC (Water)	
PNEC aqua (freshwater)	7 mg/l
PNEC aqua (marine water)	0,7 mg/l
PNEC aqua (intermittent, freshwater)	0,024 mg/l

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Amides, C8-18 (even numbered) and C18-unsatd., N, N- bis(hydroxyethyl)	
PNEC aqua (intermittent, marine water) 0,024 mg/l	
PNEC (STP)	
PNEC sewage treatment plant	830 mg/l
Safe handling	· see section 7

see section 7

Additional information : To date, no national critical limit values exist.

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

No additional information available

8.2.2. Personal protection equipment

Personal protective equipment symbol(s):



8.2.2.1. Eye and face protection

Eye protection:

Safety glasses (EN 166)

8.2.2.2. Skin protection

Skin and body protection:

Avoid contact with skin.

Hand protection:

Nitrile rubber gloves (thickness: 0.38mm)

8.2.2.3. Respiratory protection

Respiratory protection:

Not applicable

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

Environmental exposure controls:

Do not allow uncontrolled discharge of product into the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid Colour : Yellow. Appearance : as liquid. Odour : characteristic. Odour threshold : Inconclusive : -7 °C Melting point Freezing point : Not available

Boiling point Thermal decomposition

Flammability : Not available Explosive properties : None. Oxidising properties : None.

Viscosity, kinematic

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Explosive limits : Not available Lower explosion limit : Not available Upper explosion limit : Not available Upper explosion limit : Not available Flash point : $188 \, ^{\circ}\mathrm{C}$ Auto-ignition temperature : Not applicable Decomposition temperature : Not available pH : $9-11 \, (\mathrm{aq}, 5\%)$

Viscosity, dynamic : Max. 2250 mPa·s BROOKFIELD RV 3/20 @20°C

Solubility : Soluble in water.

Water: 15 - 30 mg/l

: Max. 2205,882 mm²/s

Partition coefficient n-octanol/water (Log Kow) : See below.

Partition coefficient n-octanol/water (Log Pow) : See below.

Vapour pressure : 0,139 mPa @ 20°C

Vapour pressure at 50°C : Not available

Density : 1,02 kg/l

Density : 1,02 kg/l
Relative density : Not available
Relative vapour density at 20°C : Not available
Particle characteristics : Not applicable

9.2. Other information

9.2.1. Information with regard to physical hazard classes

No additional information available

9.2.2. Other safety characteristics

Other properties : No data available

SECTION 10: Stability and reactivity

10.1. Reactivity

Reacts with: Strong acids.

10.2. Chemical stability

SECTION 7: Handling and storage.

10.3. Possibility of hazardous reactions

Not established.

10.4. Conditions to avoid

SECTION 7: Handling and storage.

10.5. Incompatible materials

Strong acids. Materials that react violently or explosively with water.

10.6. Hazardous decomposition products

On burning: release of (highly) toxic gases/vapours. Nitrogen oxides (NOx).

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity (oral) : Not classified
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Not classified

Amides, C8-18 (even numbered) and C18-unsatd., N, N- bis(hydroxyethyl)

LD50 oral rat > 2000 mg/kg

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

LD50 dermal rabbit	> 2000 mg/kg
Skin corrosion/irritation	: Causes skin irritation. pH: 9 – 11 (aq, 5%)
Serious eye damage/irritation	: Causes serious eye damage. pH: 9 – 11 (aq, 5%)
Respiratory or skin sensitisation	: Not classified (Based on available data, the classification criteria are not met)
Germ cell mutagenicity	: Not classified (Based on available data, the classification criteria are not met)
Carcinogenicity	: Not classified (Based on available data, the classification criteria are not met)
Reproductive toxicity	: Not classified (Based on available data, the classification criteria are not met)
STOT-single exposure	: Not classified (Based on available data, the classification criteria are not met)
STOT-repeated exposure	: Not classified (Based on available data, the classification criteria are not met)
Aspiration hazard	: Not classified (Based on available data, the classification criteria are not met)
Exomide V (68603-42-9, 68155-07-7	(related CAS numbers))
Viscosity, kinematic	Max. 2205,882 mm ² /s

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

Adverse health effects caused by endocrine disrupting properties

: The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

11.2.2. Other information

No additional information available

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : This product contains hazardous components for the aquatic environment.

Hazardous to the aquatic environment, short-term : Not classified

(acute)

Hazardous to the aquatic environment, long-term : Toxic to aquatic life with long lasting effects.

(chronic)

Amides, C8-18 (even numbered) and C18-unsatd., N, N- bis(hydroxyethyl)	
LC50 - Fish [1]	2,4 mg/l
EC50 - Crustacea [1]	3,2 mg/l
EC50 72h - Algae [1]	3,9 mg/l
NOEC (chronic)	0,07 mg/l

12.2. Persistence and degradability

Amides, C8-18 (even numbered) and C18-unsatd., N, N- bis(hydroxyethyl)	
Persistence and degradability	This surfactant complies with the biodegradability criteria as laid down in Regulation (EC) No.648/2004 on detergents.
Biodegradation	92,5 % (OECD 301B)

12.3. Bioaccumulative potential

Exomide V (68603-42-9, 68155-07-7 (related CAS numbers))	
Partition coefficient n-octanol/water (Log Pow)	See below.

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Exomide V (68603-42-9, 68155-07-7 (related CAS numbers))	
Partition coefficient n-octanol/water (Log Kow)	See below.
Amides, C8-18 (even numbered) and C18-unsatd., N, N- bis(hydroxyethyl)	
Partition coefficient n-octanol/water (Log Kow)	3,75 @20 °C

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

Exomide V (68603-42-9, 68155-07-7 (related CAS numbers))

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII

This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

12.6. Endocrine disrupting properties

Adverse effects on the environment caused by endocrine disrupting properties

: The substance is not included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

12.7. Other adverse effects

Additional information : No other effects known

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Regional waste regulation : Waste disposal according to EC directives 75/442/EC, 91/689/EC and 2008/98/EC in the

corresponding versions, covering waste and dangerous waste.

Waste treatment methods : Do not allow to enter into surface water or drains. Product should not be released into water

without pre-treatment (biological sewage plant).

Sewage disposal recommendations : If discharging to municipal sewage treatment plant, no onsite wastewater treatment

required.

Product/Packaging disposal recommendations : Dispose in a safe manner in accordance with local/national regulations. This material should

not be landfilled or deep well injected as a method of disposal. Recycled/recovered.

Remove to an authorized incinerator equipped with an afterburner and a flue gas scrubber.

Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / ADN / RID

14.1. UN number or ID number

 UN-No. (ADR)
 : UN 3082

 UN-No. (IMDG)
 : UN 3082

 UN-No. (IATA)
 : UN 3082

 UN-No. (ADN)
 : UN 3082

 UN-No. (RID)
 : UN 3082

14.2. UN proper shipping name

Proper Shipping Name (ADR) : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. Proper Shipping Name (IMDG) : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

Proper Shipping Name (IATA) : Environmentally hazardous substance, liquid, n.o.s.

Proper Shipping Name (ADN) : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. Proper Shipping Name (RID) : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

20/03/2024 (Revision date) EN (English) 14/179

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Transport document description (ADR) : UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Amides, C8-

18 (even numbered) and C18-unsatd., N, N- bis(hydroxyethyl)), 9, III, (-)

Transport document description (IMDG) : UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Amides, C8-

18 (even numbered) and C18-unsatd., N, N- bis(hydroxyethyl)), 9, III, MARINE

POLLUTANT

9

Transport document description (IATA) : UN 3082 Environmentally hazardous substance, liquid, n.o.s. (Amides, C8-18 (even

numbered) and C18-unsatd., N, N- bis(hydroxyethyl)), 9, III

Transport document description (ADN) : UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Amides, C8-

18 (even numbered) and C18-unsatd., N, N- bis(hydroxyethyl)), 9, III

: UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Amides, C8-

18 (even numbered) and C18-unsatd., N, N- bis(hydroxyethyl)), 9, III

14.3. Transport hazard class(es)

Transport document description (RID)

ADR

Transport hazard class(es) (ADR) :

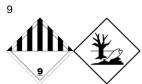
Danger labels (ADR)



IMDG

Transport hazard class(es) (IMDG) :

Danger labels (IMDG) : 9



IATA

Transport hazard class(es) (IATA) : 9

Danger labels (IATA) :



ADN

Transport hazard class(es) (ADN) : 9

Danger labels (ADN) :



RID

Transport hazard class(es) (RID) : 9

Danger labels (RID) :



14.4. Packing group

Packing group (ADR) : III
Packing group (IMDG) : III
Packing group (IATA) : III

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Packing group (ADN) : III
Packing group (RID) : III

14.5. Environmental hazards

Dangerous for the environment : Yes
Marine pollutant : Yes

Other information : No supplementary information available

14.6. Special precautions for user

Overland transport

Classification code (ADR) : M6

Special provisions (ADR) : 274, 335, 375, 601

Limited quantities (ADR) : 5I Excepted quantities (ADR) : E1

Packing instructions (ADR) : P001, IBC03, LP01, R001

Special packing provisions (ADR) : PP1
Mixed packing provisions (ADR) : MP19
Portable tank and bulk container instructions (ADR) : T4
Portable tank and bulk container special provisions : TP1, TP29

(ADR)

Tank code (ADR) : LGBV
Vehicle for tank carriage : AT
Transport category (ADR) : 3
Special provisions for carriage - Packages (ADR) : V12
Special provisions for carriage - Loading, unloading : CV13

and handling (ADR)

Hazard identification number (Kemler No.) : 90

Orange plates :

90 3082

Tunnel restriction code (ADR) : EAC code : •3Z

Transport by sea

Transport regulations (IMDG) : Subject to the provisions

Special provisions (IMDG) : 274, 335, 969

Limited quantities (IMDG) : 5 L

Excepted quantities (IMDG) : E1

Packing instructions (IMDG) : LP01, P001

Special packing provisions (IMDG) : PP1

IBC packing instructions (IMDG) : IBC03

Tank instructions (IMDG) : T4

Tank special provisions (IMDG) : TP1, TP29

EmS-No. (Fire) : F-A EmS-No. (Spillage) : S-F Stowage category (IMDG) : A

Air transport

Transport regulations (IATA) : Subject to the provisions

PCA Excepted quantities (IATA) : E1
PCA Limited quantities (IATA) : Y964
PCA limited quantity max net quantity (IATA) : 30kgG
PCA packing instructions (IATA) : 964
PCA max net quantity (IATA) : 450L
CAO packing instructions (IATA) : 964
CAO max net quantity (IATA) : 450L

Special provisions (IATA) : A97, A158, A197, A215

ERG code (IATA) : 9L

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Inland waterway transport

Classification code (ADN) : M6

Special provisions (ADN) : 274, 335, 375, 601

Limited quantities (ADN) : 5 L

Excepted quantities (ADN) : E1

Carriage permitted (ADN) : T

Equipment required (ADN) : PP

Number of blue cones/lights (ADN) : 0

Rail transport

Transport regulations (RID) : Subject to the provisions

Classification code (RID) : M6

Special provisions (RID) : 274, 335, 375, 601

Limited quantities (RID) : 5L Excepted quantities (RID) : E1

Packing instructions (RID) : P001, IBC03, LP01, R001

Special packing provisions (RID) : PP1
Mixed packing provisions (RID) : MP19
Portable tank and bulk container instructions (RID) : T4
Portable tank and bulk container special provisions : TP1, TP29

(RID)

Tank codes for RID tanks (RID) : LGBV

Transport category (RID) : 3

Special provisions for carriage – Packages (RID) : W12

Special provisions for carriage - Loading, unloading : CW13, CW31

and handling (RID)

Colis express (express parcels) (RID) : CE8
Hazard identification number (RID) : 90

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

15.1.1. EU-Regulations

Other information, restriction and prohibition regulations

: according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EC) No. 453/2010. Labelling according to Regulation (EC) No. 1272/2008 [CLP]. Other regulations (EU). Not applicable.

REACH Annex XVII (Restriction List)

EU restriction list (REACH Annex XVII)		
Reference code Applicable on		
3(b)	Exomide V; Amides, C8-18 (even numbered) and C18-unsatd., N, N- bis(hydroxyethyl)	
3(c)	Exomide V; Amides, C8-18 (even numbered) and C18-unsatd., N, N- bis(hydroxyethyl)	

REACH Annex XIV (Authorisation List)

Not listed on REACH Annex XIV (Authorisation List)

REACH Candidate List (SVHC)

Not listed on the REACH Candidate List

PIC Regulation (Prior Informed Consent)

Not listed on the PIC list (Regulation EU 649/2012)

POP Regulation (Persistent Organic Pollutants)

Not listed on the POP list (Regulation EU 2019/1021)

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Ozone Regulation (1005/2009)

Not listed on the Ozone Depletion list (Regulation EU 1005/2009)

Seveso Directive (Disaster Risk Reduction)

Seveso III Part I (Categories of dangerous substances)	Qualifying quantity (tonnes)	
	Lower-tier	Upper-tier
E2 Hazardous to the Aquatic Environment in Category Chronic 2	200	500

Explosives Precursors Regulation (2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

Drug Precursors Regulation (273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

15.1.2. National regulations

To date, no national critical limit values exist.

Germany

Water hazard class (WGK) : Not classified according to Regulation Governing Systems for Handling Substances

Hazardous to Waters (AwSV).

Hazardous Incident Ordinance (12. BImSchV) : Is not subject of the Hazardous Incident Ordinance (12. BImSchV)

Netherlands

SZW-lijst van kankerverwekkende stoffen : The substance is not listed SZW-lijst van mutagene stoffen : The substance is not listed

SZW-lijst van reprotoxische stoffen – Borstvoeding : The substance is not listed

SZW-lijst van reprotoxische stoffen – : The substance is not listed

Vruchtbaarheid

SZW-lijst van reprotoxische stoffen – Ontwikkeling : The substance is not listed

Denmark

Danish National Regulations : Young people below the age of 18 years are not allowed to use the product

15.2. Chemical safety assessment

A chemical safety assessment has been carried out

SECTION 16: Other information

Indication of changes			
Section	Changed item	Change	Comments
1.1	UFI	Removed	
2.2		Modified	
14		Modified	

Full text of H- and EUH-statements:		
Aquatic Chronic 2	Hazardous to the aquatic environment – Chronic Hazard, Category 2	
Eye Dam. 1	Serious eye damage/eye irritation, Category 1	
H315	Causes skin irritation.	
H318	Causes serious eye damage.	
H411	Toxic to aquatic life with long lasting effects.	
Skin Irrit. 2	Skin corrosion/irritation, Category 2	

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Full text of use descriptors		
ERC1	Manufacture of the substance	
ERC2	Formulation into mixture	
ERC5	Use at industrial site leading to inclusion into/onto article	
ERC8a	Widespread use of non-reactive processing aid (no inclusion into or onto article, indoor)	
ERC8b	Widespread use of reactive processing aid (no inclusion into or onto article, indoor)	
ERC8d	Widespread use of non-reactive processing aid (no inclusion into or onto article, outdoor)	
PC14	Metal surface treatment products	
PC21	Laboratory chemicals	
PC3	Air care products	
PC31	Polishes and wax blends	
PC35	Washing and cleaning products	
PC39	Cosmetics, personal care products	
PROC1	Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions	
PROC10	Roller application or brushing	
PROC11	Non industrial spraying	
PROC13	Treatment of articles by dipping and pouring	
PROC14	Tabletting, compression, extrusion, pelettisation, granulation	
PROC15	Use as laboratory reagent	
PROC19	Manual activities involving hand contact	
PROC2	Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions	
PROC3	Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition	
PROC4	Chemical production where opportunity for exposure arises	
PROC5	Mixing or blending in batch processes	
PROC8a	Transfer of substance or mixture (charging and discharging) at non-dedicated facilities	
PROC8b	Transfer of substance or mixture (charging and discharging) at dedicated facilities	
PROC9	Transfer of substance or preparation into small containers (dedicated filling line, including weighing)	
SU10	Formulation [mixing] of preparations and/or re-packaging (excluding alloys)	
SU21	Consumer uses: Private households (= general public = consumers)	
SU22	Professional uses: Public domain (administration, education, entertainment, services, craftsmen)	
SU3	Industrial uses: Uses of substances as such or in preparations at industrial sites	

Safety Data Sheet (SDS), EU

All recommendations for the use of our products, whether given by us, orally, or to be implied from data or test results obtained by us, are based on the current state of our knowledge at the time such recommendations are made. When additional information is obtained, these recommendations may be updated. They may also be influenced by circumstances outside our control. Notwithstanding such recommendations the user is responsible that the product as supplied by us, is suitable for the process or purpose he intends to use it. The user of the product is solely responsible for compliance with all laws and regulation applying to the use of the product. Since we cannot control the application, use or processing of the products, we do not accept responsibility therefore. The user shall ensure that the intended use of the products will not infringe in any party's intellectual property rights

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Annex to the safety data sheet

Product exposure scenario(s)		
ES Type	ES title	
Worker	AISE-Formulation of Detergents/Maintenance Products; Granular Detergent - Regular (large scale) AISE M1.1, M2.1, M3.1, M4.1, M5.1, M6.1, M7.1, M8.1, M9.1	
Worker	AISE-Formulation of Detergents/Maintenance Products; Granular Detergent - Regular (small scale) AISE M1.3, M2.3, M3.3, M4.3, M5.3, M6.3, M7.3, M8.3, M9.3	
Worker	AISE-Formulation of Detergents/Maintenance Products; Granular Detergent - Compact (largel scale) AISE M1.4, M2.4, M3.4, M4.4, M5.4, M6.4, M7.4, M8.4, M9.4	
Worker	AISE-Formulation of Detergents/Maintenance Products; Granular Detergent - Compact (medium scale) AISE M1.5, M2.5, M3.5, M4.5, M5.5, M6.5, M7.5, M8.5, M9.5	
Worker	AISE-Formulation of Detergents/Maintenance Products; Granular Detergent - Compact (small scale) AISE M1.6, M2.6, M3.6, M4.6, M5.6, M6.6, M7.6, M8.6, M9.6	
Worker	AISE-Formulation of Detergents/Maintenance Products; Granular Detergent- Low Viscosity (large scale) AISE M1.7, M2.7, M3.7, M4.7, M5.7, M6.7, M7.7, M8.7, M9.7	
Worker	AISE-Formulation of Detergents/Maintenance Products; Granular Detergent - Low Viscosity (medium scale) AISE M1.8, M2.8, M3.8, M4.8, M5.8, M6.8, M7.8, M8.8, M9.8	
Worker	AISE-Formulation of Detergents/Maintenance Products; Granular Detergent - Low Viscosity (small scale) AISE M1.9, M2.9, M3.9, M4.9, M5.9, M6.9, M7.9, M8.9, M9.9	
Worker	AISE-Formulation of Detergents/Maintenance Products; Granular Detergent - High Viscosity (large scale) AISE M1.10, M2.10, M3.10, M4.10, M5.10, M6.10, M7.10, M8.10, M9.10	
Worker	AISE-Formulation of Detergents/Maintenance Products; Granular Detergent - High Viscosity (medium scale) AISE M1.11, M2.11, M3.11, M4.11, M5.11, M6.11, M7.11, M8.11, M9.11	
Worker	AISE-Formulation of Detergents/Maintenance Products; Granular Detergent - High Viscosity (small scale) AISE M1.12, M2.12, M3.12, M4.12, M5.12, M6.12, M7.12, M8.12, M9.12	
Worker	Industrial Use of Laundry products AISE P110.1, P110.2	
Worker	Professional Use of Laundry products AISE P102.1, P102.2, P103.1, P103.2, P105.1, P105.2, P106.1, P106.2, P111.1, P111.2, P112.1, P112.2, P113	
Worker	Professional Use of Laundry products (Reactive) AISE P108.1, P108.2, P109.1, P109.2	
Worker	Professional Use of Dishwash AISE P202.1, P202.2, P203.1, P203.2, P204.1, P204.2	
Worker	Professional Use of General surface cleaning products AISE P301.1, P301.2, P302.1, P302.2, P303.1, P303.2, P304.1, P304.2, P305.1, P305.2, P306.1, P306.2, P307.1, P307.2, P308.1, P308.2, P309, P310, P311, P312.1, P312.2, P313.1, P313.2, P314.1, P314.2, P315.1, P315.2, P316.1, P316.2, P317	
Worker	Professional Use of Floor care products AISE P401.1, P401.2, P402.1, P402.2, P403.1, P403.2, P404.1, P404.2, P405.1, P405.2, P406, P407, P408, P409.1, P409.2, P410.1, P410.2, P411	
Worker	Professional Use of Maintenance Products AISE P601, P602, P603, P604, P605.1, P605.2, P606, P607, P608, P609	
Worker	Professional Use of Vehicle cleaning Products AISE P701.1, P701.2, P702.1, P702.2, P703.1, P703.2, P704.1, P704.2, P705.1, P705.2, P706.1, P706.2	
Worker	Professional Use of Food beverage and pharmacos products AISE P808.1, P808.2	
Worker	Professional Use of Façade/surface cleaning products AISE P901.1, P901.2 (P902.1, P902.2)	
Worker	Professional Use of Medical Devices AISE P1102.1, P1102.2, P1103.1, P1103.2, P1104.1, P1104.2	
Worker	Laboratory Use AISE P1200	
Worker	Professional Use of Hand Cleaners AISE P1300	
Consumer	Consumer use of washing and cleaning products AISE C9, C8.1, C7.1, C6, C5, C3.2, C3.1, C2, C15, C14, C13, C12, C11.1, C10.1, C1	
Consumer	Consumer use of washing and cleaning products (Reactive) AISE C8.4, C8.3, C4	

Safety Data Sheet

Product exposure scenario(s)		
ES Type	ES title	
Consumer	Consumer use of washing and cleaning products (Sprays) AISE C8.2, C7.2, C22.2, C16, C11.2, C10.2	
Consumer	Consumer use of air freshener products AISE C18, C17	
Consumer	Consumer use of polishes AISE C20.2, C20.1	
Worker	AISE- Industrial use of Me-salts in conversion coating - Nickel AISE P1001a.1.1, P1001a.2.1, P1001b.1.1, P1001b.2.1,	
Worker	AISE- Industrial use of Me-salts in conversion coating - Zinc, Chromium, Copper, Manganese AISE P1001a.1.2, P1001a.2.2, P1001b.1.2, P1001b.2.2,	
Worker	COLIPA - Formulation of low viscosity liquids (shampoo, hair conditioner, shower gel, foam, bath) (large scale) COLIPA M1.1, M2.1, M3.1, M4.1, M5.1.1, M5.1.2, M6.1, M7.1, M8.1	
Worker	COLIPA - Formulation of low viscosity liquids (shampoo, hair conditioner, shower gel, foam, bath) (medium scale) COLIPA M1.2, M2.2, M3.2, M4.2, M5.2.1, M5.2.2, M6.2, M7.2, M8.2	
Worker	COLIPA - Formulation of low viscosity liquids (shampoo, hair conditioner, shower gel, foam, bath) (small scale) COLIPA M1.3, M2.3, M3.3, M4.3, M5.3.1, M5.3.2, M6.3, M7.3, M8.3	
Worker	COLIPA - Formulation of Fine Fragnances - Cleaning with water (medium scale) COLIPA M1.4, M2.4, M3.4, M4.4, M5.4.1, M5.4.2, M6.4, M7.4, M8.4	
Worker	COLIPA - Formulation of Fine Fragnances - Cleaning with water (small scale) COLIPA M1.5, M2.5, M3.5, M4.5, M5.5.1, M5.5.2, M6.5, M7.5, M8.5	
Worker	COLIPA - Formulation of Medium Viscosity Body Care Products (medium scale) COLIPA M1.6, M2.6, M3.6, M4.6, M5.6.1, M5.6.2, M6.6, M7.6, M8.6	
Worker	COLIPA - Formulation of Medium Viscosity Body Care Products (small scale) COLIPA M1.7, M2.7, M3.7, M4.7, M5.7.1, M5.7.2, M6.7, M7.7, M8.7	
Worker	COLIPA - Formulation of Non-liquid Creams, high viscosity Products (large scale) COLIPA M1.8, M2.8, M3.8, M4.8, M5.8.1, M5.8.2, M6.8, M7.8, M8.8	
Worker	COLIPA - Formulation of Non-liquid Creams, high viscosity Products (medium scale) COLIPA M1.9, M2.9, M3.9, M4.9, M5.9.1, M5.9.2, M6.9, M7.9, M8.9	
Worker	COLIPA - Formulation of Non-liquid Creams, high viscosity Products (small scale) COLIPA M1.10, M2.10, M3.10, M4.10, M5.10.1, M5.10.2, M6.10, M7.10, M8.10	
Worker	COLIPA - Formulation of body care soap (large scale) COLIPA M1.14, M2.14, M3.14, M4.14, M5.14.1, M5.14.2, M6.14, M7.14, M8.14	
Worker	COLIPA - Formulation of body care soap (medium scale) COLIPA M1.15, M2.15, M3.15, M4.15, M5.15.1, M5.15.2, M6.15, M7.15, M8.15	
Worker	COLIPA - Formulation of body care soap (small scale) COLIPA M1.9, M2.9, M3.9, M4.9, M5.9.1, M5.9.2, M6.9, M7.9, M8.9	
Worker	COLIPA - Wide Dispersive Use in 'Down the Drain' products - hair and skin care products (Consumers and Professionals) Fraction of EU tonnage to region: 0,053 - End use of cosmetic products	
Worker	COLIPA - Wide Dispersive Use of Aerosol products for hair and skin care (Non-propellants) Fraction of EU tonnage to region: 0,053 - End use of cosmetic products	
Worker	Manufacture of substances	

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

1. Exposure scenario 1.0

AISE-Formulation of Detergents/Maintenance Products; Granular Detergent - Regular (large scale)-

AISE M1.1, M2.1, M3.1, M4.1, M5.1, M6.1, M7.1, M8.1, M9.1

ES Ref.: 1.0 ES Type: Worker

Use descriptors SU3, SU10

PROC1, PROC2, PROC3, PROC4, PROC5, PROC8b, PROC9, PROC14, PROC15

ERC2

2. Operational conditions and risk management measures

2.2. Contributing scenario controlling environmental exposure (ERC2)

ERC2	Formulation into mixture

Product characteristics

No additional information

Operational conditions		
Amounts used	Amounts used	540 T/year
Frequency and duration of use	Release times per year	220
Environmental factors not influenced by risk management	River flow rate	18000 m³/d
Other given operational conditions affecting environmental exposure	Release fraction to air from process (initial release prior to RMM):	0,0002
	Release fraction to soil from process (initial release prior to RMM):	0
	Release fraction to wastewater from process (initial release prior to RMM):	0,0001
	Fraction used at main source:	1
	Fraction of EU tonnage used in region:	0,1

Risk Management Measures		
Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil	AISE SPERC 2.1.a.v1	http://www.aise.eu/reach
Conditions and measures related to sewage treatment plant	Release to municipal sewage treatment plant :	2000 m³/d

2.1.1. Contributing scenario controlling worker exposure (PROC1, PROC2, PROC3, PROC14, PROC15)

PROC1	Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions
PROC2	Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions
PROC3	Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

PROC14	Tabletting, compression, extrusion, pelettisation, granulation
PROC15	Use as laboratory reagent

Product characteristics

No additional information

Operational conditions		
Frequency and duration of use	Exposure duration	> 4 h Default value
Other given operational conditions affecting workers exposure	Indoor use	

Risk Management Measures		
Conditions and measures related to personal protection, hygiene and health evaluation	Not applicable	

2.1.2. Contributing scenario controlling worker exposure (PROC4, PROC5, PROC8b, PROC9)

PROC4	Chemical production where opportunity for exposure arises
PROC5	Mixing or blending in batch processes
PROC8b	Transfer of substance or mixture (charging and discharging) at dedicated facilities
PROC9	Transfer of substance or preparation into small containers (dedicated filling line, including weighing)

Product characteristics

No additional information

Operational conditions		
Frequency and duration of use	Exposure duration	> 4 h Default value
Other given operational conditions affecting workers exposure	Indoor use	

Risk Management Measures		
Conditions and measures related to personal	protective gloves	99 %
protection, hygiene and health evaluation	Breakthrough time (maximum wearing time)	> 4 h

3. Exposure estimation and reference to its source

3.1. Health

Information for contributing exposure scenario	
2.1.1	AISE SPERC 2.1.a.v1, - ,http://www.aise.eu/reach
2.1.2	AISE SPERC 2.1.a.v1, - ,http://www.aise.eu/reach

3.2. Environment

Information for contributing exposure scenarion	io
2.2	AISE SPERC 2.1.a.v1, - ,http://www.aise.eu/reach

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

4. Guidance to Downstream User to evaluate whether he works inside the boundaries set by the ES

4.1. Health

	Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels
Website	http://www.aise.eu/reach

4.2. Environment

	Predicted exposures are not expected to exeed the PNECs when the Risk Management Measures/Operational Conditions outlined in section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels
Website	http://www.aise.eu/reach

Additional good practice advice beyond the REACH CSA

No available data

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

1. Exposure scenario 2.0

AISE-Formulation of Detergents/Maintenance Products; Granular **Detergent - Regular (small scale)**

AISE M1.3, M2.3, M3.3, M4.3, M5.3, M6.3, M7.3, M8.3, M9.3

ES Ref.: 2.0 ES Type: Worker

SU3, SU10 Use descriptors PROC1, PROC2, PROC3, PROC4, PROC5, PROC8b, PROC9, PROC14, PROC15 ERC2

2. Operational conditions and risk management measures

2.2. Contributing scenario controlling environmental exposure (ERC2)

ERC2 Formulation into mixture

Product characteristics

No additional information

Operational conditions		
Amounts used	Amounts used	540 T/year
Frequency and duration of use	Release times per year	20
Environmental factors not influenced by risk management	River flow rate	18000 m³/d
Other given operational conditions affecting environmental exposure	Release fraction to air from process (initial release prior to RMM):	0,0002
	Release fraction to wastewater from process (initial release prior to RMM):	0,002
	Release fraction to soil from process (initial release prior to RMM):	0
	Fraction used at main source:	0,37
	Fraction of EU tonnage used in region:	0,1

Risk Management Measures		
Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil	AISE SPERC 2.1.c.v1	http://www.aise.eu/reach
Conditions and measures related to sewage treatment plant	Release to municipal sewage treatment plant :	2000 m³/d

2.1.1. Contributing scenario controlling worker exposure (PROC1, PROC2, PROC3, PROC14, PROC15)

PROC1	Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions
PROC2	Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions
PROC3	Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition
PROC14	Tabletting, compression, extrusion, pelettisation, granulation

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

PROC15	Use as laboratory reagent

Product characteristics

No additional information

Operational conditions		
Frequency and duration of use	Exposure duration	> 4 h Default value
Other given operational conditions affecting workers exposure	Indoor use	

Risk Management Measures		
Conditions and measures related to personal protection, hygiene and health evaluation	Not applicable	

2.1.2. Contributing scenario controlling worker exposure (PROC4, PROC5, PROC8b, PROC9)

PROC4	Chemical production where opportunity for exposure arises
PROC5	Mixing or blending in batch processes
PROC8b	Transfer of substance or mixture (charging and discharging) at dedicated facilities
PROC9	Transfer of substance or preparation into small containers (dedicated filling line, including weighing)

Product characteristics

No additional information

Operational conditions		
Frequency and duration of use	Exposure duration	> 4 h Default value
Other given operational conditions affecting workers exposure	Indoor use	

Risk Management Measures		
Conditions and measures related to personal	protective gloves	99 %
protection, hygiene and health evaluation	Breakthrough time (maximum wearing time)	> 4 h

3. Exposure estimation and reference to its source

3.1. Health

Information for contributing exposure scenario	
2.1.1	AISE SPERC 2.1.c.v1, - ,http://www.aise.eu/reach
2.1.2	AISE SPERC 2.1.c.v1, - ,http://www.aise.eu/reach

3.2. Environment

Information for contributing exposure scenar	io
2.2	AISE SPERC 2.1.c.v1, - ,http://www.aise.eu/reach

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

4. Guidance to Downstream User to evaluate whether he works inside the boundaries set by the ES

4.1. Health

	Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels
Website	http://www.aise.eu/reach

4.2. Environment

	Predicted exposures are not expected to exeed the PNECs when the Risk Management Measures/Operational Conditions outlined in section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels
Website	http://www.aise.eu/reach

Additional good practice advice beyond the REACH CSA

No available data

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

1. Exposure scenario 3.0

AISE-Formulation of Detergents/Maintenance Products; Granular **Detergent - Compact (largel scale)**

AISE M1.4, M2.4, M3.4, M4.4, M5.4, M6.4, M7.4, M8.4, M9.4

ES Ref.: 3.0 ES Type: Worker

SU3, SU10 Use descriptors PROC1, PROC2, PROC3, PROC4, PROC5, PROC8b, PROC9, PROC14, PROC15 ERC2

2. Operational conditions and risk management measures

2.2. Contributing scenario controlling environmental exposure (ERC2)

ERC2 Formulation into mixture

Product characteristics

No additional information

Operational conditions		
Amounts used	Amounts used	540 T/year
Frequency and duration of use	Release times per year	220
Environmental factors not influenced by risk management	River flow rate	18000 m³/d
Other given operational conditions affecting environmental exposure	Release fraction to air from process (initial release prior to RMM):	0,0002
	Release fraction to wastewater from process (initial release prior to RMM):	0,00001
	Release fraction to soil from process (initial release prior to RMM):	0
	Fraction used at main source:	1
	Fraction of EU tonnage used in region:	0,1

Risk Management Measures		
Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil	AISE SPERC 2.1.d.v1	http://www.aise.eu/reach
Conditions and measures related to sewage treatment plant	Release to municipal sewage treatment plant :	2000 m³/d

2.1.1. Contributing scenario controlling worker exposure (PROC1, PROC2, PROC3, PROC14, PROC15)

PROC1	Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions
PROC2	Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions
PROC3	Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition
PROC14	Tabletting, compression, extrusion, pelettisation, granulation

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

PROC15	Use as laboratory reagent	
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Product characteristics

No additional information

Operational conditions		
Frequency and duration of use	Exposure duration	> 4 h Default value
Other given operational conditions affecting workers exposure	Indoor use	

Risk Management Measures		
Conditions and measures related to personal protection, hygiene and health evaluation	Not applicable	

2.1.2. Contributing scenario controlling worker exposure (PROC4, PROC5, PROC8b, PROC9)

PROC4	Chemical production where opportunity for exposure arises
PROC5	Mixing or blending in batch processes
PROC8b	Transfer of substance or mixture (charging and discharging) at dedicated facilities
PROC9	Transfer of substance or preparation into small containers (dedicated filling line, including weighing)

Product characteristics

No additional information

Operational conditions		
Frequency and duration of use	Exposure duration	> 4 h Default value
Other given operational conditions affecting workers exposure	Indoor use	

Risk Management Measures		
Conditions and measures related to personal	protective gloves	99 %
protection, hygiene and health evaluation	Breakthrough time (maximum wearing time)	> 4 h

3. Exposure estimation and reference to its source

3.1. Health

Information for contributing exposure scenario	
2.1.1	AISE SPERC 2.1.d.v1, - ,http://www.aise.eu/reach
2.1.2	AISE SPERC 2.1.d.v1, - ,http://www.aise.eu/reach

3.2. Environment

Information for contributing exposure scenario	
2.2	AISE SPERC 2.1.d.v1, - ,http://www.aise.eu/reach

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

4. Guidance to Downstream User to evaluate whether he works inside the boundaries set by the ES

4.1. Health

Guidance - Health	Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels
Website	http://www.aise.eu/reach

4.2. Environment

	Predicted exposures are not expected to exeed the PNECs when the Risk Management Measures/Operational Conditions outlined in section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels
Website	http://www.aise.eu/reach

Additional good practice advice beyond the REACH CSA

No available data

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

1. Exposure scenario 4.0

AISE-Formulation of Detergents/Maintenance Products; Granular **Detergent - Compact (medium scale)**

AISE M1.5, M2.5, M3.5, M4.5, M5.5, M6.5, M7.5, M8.5, M9.5

ES Ref.: 4.0 ES Type: Worker

SU3, SU10 Use descriptors PROC1, PROC2, PROC3, PROC4, PROC5, PROC8b, PROC9, PROC14, PROC15 ERC2

2. Operational conditions and risk management measures

2.2. Contributing scenario controlling environmental exposure (ERC2)

ERC2 Formulation into mixture

Product characteristics

No additional information

Operational conditions		
Amounts used	Amounts used	540 T/year
Frequency and duration of use	Release times per year	220
Environmental factors not influenced by risk management	River flow rate	18000 m³/d
Other given operational conditions affecting environmental exposure	Release fraction to air from process (initial release prior to RMM):	0,0002
	Release fraction to wastewater from process (initial release prior to RMM):	0,0001
	Release fraction to soil from process (initial release prior to RMM):	0
	Fraction used at main source:	1
	Fraction of EU tonnage used in region:	0,1

Risk Management Measures		
Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil	AISE SPERC 2.1.e.v1	http://www.aise.eu/reach
Conditions and measures related to sewage treatment plant	Release to municipal sewage treatment plant :	2000 m³/d

2.1.1. Contributing scenario controlling worker exposure (PROC1, PROC2, PROC3, PROC14, PROC15)

PROC1	Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions
PROC2	Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions
PROC3	Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition
PROC14	Tabletting, compression, extrusion, pelettisation, granulation

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

PROC15	Use as laboratory reagent

Product characteristics

No additional information

Operational conditions		
Frequency and duration of use	Exposure duration	> 4 h Default value
Other given operational conditions affecting workers exposure	Indoor use	

Risk Management Measures		
Conditions and measures related to personal protection, hygiene and health evaluation	Not applicable	

2.1.2. Contributing scenario controlling worker exposure (PROC4, PROC5, PROC8b, PROC9)

PROC4	Chemical production where opportunity for exposure arises
PROC5	Mixing or blending in batch processes
PROC8b	Transfer of substance or mixture (charging and discharging) at dedicated facilities
PROC9	Transfer of substance or preparation into small containers (dedicated filling line, including weighing)

Product characteristics

No additional information

Operational conditions		
Frequency and duration of use	Exposure duration	> 4 h Default value
Other given operational conditions affecting workers exposure	Indoor use	

Risk Management Measures		
Conditions and measures related to personal	protective gloves	99 %
protection, hygiene and health evaluation	Breakthrough time (maximum wearing time)	> 4 h

3. Exposure estimation and reference to its source

3.1. Health

Information for contributing exposure scenario	
2.1.1	AISE SPERC 2.1.e.v1, - ,http://www.aise.eu/reach
2.1.2	AISE SPERC 2.1.e.v1, - ,http://www.aise.eu/reach

3.2. Environment

Information for contributing exposure scenario	
2.2	AISE SPERC 2.1.e.v1, - ,http://www.aise.eu/reach

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

4. Guidance to Downstream User to evaluate whether he works inside the boundaries set by the ES

4.1. Health

Guidance - Health	Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels
Website	http://www.aise.eu/reach

4.2. Environment

Guidance - Environment	Predicted exposures are not expected to exeed the PNECs when the Risk Management Measures/Operational Conditions outlined in section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels
Website	http://www.aise.eu/reach

Additional good practice advice beyond the REACH CSA

No available data

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

1. Exposure scenario 5.0

AISE-Formulation of Detergents/Maintenance Products; Granular **Detergent - Compact (small scale)**

AISE M1.6, M2.6, M3.6, M4.6, M5.6, M6.6, M7.6, M8.6, M9.6

ES Ref.: 5.0 ES Type: Worker

Use descriptors SU3, SU10 PROC1, PROC2, PROC3, PROC4, PROC5, PROC8b, PROC9, PROC14, PROC15 ERC2

2. Operational conditions and risk management measures

2.2. Contributing scenario controlling environmental exposure (ERC2)

ERC2 Formulation into mixture

Product characteristics

No additional information

Operational conditions		
Amounts used	Amounts used	540 T/year
Frequency and duration of use	Release times per year	20
Environmental factors not influenced by risk management	River flow rate	18000 m³/d
	Release fraction to air from process (initial release prior to RMM):	0,0002
	Release fraction to wastewater from process (initial release prior to RMM):	0,0002
	Release fraction to soil from process (initial release prior to RMM):	0
	Fraction used at main source:	0,37
	Fraction of EU tonnage used in region:	0,1

Risk Management Measures		
Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil	AISE SPERC 2.1.f.v1	http://www.aise.eu/reach
Conditions and measures related to sewage treatment plant	Release to municipal sewage treatment plant :	2000 m³/d

2.1.1. Contributing scenario controlling worker exposure (PROC1, PROC2, PROC3, PROC14, PROC15)

PROC1	Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions
PROC2	Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions
PROC3	Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition
PROC14	Tabletting, compression, extrusion, pelettisation, granulation

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

PROC15	Use as laboratory reagent

Product characteristics

No additional information

Operational conditions		
Frequency and duration of use	Exposure duration	> 4 h Default value
Other given operational conditions affecting workers exposure	Indoor use	

Risk Management Measures		
Conditions and measures related to personal protection, hygiene and health evaluation	Not applicable	

2.1.2. Contributing scenario controlling worker exposure (PROC4, PROC5, PROC8b, PROC9)

PROC4	Chemical production where opportunity for exposure arises
PROC5	Mixing or blending in batch processes
PROC8b	Transfer of substance or mixture (charging and discharging) at dedicated facilities
PROC9	Transfer of substance or preparation into small containers (dedicated filling line, including weighing)

Product characteristics

No additional information

Operational conditions		
Frequency and duration of use	Exposure duration	> 4 h Default value
Other given operational conditions affecting workers exposure	Indoor use	

Risk Management Measures		
Conditions and measures related to personal protection, hygiene and health evaluation	protective gloves	99 %
	Breakthrough time (maximum wearing time)	> 4 h

3. Exposure estimation and reference to its source

3.1. Health

Information for contributing exposure scenario	
2.1.1	AISE SPERC 2.1.f.v1, - ,http://www.aise.eu/reach
2.1.2	AISE SPERC 2.1.f.v1, - ,http://www.aise.eu/reach

3.2. Environment

Information for contributing exposure scenario	
2.2	AISE SPERC 2.1.f.v1, - ,http://www.aise.eu/reach

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

4. Guidance to Downstream User to evaluate whether he works inside the boundaries set by the ES

4.1. Health

	Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels
Website	http://www.aise.eu/reach

4.2. Environment

Guidance - Environment	Predicted exposures are not expected to exeed the PNECs when the Risk Management Measures/Operational Conditions outlined in section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels
Website	http://www.aise.eu/reach

Additional good practice advice beyond the REACH CSA

No available data

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

1. Exposure scenario 6.0

AISE-Formulation of Detergents/Maintenance Products; Granular **Detergent- Low Viscosity (large scale)**

AISE M1.7, M2.7, M3.7, M4.7, M5.7, M6.7, M7.7, M8.7, M9.7

ES Ref.: 6.0 ES Type: Worker

SU3, SU10 Use descriptors PROC1, PROC2, PROC3, PROC4, PROC5, PROC8b, PROC9, PROC14, PROC15 ERC2

2. Operational conditions and risk management measures

2.2. Contributing scenario controlling environmental exposure (ERC2)

ERC2 Formulation into mixture

Product characteristics

No additional information

Operational conditions		
Amounts used	Amounts used	540 T/year
Frequency and duration of use	Release times per year	220
Environmental factors not influenced by risk management	River flow rate	18000 m³/d
Other given operational conditions affecting environmental exposure	Release fraction to air from process (initial release prior to RMM):	0
	Release fraction to wastewater from process (initial release prior to RMM):	0,0001
	Release fraction to soil from process (initial release prior to RMM):	0
	Fraction used at main source:	100
	Fraction of EU tonnage used in region:	0,1

Risk Management Measures		
Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil	AISE SPERC 2.1.g.v1	http://www.aise.eu/reach
Conditions and measures related to sewage treatment plant	Release to municipal sewage treatment plant :	2000 m³/d

2.1.1. Contributing scenario controlling worker exposure (PROC1, PROC2, PROC3, PROC14, PROC15)

PROC1	Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions
PROC2	Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions
PROC3	Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition
PROC14	Tabletting, compression, extrusion, pelettisation, granulation

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

PROC15	Use as laboratory reagent

Product characteristics

No additional information

Operational conditions		
Frequency and duration of use	Exposure duration	> 4 h Default value
Other given operational conditions affecting workers exposure	Indoor use	

Risk Management Measures		
Conditions and measures related to personal protection, hygiene and health evaluation	Not applicable	

2.1.2. Contributing scenario controlling worker exposure (PROC4, PROC5, PROC8b, PROC9)

PROC4	Chemical production where opportunity for exposure arises
PROC5	Mixing or blending in batch processes
PROC8b	Transfer of substance or mixture (charging and discharging) at dedicated facilities
PROC9	Transfer of substance or preparation into small containers (dedicated filling line, including weighing)

Product characteristics

No additional information

Operational conditions		
Frequency and duration of use	Exposure duration	> 4 h Default value
Other given operational conditions affecting workers exposure	Indoor use	

Risk Management Measures		
protection, hygiene and health evaluation	protective gloves	99 %
	Breakthrough time (maximum wearing time)	> 4 h

3. Exposure estimation and reference to its source

3.1. Health

Information for contributing exposure scenario	
2.1.1	AISE SPERC 2.1.g.v1, - ,http://www.aise.eu/reach
2.1.2	AISE SPERC 2.1.g.v1, - ,http://www.aise.eu/reach

3.2. Environment

Information for contributing exposure scenario	
2.2	AISE SPERC 2.1.g.v1, - ,http://www.aise.eu/reach

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

4. Guidance to Downstream User to evaluate whether he works inside the boundaries set by the ES

4.1. Health

Guidance - Health	Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels
Website	http://www.aise.eu/reach

4.2. Environment

	Predicted exposures are not expected to exeed the PNECs when the Risk Management Measures/Operational Conditions outlined in section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels
Website	http://www.aise.eu/reach

Additional good practice advice beyond the REACH CSA

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

1. Exposure scenario 7.0

AISE-Formulation of Detergents/Maintenance Products; Granular **Detergent - Low Viscosity (medium scale)**

AISE M1.8, M2.8, M3.8, M4.8, M5.8, M6.8, M7.8, M8.8, M9.8

ES Ref.: 7.0 ES Type: Worker

Use descriptors SU3, SU10 PROC1, PROC2, PROC3, PROC4, PROC5, PROC8b, PROC9, PROC14, PROC15 ERC2

2. Operational conditions and risk management measures

2.2. Contributing scenario controlling environmental exposure (ERC2)

ERC2 Formulation into mixture

Product characteristics

No additional information

Operational conditions		
Amounts used	Amounts used	540 T/year
Frequency and duration of use	Release times per year	220
Environmental factors not influenced by risk management	River flow rate	18000 m³/d
Other given operational conditions affecting environmental exposure	Release fraction to air from process (initial release prior to RMM):	0
	Release fraction to wastewater from process (initial release prior to RMM):	0,001
	Release fraction to soil from process (initial release prior to RMM):	0
	Fraction used at main source:	0,889
	Fraction of EU tonnage used in region:	0,1

Risk Management Measures		
Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil	AISE SPERC 2.1.h.v1	http://www.aise.eu/reach
Conditions and measures related to sewage treatment plant	Release to municipal sewage treatment plant :	2000 m³/d

2.1.1. Contributing scenario controlling worker exposure (PROC1, PROC2, PROC3, PROC14, PROC15)

PROC1	Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions
PROC2	Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions
PROC3	Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition
PROC14	Tabletting, compression, extrusion, pelettisation, granulation

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

PROC15	Use as laboratory reagent

Product characteristics

No additional information

Operational conditions		
Frequency and duration of use	Exposure duration	> 4 h Default value
Other given operational conditions affecting workers exposure	Indoor use	

Risk Management Measures		
Conditions and measures related to personal protection, hygiene and health evaluation	Not applicable	

2.1.2. Contributing scenario controlling worker exposure (PROC4, PROC5, PROC8b, PROC9)

PROC4	Chemical production where opportunity for exposure arises
PROC5	Mixing or blending in batch processes
PROC8b	Transfer of substance or mixture (charging and discharging) at dedicated facilities
PROC9	Transfer of substance or preparation into small containers (dedicated filling line, including weighing)

Product characteristics

No additional information

Operational conditions		
Frequency and duration of use	Exposure duration	> 4 h Default value
Other given operational conditions affecting workers exposure	Indoor use	

Risk Management Measures		
Conditions and measures related to personal	protective gloves	99 %
protection, hygiene and health evaluation	Breakthrough time (maximum wearing time)	> 4 h

3. Exposure estimation and reference to its source

3.1. Health

Information for contributing exposure scenario	
2.1.1	AISE SPERC 2.1.h.v1, - ,http://www.aise.eu/reach
2.1.2	AISE SPERC 2.1.h.v1, - ,http://www.aise.eu/reach

3.2. Environment

Information for contributing exposure scenar	io
2.2	AISE SPERC 2.1.h.v1, - ,http://www.aise.eu/reach

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

4. Guidance to Downstream User to evaluate whether he works inside the boundaries set by the ES

4.1. Health

	Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels
Website	http://www.aise.eu/reach

4.2. Environment

	Predicted exposures are not expected to exeed the PNECs when the Risk Management Measures/Operational Conditions outlined in section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels
Website	http://www.aise.eu/reach

Additional good practice advice beyond the REACH CSA

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

1. Exposure scenario 8.0

AISE-Formulation of Detergents/Maintenance Products; Granular **Detergent - Low Viscosity (small scale)**

AISE M1.9, M2.9, M3.9, M4.9, M5.9, M6.9, M7.9, M8.9, M9.9

ES Ref.: 8.0 ES Type: Worker

Use descriptors SU3, SU10 PROC1, PROC2, PROC3, PROC4, PROC5, PROC8b, PROC9, PROC14, PROC15 ERC2

2. Operational conditions and risk management measures

2.2. Contributing scenario controlling environmental exposure (ERC2)

ERC2 Formulation into mixture

Product characteristics

No additional information

Operational conditions		
Amounts used	Amounts used	540 T/year
Frequency and duration of use	Release times per year	20
Environmental factors not influenced by risk management	River flow rate	18000 m³/d
Other given operational conditions affecting environmental exposure	Release fraction to air from process (initial release prior to RMM):	0
	Release fraction to wastewater from process (initial release prior to RMM):	0,002
	Release fraction to soil from process (initial release prior to RMM):	0
	Fraction used at main source:	0,0037
	Fraction of EU tonnage used in region:	0,1

Risk Management Measures		
Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil	AISE SPERC 2.1.i.v1	http://www.aise.eu/reach
Conditions and measures related to sewage treatment plant	Release to municipal sewage treatment plant :	2000 m³/d

2.1.1. Contributing scenario controlling worker exposure (PROC1, PROC2, PROC3, PROC14, PROC15)

PROC1	Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions
PROC2	Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions
PROC3	Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition
PROC14	Tabletting, compression, extrusion, pelettisation, granulation

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

PROC15	Use as laboratory reagent

Product characteristics

No additional information

Operational conditions		
Frequency and duration of use	Exposure duration	> 4 h Default value
Other given operational conditions affecting workers exposure	Indoor use	

Risk Management Measures		
Conditions and measures related to personal protection, hygiene and health evaluation	Not applicable	

2.1.2. Contributing scenario controlling worker exposure (PROC4, PROC5, PROC8b, PROC9)

PROC4	Chemical production where opportunity for exposure arises
PROC5	Mixing or blending in batch processes
PROC8b	Transfer of substance or mixture (charging and discharging) at dedicated facilities
PROC9	Transfer of substance or preparation into small containers (dedicated filling line, including weighing)

Product characteristics

No additional information

Operational conditions		
Frequency and duration of use	Exposure duration	> 4 h Default value
Other given operational conditions affecting workers exposure	Indoor use	

Risk Management Measures		
Conditions and measures related to personal protective gloves		99 %
protection, hygiene and health evaluation	Breakthrough time (maximum wearing time)	> 4 h

3. Exposure estimation and reference to its source

3.1. Health

Information for contributing exposure scenario	
2.1.1	AISE SPERC 2.1.i.v1, - ,http://www.aise.eu/reach
2.1.2	AISE SPERC 2.1.i.v1, - ,http://www.aise.eu/reach

3.2. Environment

Information for contributing exposure scenario	
2.2	AISE SPERC 2.1.i.v1, - ,http://www.aise.eu/reach

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

4. Guidance to Downstream User to evaluate whether he works inside the boundaries set by the ES

4.1. Health

Guidance - Health	Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels
Website	http://www.aise.eu/reach

4.2. Environment

	Predicted exposures are not expected to exeed the PNECs when the Risk Management Measures/Operational Conditions outlined in section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels
Website	http://www.aise.eu/reach

Additional good practice advice beyond the REACH CSA

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

1. Exposure scenario 9.0

AISE-Formulation of Detergents/Maintenance Products; Granular **Detergent - High Viscosity (large scale)**

AISE M1.10, M2.10, M3.10, M4.10, M5.10, M6.10, M7.10, M8.10, M9.10

ES Ref.: 9.0 ES Type: Worker

SU3, SU10 Use descriptors PROC1, PROC2, PROC3, PROC4, PROC5, PROC8b, PROC9, PROC14, PROC15 ERC2

2. Operational conditions and risk management measures

2.2. Contributing scenario controlling environmental exposure (ERC2)

ERC2 Formulation into mixture

Product characteristics

No additional information

Operational conditions		
Amounts used	Amounts used	540 T/year
Frequency and duration of use	Release times per year	220
Environmental factors not influenced by risk management	River flow rate	18000 m³/d
Other given operational conditions affecting environmental exposure	Release fraction to air from process (initial release prior to RMM):	0
	Release fraction to wastewater from process (initial release prior to RMM):	0,001
	Release fraction to soil from process (initial release prior to RMM):	0
	Fraction used at main source:	0,889
	Fraction of EU tonnage used in region:	0,1

Risk Management Measures		
Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil	AISE SPERC 2.1.j.v1	http://www.aise.eu/reach
Conditions and measures related to sewage treatment plant	Release to municipal sewage treatment plant :	2000 m³/d

2.1.1. Contributing scenario controlling worker exposure (PROC1, PROC2, PROC3, PROC14, PROC15)

PROC1	Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions
PROC2	Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions
PROC3	Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition
PROC14	Tabletting, compression, extrusion, pelettisation, granulation

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

	I
PROC15	Use as laboratory reagent

Product characteristics

No additional information

Operational conditions		
Frequency and duration of use	Exposure duration	> 4 h Default value
Other given operational conditions affecting workers exposure	Indoor use	

Risk Management Measures		
Conditions and measures related to personal protection, hygiene and health evaluation	Not applicable	

2.1.2. Contributing scenario controlling worker exposure (PROC4, PROC5, PROC8b, PROC9)

PROC4	Chemical production where opportunity for exposure arises
PROC5	Mixing or blending in batch processes
PROC8b	Transfer of substance or mixture (charging and discharging) at dedicated facilities
PROC9	Transfer of substance or preparation into small containers (dedicated filling line, including weighing)

Product characteristics

No additional information

Operational conditions		
Frequency and duration of use	Exposure duration	> 4 h Default value
Other given operational conditions affecting workers exposure	Indoor use	

Risk Management Measures		
Conditions and measures related to personal	protective gloves	99 %
protection, hygiene and health evaluation	Breakthrough time (maximum wearing time)	> 4 h

3. Exposure estimation and reference to its source

3.1. Health

Information for contributing exposure scenario	
2.1.1	AISE SPERC 2.1.j.v1, - ,http://www.aise.eu/reach
2.1.2	AISE SPERC 2.1.j.v1, - ,http://www.aise.eu/reach

3.2. Environment

Information for contributing exposure scenario		
2.2	AISE SPERC 2.1.j.v1, - ,http://www.aise.eu/reach	

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

4. Guidance to Downstream User to evaluate whether he works inside the boundaries set by the ES

4.1. Health

	Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels
Website	http://www.aise.eu/reach

4.2. Environment

Guidance - Environment	Predicted exposures are not expected to exeed the PNECs when the Risk Management Measures/Operational Conditions outlined in section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels
Website	http://www.aise.eu/reach

Additional good practice advice beyond the REACH CSA

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

1. Exposure scenario 10.0

AISE-Formulation of Detergents/Maintenance Products; Granular **Detergent - High Viscosity (medium scale)**

AISE M1.11, M2.11, M3.11, M4.11, M5.11, M6.11, M7.11, M8.11, M9.11

ES Ref.: 10.0 ES Type: Worker

Use descriptors SU3, SU10 PROC1, PROC2, PROC3, PROC4, PROC5, PROC8b, PROC9, PROC14, PROC15 ERC2

2. Operational conditions and risk management measures

2.2. Contributing scenario controlling environmental exposure (ERC2)

ERC2 Formulation into mixture

Product characteristics

No additional information

Operational conditions		
Amounts used	Amounts used	540 T/year
Frequency and duration of use	Release times per year	220
Environmental factors not influenced by risk management	River flow rate	18000 m³/d
environmental exposure	Release fraction to air from process (initial release prior to RMM):	0
	Release fraction to wastewater from process (initial release prior to RMM):	0,002
	Release fraction to soil from process (initial release prior to RMM):	0
	Fraction used at main source:	0,444
	Fraction of EU tonnage used in region:	0,1

Risk Management Measures		
Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil	AISE SPERC 2.1.k.v1	http://www.aise.eu/reach
Conditions and measures related to sewage treatment plant	Release to municipal sewage treatment plant :	2000 m³/d

2.1.1. Contributing scenario controlling worker exposure (PROC1, PROC2, PROC3, PROC14, PROC15)

PROC1	Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions
PROC2	Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions
PROC3	Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition
PROC14	Tabletting, compression, extrusion, pelettisation, granulation

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

PROC15	Use as laboratory reagent

Product characteristics

No additional information

Operational conditions		
Frequency and duration of use	Exposure duration	> 4 h Default value
Other given operational conditions affecting workers exposure	Indoor use	

Risk Management Measures		
Conditions and measures related to personal protection, hygiene and health evaluation	Not applicable	

2.1.2. Contributing scenario controlling worker exposure (PROC4, PROC5, PROC8b, PROC9)

PROC4	Chemical production where opportunity for exposure arises
PROC5	Mixing or blending in batch processes
PROC8b	Transfer of substance or mixture (charging and discharging) at dedicated facilities
PROC9	Transfer of substance or preparation into small containers (dedicated filling line, including weighing)

Product characteristics

No additional information

Operational conditions		
Frequency and duration of use	Exposure duration	> 4 h Default value
Other given operational conditions affecting workers exposure	Indoor use	

Risk Management Measures		
Conditions and measures related to personal	protective gloves	99 %
protection, hygiene and health evaluation	Breakthrough time (maximum wearing time)	> 4 h

3. Exposure estimation and reference to its source

3.1. Health

Information for contributing exposure scenario	
2.1.1	AISE SPERC 2.1.k.v1, - ,http://www.aise.eu/reach
2.1.2	AISE SPERC 2.1.k.v1, - ,http://www.aise.eu/reach

3.2. Environment

Information for contributing exposure scenarion	io
2.2	AISE SPERC 2.1.k.v1, - ,http://www.aise.eu/reach

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

4. Guidance to Downstream User to evaluate whether he works inside the boundaries set by the ES

4.1. Health

	Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels
Website	http://www.aise.eu/reach

4.2. Environment

	Predicted exposures are not expected to exeed the PNECs when the Risk Management Measures/Operational Conditions outlined in section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels
Website	http://www.aise.eu/reach

Additional good practice advice beyond the REACH CSA

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

1. Exposure scenario 11.0

AISE-Formulation of Detergents/Maintenance Products; Granular **Detergent - High Viscosity (small scale)**

AISE M1.12, M2.12, M3.12, M4.12, M5.12, M6.12, M7.12, M8.12, M9.12

ES Ref.: 11.0 ES Type: Worker

Use descriptors SU3, SU10 PROC1, PROC2, PROC3, PROC4, PROC5, PROC8b, PROC9, PROC14, PROC15 ERC2

2. Operational conditions and risk management measures

2.2. Contributing scenario controlling environmental exposure (ERC2)

ERC2 Formulation into mixture

Product characteristics

No additional information

Operational conditions		
Amounts used	Amounts used	540 T/year
Frequency and duration of use	Release times per year	20
Environmental factors not influenced by risk management	River flow rate	18000 m³/d
Other given operational conditions affecting environmental exposure	Release fraction to air from process (initial release prior to RMM):	0
	Release fraction to wastewater from process (initial release prior to RMM):	0,004
	Release fraction to soil from process (initial release prior to RMM):	0
	Fraction used at main source:	0,0037
	Fraction of EU tonnage used in region:	0,1

Risk Management Measures		
Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil	AISE SPERC 2.1.l.v1	http://www.aise.eu/reach
Conditions and measures related to sewage treatment plant	Release to municipal sewage treatment plant :	2000 m³/d

2.1.1. Contributing scenario controlling worker exposure (PROC1, PROC2, PROC3, PROC14, PROC15)

PROC1	Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions
PROC2	Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions
PROC3	Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition
PROC14	Tabletting, compression, extrusion, pelettisation, granulation

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

PROC15	Use as laboratory reagent

Product characteristics

No additional information

Operational conditions		
Frequency and duration of use	Exposure duration	> 4 h Default value
Other given operational conditions affecting workers exposure	Indoor use	

Risk Management Measures		
Conditions and measures related to personal protection, hygiene and health evaluation	Not applicable	

2.1.2. Contributing scenario controlling worker exposure (PROC4, PROC5, PROC8b, PROC9)

PROC4	Chemical production where opportunity for exposure arises
PROC5	Mixing or blending in batch processes
PROC8b	Transfer of substance or mixture (charging and discharging) at dedicated facilities
PROC9	Transfer of substance or preparation into small containers (dedicated filling line, including weighing)

Product characteristics

No additional information

Operational conditions		
Frequency and duration of use	Exposure duration	> 4 h Default value
Other given operational conditions affecting workers exposure	Indoor use	

Risk Management Measures		
Conditions and measures related to personal	protective gloves	99 %
protection, hygiene and health evaluation	Breakthrough time (maximum wearing time)	> 4 h

3. Exposure estimation and reference to its source

3.1. Health

Information for contributing exposure scenario	
2.1.1	AISE SPERC 2.1.l.v1, - ,http://www.aise.eu/reach
2.1.2	AISE SPERC 2.1.l.v1, - ,http://www.aise.eu/reach

3.2. Environment

Information for contributing exposure scenario	
2.2	AISE SPERC 2.1.l.v1, - ,http://www.aise.eu/reach

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

4. Guidance to Downstream User to evaluate whether he works inside the boundaries set by the ES

4.1. Health

Guidance - Health	Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels
Website	http://www.aise.eu/reach

4.2. Environment

	Predicted exposures are not expected to exeed the PNECs when the Risk Management Measures/Operational Conditions outlined in section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels
Website	http://www.aise.eu/reach

Additional good practice advice beyond the REACH CSA

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

1. Exposure scenario 12.0

Industrial Use of Laundry products AISE P110.1, P110.2	
ES Ref.: 12.0	
ES Type: Worker	

Use descriptors	SU3, SU10 PROC2, PROC8b PC35 ERC8a
Processes, tasks, activities covered	Use at industrial sites (IS)

2. Operational conditions and risk management measures

2.2. Contributing scenario controlling environmental exposure (ERC8a)

ERC8a Widespread use of non-r	reactive processing aid (no inclusion into or onto article, indoor)
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Product characteristics

No additional information

Operational conditions		
Amounts used	Amounts used	36 T/year
Frequency and duration of use	Release times per year	365
Environmental factors not influenced by risk management	River flow rate	18000 m³/d
Other given operational conditions affecting environmental exposure	Release fraction to air from process (initial release prior to RMM):	0
	Release fraction to wastewater from process (initial release prior to RMM):	1
	Release fraction to soil from process (initial release prior to RMM):	0
	Fraction used at main source:	0,00075
	Fraction of EU tonnage used in region:	0,1

Risk Management Measures		
Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil	AISE SPERC 8a.1.a.v1	http://www.aise.eu/reach
Conditions and measures related to sewage treatment plant	Release to municipal sewage treatment plant :	2000 m³/d

2.1.1. Contributing scenario controlling worker exposure (PROC8b)

PROC8b	Transfer of substance or mixture (charging and discharging) at dedicated facilities
PROC80	I ransfer of substance or mixture (charging and discharging) at dedicated facilities

Product characteristics

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

Operational conditions		
Frequency and duration of use	Exposure duration	15 min/day
Other given operational conditions affecting workers exposure	Indoor use	

Risk Management Measures		
Conditions and measures related to personal protection, hygiene and health evaluation	Breakthrough time (maximum wearing time)	0,25 - 1 h
	protective gloves	99 %

2.1.2. Contributing scenario controlling worker exposure (PROC2)

PROC2	Chemical production or refinery in closed continuous process with occasional controlled	
	exposure or processes with equivalent containment conditions	

Product characteristics

No additional information

Operational conditions		
Frequency and duration of use	Exposure duration	5 min/day
Other given operational conditions affecting workers exposure	Indoor use	

Risk Management Measures

No additional information

3. Exposure estimation and reference to its source

3.1. Health

Information for contributing exposure scenario	
2.1.1	AISE SPERC 8a.1.a.v1, - ,http://www.aise.eu/reach
2.1.2	AISE SPERC 8a.1.a.v1, - ,http://www.aise.eu/reach

3.2. Environment

Information for contributing exposure scenario	
2.2	AISE SPERC 8a.1.a.v1, - ,http://www.aise.eu/reach

4. Guidance to Downstream User to evaluate whether he works inside the boundaries set by the ES

4.1. Health

	Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels
Website	http://www.aise.eu/reach

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

4.2. Environment	
Guidance - Environment	Predicted exposures are not expected to exeed the PNECs when the Risk Management Measures/Operational Conditions outlined in section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels
Website	http://www.aise.eu/reach

Additional good practice advice beyond the REACH CSA

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

1. Exposure scenario 13.0

Professional Use of Laundry products AISE P102.1, P102.2, P103.1, P103.2, P105.1, P105.2, P106.1, P106.2, P111.1, P111.2, P112.1, P112.2, P113

ES Ref.: 13.0 ES Type: Worker

Use descriptors	SU22 PROC1, PROC8a, PROC11 PC35 ERC8a
Processes, tasks, activities covered	Widespread use by professional workers (PW)

2. Operational conditions and risk management measures

2.2. Contributing scenario controlling environmental exposure (ERC8a)

ERC8a	Widespread use of non-reactive processing aid (no inclusion into or onto article, indoor)

Product characteristics

No additional information

Operational conditions		
Amounts used	Amounts used	36 T/year
Frequency and duration of use	Release times per year	365
Environmental factors not influenced by risk management	River flow rate	18000 m³/d
Other given operational conditions affecting environmental exposure	Release fraction to air from process (initial release prior to RMM):	0
	Release fraction to wastewater from process (initial release prior to RMM):	1
	Release fraction to soil from process (initial release prior to RMM):	0
	Fraction used at main source:	0,00075
	Fraction of EU tonnage used in region:	0,1

Risk Management Measures		
Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil	AISE SPERC 8a.1.a.v1	http://www.aise.eu/reach
Conditions and measures related to sewage treatment plant	Release to municipal sewage treatment plant :	2000 m³/d

2.1.1. Contributing scenario controlling worker exposure (PROC8a) (Laundry detergent. Semi automatic process; Conditioner (softner/starch). Semi automatic process; Laundry aid (non-gasing). Semi automatic process)

a	Transfer of substance or mixture (charging and discharging) at non-dedicated facilities
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Product characteristics

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

Operational conditions		
Frequency and duration of use	Exposure duration	15 min/day
Other given operational conditions affecting workers exposure	Indoor use	

Risk Management Measures		
Conditions and measures related to personal	Breakthrough time (maximum wearing time)	0,25 - 1 h
protection, hygiene and health evaluation	protective gloves	99 %

2.1.2. Contributing scenario controlling worker exposure (PROC1) (Laundry detergent. Semi automatic process;Laundry detergent. Manual process;Conditioner (softner/starch). Semi automatic process;Conditioner (softner/starch). Manual process; Laundry aid (non-gasing). Semi automatic process; Laundry aid (non-gasing). Manual process)

PROC1	Chemical production or refinery in closed process without likelihood of exposure or
	processes with equivalent containment conditions

Product characteristics

No additional information

Operational conditions		
Frequency and duration of use	Exposure duration	1 min/day
Other given operational conditions affecting workers exposure	Indoor use	

Risk Management Measures

No additional information

2.1.3. Contributing scenario controlling worker exposure (PROC8a) (Laundry detergent. Manual process; Conditioner (softner/starch). Manual process; Laundry aid (non-gasing). Manual process)

PROC8a Transfer of substance or mixture (charging and discharging) at non-d

Product characteristics

No additional information

Operational conditions		
Frequency and duration of use	Exposure duration	20 min/day
Other given operational conditions affecting workers exposure	Indoor use	

Risk Management Measures		
Conditions and measures related to personal Breakthrough time (maximum wearing time) 0,25 - 1 h		0,25 - 1 h
protection, hygiene and health evaluation	protective gloves	99 %

2.1.4. Contributing scenario controlling worker exposure (PROC8a) (Prespotter/Stain remover. Manual process)

PROC8a	Transfer of substance or mixture (charging and discharging) at non-dedicated facilities

Product characteristics

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

Operational conditions		
Frequency and duration of use	Exposure duration	60 min/day
Other given operational conditions affecting workers	Indoor use	
exposure	Limit the substance in product to 10 %	

Risk Management Measures		
Conditions and measures related to personal	Breakthrough time (maximum wearing time)	> 4 h
protection, hygiene and health evaluation	protective gloves	99 %

3. Exposure estimation and reference to its source

3.1. Health

Information for contributing exposure scenario	
2.1.1	AISE SPERC 8a.1.a.v1, - ,http://www.aise.eu/reach
2.1.2	AISE SPERC 8a.1.a.v1, - ,http://www.aise.eu/reach
2.1.3	AISE SPERC 8a.1.a.v1, - ,http://www.aise.eu/reach
2.1.4	AISE SPERC 8a.1.a.v1, - ,http://www.aise.eu/reach

3.2. Environment

Information for contributing exposure scenario	
2.2	AISE SPERC 8a.1.a.v1, - ,http://www.aise.eu/reach

4. Guidance to Downstream User to evaluate whether he works inside the boundaries set by the ES

4.1. Health

Guidance - Health	Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels
Website	http://www.aise.eu/reach

4.2. Environment

	Predicted exposures are not expected to exeed the PNECs when the Risk Management Measures/Operational Conditions outlined in section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels
Website	http://www.aise.eu/reach

Additional good practice advice beyond the REACH CSA

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

1. Exposure scenario 14.0

Professional Use of Laundry products (Reactive) AISE P108.1, P108.2, P109.1, P109.2 ES Ref.: 14.0 ES Type: Worker

Use descriptors SU22 PROC1, PROC8a PC35 ERC8b Processes, tasks, activities covered Widespread use by professional workers (PW)

2. Operational conditions and risk management measures

2.2. Contributing scenario controlling environmental exposure (ERC8b)

ERC8b Widespread use of reactive processing aid (no inclusion into or onto article, indoor)

Product characteristics

No additional information

Operational conditions		
Amounts used	Amounts used	36 T/year
Frequency and duration of use	Release times per year	365
Environmental factors not influenced by risk management	River flow rate	18000 m³/d
Other given operational conditions affecting environmental exposure	Release fraction to air from process (initial release prior to RMM):	0
	Release fraction to wastewater from process (initial release prior to RMM):	1
	Release fraction to soil from process (initial release prior to RMM):	0
	Fraction used at main source:	0,00075
	Fraction of EU tonnage used in region:	0,1

	Risk Management Measures		
-1	Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil	AISE SPERC 8a.1.a.v1	http://www.aise.eu/reach
П	Conditions and measures related to sewage treatment plant	Release to municipal sewage treatment plant :	2000 m³/d

2.1.1. Contributing scenario controlling worker exposure (PROC8a) (Laundry aid (gasing). Semi automatic process; Laundry aid (gasing). Manual process)

PROC8a	Transfer of substance or mixture (charging and discharging) at non-dedicated facilities

Product characteristics

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

Operational conditions		
Frequency and duration of use	Exposure duration	20 min/day
Other given operational conditions affecting workers exposure	Indoor use	

Risk Management Measures		
Conditions and measures related to personal	Breakthrough time (maximum wearing time)	0,25 - 1 h
protection, hygiene and health evaluation	protective gloves	99 %

2.1.2. Contributing scenario controlling worker exposure (PROC1) (Laundry aid (gasing). Semi automatic process; Laundry aid (gasing). Manual process)

PROC1	Chemical production or refinery in closed process without likelihood of exposure or
	processes with equivalent containment conditions

Product characteristics No additional information

Operational conditions		
Frequency and duration of use	Exposure duration	1 min/day
Other given operational conditions affecting workers exposure	Indoor use	

Risk Management Measures

No additional information

3. Exposure estimation and reference to its source

3.1. Health

Information for contributing exposure scenario	
2.1.1	AISE SPERC 8a.1.a.v1, - ,http://www.aise.eu/reach
2.1.2	AISE SPERC 8a.1.a.v1, - ,http://www.aise.eu/reach

3.2. Environment

Information for contributing exposure scenario	
2.2	AISE SPERC 8a.1.a.v1, - ,http://www.aise.eu/reach

4. Guidance to Downstream User to evaluate whether he works inside the boundaries set by the ES

4.1. Health

	Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels
Website	http://www.aise.eu/reach

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

4.2. Environment	
Guidance - Environment	Predicted exposures are not expected to exeed the PNECs when the Risk Management Measures/Operational Conditions outlined in section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels
Website	http://www.aise.eu/reach

Additional good practice advice beyond the REACH CSA

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

1. Exposure scenario 15.0

Professional Use of Dishwash AISE P202.1, P202.2, P203.1, P203.2, P204.1, P204.2

ES Ref.: 15.0 ES Type: Worker

Use descriptors	SU22 PROC1, PROC2, PROC8a, PROC8b PC35 ERC8a
Processes, tasks, activities covered	Widespread use by professional workers (PW)

2. Operational conditions and risk management measures

2.2. Contributing scenario controlling environmental exposure (ERC8a)

ERC8a Widespread use of non-reactive processing aid (no inclusion into or onto article, indoor)

Product characteristics

No additional information

Operational conditions		
Amounts used	Amounts used	36 T/year
Frequency and duration of use	Release times per year	365
Environmental factors not influenced by risk management	River flow rate	18000 m³/d
Other given operational conditions affecting environmental exposure	Release fraction to air from process (initial release prior to RMM):	0
	Release fraction to wastewater from process (initial release prior to RMM):	1
	Release fraction to soil from process (initial release prior to RMM):	0
	Fraction used at main source:	0,00075
	Fraction of EU tonnage used in region:	0,1

Risk Management Measures			
	Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil	AISE SPERC 8a.1.a.v1	http://www.aise.eu/reach
	Conditions and measures related to sewage treatment plant	Release to municipal sewage treatment plant :	2000 m³/d

2.1.1. Contributing scenario controlling worker exposure (PROC8a) (Dishwash product. Manual process)

PROC8a	Transfer of substance or mixture (charging and discharging) at non-dedicated facilities
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Product characteristics

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

Operational conditions		
Exposure duration	8 min/day	
Indoor use		
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Risk Management Measures		
Conditions and measures related to personal	Breakthrough time (maximum wearing time)	> 4 h
protection, hygiene and health evaluation	protective gloves	99 %

2.1.2. Contributing scenario controlling worker exposure (PROC8b) (Dishwash product. Automatic process; Rinse aid. **Automatic process)**

PROC8b Transfer of substance or mixture (charging and discharging) at dedicated facilities	PROC8b	Transfer of substance or mixture (charging and discharging) at dedicated facilities
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Product characteristics

No additional information

Operational conditions		
Frequency and duration of use	Exposure duration	10 min/day
Other given operational conditions affecting workers exposure	Indoor use	

Risk Management Measures		
Conditions and measures related to personal	Breakthrough time (maximum wearing time)	< 15 minutes
protection, hygiene and health evaluation	protective gloves	99 %

2.1.3. Contributing scenario controlling worker exposure (PROC2) (Dishwash product. Automatic process;Rinse aid. **Automatic process)**

PROC2	Chemical production or refinery in closed continuous process with occasional controlled
	exposure or processes with equivalent containment conditions

Product characteristics

No additional information

Operational conditions		
Frequency and duration of use	Exposure duration	5 min/day
Other given operational conditions affecting workers exposure	Indoor use	

Risk Management Measures

No additional information

2.1.4. Contributing scenario controlling worker exposure (PROC8a) (Dishwash product. Semi-Automatic process)

PROC8a Transfer of substance	e or mixture (charging and discharging) at non-dedicated facilities
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Product characteristics

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

Operational conditions		
Frequency and duration of use	Exposure duration	10 min/day
Other given operational conditions affecting workers exposure	Indoor use	

Risk Management Measures		
Conditions and measures related to personal	Breakthrough time (maximum wearing time)	< 15 minutes
protection, hygiene and health evaluation	protective gloves	99 %

2.1.5. Contributing scenario controlling worker exposure (PROC1) (Dishwash product. Automatic process)

PROC1	Chemical production or refinery in closed process without likelihood of exposure or
	processes with equivalent containment conditions

Product characteristics

No additional information

Operational conditions		
Frequency and duration of use	Exposure duration	1 min/day
Other given operational conditions affecting workers exposure	Indoor use	

Risk Management Measures

No additional information

3. Exposure estimation and reference to its source

3.1. Health

Information for contributing exposure scenario	
2.1.1	AISE SPERC 8a.1.a.v1, - ,http://www.aise.eu/reach
2.1.2	AISE SPERC 8a.1.a.v1, - ,http://www.aise.eu/reach
2.1.3	AISE SPERC 8a.1.a.v1, - ,http://www.aise.eu/reach
2.1.4	AISE SPERC 8a.1.a.v1, - ,http://www.aise.eu/reach
2.1.5	AISE SPERC 8a.1.a.v1, - ,http://www.aise.eu/reach

3.2. Environment

Information for contributing exposure scenario	
2.2	AISE SPERC 8a.1.a.v1, - ,http://www.aise.eu/reach

4. Guidance to Downstream User to evaluate whether he works inside the boundaries set by the ES

4.1. Health

Guidance - Health	Predicted exposures are not expected to exceed the DN(M)EL when the Risk
	Management Measures/Operational Conditions outlined in Section 2 are implemented.
	Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

Website	http://www.aise.eu/reach
4.2. Environment	
Guidance - Environment	Predicted exposures are not expected to exeed the PNECs when the Risk Management Measures/Operational Conditions outlined in section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels
Website	http://www.aise.eu/reach

Additional good practice advice beyond the REACH CSA

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

1. Exposure scenario 16.0

Professional Use of General surface cleaning products AISE P301.1, P301.2, P302.1, P302.2, P303.1, P303.2, P304.1, P304.2, P305.1, P305.2, P306.1, P306.2, P307.1, P307.2, P308.1, P308.2, P309, P310, P311, P312.1, P312.2, P313.1, P313.2, P314.1, P314.2, P315.1, P315.2, P316.1, P316.2, P317

ES Ref.: 16.0 ES Type: Worker

Use descriptors	SU22 PROC8a, PROC10, PROC11, PROC13 PC35 ERC8a
Processes, tasks, activities covered	Widespread use by professional workers (PW)

2. Operational conditions and risk management measures

2.2. Contributing scenario controlling environmental exposure (ERC8a)

Widespread use of non-reactive processing aid (no inclusion into or onto article, indoor)

Product characteristics

No additional information

Operational conditions		
Amounts used	Amounts used	36 T/year
Frequency and duration of use	Release times per year	365
Environmental factors not influenced by risk management	River flow rate	18000 m³/d
Other given operational conditions affecting environmental exposure	Release fraction to air from process (initial release prior to RMM):	0
	Release fraction to wastewater from process (initial release prior to RMM):	1
	Release fraction to soil from process (initial release prior to RMM):	0
	Fraction used at main source:	0,00075
	Fraction of EU tonnage used in region:	0,1

Risk Management Measures						
Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil	AISE SPERC 8a.1.a.v1	http://www.aise.eu/reach				
Conditions and measures related to sewage treatment plant	Release to municipal sewage treatment plant :	2000 m³/d				

2.1.1. Contributing scenario controlling worker exposure (PROC8a) (General purpose cleaner. Manual process; Sanitary cleaner. Manual process; Glass cleaner. Manual process; Metal cleaning agent. Manual process)

PROC8a	Transfer of substance or mixture (charging and discharging) at non-dedicated facilities
110000	Transfer of Substance of Mixture (charging and disonarying) at non-dedicated radiities

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

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-	ш		ж	л	u	ı	н				•	а	L	œ		-	м	ан	L	-

No additional information

Operational conditions						
Frequency and duration of use	Exposure duration	16 min/day				
Other given operational conditions affecting workers exposure	Indoor use					

Risk Management Measures							
	Breakthrough time (maximum wearing time)	> 4 h					
protection, hygiene and health evaluation	protective gloves	99 %					

2.1.2. Contributing scenario controlling worker exposure (PROC8b) (General purpose cleaner. Manual process)

PROC8b	Transfer of substance or mixture (charging and discharging) at dedicated facilities

Product characteristics

Concentration of substance in product 10 %

Operational conditions		
Frequency and duration of use	Exposure duration	480 min/day
Other given operational conditions affecting workers	Indoor use	
exposure	Limit the substance in product to 10 %	

Risk Management Measures							
Conditions and measures related to personal	Breakthrough time (maximum wearing time)	> 4 h					
protection, hygiene and health evaluation	protective gloves	99 %					

2.1.3. Contributing scenario controlling worker exposure (PROC8a) (General purpose cleaner. Spray and wipe manual process;Kitchen cleaner. Spray and wipe manual process;Sanitary cleaner. Spray and wipe manual process;Glass cleaner. Spray and wipe manual process)

PROC8a	Transfer of substance or mixture (charging and discharging) at non-dedicated facilities
1110000	Transfer of debotation of mixture (orlanging and disorial ging) at horr dedicated radiities

Product characteristics

Operational conditions	erational conditions							
Frequency and duration of use	Exposure duration	5 min/day						
Other given operational conditions affecting workers exposure	Indoor use							

Risk Management Measures							
Conditions and measures related to personal	Breakthrough time (maximum wearing time)	> 4 h					
protection, hygiene and health evaluation	protective gloves	99 %					

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

2.1.4. Contributing scenario controlling worker exposure (PROC11) (General purpose cleaner. Spray and wipe manual

process)	or expectation (in the entity (defined as purpose distante	
PROC11	Non industrial spraying	
Product characteristics		
No additional information		
Operational conditions		
Frequency and duration of use	Exposure duration	8 min/day
Other given operational conditions affecting workers exposure	Indoor use	
Risk Management Measures		
Conditions and measures related to personal	protective gloves	99 %
protection, hygiene and health evaluation	Breakthrough time (maximum wearing time)	> 4 h
2.1.5. Contributing scenario controlling works	er exposure (PROC8a) (Kitchen cleaner. Manual	process)
PROC8a	Transfer of substance or mixture (charging and dischar	ging) at non-dedicated facilities
Product characteristics		
No additional information		
Operational conditions		
Frequency and duration of use	Exposure duration	6 min/day
Other given operational conditions affecting workers exposure	Indoor use	
Risk Management Measures		
Conditions and measures related to personal	protective gloves	99 %
protection, hygiene and health evaluation	Breakthrough time (maximum wearing time)	> 4 h
2.1.6. Contributing scenario controlling worke	er exposure (PROC10) (Kitchen cleaner. Manual	process)
PROC10	Roller application or brushing	
Product characteristics		
Concentration of substance in product	10 %	
Operational conditions		
Frequency and duration of use	Exposure duration	180 min/day
Other given operational conditions affecting workers	Indoor use	,
exposure	Limit the substance in product to 10 %	
	· · · · · · · · · · · · · · · · · · ·	
Risk Management Measures		
Conditions and measures related to personal protection, hygiene and health evaluation	protective gloves	99 %
protection, mygiene and nealth evaluation	Breakthrough time (maximum wearing time)	> 4 h

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

2.1.7. Contributing scenario controlling worker exposure (PROC11) (Kitchen cleaner. Spray and wipe manual process)				
PROC11 Non industrial spraying				
Product characteristics				
No additional information				
Operational conditions				
Frequency and duration of use	Exposure duration	3 min/day		
Other given operational conditions affecting workers exposure	Indoor use			
Dials Management Management				
Risk Management Measures Conditions and measures related to personal	protective gloves	99 %		
protection, hygiene and health evaluation	Breakthrough time (maximum wearing time)	> 4 h		
	, , , , , , , , , , , , , , , , , , ,			
	r exposure (PROC10) (Kitchen cleaner. Manual ual process;Metal cleaning agent. Manual proc			
PROC10	Roller application or brushing			
Product characteristics				
Concentration of substance in product	10 %			
Concentration of Substance in product	10 76			
Operational conditions				
Frequency and duration of use	Exposure duration	480 min/day		
Other given operational conditions affecting workers	Indoor use			
exposure	Limit the substance in product to 10 %			
Risk Management Measures				
Conditions and measures related to personal	protective gloves	99 %		
protection, hygiene and health evaluation	Breakthrough time (maximum wearing time)	> 4 h		
2.1.9. Contributing scenario controlling worke	r exposure (PROC11) (Sanitary cleaner. Spray	and wipe manual process)		
PROC11				
PROCTI	Non industrial spraying			
Product characteristics				
No additional information				
Operational conditions				
Frequency and duration of use	Exposure duration	8 min/day		
Other given operational conditions affecting workers exposure	Indoor use	,		
	<u> </u>			
Risk Management Measures				
Conditions and measures related to personal	protective gloves	99 %		
protection, hygiene and health evaluation	Breakthrough time (maximum wearing time)	> 4 h		

20/03/2024 (Revision date) EN (English) 71/179

PROC8a

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

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	1 10		i scenario	controlling	WOLKEL	exposite	TPRULANT	III)escalino	anent	WEIGH	nrocessi

Product characteristics			
No additional information			
Operational conditions			
Frequency and duration of use	Exposure duration	1 min/day	
Other given operational conditions affecting workers exposure	Indoor use		
Risk Management Measures			
Conditions and measures related to personal	Breakthrough time (maximum wearing time)	> 4 h	
protection, hygiene and health evaluation	protective gloves	99 %	
2.1.11. Contributing scenario controlling worker exposure (PROC11) (Descaling agent. Manual process)			
PROC11	Non industrial spraying		
Product characteristics			
Concentration of substance in product	10 %		

Transfer of substance or mixture (charging and discharging) at non-dedicated facilities

Operational conditions			
Frequency and duration of use	Exposure duration	60 min/day	
Other given operational conditions affecting workers	Indoor use		
exposure	Limit the substance in product to 10 %		

Risk Management Measures		
protection, hygiene and health evaluation	protective gloves	99 %
	Breakthrough time (maximum wearing time)	1 - 4 h

2.1.12. Contributing scenario controlling worker exposure (PROC8a) (Descaling agent. Spray and rinse manual process;Surface disinfactant. Manual process;Surface disinfactant. Spray and rinse manual process)

Transfer of substance or mixture (charging and discharging) at non-dedicated facilities	es
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Product characteristics

Operational conditions			
Frequency and duration of use	Exposure duration	5 min/day	
Other given operational conditions affecting workers exposure	Indoor use		

Risk Management Measures		
Conditions and measures related to personal protection, hygiene and health evaluation	protective gloves	99 %
	Breakthrough time (maximum wearing time)	< 15 minutes

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

2.1.13. Contributing scenario controlling worker exposure (PROC11) (Descaling agent. Spray and rinse manual process)		
PROC11	Non industrial spraying	
Product characteristics		
No additional information		
Operational conditions		
Frequency and duration of use	Exposure duration	8 min/day
Other given operational conditions affecting workers exposure	Indoor use	
Risk Management Measures		
Conditions and measures related to personal	protective gloves	99 %
protection, hygiene and health evaluation	Breakthrough time (maximum wearing time)	< 15 minutes
2.4.4.4. Contributing account controlling work	(PROC42) (Pagading agent Ding	ng process)
2.1.14. Contributing Scenario controlling work	ker exposure (PROC13) (Descaling agent. Dipp	ng process)
PROC13	Treatment of articles by dipping and pouring	
Product characteristics		
No additional information		
Operational conditions		
Frequency and duration of use	Exposure duration	60 min/day
Other given operational conditions affecting workers exposure	Indoor use	
Risk Management Measures		
Conditions and measures related to personal	protective gloves	99 %
protection, hygiene and health evaluation	Breakthrough time (maximum wearing time)	1 - 4 h
2.1.15. Contributing scenario controlling work	ker exposure (PROC10) (Oven/Grill Cleaner. Ma	nual process)
PROC10	Roller application or brushing	
Product characteristics		
Product characteristics No additional information		
No additional information		
Operational conditions		
Frequency and duration of use	Exposure duration	60 min/day
Other given operational conditions affecting workers exposure	Indoor use	
		·
Risk Management Measures	T	
Conditions and measures related to personal protection, hygiene and health evaluation	protective gloves	99 %
p. 3.33.311, 11, giorio ana noditi ovaluation	Breakthrough time (maximum wearing time)	1 - 4 h

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

2.1.16. Contributing scenario controlling worker exposure (PROC11) (Oven/Grill Cleaner. Spray and wipe manual process)

PROC11	Non industrial spraying

Product characteristics	
Concentration of substance in product	10 %

Operational conditions		
Frequency and duration of use	Exposure duration	180 min/day
Other given operational conditions affecting workers exposure	Limit the substance in product to 10 %	
	Indoor use	

Risk Management Measures		
protection, hygiene and health evaluation	protective gloves	99 %
	Breakthrough time (maximum wearing time)	1 - 4 h

2.1.17. Contributing scenario controlling worker exposure (PROC11) (Glass cleaner. Spray and wipe manual process; Surface disinfactant. Spray and rinse manual process)

PROC11	Non industrial spraying	
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Product characteristics

No additional information

Operational conditions		
Frequency and duration of use	Exposure duration	8 min/day
Other given operational conditions affecting workers exposure	Indoor use	

Risk Management Measures		
Conditions and measures related to personal	protective gloves	99 %
protection, hygiene and health evaluation	Breakthrough time (maximum wearing time)	> 4 h

3. Exposure estimation and reference to its source

3.1. Health

Information for contributing exposure scenario	
2.1.1	AISE SPERC 8a.1.a.v1, - ,http://www.aise.eu/reach
2.1.2	AISE SPERC 8a.1.a.v1, - ,http://www.aise.eu/reach
2.1.3	AISE SPERC 8a.1.a.v1, - ,http://www.aise.eu/reach
2.1.4	AISE SPERC 8a.1.a.v1, - ,http://www.aise.eu/reach
2.1.5	AISE SPERC 8a.1.a.v1, - ,http://www.aise.eu/reach
2.1.6	AISE SPERC 8a.1.a.v1, - ,http://www.aise.eu/reach
2.1.7	AISE SPERC 8a.1.a.v1, - ,http://www.aise.eu/reach
2.1.8	AISE SPERC 8a.1.a.v1, - ,http://www.aise.eu/reach
2.1.9	AISE SPERC 8a.1.a.v1, - ,http://www.aise.eu/reach

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

Information for contributing exposure scenario	
2.1.10	AISE SPERC 8a.1.a.v1, - ,http://www.aise.eu/reach
2.1.11	AISE SPERC 8a.1.a.v1, - ,http://www.aise.eu/reach
2.1.12	AISE SPERC 8a.1.a.v1, - ,http://www.aise.eu/reach
2.1.13	AISE SPERC 8a.1.a.v1, - ,http://www.aise.eu/reach
2.1.14	AISE SPERC 8a.1.a.v1, - ,http://www.aise.eu/reach
2.1.15	AISE SPERC 8a.1.a.v1, - ,http://www.aise.eu/reach
2.1.16	AISE SPERC 8a.1.a.v1, - ,http://www.aise.eu/reach
2.1.17	AISE SPERC 8a.1.a.v1, - ,http://www.aise.eu/reach

3.2. Environment

Information for contributing exposure scenario	
2.2	AISE SPERC 8a.1.a.v1, - ,http://www.aise.eu/reach

4. Guidance to Downstream User to evaluate whether he works inside the boundaries set by the ES

4.1. Health

	Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels
Website	http://www.aise.eu/reach

4.2. Environment

	Predicted exposures are not expected to exeed the PNECs when the Risk Management Measures/Operational Conditions outlined in section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels
Website	http://www.aise.eu/reach

Additional good practice advice beyond the REACH CSA

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

1. Exposure scenario 17.0

Professional Use of Floor care products AISE P401.1, P401.2, P402.1, P402.2, P403.1, P403.2, P404.1, P404.2, P405.1, P405.2, P406, P407, P408, P409.1, P409.2, P410.1, P410.2, P411

ES Ref.: 17.0 ES Type: Worker

	SU22 PROC8a, PROC10, PROC11 PC31, PC35 ERC8a
Processes, tasks, activities covered	Widespread use by professional workers (PW)

2. Operational conditions and risk management measures

2.2. Contributing scenario controlling environmental exposure (ERC8a)

	ERC8a	Widespread use of non-reactive processing aid (no inclusion into or onto article, indoor)
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Product characteristics

No additional information

Operational conditions		
Amounts used	Amounts used	36 T/year
Frequency and duration of use	Release times per year	365
Environmental factors not influenced by risk management	River flow rate	18000 m³/d
Other given operational conditions affecting environmental exposure	Release fraction to air from process (initial release prior to RMM):	0
	Release fraction to wastewater from process (initial release prior to RMM):	1
	Release fraction to soil from process (initial release prior to RMM):	0
	Fraction used at main source:	0,00075
	Fraction of EU tonnage used in region:	0,1

Risk Management Measures		
Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil	AISE SPERC 8a.1.a.v1	http://www.aise.eu/reach
Conditions and measures related to sewage treatment plant	Release to municipal sewage treatment plant :	2000 m³/d

2.1.1. Contributing scenario controlling worker exposure (PROC8a) (Floor cleaner. Semi-Automatic process)

Transfer of substance of mixture (charging and discharging) at non-dedicated facilities	PROC8a	Transfer of substance or mixture (charging and discharging) at non-dedicated facilities
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Product characteristics

No additional information

Concentration of substance in product

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

Operational conditions		
Frequency and duration of use	Exposure duration	16 min/day
Other given operational conditions affecting workers exposure	Indoor use	
Risk Management Measures		
Conditions and measures related to personal	Breakthrough time (maximum wearing time)	> 4 h
protection, hygiene and health evaluation	protective gloves	99 %
2.1.2. Contributing scenario controlling works Manual process)	er exposure (PROC10) (Floor cleaner. Semi-Aut	omatic process;Floor cleaner
PROC10	Roller application or brushing	
Product characteristics		
Concentration of substance in product	10 %	
Occasional and distance		
Operational conditions Frequency and duration of use	Exposure duration	480 min/day
Other given operational conditions affecting workers	Indoor use	100 minuay
exposure	Limit the substance in product to 10 %	
	· ·	
Risk Management Measures		
Conditions and measures related to personal protection, hygiene and health evaluation	Breakthrough time (maximum wearing time)	> 4 h
	protective gloves	99 %
2.1.3. Contributing scenario controlling works cleaner. Manual process)	er exposure (PROC8a) (Floor cleaner. Spray and	d wipe manual process;Floor
PROC8a	Transfer of substance or mixture (charging and discharge)	rging) at non-dedicated facilities
Product characteristics		
No additional information		
Occasional and distance		
Operational conditions Frequency and duration of use	Exposure duration	16 min/day
Other given operational conditions affecting workers	Indoor use	10 min/day
exposure		
Risk Management Measures		
onditions and measures related to personal	Breakthrough time (maximum wearing time)	15 - 1 h
protection, hygiene and health evaluation	protective gloves	99 %
2.1.4. Contributing scenario controlling worker exposure (PROC11) (Floor cleaner. Spray and wipe manual process)		
PROC11 Non industrial spraying		
Product characteristics		
1 Toddet Gliaracteristics		

10 %

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

Operational conditions		
Frequency and duration of use	Exposure duration	240 min/day
Other given operational conditions affecting workers exposure	Indoor use	
	Limit the substance in product to 10 %	

Risk Management Measures		
protection, hygiene and health evaluation	protective gloves	99 %
	Breakthrough time (maximum wearing time)	> 4 h
	Respiratory protection	90 %

2.1.5. Contributing scenario controlling worker exposure (PROC8a) (Floor cleaner. Manual process)

PROC8a	Transfer of substance or mixture (charging and discharging) at non-dedicated facilities

Product characteristics

No additional information

Operational conditions		
Frequency and duration of use	Exposure duration	16 min/day
Other given operational conditions affecting workers exposure	Indoor use	

Risk Management Measures		
protection, hygiene and health evaluation	protective gloves	99 %
	Breakthrough time (maximum wearing time)	15 - 1 h

2.1.6. Contributing scenario controlling worker exposure (PROC8a) (Floor stripper. Manual process; Floor stripper. Semi-**Automatic process)**

PROC8a Transfer of substance or mixture (charging and discharging) at non-dedicated fa	cilities
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Product characteristics

No additional information

Operational conditions		
Frequency and duration of use	Exposure duration	20 min/day
Other given operational conditions affecting workers exposure	Indoor use	

Risk Management Measures		
·	protective gloves	99 %
protection, hygiene and health evaluation	Breakthrough time (maximum wearing time)	0,25 - 1 h

2.1.7. Contributing scenario controlling worker exposure (PROC10) (Floor stripper. Manual process; Floor stripper. Semi-Automatic process; Polish / impregnating agent. Manual process; Polish / impregnating agent. Semi-Automatic process; Carpet cleaner. Manual process; Carpet cleaner. Semi-Automatic process)

PROC10	Roller application or brushing

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid				
Product characteristics				
Concentration of substance in product	10 %			
Operational conditions		I		
Frequency and duration of use	Exposure duration	360 min/day		
Other given operational conditions affecting workers exposure	Indoor use			
	Limit the substance in product to 10 %			
Risk Management Measures				
Conditions and measures related to personal	protective gloves	99 %		
protection, hygiene and health evaluation	Breakthrough time (maximum wearing time)	> 4 h		
2.1.8. Contributing scenario controlling worke process;Carpet cleaner. Spray and brush r	r exposure (PROC11) (Polish / impregnating ag manual process)	gent. Spray and wipe manual		
PROC11	Non industrial spraying			
Product characteristics				
Concentration of substance in product	10 %			
Operational conditions				
Frequency and duration of use	Exposure duration	360 min/day		
Other given operational conditions affecting workers exposure	Indoor use			
exposure	Limit the substance in product to 10 %			
Risk Management Measures		00.04		
Conditions and measures related to personal protection, hygiene and health evaluation	protective gloves	99 %		
	Breakthrough time (maximum wearing time)	> 4 h		
	Respiratory protection	90 %		
2.1.9. Contributing scenario controlling worke Semi-Automatic process)	r exposure (PROC8a) (Carpet cleaner. Manual	process;Carpet cleaner.		
PROC8a	Transfer of substance or mixture (charging and dischar	ging) at non-dedicated facilities		
Product characteristics				
No additional information				
	140 dedictional mornacion			
Operational conditions				
Frequency and duration of use	Exposure duration	20 min/day		
Other given operational conditions affecting workers exposure	Indoor use			
Risk Management Measures Conditions and measures related to personal	Breakthrough time (maximum waaring time)	> 1 h		
Conditions and measures related to personal protection, hygiene and health evaluation	Breakthrough time (maximum wearing time)	> 4 h		
	protective gloves	JJ 70		

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

3. Exposure estimation and reference to its source

3.1. Health

Information for contributing exposure scenario	
2.1.1	AISE SPERC 8a.1.a.v1, - ,http://www.aise.eu/reach
2.1.2	AISE SPERC 8a.1.a.v1, - ,http://www.aise.eu/reach
2.1.3	AISE SPERC 8a.1.a.v1, - ,http://www.aise.eu/reach
2.1.4	AISE SPERC 8a.1.a.v1, - ,http://www.aise.eu/reach
2.1.5	AISE SPERC 8a.1.a.v1, - ,http://www.aise.eu/reach
2.1.6	AISE SPERC 8a.1.a.v1, - ,http://www.aise.eu/reach
2.1.7	AISE SPERC 8a.1.a.v1, - ,http://www.aise.eu/reach
2.1.8	AISE SPERC 8a.1.a.v1, - ,http://www.aise.eu/reach
2.1.9	AISE SPERC 8a.1.a.v1, - ,http://www.aise.eu/reach

3.2. Environment

Information for contributing exposure scenario	
2.2	AISE SPERC 8a.1.a.v1, - ,http://www.aise.eu/reach

4. Guidance to Downstream User to evaluate whether he works inside the boundaries set by the ES

4.1. Health

	Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels
Website	http://www.aise.eu/reach

4.2. Environment

	Predicted exposures are not expected to exeed the PNECs when the Risk Management Measures/Operational Conditions outlined in section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels
Website	http://www.aise.eu/reach

Additional good practice advice beyond the REACH CSA

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

1. Exposure scenario 18.0

Professional Use of Maintenance Products AISE P601, P602, P603, P604, P605.1, P605.2, P606, P607, P608, P609 ES Ref.: 18.0

ES Type: Worker

Use descriptors	SU22 PROC2, PROC8a, PROC10, PROC11 PC31, PC35 ERC8a
Processes, tasks, activities covered	Widespread use by professional workers (PW)

2. Operational conditions and risk management measures

2.2. Contributing scenario controlling environmental exposure (ERC8a)

ERC8a Widespread use of non-reactive processing aid (no inclusion into or onto article, indoor)

Product characteristics

No additional information

Operational conditions		
Amounts used	Amounts used	36 T/year
Frequency and duration of use	Release times per year	365
Environmental factors not influenced by risk management	River flow rate	18000 m³/d
Other given operational conditions affecting environmental exposure	Release fraction to air from process (initial release prior to RMM):	0
	Release fraction to wastewater from process (initial release prior to RMM):	1
	Release fraction to soil from process (initial release prior to RMM):	0
	Fraction used at main source:	0,00075
	Fraction of EU tonnage used in region:	0,1

Risk Management Measures		
Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil	AISE SPERC 8a.1.a.v1	http://www.aise.eu/reach
Conditions and measures related to sewage treatment plant	Release to municipal sewage treatment plant :	2000 m³/d

2.1.1. Contributing scenario controlling worker exposure (PROC10) (Furniture care product. Manual process)

PROC10	Roller application or brushing

Product characteristics	
Concentration of substance in product	10 %

Operational conditions

No additional information

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

Frequency and duration of use	Exposure duration	90 min/day
Other given operational conditions affecting workers	Indoor use	
exposure	Limit the substance in product to 10 %	
Risk Management Measures		
Conditions and measures related to personal	Breakthrough time (maximum wearing time)	> 4 h
protection, hygiene and health evaluation	protective gloves	99 %
2.1.2. Contributing scenario controlling work	er exposure (PROC11) (Furniture care product	. Manual process)
PROC11	Non industrial spraying	
Product characteristics		
Concentration of substance in product	10 %	
Operational conditions		
Frequency and duration of use	Exposure duration	90 min/day
Other given operational conditions affecting workers	Indoor use	
exposure	Limit the substance in product to 10 %	
Risk Management Measures		
Risk Management Measures Conditions and measures related to personal	protective gloves	99 %
	protective gloves Breakthrough time (maximum wearing time)	99 % > 4 h
Conditions and measures related to personal protection, hygiene and health evaluation	· -	> 4 h
Conditions and measures related to personal protection, hygiene and health evaluation	Breakthrough time (maximum wearing time)	> 4 h Automatic process)
Conditions and measures related to personal protection, hygiene and health evaluation 2.1.3. Contributing scenario controlling works PROC8a	Breakthrough time (maximum wearing time) er exposure (PROC8a) (Leather care product.	> 4 h Automatic process)
Conditions and measures related to personal protection, hygiene and health evaluation 2.1.3. Contributing scenario controlling works	Breakthrough time (maximum wearing time) er exposure (PROC8a) (Leather care product.	> 4 h Automatic process)
Conditions and measures related to personal protection, hygiene and health evaluation 2.1.3. Contributing scenario controlling works PROC8a Product characteristics No additional information	Breakthrough time (maximum wearing time) er exposure (PROC8a) (Leather care product.	> 4 h Automatic process)
Conditions and measures related to personal protection, hygiene and health evaluation 2.1.3. Contributing scenario controlling works PROC8a Product characteristics No additional information Operational conditions	Breakthrough time (maximum wearing time) er exposure (PROC8a) (Leather care product. Transfer of substance or mixture (charging and disch	> 4 h Automatic process) arging) at non-dedicated facilities
Conditions and measures related to personal protection, hygiene and health evaluation 2.1.3. Contributing scenario controlling works PROC8a Product characteristics No additional information	Breakthrough time (maximum wearing time) er exposure (PROC8a) (Leather care product.	> 4 h Automatic process)
Conditions and measures related to personal protection, hygiene and health evaluation 2.1.3. Contributing scenario controlling worked product characteristics No additional information Operational conditions Frequency and duration of use Other given operational conditions affecting workers	Breakthrough time (maximum wearing time) er exposure (PROC8a) (Leather care product. Transfer of substance or mixture (charging and disch	> 4 h Automatic process) arging) at non-dedicated facilities
Conditions and measures related to personal protection, hygiene and health evaluation 2.1.3. Contributing scenario controlling worked PROC8a Product characteristics No additional information Operational conditions Frequency and duration of use Other given operational conditions affecting workers exposure Risk Management Measures Conditions and measures related to personal	Breakthrough time (maximum wearing time) er exposure (PROC8a) (Leather care product. Transfer of substance or mixture (charging and disch	> 4 h Automatic process) arging) at non-dedicated facilities
Conditions and measures related to personal protection, hygiene and health evaluation 2.1.3. Contributing scenario controlling worked PROC8a Product characteristics No additional information Operational conditions Frequency and duration of use Other given operational conditions affecting workers exposure Risk Management Measures	Breakthrough time (maximum wearing time) er exposure (PROC8a) (Leather care product.) Transfer of substance or mixture (charging and disched) Exposure duration Indoor use	> 4 h Automatic process) arging) at non-dedicated facilities 1 min/day
Conditions and measures related to personal protection, hygiene and health evaluation 2.1.3. Contributing scenario controlling worked PROC8a Product characteristics No additional information Operational conditions Frequency and duration of use Other given operational conditions affecting workers exposure Risk Management Measures Conditions and measures related to personal protection, hygiene and health evaluation	Breakthrough time (maximum wearing time) er exposure (PROC8a) (Leather care product.) Transfer of substance or mixture (charging and disched) Exposure duration Indoor use Breakthrough time (maximum wearing time)	> 4 h Automatic process) arging) at non-dedicated facilities 1 min/day > 4 h 99 %

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

Operational conditions		
Frequency and duration of use	Exposure duration	5 min/day
Other given operational conditions affecting workers exposure	Indoor use	

Risk Management Measures

No additional information

2.1.5. Contributing scenario controlling worker exposure (PROC8a) (Drain unblocker. Manual process)

PROC8a	Transfer of substance or mixture (charging and discharging) at non-dedicated facilities

Product characteristics

No additional information

Operational conditions		
Frequency and duration of use	Exposure duration	6 min/day
Other given operational conditions affecting workers exposure	Indoor use	

Risk Management Measures		
Conditions and measures related to personal	protective gloves	99 %
protection, hygiene and health evaluation	Breakthrough time (maximum wearing time)	15 min - 1 h

2.1.6. Contributing scenario controlling worker exposure (PROC8a) (Drain cleaner. Manual process)

Transfer of substance of mixture (charging and discharging) at non-dedicated facilities	PROC8a	Transfer of substance or mixture (charging and discharging) at non-dedicated facilities
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Product characteristics

No additional information

Operational conditions		
Frequency and duration of use	Exposure duration	6 min/day
Other given operational conditions affecting workers exposure	Indoor use	

Risk Management Measures		
Conditions and measures related to personal	protective gloves	99 %
protection, hygiene and health evaluation	Breakthrough time (maximum wearing time)	> 4 h

2.1.7. Contributing scenario controlling worker exposure (PROC10) (Stainless steel care. Manual process)

PROC10	Roller application or brushing
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Product characteristics	
Concentration of substance in product	10 %

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

Operational conditions		
Frequency and duration of use	Exposure duration	180 min/day
Other given operational conditions affecting workers	Indoor use	
exposure	Limit the substance in product to 10 %	

Risk Management Measures		
Conditions and measures related to personal	protective gloves	99 %
protection, hygiene and health evaluation	Breakthrough time (maximum wearing time)	> 4 h

2.1.8. Contributing scenario controlling worker exposure (PROC11) (Stainless steel care. Spray and wipe manual process)

PROC11	Non industrial spraying	
PROC11	Non industrial spraying	

Product characteristics	
Concentration of substance in product	10 %

Operational conditions		
Frequency and duration of use	Exposure duration	50 min/day
Other given operational conditions affecting workers exposure	Indoor use	
	Limit the substance in product to 10 %	

Risk Management Measures		
Conditions and measures related to personal	protective gloves	99 %
protection, hygiene and health evaluation	Breakthrough time (maximum wearing time)	> 4 h

3. Exposure estimation and reference to its source

3.1. Health

Information for contributing exposure scenario	
2.1.1	AISE SPERC 8a.1.a.v1, - ,http://www.aise.eu/reach
2.1.2	AISE SPERC 8a.1.a.v1, - ,http://www.aise.eu/reach
2.1.3	AISE SPERC 8a.1.a.v1, - ,http://www.aise.eu/reach
2.1.4	AISE SPERC 8a.1.a.v1, - ,http://www.aise.eu/reach
2.1.5	AISE SPERC 8a.1.a.v1, - ,http://www.aise.eu/reach
2.1.6	AISE SPERC 8a.1.a.v1, - ,http://www.aise.eu/reach
2.1.7	AISE SPERC 8a.1.a.v1, - ,http://www.aise.eu/reach
2.1.8	AISE SPERC 8a.1.a.v1, - ,http://www.aise.eu/reach

3.2. Environment

Information for contributing exposure scenario	
2.2	AISE SPERC 8a.1.a.v1, - ,http://www.aise.eu/reach

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

4. Guidance to Downstream User to evaluate whether he works inside the boundaries set by the ES

4.1. Health

Guidance - Health	Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels
Website	http://www.aise.eu/reach

4.2. Environment

Guidance - Environment	Predicted exposures are not expected to exeed the PNECs when the Risk Management Measures/Operational Conditions outlined in section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels
Website	http://www.aise.eu/reach

Additional good practice advice beyond the REACH CSA

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

1. Exposure scenario 19.0

Professional Use of Vehicle cleaning Products AISE P701.1, P701.2, P702.1, P702.2, P703.1, P703.2, P704.1, P704.2, P705.1, P705.2, P706.1, P706.2

ES Ref.: 19.0 ES Type: Worker

Use descriptors	SU22 PROC4, PROC8a, PROC10, PROC11 PC35 ERC8a
Processes, tasks, activities covered	Widespread use by professional workers (PW)

2. Operational conditions and risk management measures

2.2. Contributing scenario controlling environmental exposure (ERC8a)

	ERC8a	Widespread use of non-reactive processing aid (no inclusion into or onto article, indoor)
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Product characteristics

No additional information

Operational conditions		
Amounts used	Amounts used	36 T/year
Frequency and duration of use	Release times per year	365
Environmental factors not influenced by risk management	River flow rate	18000 m³/d
Other given operational conditions affecting environmental exposure	Release fraction to air from process (initial release prior to RMM):	0
	Release fraction to wastewater from process (initial release prior to RMM):	1
	Release fraction to soil from process (initial release prior to RMM):	0
	Fraction used at main source:	0,00075
	Fraction of EU tonnage used in region:	0,1

Risk Management Measures		
Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil	AISE SPERC 8a.1.a.v1	http://www.aise.eu/reach
Conditions and measures related to sewage treatment plant	Release to municipal sewage treatment plant :	2000 m³/d

2.1.1. Contributing scenario controlling worker exposure (PROC8a) (Car wash product. Semi-Automatic process;Car wash product. Spray and wipe manual process; Dewaxing product. Semi-Automatic process; Boat cleaner. Manual process; Boat cleaner. Spray and wipe manual process)

of substance or mixture (charging and discharging) at non-dedicated facilities	PROC8a
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Product characteristics No additional information

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

Operational conditions		
Frequency and duration of use	Exposure duration	30 min/day
Other given operational conditions affecting workers exposure	Indoor or outdoor use	

Risk Management Measures		
Conditions and measures related to personal	protective gloves	99 %
protection, hygiene and health evaluation	Breakthrough time (maximum wearing time)	15 min - 1 h

2.1.2. Contributing scenario controlling worker exposure (PROC4) (Car wash product. Semi-Automatic process; Dewaxing product. Semi-Automatic process)

PROC4	Chemical production where opportunity for exposure arises
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Product characteristics

No additional information

Operational conditions		
Frequency and duration of use	Exposure duration	480 min/day
Other given operational conditions affecting workers exposure	Outdoor use	

Risk Management Measures

No additional information

2.1.3. Contributing scenario controlling worker exposure (PROC11) (Car wash product. Spray and wipe manual process; Boat cleaner. Spray and wipe manual process)

PROC11	Non industrial spraying

Product characteristics

Concentration of substance in product 10 %

Operational conditions		
Frequency and duration of use	Exposure duration	480 min/day
Other given operational conditions affecting workers	Indoor or outdoor use	
exposure	Limit the substance in product to 10 %	

Risk Management Measures		
Conditions and measures related to personal protection, hygiene and health evaluation	Respiratory protection	90 %
	protective gloves	99 %
	Breakthrough time (maximum wearing time)	> 4 h

2.1.4. Contributing scenario controlling worker exposure (PROC10)

DD0040	D. H
PROC10	Roller application or brushing
	3

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

Product characteristics	
Concentration of substance in product	10 %

Operational conditions		
Frequency and duration of use	Exposure duration	480 min/day
Other given operational conditions affecting workers	Outdoor use	
exposure	Limit the substance in product to 10 %	

Risk Management Measures		
·	protective gloves	99 %
protection, hygiene and health evaluation	Breakthrough time (maximum wearing time)	> 4 h

3. Exposure estimation and reference to its source

3.1. Health

Information for contributing exposure scenario	
2.1.1	AISE SPERC 8a.1.a.v1, - ,http://www.aise.eu/reach
2.1.2	AISE SPERC 8a.1.a.v1, - ,http://www.aise.eu/reach
2.1.3	AISE SPERC 8a.1.a.v1, - ,http://www.aise.eu/reach
2.1.4	AISE SPERC 8a.1.a.v1, - ,http://www.aise.eu/reach

3.2. Environment

Information for contributing exposure scenar	io
2.2	AISE SPERC 8a.1.a.v1, - ,http://www.aise.eu/reach

4. Guidance to Downstream User to evaluate whether he works inside the boundaries set by the ES

4.1. Health

	Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels
Website	http://www.aise.eu/reach

4.2. Environment

Guidance - Environment	Predicted exposures are not expected to exeed the PNECs when the Risk Management Measures/Operational Conditions outlined in section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels
Website	http://www.aise.eu/reach

Additional good practice advice beyond the REACH CSA

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

1. Exposure scenario 20.0

Professional Use of Food beverage and pharmacos products **AISE P808.1, P808.2** ES Ref.: 20.0 ES Type: Worker

	SU22 PROC8a, PROC10 PC35 ERC8a
Processes, tasks, activities covered	Widespread use by professional workers (PW)

2. Operational conditions and risk management measures

2.2. Contributing scenario controlling environmental exposure (ERC8a)

ERC8a Widespread use of non-reactive processing aid (no inclusion into or onto article, indoor)

Product characteristics

No additional information

Operational conditions		
Amounts used	Amounts used	36 T/year
Frequency and duration of use	Release times per year	365
Environmental factors not influenced by risk management	River flow rate	18000 m³/d
Other given operational conditions affecting environmental exposure	Release fraction to air from process (initial release prior to RMM):	0
	Release fraction to wastewater from process (initial release prior to RMM):	1
	Release fraction to soil from process (initial release prior to RMM):	0
	Fraction used at main source:	0,00075
	Fraction of EU tonnage used in region:	0,1

Risk Management Measures		
Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil	AISE SPERC 8a.1.a.v1	http://www.aise.eu/reach
Conditions and measures related to sewage treatment plant	Release to municipal sewage treatment plant :	2000 m³/d

2.1.1. Contributing scenario controlling worker exposure (PROC8a) (Animal housing care. Manual process)

PROC8a Transfer of substance or mixture (charging and discharging) at non-dedicated facilities
--

Product characteristics

No additional information

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

Operational conditions		
Frequency and duration of use	Exposure duration	16 min/day
Other given operational conditions affecting workers exposure	Indoor use	

Risk Management Measures		
Conditions and measures related to personal	protective gloves	99 %
protection, hygiene and health evaluation	Breakthrough time (maximum wearing time)	4 h

2.1.2. Contributing scenario controlling worker exposure (PROC10)

PROC10 Roller application or brushing	PROC10	Roller application or brushing	
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Product characteristics	
Concentration of substance in product	10 %

Operational conditions		
Frequency and duration of use	Exposure duration	480 min/day
Other given operational conditions affecting workers	Outdoor use	
exposure	Limit the substance in product to 10 %	

Risk Management Measures		
Conditions and measures related to personal	protective gloves	99 %
protection, hygiene and health evaluation	Breakthrough time (maximum wearing time)	> 4 h

3. Exposure estimation and reference to its source

3.1. Health

Information for contributing exposure scenario	
2.1.1	AISE SPERC 8a.1.a.v1, - ,http://www.aise.eu/reach
2.1.2	AISE SPERC 8a.1.a.v1, - ,http://www.aise.eu/reach

3.2. Environment

Information for contributing exposure scenario	
2.2	AISE SPERC 8a.1.a.v1, - ,http://www.aise.eu/reach

4. Guidance to Downstream User to evaluate whether he works inside the boundaries set by the ES

4.1. Health

Guidance - Health	Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels
Website	http://www.aise.eu/reach

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

4.2. Environment		
Guidance - Environment	Predicted exposures are not expected to exeed the PNECs when the Risk Management Measures/Operational Conditions outlined in section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels	
Website	http://www.aise.eu/reach	

Additional good practice advice beyond the REACH CSA

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

1. Exposure scenario 21.0

Professional Use of Façade/surface cleaning products AISE P901.1, P901.2 (P902.1, P902.2)

ES Ref.: 21.0 ES Type: Worker

	SU22 PROC8a, PROC11 PC35 ERC8d
Processes, tasks, activities covered	Widespread use by professional workers (PW)

2. Operational conditions and risk management measures

2.2. Contributing scenario controlling environmental exposure (ERC8d)

ERC8d Widespread use of non-reactive processing aid (no inclusion into or onto article, outdoor)

Product characteristics

No additional information

Operational conditions	ional conditions		
Amounts used	Amounts used	36 T/year	
Frequency and duration of use	Release times per year	365	
Environmental factors not influenced by risk management	River flow rate	18000 m³/d	
Other given operational conditions affecting environmental exposure	Release fraction to air from process (initial release prior to RMM):	1	
	Release fraction to wastewater from process (initial release prior to RMM):	1	
	Release fraction to soil from process (initial release prior to RMM):	0,2	
	Fraction used at main source:	0,002	
	Fraction of EU tonnage used in region:	0,1	

Risk Management Measures		
Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil	AISE SPERC 8a.1.a.v1	http://www.aise.eu/reach
Conditions and measures related to sewage treatment plant	Release to municipal sewage treatment plant :	2000 m³/d

2.1.1. Contributing scenario controlling worker exposure (PROC8a) (Façade/surface cleaner. High pressure process; Façade/surface cleaner. Medium pressure process)

F	PROC8a	Transfer of substance or mixture (charging and discharging) at non-dedicated facilities
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Product characteristics

No additional information

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

Operational conditions		
Frequency and duration of use	Exposure duration	10 min/day
Other given operational conditions affecting workers exposure	Outdoor use	

Risk Management Measures		
· ·	protective gloves	99 %
protection, hygiene and health evaluation	Breakthrough time (maximum wearing time)	< 15 minutes

2.1.2. Contributing scenario controlling worker exposure (PROC11) (Façade/surface cleaner. Medium pressure process)

PROC11	Non industrial spraying
	, , ,

Product characteristics	
Concentration of substance in product	10 %

Operational conditions		
Frequency and duration of use	Exposure duration	480 min/day
Other given operational conditions affecting workers exposure	Outdoor use	
	Limit the substance in product to 10 %	

Risk Management Measures		
protection, hygiene and health evaluation	Respiratory protection	90 %
	protective gloves	99 %
	Breakthrough time (maximum wearing time)	< 15 minutes

3. Exposure estimation and reference to its source

3.1. Health

Information for contributing exposure scenario	
2.1.1	AISE SPERC 8a.1.a.v1, - ,http://www.aise.eu/reach
2.1.2	AISE SPERC 8a.1.a.v1, - ,http://www.aise.eu/reach

3.2. Environment

Information for contributing exposure scenario	
2.2	AISE SPERC 8a.1.a.v1, - ,http://www.aise.eu/reach

4. Guidance to Downstream User to evaluate whether he works inside the boundaries set by the ES

4.1. Health

	Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels
Website	http://www.aise.eu/reach

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

4.2. Environment		
Guidance - Environment	Predicted exposures are not expected to exeed the PNECs when the Risk Management Measures/Operational Conditions outlined in section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels	
Website	http://www.aise.eu/reach	

Additional good practice advice beyond the REACH CSA

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

1. Exposure scenario 22.0

Professional Use of Medical Devices AISE P1102.1, P1102.2, P1103.1, P1103.2, P1104.1, P1104.2 ES Ref.: 22.0

ES Type: Worker

Use descriptors	SU22 PROC8a, PROC10, PROC11, PROC13 PC35 ERC8a
Processes, tasks, activities covered	Widespread use by professional workers (PW)

2. Operational conditions and risk management measures

2.2. Contributing scenario controlling environmental exposure (ERC8d)

ERC8d Widespread use of non-reactive processing aid (no inclusion into or onto article, outdoor)

Product characteristics

No additional information

Operational conditions		
Amounts used	Amounts used	36 T/year
Frequency and duration of use	Release times per year	365
Environmental factors not influenced by risk management	River flow rate	18000 m³/d
Other given operational conditions affecting environmental exposure	Release fraction to air from process (initial release prior to RMM):	0
	Release fraction to wastewater from process (initial release prior to RMM):	1
	Release fraction to soil from process (initial release prior to RMM):	0
	Fraction used at main source:	0,00075
	Fraction of EU tonnage used in region:	0,1

Risk Management Measures		
Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil	AISE SPERC 8a.1.a.v1	http://www.aise.eu/reach
Conditions and measures related to sewage treatment plant	Release to municipal sewage treatment plant :	2000 m³/d

2.1.1. Contributing scenario controlling worker exposure (PROC8a) (Medical devices . Dipping process)

PROC8a Transfer of substance or mixture (charging and discharging) at non-dedicate
--

Product characteristics

No additional information

PROC10

Annex to the safety data sheet: Exposure scenario

Operational conditions		
Frequency and duration of use	Exposure duration	5 min/day
Other given operational conditions affecting workers exposure	Indoor use	
Risk Management Measures		
Technical conditions and measures to control dispersion from source towards the worker	Local exhaust ventilation	
Conditions and measures related to personal	protective gloves	99 %
protection, hygiene and health evaluation	Breakthrough time (maximum wearing time)	< 15 minutes
2.1.2. Contributing scenario controlling worke	er exposure (PROC13) (Medical devices . Dip	ping process)
PROC13	Treatment of articles by dipping and pouring	
Product characteristics		
Concentration of substance in product	10 %	
Operational conditions		
Frequency and duration of use	Exposure duration	150 min/day
Other given operational conditions affecting workers	Indoor use	100 militady
exposure		
Risk Management Measures		
Technical conditions and measures to control dispersion from source towards the worker	Local exhaust ventilation	
Conditions and measures related to personal	protective gloves	99 %
protection, hygiene and health evaluation	Breakthrough time (maximum wearing time)	1 - 4 h
2.1.3. Contributing scenario controlling worke	er exposure (PROC8a) (Medical devices . Ma	nual process)
PROC8a	C8a Transfer of substance or mixture (charging and discharging) at non-dedicated facilities	
Product characteristics		
No additional information		
Operational conditions		
Frequency and duration of use	Exposure duration	16 min/day
Other given operational conditions affecting workers exposure	Indoor use	
Risk Management Measures		
Conditions and measures related to personal	protective gloves	99 %
Conditions and measures related to personal protection, hygiene and health evaluation		

20/03/2024 (Revision date) EN (English) 96/179

Roller application or brushing

protection, hygiene and health evaluation

Annex to the safety data sheet: Exposure scenario CAS-No: 68603-42-9 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

Product characteristics		
	10 %	
Concentration of substance in product	10 %	
Operational conditions		
Frequency and duration of use	Exposure duration	480 min/day
Other given operational conditions affecting workers exposure	Indoor use	
	Limit the substance in product to 10 %	
Risk Management Measures		
Conditions and measures related to personal	protective gloves	99 %
protection, hygiene and health evaluation	Breakthrough time (maximum wearing time)	> 4 minutes
2.1.5. Contributing scenario controlling work	er exposure (PROC8a) (Medical devices . Spray	process)
PROC8a	Transfer of substance or mixture (charging and discha	rging) at non-dedicated facilities
Product characteristics		
No additional information		
Operational conditions		
Frequency and duration of use	Exposure duration	5 min/day
Other given operational conditions affecting workers exposure	Indoor use	
Risk Management Measures		
Technical conditions and measures to control dispersion from source towards the worker	Not applicable	
Conditions and measures related to personal	protective gloves	99 %
protection, hygiene and health evaluation	Breakthrough time (maximum wearing time)	> 4 h
2.1.6. Contributing scenario controlling worke	er exposure (PROC11) (Medical devices . Spray	process)
PROC11	Non industrial spraying	
Product characteristics		
No additional information		
Operational conditions		
Frequency and duration of use	Exposure duration	8 min/day
Other given operational conditions affecting workers exposure	Indoor use	awy
•		
Risk Management Measures		
Conditions and measures related to personal	protective gloves	99 %

20/03/2024 (Revision date)	FN (English)	97/179

Breakthrough time (maximum wearing time)

> 4 minutes

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

3. Exposure estimation and reference to its source

3.1. Health

Information for contributing exposure scenario	
2.1.1	AISE SPERC 8a.1.a.v1, - ,http://www.aise.eu/reach
2.1.2	AISE SPERC 8a.1.a.v1, - ,http://www.aise.eu/reach
2.1.3	AISE SPERC 8a.1.a.v1, - ,http://www.aise.eu/reach
2.1.4	AISE SPERC 8a.1.a.v1, - ,http://www.aise.eu/reach
2.1.5	AISE SPERC 8a.1.a.v1, - ,http://www.aise.eu/reach
2.1.6	AISE SPERC 8a.1.a.v1, - ,http://www.aise.eu/reach

3.2. Environment

Information for contributing exposure scenario	
2.2	AISE SPERC 8a.1.a.v1, - ,http://www.aise.eu/reach

4. Guidance to Downstream User to evaluate whether he works inside the boundaries set by the ES

4.1. Health

Guidance - Health	Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels
Website	http://www.aise.eu/reach

4.2. Environment

Guidance - Environment	Predicted exposures are not expected to exeed the PNECs when the Risk Management Measures/Operational Conditions outlined in section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels
Website	http://www.aise.eu/reach

Additional good practice advice beyond the REACH CSA

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

1. Exposure scenario 23.0

Laboratory Use AISE P1200	
ES Ref.: 23.0	
ES Type: Worker	

Use descriptors	SU22 PROC15 PC21 ERC8a
Processes, tasks, activities covered	Widespread use by professional workers (PW)

2. Operational conditions and risk management measures

2.2. Contributing scenario controlling environmental exposure (ERC8a)

Product characteristics

No additional information

Operational conditions		
Amounts used	Amounts used	36 T/year
Frequency and duration of use	Release times per year	365
Environmental factors not influenced by risk management	River flow rate	18000 m³/d
Other given operational conditions affecting environmental exposure	Release fraction to air from process (initial release prior to RMM):	0
	Release fraction to wastewater from process (initial release prior to RMM):	1
	Release fraction to soil from process (initial release prior to RMM):	0
	Fraction used at main source:	0,00075
	Fraction of EU tonnage used in region:	0,1

Risk Management Measures		
Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil	AISE SPERC 8a.1.a.v1	http://www.aise.eu/reach
Conditions and measures related to sewage treatment plant	Release to municipal sewage treatment plant :	2000 m³/d

2.1. Contributing scenario controlling worker exposure (PROC15) (Laboratory Reagents)

PROC15	Use as laboratory reagent

Product characteristics

No additional information

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

Operational conditions	erational conditions		
Frequency and duration of use	Exposure duration	15 min/day	
Other given operational conditions affecting workers exposure	Indoor use		

Risk Management Measures		
Technical conditions and measures to control dispersion from source towards the worker	Local exhaust ventilation	
Conditions and measures related to personal protection, hygiene and health evaluation	Not applicable	

3. Exposure estimation and reference to its source

3.1. Health

Information for contributing exposure scenario	
2.1	AISE SPERC 8a.1.a.v1, - ,http://www.aise.eu/reach

3.2. Environment

Information for contributing exposure scenario	
2.2	AISE SPERC 8a.1.a.v1, - ,http://www.aise.eu/reach

4. Guidance to Downstream User to evaluate whether he works inside the boundaries set by the ES

4.1. Health

	Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels
Website	http://www.aise.eu/reach

4.2. Environment

Guidance - Environment	Predicted exposures are not expected to exeed the PNECs when the Risk Management Measures/Operational Conditions outlined in section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels
Website	http://www.aise.eu/reach

Additional good practice advice beyond the REACH CSA

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

1. Exposure scenario 24.0

Professional Use of Hand Cleaners AISE P1300	
ES Ref.: 24.0 ES Type: Worker	

	SU22 PROC19 PC39 ERC8a
Processes, tasks, activities covered	Widespread use by professional workers (PW)

2. Operational conditions and risk management measures

2.2. Contributing scenario controlling environmental exposure (ERC8a)

ERC8a Widespread use of non-r	reactive processing aid (no inclusion into or onto article, indoor)
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Product characteristics

No additional information

Operational conditions		
Amounts used	Amounts used	36 T/year
Frequency and duration of use	Release times per year	365
Environmental factors not influenced by risk management	River flow rate	18000 m³/d
Other given operational conditions affecting environmental exposure	Release fraction to air from process (initial release prior to RMM):	0
	Release fraction to wastewater from process (initial release prior to RMM):	1
	Release fraction to soil from process (initial release prior to RMM):	0
	Fraction used at main source:	0,00075
	Fraction of EU tonnage used in region:	0,1

Risk Management Measures		
Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil	AISE SPERC 8a.1.a.v1	http://www.aise.eu/reach
Conditions and measures related to sewage treatment plant	Release to municipal sewage treatment plant :	2000 m³/d

2.1. Contributing scenario controlling worker exposure (PROC19)

PROC19	Manual activities involving hand contact

Product characteristics

No additional information

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

Operational conditions		
Frequency and duration of use	Exposure duration	40 min/day
Other given operational conditions affecting workers exposure	Indoor use	

Risk Management Measures		
Technical conditions and measures to control dispersion from source towards the worker	Not applicable	
Conditions and measures related to personal	Breakthrough time (maximum wearing time)	> 4 h
protection, hygiene and health evaluation	protective gloves	99 %

3. Exposure estimation and reference to its source

3.1. Health

Information for contributing exposure scenario	
2.1	AISE SPERC 8a.1.a.v1, - ,http://www.aise.eu/reach

3.2. Environment

Information for contributing exposure scenar	io
2.2	AISE SPERC 8a.1.a.v1, - ,http://www.aise.eu/reach

4. Guidance to Downstream User to evaluate whether he works inside the boundaries set by the ES

4.1. Health

Guidance - Health	Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels
Website	http://www.aise.eu/reach

4.2. Environment

	Predicted exposures are not expected to exeed the PNECs when the Risk Management Measures/Operational Conditions outlined in section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels
Website	http://www.aise.eu/reach

Additional good practice advice beyond the REACH CSA

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

1. Exposure scenario 25.0

Consumer use of washing and cleaning products AISE C9, C8.1, C7.1, C6, C5, C3.2, C3.1, C2, C15, C14, C13, C12, C11.1, C10.1, C1

ES Ref.: 25.0 ES Type: Consumer

Use descriptors	SU21 PC35 ERC8a
Processes, tasks, activities covered	Consumer use (C)

2. Operational conditions and risk management measures

2.2. Contributing scenario controlling environmental exposure (ERC8a)

ERC8a Widespread use of non-reactive processing aid (no inclusion into or onto article, indoor)

Product characteristics

No additional information

Operational conditions		
Amounts used	Amounts used	216 T/year
Frequency and duration of use	Release times per year	365 Day/Year
Environmental factors not influenced by risk management	River flow rate	18000 m³/d
Other given operational conditions affecting environmental exposure	Release fraction to air from process (initial release prior to RMM):	0
	Fraction of applied amount lost from process/use to waste water	1
	Release fraction to soil from process (initial release prior to RMM):	0
	Fraction used at main source:	0,00075
	Fraction of EU tonnage used in region:	0,1

Risk Management Measures

No additional information

2.1.1. Contributing scenario consumer end-use (PC35) (Water softeners (powder, liquids, Tabs) for consumer use)

PC35	Washing and cleaning products

Product characteristics 0,02 % Concentration of substance in product

Operational conditions		
Amounts used	Product ingredient fraction by weight :inhalation	0,02
	Amount used per application	10 g

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

CAS-NO 00003-42-9, 00133-07-7 (Telated CAS Hullibers) F1	7	
Operational conditions		
	Product ingredient fraction by weight :Dermal	0,02
Frequency and duration of use	Exposure frequency	
	Exposure duration	1 h
Human factors not influenced by risk management	Area of skin contact	Both hands
Other given operational conditions affecting consumers exposure	Room volume	20 m³
Risk Management Measures		
Conditions and measures related to personal protection, hygiene and health evaluation	Dilution for use application	75 %
2.1.2. Contributing scenario consumer end-u	se (PC35) (Toilet cleaners (powder, liquid, ge	el, tablet) for consumer use)
PC35	Washing and cleaning products	
Product characteristics		
Concentration of substance in product	0,05 %	
Operational conditions		
Amounts used	Amount used per application	10 g
	Product ingredient fraction by weight :Dermal	0,05
	Product ingredient fraction by weight :inhalation	0,05
Frequency and duration of use	Exposure frequency	
	Exposure duration	0,33 h
Human factors not influenced by risk management	Area of skin contact	Fingertips
Other given operational conditions affecting consumers exposure	Room volume	20 m ³
Risk Management Measures		
Conditions and measures related to personal protection, hygiene and health evaluation	Not applicable	
2.1.3. Contributing scenario consumer end-u consumer use)	se (PC35) (Surface cleaners (liquid, powder,	gel neat, spray neat) for
PC35	Washing and cleaning products	
Product characteristics		
Concentration of substance in product	0,02 %	
Operational conditions		
Amounts used	Amount used per application	10 g
	Product ingredient fraction by weight :Dermal	0,02
	Product ingredient fraction by weight :inhalation	0,02
Frequency and duration of use	Exposure frequency	
	Exposure duration	0,33 h
		I

Annex to the safety data sheet: Exposure scenario

CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Pr	CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid			
Operational conditions				
Human factors not influenced by risk management	Area of skin contact	Hands and forearms		
Other given operational conditions affecting consumers exposure	Room volume	20 m³		
Risk Management Measures				
Conditions and measures related to personal protection, hygiene and health evaluation	Dilution for use application	75 %		
2.1.4. Contributing scenario consumer end-u	se (PC35) (Machine dishwashing (powder, liqu	uid, tablet) for consumer use)		
PC35	Washing and cleaning products			
Product characteristics				
Concentration of substance in product	0,02 %			
Operational conditions				
Amounts used	Amount used per application	10 g		
	Product ingredient fraction by weight :Dermal	0,02		
	Product ingredient fraction by weight :inhalation	0,02		
Frequency and duration of use	Exposure frequency			
	Exposure duration	1 h		
Human factors not influenced by risk management	Area of skin contact	Both hands		
Other given operational conditions affecting consumers exposure	Room volume	20 m³		
Risk Management Measures				
Conditions and measures related to personal protection, hygiene and health evaluation	use of tabs or dosing aids	75 %		
2.1.5. Contributing scenario consumer end-ususe)	se (PC35) (Hand dishwasing (liquid regular, lic	quid concentrate) for consumer		
PC35	Washing and cleaning products			
Product characteristics				
Concentration of substance in product	0,02 %			
557d.io. G. Gabotanoo in product	0,000			
Operational conditions				
Amounts used	Amount used per application	10 g		
	Product ingredient fraction by weight :Dermal	0,02		
	Product ingredient fraction by weight :inhalation	0,02		
Frequency and duration of use	Exposure frequency			
	Exposure duration	1 h		
Human factors not influenced by risk management	Area of skin contact	Hands and forearms		
Other given operational conditions affecting consumers exposure	Room volume	20 m³		

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

DAS-No.: 00003-42-9, 00133-07-7 (telated CAS numbers) Froduct form. Substance Frigsical state. Elquid				
Dilution for use application	75 %			
2.1.6. Contributing scenario consumer end-use (PC35) (Laundry additives (powder bleach, liquid bleach, tablet) for consumer use)				
PC35 Washing and cleaning products				
0,02 %				
	30 g			
Product ingredient fraction by weight :Dermal	0,02			
Product ingredient fraction by weight :inhalation	0,02			
Exposure frequency				
Exposure duration	1 h			
Area of skin contact	Hands and forearms			
Room volume	20 m³			
Risk Management Measures Conditions and measures related to personal protection, hygiene and health evaluation To %				
use (PC35) (Fabric conditioners (liquid regular	r, liquid concentrate) for			
Washing and cleaning products				
0,02 %				
Amount used per application	50 g			
, ,	0,02			
	0,02			
Exposure duration	1 h			
Area of skin contact	Hands and forearms			
Room volume	20 m³			
Risk Management Measures				
	Dilution for use application Juse (PC35) (Laundry additives (powder bleach Washing and cleaning products O,02 % Amount used per application Product ingredient fraction by weight :Dermal Product ingredient fraction by weight :inhalation Exposure frequency Exposure duration Area of skin contact Room volume Juse (PC35) (Fabric conditioners (liquid regular Washing and cleaning products O,02 % Amount used per application Product ingredient fraction by weight :Dermal Product ingredient fraction by weight :inhalation Exposure frequency Exposure duration Area of skin contact			

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

2	-1	Ω	Contributing	i scenario consul	mar and-usa	(DC35) (Autom	otivo Caro (er	vey liquid))
74		О.	Continuating	Scenaro consu	illei ellu-use	TE COOTTAGLOTTI	Juve Gale Ist	nav. Huulun

PC35	Washing and cleaning products

Product characteristics	
Concentration of substance in product	0,02 %

Operational conditions			
Amounts used	Amount used per application	30 g	
	Product ingredient fraction by weight :Dermal	0,02	
	Product ingredient fraction by weight :inhalation	0,02	
Frequency and duration of use	Exposure frequency		
	Exposure duration	0,33 h	
Human factors not influenced by risk management	Area of skin contact	Hands and forearms	
Other given operational conditions affecting consumers exposure	Room volume	20 m³	

Risk Management Measures		
Conditions and measures related to personal protection, hygiene and health evaluation	Dilution for use application	75 %

2.1.9. Contributing scenario consumer end-use (PC35) (High Pressure washers/cleaners)

C35	Washing and cleaning products
-----	-------------------------------

Product characteristics	
Physical form of product	Aerosol
Concentration of substance in product	0,02 %

Operational conditions			
Amounts used	Amount used per application	30 g	
	Product ingredient fraction by weight :Dermal	0,02	
	Product ingredient fraction by weight :inhalation	0,02	
Frequency and duration of use	Exposure frequency		
	Exposure duration	0,33 h	
Human factors not influenced by risk management	Area of skin contact	Hands and forearms	
Other given operational conditions affecting consumers exposure	Room volume	20 m³	

Risk Management Measures		
Conditions and measures related to personal protection, hygiene and health evaluation	Dilution for use application	75 %

2.1.10. Contributing scenario consumer end-use (PC35) (Laundry compact (powder, liquid/gel, tablet) for consumer use)

PC35	Washing and cleaning products
F 655	washing and cleaning products

Operational conditions

Amounts used

Exomide V Annex to the safety data sheet: Ex

Product characteristics Concentration of substance in product Concentration Conditions Conditi	Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid				
Operational conditions Amounts used	Product characteristics				
Amounts used Amounts used per application 100 g Product ingredient fraction by weight :Dermal 0,02 Product ingredient fraction by weight :inhalation 0,02 Product ingredient fraction by weight :inhalation 0,02 Exposure duration 1 h Human factors not influenced by risk management Area of skin contact Both hands Other given operational conditions affecting Room volume 20 m² Risk Management Measures Conditions and measures related to personal protection, hygiene and health evaluation 75 % Product characteristics Concentration of substance in product 0,02 % Product characteristics Concentration of substance in product 0,02 % Product ingredient fraction by weight :Dermal 0,02 Product ingredient fraction by weight :Derma	Concentration of substance in product	0,02 %			
Amounts used Amounts used per application 100 g Product ingredient fraction by weight :Dermal 0,02 Product ingredient fraction by weight :inhalation 0,02 Product ingredient fraction by weight :inhalation 0,02 Exposure duration 1 h Human factors not influenced by risk management Area of skin contact Both hands Other given operational conditions affecting Room volume 20 m² Risk Management Measures Conditions and measures related to personal protection, hygiene and health evaluation 75 % Product characteristics Concentration of substance in product 0,02 % Product characteristics Concentration of substance in product 0,02 % Product ingredient fraction by weight :Dermal 0,02 Product ingredient fraction by weight :Derma					
Product ingredient fraction by weight :Dermal 0.02 Product ingredient fraction by weight :Inhalation 0.02 Product ingredient fraction by weight :Inhalation 0.02 Exposure frequency Exposure frequency Exposure frequency Exposure duration 1 1 h Human factors not influenced by risk management Area of skin contact Both hands Other given operational conditions affecting consumers exposure **Product sand measures related to personal protection, hygiene and health evaluation **Product characteristics** Concentration of substance in product **Product characteristics** Concentration of substance in product **Product ingredient fraction by weight :Inhalation 0.02 Product ingredient fraction by weight :Inhalation 0.02 **Frequency and duration of use Exposure duration by weight :Inhalation 0.02 **Frequency and duration of use frequency 0.02 management 0.03 management 0	Operational conditions				
Product ingredient fraction by weight :inhalation 0,02	Amounts used		100 g		
Frequency and duration of use Exposure frequency Exposure duration In h Human factors not influenced by risk management Area of skin contact Both hands Other given operational conditions affecting consumers exposure Exposure duration Dilution for use application To % Product characteristics Concentration of substance in product O,02 % Dilution for use application To % Product characteristics Concentration of substance in product O,02 % Dilution for use application To washing and cleaning products Product characteristics Concentration of substance in product O,02 % Department of substance in product O,02 % Product ingredient fraction by weight :Dermal O,02 Product ingredient fraction by weight :Inhalation O,02 Frequency and duration of use Exposure duration Exposure frequency Exposure duration Other given operational conditions affecting Consumers exposure Risk Management Measures Conditions and measures related to personal profucts Product ingredient fraction by weight :Inhalation Other given operational conditions affecting Consumers exposure Not applicable Product ingredient fraction by weight :Inhalation O,02 Exposure duration O,03 in h Human factors not influenced by risk management Area of skin contact Both hands Other given operational conditions affecting Consumers exposure Not applicable Product ingredient fraction by weight :Inhalation Other given operational conditions affecting Consumers exposure Not applicable Product ingredient fraction by weight :Inhalation Other given operational conditions affecting Consisting and measures related to personal profuction, hygiene and health evaluation Not applicable Product characteristics		Product ingredient fraction by weight :Dermal	0,02		
Exposure duration 1 h		Product ingredient fraction by weight :inhalation	0,02		
Human factors not influenced by risk management Area of skin contact Both hands Other given operational conditions affecting consumers exposure Risk Management Measures Conditions and measures related to personal protection, hygiene and health evaluation Dilution for use application protection, hygiene and health evaluation Dilution for use application protection, hygiene and health evaluation Product characteristics Concentration of substance in product Operational conditions Amounts used Amount used per application Product ingredient fraction by weight: Dermal Product ingredient fraction by weight: inhalation Product ingredient fraction by weight: inhalation Outper given operational conditions affecting Consumers exposure Risk Management Measures Conditions and measures related to personal protection, hygiene and health evaluation Not applicable Product characteristics Not applicable Product characteristics Vashing and cleaning products Product ingredient protection by weight: inhalation Outper given operational conditions affecting Consumers exposure Risk Management Measures Conditions and measures related to personal protection, hygiene and health evaluation Not applicable Product characteristics Vashing and cleaning products Product characteristics	Frequency and duration of use	Exposure frequency			
Other given operational conditions affecting consumers exposure Risk Management Measures Conditions and measures related to personal protection, hygiene and health evaluation 2.1.11. Contributing scenario consumer end-use (PC35) (Wipes (bathroom, kitchen, floor) for consumer use) PC35 Washing and cleaning products Product characteristics Concentration of substance in product Operational conditions Amounts used Amount used per application Product ingredient fraction by weight: Dermal Product ingredient fraction by weight: inhalation Product ingredient fraction by weight: inhalation Output Exposure duration Other given operational conditions affecting Consumers exposure Risk Management Measures Conditions and measures related to personal Product ingredient fraction by weight: inhalation Other given operational conditions affecting Consumers exposure Risk Management Measures Conditions and measures related to personal Profuction, hygiene and health evaluation Not applicable PC35 Washing and cleaning products Product characteristics		Exposure duration	1 h		
consumers exposure Risk Management Measures Conditions and measures related to personal protection, hygiene and health evaluation Dilution for use application 75 %	Human factors not influenced by risk management	Area of skin contact	Both hands		
Conditions and measures related to personal protection, hygiene and health evaluation 2.1.11. Contributing scenario consumer end-use (PC35) (Wipes (bathroom, kitchen, floor) for consumer use) PC35 Washing and cleaning products Product characteristics Concentration of substance in product O.02 % Operational conditions Amounts used Amount used per application Product ingredient fraction by weight :Dermal Product ingredient fraction by weight :Inhalation Product ingredient fraction by		Room volume	20 m ³		
Product characteristics Concentration of substance in product Amounts used Product ingredient fraction by weight :inhalation Product on so influenced by risk management Acrea of skin contact Other given operational conditions affecting consumers exposure Risk Management Measures Conditions and measures related to personal protection, hygiene and health evaluation Product characteristics Amounts used Amount used per application Product ingredient fraction by weight :Dermal Product ingredient fraction by weight :inhalation Product ingredient fraction by weight :nhalation Product ingredient fraction by weight :Dermal Product characteristics Area of skin contact Both hands Other given operational conditions affecting Room volume 20 m³ Product characteristics PC35 Washing and cleaning products Product characteristics	Risk Management Measures				
Product characteristics Concentration of substance in product 0.02 % Product ingredient fraction by weight :Dermal 0.02		Dilution for use application	75 %		
Product characteristics Concentration of substance in product 0,02 % Operational conditions Amounts used Amounts used Product ingredient fraction by weight :Dermal 0,02 Product ingredient fraction by weight :nhalation 0,03 In Product ingredient fraction by weight :nhalation 0,02 In Product ingredient fraction by weight :nhalation 0,03 In	2.1.11. Contributing scenario consumer end-	use (PC35) (Wipes (bathroom, kitchen, floor) fo	or consumer use)		
Concentration of substance in product 0,02 % Operational conditions	PC35	Washing and cleaning products			
Amounts used Amount used per application 1 g Product ingredient fraction by weight: Dermal 0,02 Product ingredient fraction by weight: inhalation 0,02 Product ingredient fraction 0,02 Product ingredient fraction 0,02 Product ingredient fraction 0,02	Product characteristics				
Amounts used Amount used per application 1 g Product ingredient fraction by weight :Dermal 0,02 Product ingredient fraction by weight :inhalation 0,02 Frequency and duration of use Exposure frequency Exposure duration 0,33 h Human factors not influenced by risk management Area of skin contact Both hands Other given operational conditions affecting consumers exposure Room volume 20 m³ Risk Management Measures Conditions and measures related to personal protection, hygiene and health evaluation Not applicable 2.1.12. Contributing scenario consumer end-use (PC35) (Descalers) Product characteristics	Concentration of substance in product	0,02 %			
Amounts used Amount used per application 1 g Product ingredient fraction by weight :Dermal 0,02 Product ingredient fraction by weight :inhalation 0,02 Frequency and duration of use Exposure frequency Exposure duration 0,33 h Human factors not influenced by risk management Area of skin contact Both hands Other given operational conditions affecting consumers exposure Room volume 20 m³ Risk Management Measures Conditions and measures related to personal protection, hygiene and health evaluation Not applicable 2.1.12. Contributing scenario consumer end-use (PC35) (Descalers) Product characteristics	Operational conditions				
Product ingredient fraction by weight :inhalation 0,02 Frequency and duration of use Exposure frequency Exposure duration 0,33 h Human factors not influenced by risk management Area of skin contact Both hands Other given operational conditions affecting consumers exposure Risk Management Measures Conditions and measures related to personal protection, hygiene and health evaluation Not applicable 2.1.12. Contributing scenario consumer end-use (PC35) (Descalers) PC35 Washing and cleaning products		Amount used per application	1 g		
Frequency and duration of use Exposure frequency Exposure duration O,33 h Human factors not influenced by risk management Other given operational conditions affecting consumers exposure Room volume 20 m³ Risk Management Measures Conditions and measures related to personal protection, hygiene and health evaluation Not applicable 2.1.12. Contributing scenario consumer end-use (PC35) (Descalers) PC35 Washing and cleaning products		Product ingredient fraction by weight :Dermal	0,02		
Exposure duration 0,33 h Human factors not influenced by risk management Area of skin contact Both hands Other given operational conditions affecting consumers exposure Room volume 20 m³ Risk Management Measures Conditions and measures related to personal protection, hygiene and health evaluation Not applicable 2.1.12. Contributing scenario consumer end-use (PC35) (Descalers) PC35 Washing and cleaning products		Product ingredient fraction by weight :inhalation	0,02		
Human factors not influenced by risk management Other given operational conditions affecting consumers exposure Risk Management Measures Conditions and measures related to personal protection, hygiene and health evaluation Not applicable 2.1.12. Contributing scenario consumer end-use (PC35) (Descalers) Product characteristics	Frequency and duration of use	Exposure frequency			
Other given operational conditions affecting consumers exposure Risk Management Measures Conditions and measures related to personal protection, hygiene and health evaluation Not applicable 20 m³ Not applicable 2.1.12. Contributing scenario consumer end-use (PC35) (Descalers) PC35 Washing and cleaning products Product characteristics		Exposure duration	0,33 h		
Risk Management Measures Conditions and measures related to personal protection, hygiene and health evaluation Not applicable 2.1.12. Contributing scenario consumer end-use (PC35) (Descalers) PC35 Washing and cleaning products Product characteristics	Human factors not influenced by risk management	Area of skin contact	Both hands		
Conditions and measures related to personal protection, hygiene and health evaluation 2.1.12. Contributing scenario consumer end-use (PC35) (Descalers) PC35 Washing and cleaning products Product characteristics		Room volume	20 m ³		
Conditions and measures related to personal protection, hygiene and health evaluation 2.1.12. Contributing scenario consumer end-use (PC35) (Descalers) PC35 Washing and cleaning products Product characteristics	Risk Management Measures				
protection, hygiene and health evaluation 2.1.12. Contributing scenario consumer end-use (PC35) (Descalers) PC35 Washing and cleaning products Product characteristics	_	Not applicable			
PC35 Washing and cleaning products Product characteristics	·	, [
Product characteristics	2.1.12. Contributing scenario consumer end-	use (PC35) (Descalers)			
	PC35	Washing and cleaning products			
Concentration of substance in product 0,02 %	Product characteristics				
	Concentration of substance in product	0,02 %			

20/03/2024 (Revision date)	EN (English)	108/179

10 g

Amount used per application

Frequency and duration of use

Annex to the safety data sheet: Exposure scenario

Operational conditions			
	Product ingredient fraction by weight :Dermal	0,02	
	Product ingredient fraction by weight :inhalation	0,02	
Frequency and duration of use	Exposure frequency	0,02	
Trequency and adiation of asc		4 h	
Liver on factors and influenced by violation of the	Exposure duration		
Human factors not influenced by risk management	Area of skin contact	Fingertips	
Other given operational conditions affecting consumers exposure	Room volume	20 m ³	
Risk Management Measures			
Conditions and measures related to personal protection, hygiene and health evaluation	Not applicable		
2.1.13. Contributing scenario consumer end-	use (PC35) (DRAIN PRODUCTS (powder, gel, li	quid))	
PC35	Washing and cleaning products		
Product characteristics			
Concentration of substance in product	0,02 %		
Concentration of Substance in product	0,02 /0		
Operational conditions			
Amounts used	Amount used per application	10 g	
	Product ingredient fraction by weight :Dermal	0,02	
	Product ingredient fraction by weight :inhalation	0,02	
Frequency and duration of use	Exposure frequency		
	Exposure duration	4 h	
Human factors not influenced by risk management	Area of skin contact	Fingertips	
Other given operational conditions affecting consumers exposure	Room volume	20 m³	
Risk Management Measures			
Conditions and measures related to personal protection, hygiene and health evaluation	Not applicable		
2.1.14. Contributing scenario consumer end- consumer use)	use (PC35) (Laundry aids (ironing aids-starch s	spray, ironing aids-other) for	
PC35	Washing and cleaning products		
Product characteristics			
Concentration of substance in product	0,01 %		
Operational conditions			
Amounts used	Amount used per application	50 g	
	Product ingredient fraction by weight :Dermal	0,01	
	Product ingredient fraction by weight :inhalation	0,01	
	Product ingredient fraction by weight :inhalation	0,01	

Exposure frequency

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid		
Operational conditions		
Exposure duration		
Area of skin contact	Hands and forearms	
Room volume	20 m³	
Not applicable		
se (PC35) (Carpet cleaners (spray, liquid) for c	consumer use)	
Washing and cleaning products		
0,02 %		
<u>'</u>		
Amount used per application	100 g	
Product ingredient fraction by weight :Dermal	0,02	
Product ingredient fraction by weight :inhalation	0,02	
Exposure frequency		
Exposure duration	0,33 h	
Area of skin contact	Hands and forearms	
Room volume	20 m³	
Not applicable		
sse (PC35) (Oven cleaners (spray, trigger) for c	onsumer use)	
Washing and cleaning products		
0,02 %		
I		
Amount used per application	10 g	
Product ingredient fraction by weight :Dermal	0,02	
Product ingredient fraction by weight :inhalation	0,02	
Exposure frequency		
Exposure duration	0,33 h	
Iman factors not influenced by risk management Area of skin contact Hands and forearms		
Room volume	20 m³	
	Area of skin contact Room volume Not applicable se (PC35) (Carpet cleaners (spray, liquid) for company of the	

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

Risk Management Measures		
protection, hygiene and health evaluation	Not applicable	
2.1.17. Contributing scenario consumer end-use (PC35) (Laundry regular (powder, liquid) for consumer use)		
PC35	Washing and cleaning products	
Product characteristics		
Concentration of substance in product	0,02 %	
Operational conditions		
Amounts used	Amount used per application	100 g
	Product ingredient fraction by weight :Dermal	0,02
	Product ingredient fraction by weight :inhalation	0,02
Frequency and duration of use	Exposure frequency	
	Exposure duration	1 h
Human factors not influenced by risk management	Area of skin contact	Both hands
Other given operational conditions affecting consumers exposure	Room volume	20 m³
Risk Management Measures		
Conditions and measures related to personal protection, hygiene and health evaluation	use of tabs or dosing aids	75 %
3. Exposure estimation and reference to	its source	
3.1. Health		
No available data		
3.2. Environment		
Information for contributing exposure scena	rio	
2.2	AISE SPERC 8a.1.a.v1, - ,http://www.aise.eu/reach	1
	1	
4. Guidance to Downstream User to eval	uate whether he works inside the bounda	ries set by the ES
4.1. Health		
Guidance - Health	Predicted exposures are not expected to exceed the applicable consumer reference values when the operational conditions/risk management measures given in section 2 are implemented	
Website	http://www.aise.eu/reach	
4.2. Environment		
Guidance - Environment Predicted exposures are not expected to exeed the PNECs when the Risk Management Measures/Operational Conditions outlined in section 2 are implemented. Where other Ri Management Measures/Operational Conditions are adopted, then users should ensure		

that risks are managed to at least equivalent levels

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

Website http://www.aise.eu/reach

Additional good practice advice beyond the REACH CSA

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

1. Exposure scenario 26.0

Consumer use of washing and cleaning products (Reactive) AISE C8.4, C8.3, C4 ES Ref.: 26.0 ES Type: Consumer

Use descriptors	SU21 PC35 ERC8b
Processes, tasks, activities covered	Consumer use (C)

2. Operational conditions and risk management measures

2.2. Contributing scenario controlling environmental exposure (ERC8a)

ERC8a Widespread use of non-reactive processing aid (no inclusion into or onto article, indoor)

Product characteristics

No additional information

Operational conditions		
Amounts used	Amounts used	216 T/year
Frequency and duration of use	Release times per year	365 Day/Year
Environmental factors not influenced by risk management	River flow rate	18000 m³/d
Other given operational conditions affecting environmental exposure	Release fraction to air from process (initial release prior to RMM):	0
	Fraction of applied amount lost from process/use to waste water	1
	Release fraction to soil from process (initial release prior to RMM):	0
	Fraction used at main source:	0,00075
	Fraction of EU tonnage used in region:	0,1

Risk Management Measures

No additional information

2.1.1. Contributing scenario consumer end-use (PC35) (Toilet cleaners (powder, liquid, gel, tablet) for consumer use)

PC35	Washing and cleaning products

Product characteristics 0,05 % Concentration of substance in product

Operational conditions		
Amounts used	Amount used per application	10 g
	Product ingredient fraction by weight :Dermal	0,05
	Product ingredient fraction by weight :inhalation	0,05

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

Operational conditions		
Frequency and duration of use	Exposure frequency	
	Exposure duration	0,33 - 4 h
Human factors not influenced by risk management	Area of skin contact	Both hands
Other given operational conditions affecting consumers exposure	Room volume	20 m³

Risk Management Measures		
Conditions and measures related to personal protection, hygiene and health evaluation	Not applicable	

2.1.2. Contributing scenario consumer end-use (PC35) (Laundry additives (powder bleach, liquid bleach, tablet) for consumer use)

5 Washing and cleaning	products
------------------------	----------

Product characteristics	
Concentration of substance in product	0,02 %

Operational conditions		
Amounts used	Amount used per application	30 g
	Product ingredient fraction by weight :Dermal	0,02
	Product ingredient fraction by weight :inhalation	0,02
Frequency and duration of use	Exposure frequency	
	Exposure duration	1 h
Human factors not influenced by risk management	Area of skin contact	Hands and forearms
Other given operational conditions affecting consumers exposure	Room volume	20 m³

Risk Management Measures		
Conditions and measures related to personal protection, hygiene and health evaluation	use of tabs or dosing aids	75 %

3. Exposure estimation and reference to its source

3.1. Health

No available data

3.2. Environment

Information for contributing exposure scenario	
2.2	AISE SPERC 8a.1.a.v1, - ,http://www.aise.eu/reach

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

4. Guidance to Downstream User to evaluate whether he works inside the boundaries set by the ES

4.1. Health

	Predicted exposures are not expected to exceed the applicable consumer reference values when the operational conditions/risk management measures given in section 2 are implemented
Website	http://www.aise.eu/reach

4.2. Environment

	Predicted exposures are not expected to exeed the PNECs when the Risk Management Measures/Operational Conditions outlined in section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels
Website	http://www.aise.eu/reach

Additional good practice advice beyond the REACH CSA

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

1. Exposure scenario 27.0

Consumer use of washing and cleaning products (Sprays) AISE C8.2, C7.2, C22.2, C16, C11.2, C10.2 ES Ref.: 27.0 ES Type: Consumer

Use descriptors	SU21 PC35 ERC8a
Processes, tasks, activities covered	Consumer use (C)

2. Operational conditions and risk management measures

2.2. Contributing scenario controlling environmental exposure (ERC8a)

ERC8a Widespread use of non-reactive processing aid (no inclusion into or onto article, indoor)

Product characteristics

No additional information

Operational conditions		
Amounts used	Amounts used	216 T/year
Frequency and duration of use	Release times per year	365 Day/Year
Environmental factors not influenced by risk management	River flow rate	18000 m³/d
Other given operational conditions affecting environmental exposure	Release fraction to air from process (initial release prior to RMM):	0
	Fraction of applied amount lost from process/use to waste water	1
	Release fraction to soil from process (initial release prior to RMM):	0
	Fraction used at main source:	0,00075
	Fraction of EU tonnage used in region:	0,1

Risk Management Measures

No additional information

PC35

2.1.1. Contributing scenario consumer end-use (PC35) (Toilet cleaners (powder, liquid, gel, tablet) for consumer use)

Washing and cleaning products

Product characteristics	
Physical form of product	Aerosol, spray
Concentration of substance in product	0,05 %

Operational conditions		
Amounts used Amount used per application 10 g		10 g
	Product ingredient fraction by weight :Dermal	0,05

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

Operational conditions		
	Product ingredient fraction by weight :inhalation	0,05
Frequency and duration of use	Exposure frequency	
	Exposure duration	4 h
Human factors not influenced by risk management	Area of skin contact	Both hands
Other given operational conditions affecting	Room volume	20 m³
consumers exposure	spray application	
Risk Management Measures		
Conditions and measures related to personal protection, hygiene and health evaluation	Not applicable	
2.1.2. Contributing scenario consumer end-u consumer use)	se (PC35) (Surface cleaners (liquid, powder, ç	gel neat, spray neat) for
PC35	Washing and cleaning products	
Product characteristics		
Physical form of product	Aerosol, spray	
Concentration of substance in product	0.01.9/	

Product characteristics		
Physical form of product	Aerosol, spray	
Concentration of substance in product	0,01 %	
Operational conditions		

Operational conditions		
Amounts used	Amount used per application	10 g
	Product ingredient fraction by weight :Dermal	0,01
	Product ingredient fraction by weight :inhalation	0,01
Frequency and duration of use	Exposure frequency	
	Exposure duration	4 h
Human factors not influenced by risk management	Area of skin contact	Hands and forearms
Other given operational conditions affecting consumers exposure	Room volume	20 m³
	spray application	

Risk Management Measures		
Conditions and measures related to personal protection, hygiene and health evaluation	Not applicable	

2.1.3. Contributing scenario consumer end-use (PC35) (Automotive Care (spray, liquid))

PC35 Washing and cleaning products

Product characteristics	
Physical form of product	Aerosol, spray
Concentration of substance in product	0,02 %

Operational conditions		
Amounts used	Amount used per application	30 g
	Product ingredient fraction by weight :Dermal	0,02

consumers exposure

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

DAS-ING.: 00003-42-9, 00155-07-7 (Telated CAS numbers) PI	,		
Operational conditions			
	Product ingredient fraction by weight :inhalation	0,02	
Frequency and duration of use	Exposure frequency		
	Exposure duration	4 h	
Human factors not influenced by risk management	Area of skin contact	Hands and forearms	
Other given operational conditions affecting	spray application		
consumers exposure	Room volume	20 m³	
Risk Management Measures			
Conditions and measures related to personal protection, hygiene and health evaluation	Not applicable		
2.1.4. Contributing scenario consumer end-use (PC35) (Wipes (bathroom, kitchen, floor) for consumer use) PC35 Washing and cleaning products			
washing and dearing products			
Product characteristics			
Physical form of product Aerosol, spray			
Concentration of substance in product 0,02 %			
Operational conditions			
Amounts used	Amount used per application	1 g	
	Product ingredient fraction by weight :Dermal	0,02	
	Product ingredient fraction by weight :inhalation	0,02	
Frequency and duration of use	Exposure frequency		
	Exposure duration	4 h	
Human factors not influenced by risk management	Area of skin contact	Both hands	
Other given operational conditions affecting	Room volume	20 m³	

Risk Management Measures		
Conditions and measures related to personal protection, hygiene and health evaluation	Not applicable	

2.1.5. Contributing scenario consumer end-use (PC35) (Carpet cleaners (spray, liquid) for consumer use)

spray application

PC35	Washing and cleaning products

Product characteristics	
Physical form of product	Aerosol, spray
Concentration of substance in product	0,02 %

Operational conditions		
Amounts used	Amount used per application	100 g
	Product ingredient fraction by weight :Dermal	0,02
	Product ingredient fraction by weight :inhalation	0,02

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

Operational conditions		
Frequency and duration of use	Exposure frequency	
	Exposure duration	4 h
Human factors not influenced by risk management	Area of skin contact	Hands and forearms
Other given operational conditions affecting consumers exposure	Room volume	20 m³
	spray application	

Risk Management Measures		
Conditions and measures related to personal protection, hygiene and health evaluation	Not applicable	

2.1.6. Contributing scenario consumer end-use (PC35) (Oven cleaners (spray, trigger) for consumer use)

PC35 Washing and cleaning products

Product characteristics	
Physical form of product	Aerosol, spray
Concentration of substance in product	0,02 %

Operational conditions		
	Amount used per application	10 g
	Product ingredient fraction by weight :Dermal	0,02
	Product ingredient fraction by weight :inhalation	0,02
Frequency and duration of use	Exposure frequency	
	Exposure duration	4 h
Human factors not influenced by risk management	Area of skin contact	Hands and forearms
Other given operational conditions affecting consumers exposure	spray application	
	Room volume	20 m³

Risk Management Measures		
Conditions and measures related to personal protection, hygiene and health evaluation	Not applicable	

3. Exposure estimation and reference to its source

3.1. Health

No available data

3.2. Environment

Information for contributing exposure scenario	
2.2	AISE SPERC 8a.1.a.v1, - ,http://www.aise.eu/reach

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

4. Guidance to Downstream User to evaluate whether he works inside the boundaries set by the ES

4.1. Health

Guidance - Health	Predicted exposures are not expected to exceed the applicable consumer reference values when the operational conditions/risk management measures given in section 2 are implemented
Website	http://www.aise.eu/reach

4.2. Environment

	Predicted exposures are not expected to exeed the PNECs when the Risk Management Measures/Operational Conditions outlined in section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels
Website	http://www.aise.eu/reach

Additional good practice advice beyond the REACH CSA

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

1. Exposure scenario 28.0

Consumer use of air freshener products AISE C18, C17	
ES Ref.: 28.0 ES Type: Consumer	

Use descriptors	SU21 PC3 ERC8a
Processes, tasks, activities covered	Consumer use (C)

2. Operational conditions and risk management measures

2.2. Contributing scenario controlling environmental exposure (ERC8a)

Product characteristics

No additional information

Operational conditions		
Amounts used	Amounts used	216 T/year
Frequency and duration of use	Release times per year	365 Day/Year
Environmental factors not influenced by risk management	River flow rate	18000 m³/d
Other given operational conditions affecting environmental exposure	Release fraction to air from process (initial release prior to RMM):	0
	Fraction of applied amount lost from process/use to waste water	1
	Release fraction to soil from process (initial release prior to RMM):	0
	Fraction used at main source:	0,00075
	Fraction of EU tonnage used in region:	0,1

Risk Management Measures

No additional information

2.1.1. Contributing scenario consumer end-use (PC35) (Air fresheners non-aerosol (timed-release aerosols, perfume in/on solid substarte (gel), candles, diffusers (heated)) for consumer use)

PC35	Washing and cleaning products	
Product characteristics		
Concentration of substance in product	0,02 %	

Operational conditions		
Amounts used	Amount used per application	50 g
	Product ingredient fraction by weight :Dermal	0,02

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

Operational conditions		
	Product ingredient fraction by weight :inhalation	0,02
Frequency and duration of use	Exposure frequency	
	Exposure duration	8 h
Human factors not influenced by risk management	Area of skin contact	Fingertips
Other given operational conditions affecting consumers exposure	Room volume	20 m³
	spray application	

sk Management Measures		
Conditions and measures related to personal protection, hygiene and health evaluation	Not applicable	

2.1.2. Contributing scenario consumer end-use (PC35) (Air fresheners aerosols (aqueous, non aqueous, concentrated (mini-aerosol)) for consumer use)

35	Washing and cleaning products
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Product characteristics	
Physical form of product	Aerosol, spray
Concentration of substance in product	0,02 %

Operational conditions		
Amounts used	Amount used per application	5 g
	Product ingredient fraction by weight :Dermal	0,02
	Product ingredient fraction by weight :inhalation	0,02
Frequency and duration of use	Exposure frequency	
	Exposure duration	0,25 h
Human factors not influenced by risk management	Not applicable	
Other given operational conditions affecting consumers exposure	Room volume	20 m³

Risk Management Measures		
Conditions and measures related to personal protection, hygiene and health evaluation	Not applicable	

3. Exposure estimation and reference to its source

3.1. Health

No available data

3.2. Environment

Information for contributing exposure scenario	
2.2	AISE SPERC 8a.1.a.v1, - ,http://www.aise.eu/reach

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

4. Guidance to Downstream User to evaluate whether he works inside the boundaries set by the ES

4.1. Health

Guidance - Health	Predicted exposures are not expected to exceed the applicable consumer reference values when the operational conditions/risk management measures given in section 2 are implemented
Website	http://www.aise.eu/reach

4.2. Environment

	Predicted exposures are not expected to exeed the PNECs when the Risk Management Measures/Operational Conditions outlined in section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels
Website	http://www.aise.eu/reach

Additional good practice advice beyond the REACH CSA

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

1. Exposure scenario 29.0

Consumer use of polishes AISE C20.2, C20.1 ES Ref.: 29.0 ES Type: Consumer

Use descriptors	SU21 PC31 ERC8a
Processes, tasks, activities covered	Consumer use (C)

2. Operational conditions and risk management measures

2.2. Contributing scenario controlling environmental exposure (ERC8a)

ERC8a Widespread use of non-reactive processing aid (no inclusion into or onto article, indoor)

Product characteristics

No additional information

Operational conditions		
Amounts used	Amounts used	216 T/year
Frequency and duration of use	Release times per year	365 Day/Year
Environmental factors not influenced by risk management	River flow rate	18000 m³/d
Other given operational conditions affecting environmental exposure	Release fraction to air from process (initial release prior to RMM):	0
	Fraction of applied amount lost from process/use to waste water	1
	Release fraction to soil from process (initial release prior to RMM):	0
	Fraction used at main source:	0,00075
	Fraction of EU tonnage used in region:	0,1

Risk Management Measures

Concentration of substance in product

No additional information

2.1. Contributing scenario consumer end-use (PC35) (Air fresheners non-aerosol (timed-release aerosols, perfume in/on solid substarte (gel), candles, diffusers (heated)) for consumer use; Furniture floor and leather care (spray, liquid) for consumer use)

PC35	Washing and cleaning products
Product characteristics	

Operational conditions		
Amounts used	Amount used per application	30 g

0,02 %

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

perational conditions		
	Product ingredient fraction by weight :Dermal	0,02
	Product ingredient fraction by weight :inhalation	0,02
Frequency and duration of use	Exposure frequency	
	Exposure duration	4 h
Human factors not influenced by risk management	Area of skin contact	Both hands
Other given operational conditions affecting consumers exposure	Room volume	20 m³

Risk Management Measures		
Conditions and measures related to personal protection, hygiene and health evaluation	Not applicable	

3. Exposure estimation and reference to its source

3.1. Health

No available data

3.2. Environment

Information for contributing exposure scenario	
2.2	AISE SPERC 8a.1.a.v1, - ,http://www.aise.eu/reach

4. Guidance to Downstream User to evaluate whether he works inside the boundaries set by the ES

4.1. Health

	Predicted exposures are not expected to exceed the applicable consumer reference values when the operational conditions/risk management measures given in section 2 are implemented
Website	http://www.aise.eu/reach

4.2. Environment

	Predicted exposures are not expected to exeed the PNECs when the Risk Management Measures/Operational Conditions outlined in section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels
Website	http://www.aise.eu/reach

Additional good practice advice beyond the REACH CSA

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

1. Exposure scenario 30.0

AISE- Industrial use of Me-salts in conversion coating - Nickel AISE P1001a.1.1, P1001a.2.1, P1001b.1.1, P1001b.2.1, ES Ref.: 30.0

ES Type: Worker

·	SU3, SU10 PROC2, PROC8a, PROC8b, PROC10 PC14 ERC5
Processes, tasks, activities covered	Use at industrial sites (IS)

2. Operational conditions and risk management measures

2.2. Contributing scenario controlling environmental exposure (ERC2)

ERC2 Formulation into mixture	
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Product characteristics

No additional information

perational conditions		
Amounts used	Amounts used	36 T/year
Frequency and duration of use	Release times per year	220
Environmental factors not influenced by risk management	River flow rate	18000 m³/d
Other given operational conditions affecting environmental exposure	Release fraction to air from process (initial release prior to RMM):	0
	Release fraction to wastewater from process (initial release prior to RMM):	1
	Release fraction to soil from process (initial release prior to RMM):	0
	Fraction used at main source:	0,26
	Fraction of EU tonnage used in region:	0,1

Risk Management Measures		
Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil	AISE SPERC 5.1a.v1	http://www.aise.eu/reach
Conditions and measures related to sewage treatment plant	Release to municipal sewage treatment plant :	2000 m³/d

2.1.1. Contributing scenario controlling worker exposure (PROC8b) (Conversion Layer agent. Automatic process)

PROC8b	Transfer of substance or mixture (charging and discharging) at dedicated facilities
	Transfer of Substantes of Trinkland (Stranging and Greening) at a substante a facilities

Product characteristics

No additional information

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

Operational conditions		
Frequency and duration of use	Exposure duration	480 min/day
Other given operational conditions affecting workers exposure	Indoor use	

Risk Management Measures		
Technical conditions and measures to control dispersion from source towards the worker	Local exhaust ventilation	
Conditions and measures related to personal protection, hygiene and health evaluation	protective gloves	99 %
	Breakthrough time (maximum wearing time)	> 4 h

2.1.2. Contributing scenario controlling worker exposure (PROC2) (Conversion Layer agent. Automatic process)

PROC2	Chemical production or refinery in closed continuous process with occasional controlled
	exposure or processes with equivalent containment conditions

Product characteristics

No additional information

Operational conditions		
Frequency and duration of use	Exposure duration	480 min/day
Other given operational conditions affecting workers exposure	Indoor use	

Risk Management Measures		
Technical conditions and measures to control dispersion from source towards the worker	Local exhaust ventilation	
Conditions and measures related to personal protection, hygiene and health evaluation	protective gloves	99 %
	Breakthrough time (maximum wearing time)	> 4 h

2.1.3. Contributing scenario controlling worker exposure (PROC8a) (Conversion Layer agent. Automatic process)

PROC8a Transfer of substance or mixture (charging and discharging) at non-dedicated facilities	PROC8a	Transfer of substance or mixture (charging and discharging) at non-dedicated facilities
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Product characteristics

No additional information

Operational conditions		
Frequency and duration of use	Exposure duration	15 min/day
Other given operational conditions affecting workers exposure	Indoor use	

Risk Management Measures		
Technical conditions and measures to control dispersion from source towards the worker	Local exhaust ventilation	
Conditions and measures related to personal protection, hygiene and health evaluation	protective gloves	99 %
	Breakthrough time (maximum wearing time)	15 min - 1 h

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

2.1.4. Contributing scenario controlling worker exposure (PROC10) (Conversion Layer agent. Automatic process)

PROC10 Roller application or brushing

Product characteristics

No additional information

Operational conditions		
Frequency and duration of use	Exposure duration	480 min/day
Other given operational conditions affecting workers exposure	Indoor use	

Risk Management Measures		
Technical conditions and measures to control dispersion from source towards the worker	Local exhaust ventilation	
Conditions and measures related to personal protection, hygiene and health evaluation	protective gloves	99 %
	Breakthrough time (maximum wearing time)	> 4 h

3. Exposure estimation and reference to its source

3.1. Health

Information for contributing exposure scenario	
2.1.1	- ,http://www.aise.eu/reach
2.1.2	AISE SPERC 5.1a.v1, - ,http://www.aise.eu/reach
2.1.3	AISE SPERC 5.1a.v1, - ,http://www.aise.eu/reach
2.1.4	AISE SPERC 5.1a.v1, - ,http://www.aise.eu/reach

3.2. Environment

Information for contributing exposure scenar	io
2.2	AISE SPERC 5.1a.v1, - ,http://www.aise.eu/reach

4. Guidance to Downstream User to evaluate whether he works inside the boundaries set by the ES

4.1. Health

	Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels
Website	http://www.aise.eu/reach

4.2. Environment

	Predicted exposures are not expected to exeed the PNECs when the Risk Management Measures/Operational Conditions outlined in section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels
Website	http://www.aise.eu/reach

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

Additional good practice advice beyond the REACH CSA

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

1. Exposure scenario 31.0

AISE- Industrial use of Me-salts in conversion coating - Zinc, Chromium, Copper, Manganese

AISE P1001a.1.2, P1001a.2.2, P1001b.1.2, P1001b.2.2,

ES Ref.: 31.0 ES Type: Worker

Use descriptors	SU3, SU10 PROC2, PROC8a, PROC8b, PROC10 PC14 ERC5
Processes, tasks, activities covered	Use at industrial sites (IS)

2. Operational conditions and risk management measures

2.2. Contributing scenario controlling environmental exposure (ERC2)

E	ERC2	Formulation into mixture
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Product characteristics

No additional information

Operational conditions		
Amounts used	Amounts used	36 T/year
Frequency and duration of use	Release times per year	220
Environmental factors not influenced by risk management	River flow rate	18000 m³/d
Other given operational conditions affecting environmental exposure	Release fraction to air from process (initial release prior to RMM):	0
	Release fraction to wastewater from process (initial release prior to RMM):	1
	Release fraction to soil from process (initial release prior to RMM):	0
	Fraction used at main source:	1
	Fraction of EU tonnage used in region:	0,1

Risk Management Measures		
Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil	AISE SPERC 5.1b.v1	http://www.aise.eu/reach
Conditions and measures related to sewage treatment plant	Release to municipal sewage treatment plant :	2000 m³/d

2.1.1. Contributing scenario controlling worker exposure (PROC8b) (Conversion Layer agent. Automatic process)

PROC8b	Transfer of substance or mixture (charging and discharging) at dedicated facilities
PROCOD	Transfer of substance of mixture (charging and discharging) at dedicated facilities

Product characteristics

No additional information

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

Operational conditions		
Frequency and duration of use	Exposure duration	480 min/day
Other given operational conditions affecting workers exposure	Indoor use	

Risk Management Measures		
Technical conditions and measures to control dispersion from source towards the worker	Local exhaust ventilation	
Conditions and measures related to personal	protective gloves	99 %
protection, hygiene and health evaluation	Breakthrough time (maximum wearing time)	> 4 h

2.1.2. Contributing scenario controlling worker exposure (PROC2) (Conversion Layer agent. Automatic process)

PROC2	Chemical production or refinery in closed continuous process with occasional controlled	
	exposure or processes with equivalent containment conditions	

Product characteristics

No additional information

Operational conditions		
Frequency and duration of use	Exposure duration	480 min/day
Other given operational conditions affecting workers exposure	Indoor use	

Risk Management Measures		
Technical conditions and measures to control dispersion from source towards the worker	Local exhaust ventilation	
Conditions and measures related to personal	protective gloves	99 %
protection, hygiene and health evaluation	Breakthrough time (maximum wearing time)	> 4 h

2.1.3. Contributing scenario controlling worker exposure (PROC8a) (Conversion Layer agent. Automatic process)

PROC8a Transfer of substance or mixture (charging and discharging) at non-dedicate	ed facilities
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Product characteristics

No additional information

Operational conditions		
Frequency and duration of use	Exposure duration	15 min/day
Other given operational conditions affecting workers exposure	Indoor use	

Risk Management Measures		
Technical conditions and measures to control dispersion from source towards the worker	Local exhaust ventilation	
Conditions and measures related to personal	protective gloves	99 %
protection, hygiene and health evaluation	Breakthrough time (maximum wearing time)	15 min - 1 h

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

2.1.4. Contributing scenario controlling worker exposure (PROC10) (Conversion Layer agent. Automatic process)

PROC10 Roller application or brushing

Product characteristics

No additional information

perational conditions		
Frequency and duration of use	Exposure duration	480 min/day
Other given operational conditions affecting workers exposure	Indoor use	

Risk Management Measures		
Technical conditions and measures to control dispersion from source towards the worker	Local exhaust ventilation	
Conditions and measures related to personal	protective gloves	99 %
protection, hygiene and health evaluation	Breakthrough time (maximum wearing time)	> 4 h

3. Exposure estimation and reference to its source

3.1. Health

Information for contributing exposure scenario	
2.1.1	AISE SPERC 5.1b.v1, - ,http://www.aise.eu/reach
2.1.2	AISE SPERC 5.1b.v1, - ,http://www.aise.eu/reach
2.1.3	AISE SPERC 5.1b.v1, - ,http://www.aise.eu/reach
2.1.4	AISE SPERC 5.1b.v1, - ,http://www.aise.eu/reach

3.2. Environment

Information for contributing exposure scenario	
2.2	AISE SPERC 5.1b.v1, - ,http://www.aise.eu/reach

4. Guidance to Downstream User to evaluate whether he works inside the boundaries set by the ES

4.1. Health

Guidance - Health	Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels	
Website	http://www.aise.eu/reach	

4.2. Environment

	Predicted exposures are not expected to exeed the PNECs when the Risk Management Measures/Operational Conditions outlined in section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels
Website	http://www.aise.eu/reach

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

Additional good practice advice beyond the REACH CSA

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

1. Exposure scenario 32.0

COLIPA - Formulation of low viscosity liquids (shampoo, hair conditioner, shower gel, foam, bath) (large scale) COLIPA M1.1, M2.1, M3.1, M4.1, M5.1.1, M5.1.2, M6.1, M7.1, M8.1 ES Ref.: 32.0 ES Type: Worker

Use descriptors SU10, SU21 PROC1, PROC2, PROC3, PROC5, PROC8a, PROC8b, PROC9, PROC14, PROC15 PC39 ERC2 Processes, tasks, activities covered Use at industrial sites (IS)

2. Operational conditions and risk management measures

2.2. Contributing scenario controlling environmental exposure (ERC2)

	ERC2	Formulation into mixture
- 1		

Product characteristics

No additional information

Operational conditions		
Amounts used	Amounts used	1080 T/year
Frequency and duration of use	Release times per year	220
Environmental factors not influenced by risk management	River flow rate	18000 m³/d
Other given operational conditions affecting environmental exposure	Release fraction to air from process (initial release prior to RMM):	0
	Release fraction to wastewater from process (initial release prior to RMM):	0,001
	Release fraction to soil from process (initial release prior to RMM):	0
	Fraction used at main source:	0,44
	Fraction of EU tonnage used in region:	0,1

Risk Management Measures		
Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil		https://www.cosmeticseurope.eu/s afety-and-science-cosmetics- europe/reach-and-chemicals/use- and-exposure-information.html
Conditions and measures related to sewage treatment plant	Release to municipal sewage treatment plant :	2000 m³/d

2.1.1. Contributing scenario controlling worker exposure (PROC1, PROC2, PROC3, PROC14, PROC15)

PROC1	Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions
PROC2	Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

	Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition
PROC14	Tabletting, compression, extrusion, pelettisation, granulation
PROC15	Use as laboratory reagent

Product characteristics

No additional information

Operational conditions		
Frequency and duration of use	Exposure duration	> 4 H/Day
Other given operational conditions affecting workers exposure	Indoor use	

Risk Management Measures		
Technical conditions and measures to control dispersion from source towards the worker	Not applicable	
Conditions and measures related to personal protection, hygiene and health evaluation	Not applicable	

2.1.2. Contributing scenario controlling worker exposure (PROC5, PROC8a, PROC8b, PROC9)

PROC5	Mixing or blending in batch processes
PROC8a	Transfer of substance or mixture (charging and discharging) at non-dedicated facilities
PROC8b	Transfer of substance or mixture (charging and discharging) at dedicated facilities
PROC9	Transfer of substance or preparation into small containers (dedicated filling line, including weighing)

Product characteristics

No additional information

Operational conditions		
Frequency and duration of use Exposure duration > 4 H/Day		> 4 H/Day
Other given operational conditions affecting workers exposure	Indoor use	

Risk Management Measures		
Technical conditions and measures to control dispersion from source towards the worker	Not applicable	
Conditions and measures related to personal protection, hygiene and health evaluation	Breakthrough time (maximum wearing time)	> 4 h
	protective gloves	99 %

3. Exposure estimation and reference to its source

3.1. Health

Information for contributing exposure scenario	
	COLIPA SPERC 2.1.a.v1, - ,https://www.cosmeticseurope.eu/safety-and-science-cosmetics-europe/reach-and-chemicals/use-and-exposure-information.html

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

Information for contributing exposure scenario	
	COLIPA SPERC 2.1.a.v1, - ,https://www.cosmeticseurope.eu/safety-and-science-cosmetics-europe/reach-and-chemicals/use-and-exposure-information.html

3.2. Environment

Information for contributing exposure scenario	
	COLIPA SPERC 2.1.a.v1, - ,https://www.cosmeticseurope.eu/safety-and-science-cosmetics-europe/reach-and-chemicals/use-and-exposure-information.html

4. Guidance to Downstream User to evaluate whether he works inside the boundaries set by the ES

4.1. Health

Guidance - Health	Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels
Website	https://www.cosmeticseurope.eu/safety-and-science-cosmetics-europe/reach-and-chemicals/use-and-exposure-information.html

4.2. Environment

Guidance - Environment	Predicted exposures are not expected to exeed the PNECs when the Risk Management Measures/Operational Conditions outlined in section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels
Website	https://www.cosmeticseurope.eu/safety-and-science-cosmetics-europe/reach-and-chemicals/use-and-exposure-information.html

Additional good practice advice beyond the REACH CSA

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

1. Exposure scenario 33.0

COLIPA - Formulation of low viscosity liquids (shampoo, hair conditioner, shower gel, foam, bath) (medium scale)

COLIPA M1.2, M2.2, M3.2, M4.2, M5.2.1, M5.2.2, M6.2, M7.2, M8.2

ES Ref.: 33.0 ES Type: Worker

	SU10, SU21 PROC1, PROC2, PROC3, PROC5, PROC8a, PROC8b, PROC9, PROC14, PROC15 PC39 ERC2
Processes, tasks, activities covered	Use at industrial sites (IS)

2. Operational conditions and risk management measures

2.2. Contributing scenario controlling environmental exposure (ERC2)

	ERC2	Formulation into mixture
- 1		

Product characteristics

No additional information

Operational conditions		
Amounts used	Amounts used	1080 T/year
Frequency and duration of use	Release times per year	220
Environmental factors not influenced by risk management	River flow rate	18000 m³/d
Other given operational conditions affecting environmental exposure	Release fraction to air from process (initial release prior to RMM):	0
	Release fraction to wastewater from process (initial release prior to RMM):	0,002
	Release fraction to soil from process (initial release prior to RMM):	0
	Fraction used at main source:	0,22
	Fraction of EU tonnage used in region:	0,1

Risk Management Measures		
Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil		https://www.cosmeticseurope.eu/s afety-and-science-cosmetics- europe/reach-and-chemicals/use- and-exposure-information.html
Conditions and measures related to sewage treatment plant	Release to municipal sewage treatment plant :	2000 m³/d

2.1.1. Contributing scenario controlling worker exposure (PROC1, PROC2, PROC3, PROC14, PROC15)

Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions
Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

	Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition
PROC14	Tabletting, compression, extrusion, pelettisation, granulation
PROC15	Use as laboratory reagent

Product characteristics

No additional information

Operational conditions		
Frequency and duration of use	Exposure duration	> 4 H/Day
Other given operational conditions affecting workers exposure	Indoor use	

Risk Management Measures		
Technical conditions and measures to control dispersion from source towards the worker	Not applicable	
Conditions and measures related to personal protection, hygiene and health evaluation	Not applicable	

2.1.2. Contributing scenario controlling worker exposure (PROC5, PROC8a, PROC8b, PROC9)

PROC5	Mixing or blending in batch processes
PROC8a	Transfer of substance or mixture (charging and discharging) at non-dedicated facilities
PROC8b	Transfer of substance or mixture (charging and discharging) at dedicated facilities
PROC9	Transfer of substance or preparation into small containers (dedicated filling line, including weighing)

Product characteristics

No additional information

Operational conditions		
Frequency and duration of use	Exposure duration	> 4 H/Day
Other given operational conditions affecting workers exposure	Indoor use	

Risk Management Measures		
Technical conditions and measures to control dispersion from source towards the worker	Not applicable	
Conditions and measures related to personal protection, hygiene and health evaluation	Breakthrough time (maximum wearing time)	> 4 h
	protective gloves	99 %

3. Exposure estimation and reference to its source

3.1. Health

Information for contributing exposure scenario	
	COLIPA SPERC 2.1.a.v1, - ,https://www.cosmeticseurope.eu/safety-and-science-cosmetics-europe/reach-and-chemicals/use-and-exposure-information.html

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

Information for contributing exposure scenario	
2.1.2 COLIPA SPERC 2.1.a.v1, - ,https://www.cosmeticseurope.eu/safety-and-science-cosmetics-europe/reach-and-chemicals/use-and-exposure-information.html	

3.2. Environment

Information for contributing exposure scenario		
	COLIPA SPERC 2.1.b.v1, - ,https://www.cosmeticseurope.eu/safety-and-science-cosmetics-europe/reach-and-chemicals/use-and-exposure-information.html	

4. Guidance to Downstream User to evaluate whether he works inside the boundaries set by the ES

4.1. Health

Guidance - Health	Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then use should ensure that risks are managed to at least equivalent levels	
Website	https://www.cosmeticseurope.eu/safety-and-science-cosmetics-europe/reach-and-chemicals/use-and-exposure-information.html	

4.2. Environment

Guidance - Environment	Predicted exposures are not expected to exeed the PNECs when the Risk Management Measures/Operational Conditions outlined in section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels
Website	https://www.cosmeticseurope.eu/safety-and-science-cosmetics-europe/reach-and-chemicals/use-and-exposure-information.html

Additional good practice advice beyond the REACH CSA

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

1. Exposure scenario 34.0

COLIPA - Formulation of low viscosity liquids (shampoo, hair conditioner, shower gel, foam, bath) (small scale) COLIPA M1.3, M2.3, M3.3, M4.3, M5.3.1, M5.3.2, M6.3, M7.3, M8.3 ES Ref.: 34.0

ES Type: Worker

Use descriptors	SU10, SU21 PROC1, PROC2, PROC3, PROC5, PROC8a, PROC8b, PROC9, PROC14, PROC15 PC39 ERC2
Processes, tasks, activities covered	Use at industrial sites (IS)

2. Operational conditions and risk management measures

2.2. Contributing scenario controlling environmental exposure (ERC2)

	ERC2	Formulation into mixture
- 1		

Product characteristics

No additional information

Operational conditions		
Amounts used	Amounts used	1080 T/year
Frequency and duration of use	Release times per year	220
Environmental factors not influenced by risk management	River flow rate	18000 m³/d
environmental exposure	Release fraction to air from process (initial release prior to RMM):	0
	Release fraction to wastewater from process (initial release prior to RMM):	0,004
	Release fraction to soil from process (initial release prior to RMM):	0
	Fraction used at main source:	0,02
	Fraction of EU tonnage used in region:	0,1

Risk Management Measures		
Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil		https://www.cosmeticseurope.eu/s afety-and-science-cosmetics- europe/reach-and-chemicals/use- and-exposure-information.html
Conditions and measures related to sewage treatment plant	Release to municipal sewage treatment plant :	2000 m³/d

2.1.1. Contributing scenario controlling worker exposure (PROC1, PROC2, PROC3, PROC14, PROC15)

PROC1	Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions
PROC2	Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

PROC3	Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition
PROC14	Tabletting, compression, extrusion, pelettisation, granulation
PROC15	Use as laboratory reagent

Product characteristics

No additional information

Operational conditions		
Frequency and duration of use	Exposure duration	> 4 H/Day
Other given operational conditions affecting workers exposure	Indoor use	

Risk Management Measures		
Technical conditions and measures to control dispersion from source towards the worker	Not applicable	
Conditions and measures related to personal protection, hygiene and health evaluation	Not applicable	

2.1.2. Contributing scenario controlling worker exposure (PROC5, PROC8a, PROC8b, PROC9)

PROC5	Mixing or blending in batch processes
PROC8a	Transfer of substance or mixture (charging and discharging) at non-dedicated facilities
PROC8b	Transfer of substance or mixture (charging and discharging) at dedicated facilities
PROC9	Transfer of substance or preparation into small containers (dedicated filling line, including weighing)

Product characteristics

No additional information

Operational conditions		
Frequency and duration of use	Exposure duration	> 4 H/Day
Other given operational conditions affecting workers exposure	Indoor use	

Risk Management Measures		
Technical conditions and measures to control dispersion from source towards the worker	Not applicable	
Conditions and measures related to personal	Breakthrough time (maximum wearing time)	> 4 h
protection, hygiene and health evaluation	protective gloves	99 %

3. Exposure estimation and reference to its source

3.1. Health

Information for contributing exposure scenario	
	COLIPA SPERC 2.1.c.v1, - ,https://www.cosmeticseurope.eu/safety-and-science-cosmetics-europe/reach-and-chemicals/use-and-exposure-information.html

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

Information for contributing exposure scenario	
	COLIPA SPERC 2.1.c.v1, - ,https://www.cosmeticseurope.eu/safety-and-science-cosmetics-europe/reach-and-chemicals/use-and-exposure-information.html

3.2. Environment

Information for contributing exposure scenario	
	COLIPA SPERC 2.1.c.v1, - ,https://www.cosmeticseurope.eu/safety-and-science-cosmetics-europe/reach-and-chemicals/use-and-exposure-information.html

4. Guidance to Downstream User to evaluate whether he works inside the boundaries set by the ES

4.1. Health

Guidance - Health	Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels
Website	https://www.cosmeticseurope.eu/safety-and-science-cosmetics-europe/reach-and-chemicals/use-and-exposure-information.html

4.2. Environment

Guidance - Environment	Predicted exposures are not expected to exeed the PNECs when the Risk Management Measures/Operational Conditions outlined in section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels
Website	https://www.cosmeticseurope.eu/safety-and-science-cosmetics-europe/reach-and-chemicals/use-and-exposure-information.html

Additional good practice advice beyond the REACH CSA

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

1. Exposure scenario 35.0

COLIPA - Formulation of Fine Fragnances - Cleaning with water (medium

COLIPA M1.4, M2.4, M3.4, M4.4, M5.4.1, M5.4.2, M6.4, M7.4, M8.4

ES Ref.: 35.0 ES Type: Worker

· ·	SU10, SU21 PROC1, PROC2, PROC3, PROC5, PROC8a, PROC8b, PROC9, PROC14, PROC15 PC39 ERC2
Processes, tasks, activities covered	Use at industrial sites (IS)

2. Operational conditions and risk management measures

2.2. Contributing scenario controlling environmental exposure (ERC2)

ı	ERC2	Formulation into mixture

Product characteristics

No additional information

Operational conditions		
Amounts used	Amounts used	1080 T/year
Frequency and duration of use	Release times per year	220
Environmental factors not influenced by risk management	River flow rate	18000 m³/d
Other given operational conditions affecting environmental exposure	Release fraction to air from process (initial release prior to RMM):	0
	Release fraction to wastewater from process (initial release prior to RMM):	0,015
	Release fraction to soil from process (initial release prior to RMM):	0
	Fraction used at main source:	0,03
	Fraction of EU tonnage used in region:	0,1

Risk Management Measures		
Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil	COLIPA SPERC 2.1.d.v1	https://www.cosmeticseurope.eu/s afety-and-science-cosmetics- europe/reach-and-chemicals/use- and-exposure-information.html
Conditions and measures related to sewage treatment plant	Release to municipal sewage treatment plant :	2000 m³/d

2.1.1. Contributing scenario controlling worker exposure (PROC1, PROC2, PROC3, PROC14, PROC15)

PROC1	Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions
PROC2	Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

PROC3	Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition
PROC14	Tabletting, compression, extrusion, pelettisation, granulation
PROC15	Use as laboratory reagent

Product characteristics

No additional information

Operational conditions		
Frequency and duration of use	Exposure duration	> 4 H/Day
Other given operational conditions affecting workers exposure	Indoor use	

Risk Management Measures		
Technical conditions and measures to control dispersion from source towards the worker	Not applicable	
Conditions and measures related to personal protection, hygiene and health evaluation	Not applicable	

2.1.2. Contributing scenario controlling worker exposure (PROC5, PROC8a, PROC8b, PROC9)

PROC5	Mixing or blending in batch processes
PROC8a	Transfer of substance or mixture (charging and discharging) at non-dedicated facilities
PROC8b	Transfer of substance or mixture (charging and discharging) at dedicated facilities
PROC9	Transfer of substance or preparation into small containers (dedicated filling line, including weighing)

Product characteristics

No additional information

Operational conditions		
Frequency and duration of use	Exposure duration	> 4 H/Day
Other given operational conditions affecting workers exposure	Indoor use	

Risk Management Measures		
Technical conditions and measures to control dispersion from source towards the worker	Not applicable	
Conditions and measures related to personal protection, hygiene and health evaluation	Breakthrough time (maximum wearing time)	> 4 h
	protective gloves	99 %

3. Exposure estimation and reference to its source

3.1. Health

Information for contributing exposure scenario	
	COLIPA SPERC 2.1.d.v1, - ,https://www.cosmeticseurope.eu/safety-and-science-cosmetics-europe/reach-and-chemicals/use-and-exposure-information.html

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

Information for contributing exposure scenario		
	COLIPA SPERC 2.1.d.v1, - ,https://www.cosmeticseurope.eu/safety-and-science-cosmetics-europe/reach-and-chemicals/use-and-exposure-information.html	

3.2. Environment

Information for contributing exposure scenario		
	COLIPA SPERC 2.1.d.v1, - ,https://www.cosmeticseurope.eu/safety-and-science-cosmetics-europe/reach-and-chemicals/use-and-exposure-information.html	

4. Guidance to Downstream User to evaluate whether he works inside the boundaries set by the ES

4.1. Health

Guidance - Health	Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then us should ensure that risks are managed to at least equivalent levels	
Website	https://www.cosmeticseurope.eu/safety-and-science-cosmetics-europe/reach-and-chemicals/use-and-exposure-information.html	

4.2. Environment

Guidance - Environment	Predicted exposures are not expected to exeed the PNECs when the Risk Management Measures/Operational Conditions outlined in section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels
Website	https://www.cosmeticseurope.eu/safety-and-science-cosmetics-europe/reach-and-chemicals/use-and-exposure-information.html

Additional good practice advice beyond the REACH CSA

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

1. Exposure scenario 36.0

COLIPA - Formulation of Fine Fragnances - Cleaning with water (small COLIPA M1.5, M2.5, M3.5, M4.5, M5.5.1, M5.5.2, M6.5, M7.5, M8.5

ES Ref.: 36.0 ES Type: Worker

	SU10, SU21 PROC1, PROC2, PROC3, PROC5, PROC8a, PROC8b, PROC9, PROC14, PROC15 PC39 ERC2
Processes, tasks, activities covered	Use at industrial sites (IS)

2. Operational conditions and risk management measures

2.2. Contributing scenario controlling environmental exposure (ERC2)

	ERC2	Formulation into mixture
- 1		

Product characteristics

No additional information

Operational conditions		
Amounts used	Amounts used	1080 T/year
Frequency and duration of use	Release times per year	220
Environmental factors not influenced by risk management	River flow rate	18000 m³/d
environmental exposure	Release fraction to air from process (initial release prior to RMM):	0
	Release fraction to wastewater from process (initial release prior to RMM):	0,03
	Release fraction to soil from process (initial release prior to RMM):	0
	Fraction used at main source:	0,014
	Fraction of EU tonnage used in region:	0,1

Risk Management Measures		
Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil		https://www.cosmeticseurope.eu/s afety-and-science-cosmetics- europe/reach-and-chemicals/use- and-exposure-information.html
Conditions and measures related to sewage treatment plant	Release to municipal sewage treatment plant :	2000 m³/d

PROC1	Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions
PROC2	Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

	Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition
PROC14	Tabletting, compression, extrusion, pelettisation, granulation
PROC15	Use as laboratory reagent

Product characteristics

No additional information

Operational conditions		
Frequency and duration of use	Exposure duration	> 4 H/Day
Other given operational conditions affecting workers exposure	Indoor use	

Risk Management Measures		
Technical conditions and measures to control dispersion from source towards the worker	Not applicable	
Conditions and measures related to personal protection, hygiene and health evaluation	Not applicable	

2.1.2. Contributing scenario controlling worker exposure (PROC5, PROC8a, PROC8b, PROC9)

PROC5	Mixing or blending in batch processes
PROC8a	Transfer of substance or mixture (charging and discharging) at non-dedicated facilities
PROC8b	Transfer of substance or mixture (charging and discharging) at dedicated facilities
PROC9	Transfer of substance or preparation into small containers (dedicated filling line, including weighing)

Product characteristics

No additional information

Operational conditions	ational conditions		
Frequency and duration of use	Exposure duration	> 4 H/Day	
Other given operational conditions affecting workers exposure	Indoor use		

Risk Management Measures		
Technical conditions and measures to control dispersion from source towards the worker	Not applicable	
protection, hygiene and health evaluation	Breakthrough time (maximum wearing time)	> 4 h
	protective gloves	99 %

3. Exposure estimation and reference to its source

Information for contributing exposure scenario	
	COLIPA SPERC 2.1.e.v1, - ,https://www.cosmeticseurope.eu/safety-and-science-cosmetics-europe/reach-and-chemicals/use-and-exposure-information.html

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

Information for contributing exposure scenario	
2.1.2 COLIPA SPERC 2.1.e.v1, - ,https://www.cosmeticseurope.eu/safety-and-sc cosmetics-europe/reach-and-chemicals/use-and-exposure-information.html	

3.2. Environment

Information for contributing exposure scenario	
	COLIPA SPERC 2.1.e.v1, - ,https://www.cosmeticseurope.eu/safety-and-science-cosmetics-europe/reach-and-chemicals/use-and-exposure-information.html

4. Guidance to Downstream User to evaluate whether he works inside the boundaries set by the ES

4.1. Health

Guidance - Health	Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels
Website	https://www.cosmeticseurope.eu/safety-and-science-cosmetics-europe/reach-and-chemicals/use-and-exposure-information.html

4.2. Environment

Guidance - Environment	Predicted exposures are not expected to exeed the PNECs when the Risk Management Measures/Operational Conditions outlined in section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels
Website	https://www.cosmeticseurope.eu/safety-and-science-cosmetics-europe/reach-and-chemicals/use-and-exposure-information.html

Additional good practice advice beyond the REACH CSA

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

1. Exposure scenario 37.0

COLIPA - Formulation of Medium Viscosity Body Care Products (medium

COLIPA M1.6, M2.6, M3.6, M4.6, M5.6.1, M5.6.2, M6.6, M7.6, M8.6

ES Ref.: 37.0 ES Type: Worker

· ·	SU10, SU21 PROC1, PROC2, PROC3, PROC5, PROC8a, PROC8b, PROC9, PROC14, PROC15 PC39 ERC2
Processes, tasks, activities covered	Use at industrial sites (IS)

2. Operational conditions and risk management measures

2.2. Contributing scenario controlling environmental exposure (ERC2)

ı	ERC2	Formulation into mixture

Product characteristics

No additional information

Operational conditions		
Amounts used	Amounts used	1080 T/year
Frequency and duration of use	Release times per year	220
Environmental factors not influenced by risk management	River flow rate	18000 m³/d
Other given operational conditions affecting environmental exposure	Release fraction to air from process (initial release prior to RMM):	0
	Release fraction to wastewater from process (initial release prior to RMM):	0,01
	Release fraction to soil from process (initial release prior to RMM):	0
	Fraction used at main source:	0,044
	Fraction of EU tonnage used in region:	0,1

Risk Management Measures		
Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil		https://www.cosmeticseurope.eu/s afety-and-science-cosmetics- europe/reach-and-chemicals/use- and-exposure-information.html
Conditions and measures related to sewage treatment plant	Release to municipal sewage treatment plant :	2000 m³/d

Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions
Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

PROC3	Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition
PROC14	Tabletting, compression, extrusion, pelettisation, granulation
PROC15	Use as laboratory reagent

Product characteristics

No additional information

Operational conditions		
Frequency and duration of use	Exposure duration	> 4 H/Day
Other given operational conditions affecting workers exposure	Indoor use	

Risk Management Measures		
Technical conditions and measures to control dispersion from source towards the worker	Not applicable	
Conditions and measures related to personal protection, hygiene and health evaluation	Not applicable	

2.1.2. Contributing scenario controlling worker exposure (PROC5, PROC8a, PROC8b, PROC9)

PROC5	Mixing or blending in batch processes
PROC8a	Transfer of substance or mixture (charging and discharging) at non-dedicated facilities
PROC8b	Transfer of substance or mixture (charging and discharging) at dedicated facilities
PROC9	Transfer of substance or preparation into small containers (dedicated filling line, including weighing)

Product characteristics

No additional information

Operational conditions		
Frequency and duration of use	Exposure duration	> 4 H/Day
Other given operational conditions affecting workers exposure	Indoor use	

Risk Management Measures		
Technical conditions and measures to control dispersion from source towards the worker	Not applicable	
Conditions and measures related to personal protection, hygiene and health evaluation	Breakthrough time (maximum wearing time)	> 4 h
	protective gloves	99 %

3. Exposure estimation and reference to its source

Information for contributing exposure scenario	
	COLIPA SPERC 2.1.f.v1, - ,https://www.cosmeticseurope.eu/safety-and-science-cosmetics-europe/reach-and-chemicals/use-and-exposure-information.html

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

Information for contributing exposure scenario	
	COLIPA SPERC 2.1.f.v1, - ,https://www.cosmeticseurope.eu/safety-and-science-cosmetics-europe/reach-and-chemicals/use-and-exposure-information.html

3.2. Environment

Information for contributing exposure scenario	
	COLIPA SPERC 2.1.f.v1, - ,https://www.cosmeticseurope.eu/safety-and-science-cosmetics-europe/reach-and-chemicals/use-and-exposure-information.html

4. Guidance to Downstream User to evaluate whether he works inside the boundaries set by the ES

4.1. Health

Guidance - Health	Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels
Website	https://www.cosmeticseurope.eu/safety-and-science-cosmetics-europe/reach-and-chemicals/use-and-exposure-information.html

4.2. Environment

Guidance - Environment	Predicted exposures are not expected to exeed the PNECs when the Risk Management Measures/Operational Conditions outlined in section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels
Website	https://www.cosmeticseurope.eu/safety-and-science-cosmetics-europe/reach-and-chemicals/use-and-exposure-information.html

Additional good practice advice beyond the REACH CSA

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

1. Exposure scenario 38.0

COLIPA - Formulation of Medium Viscosity Body Care Products (small COLIPA M1.7, M2.7, M3.7, M4.7, M5.7.1, M5.7.2, M6.7, M7.7, M8.7

ES Ref.: 38.0 ES Type: Worker

· ·	SU10, SU21 PROC1, PROC2, PROC3, PROC5, PROC8a, PROC8b, PROC9, PROC14, PROC15 PC39 ERC2
Processes, tasks, activities covered	Use at industrial sites (IS)

2. Operational conditions and risk management measures

2.2. Contributing scenario controlling environmental exposure (ERC2)

	ERC2	Formulation into mixture
- 1		

Product characteristics

No additional information

Operational conditions		
Amounts used	Amounts used	1080 T/year
Frequency and duration of use	Release times per year	220
Environmental factors not influenced by risk management	River flow rate	18000 m³/d
Other given operational conditions affecting environmental exposure	Release fraction to air from process (initial release prior to RMM):	0
	Release fraction to wastewater from process (initial release prior to RMM):	0,02
	Release fraction to soil from process (initial release prior to RMM):	0
	Fraction used at main source:	0,02
	Fraction of EU tonnage used in region:	0,1

Risk Management Measures		
Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil	ű	https://www.cosmeticseurope.eu/s afety-and-science-cosmetics- europe/reach-and-chemicals/use- and-exposure-information.html
Conditions and measures related to sewage treatment plant	Release to municipal sewage treatment plant :	2000 m³/d

PROC1	Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions
PROC2	Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

	Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition
PROC14	Tabletting, compression, extrusion, pelettisation, granulation
PROC15	Use as laboratory reagent

Product characteristics

No additional information

Operational conditions		
Frequency and duration of use	Exposure duration	> 4 H/Day
Other given operational conditions affecting workers exposure	Indoor use	

Risk Management Measures		
Technical conditions and measures to control dispersion from source towards the worker	Not applicable	
Conditions and measures related to personal protection, hygiene and health evaluation	Not applicable	

2.1.2. Contributing scenario controlling worker exposure (PROC5, PROC8a, PROC8b, PROC9)

PROC5	Mixing or blending in batch processes
PROC8a	Transfer of substance or mixture (charging and discharging) at non-dedicated facilities
PROC8b	Transfer of substance or mixture (charging and discharging) at dedicated facilities
PROC9	Transfer of substance or preparation into small containers (dedicated filling line, including weighing)

Product characteristics

No additional information

Operational conditions		
Frequency and duration of use	Exposure duration	> 4 H/Day
Other given operational conditions affecting workers exposure	Indoor use	

Risk Management Measures		
Technical conditions and measures to control dispersion from source towards the worker	Not applicable	
Conditions and measures related to personal protection, hygiene and health evaluation	Breakthrough time (maximum wearing time)	> 4 h
	protective gloves	99 %

3. Exposure estimation and reference to its source

Information for contributing exposure scenario	
	COLIPA SPERC 2.1.g.v1, - ,https://www.cosmeticseurope.eu/safety-and-science-cosmetics-europe/reach-and-chemicals/use-and-exposure-information.html

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

Information for contributing exposure scenario	
2.1.2 COLIPA SPERC 2.1.g.v1, - ,https://www.cosmeticseurope.eu/safety-and-science-cosmetics-europe/reach-and-chemicals/use-and-exposure-information.html	

3.2. Environment

Information for contributing exposure scenario		
	COLIPA SPERC 2.1.g.v1, - ,https://www.cosmeticseurope.eu/safety-and-science-cosmetics-europe/reach-and-chemicals/use-and-exposure-information.html	

4. Guidance to Downstream User to evaluate whether he works inside the boundaries set by the ES

4.1. Health

Guidance - Health	Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then use should ensure that risks are managed to at least equivalent levels	
Website	https://www.cosmeticseurope.eu/safety-and-science-cosmetics-europe/reach-and-chemicals/use-and-exposure-information.html	

4.2. Environment

Guidance - Environment	Predicted exposures are not expected to exeed the PNECs when the Risk Management Measures/Operational Conditions outlined in section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels
Website	https://www.cosmeticseurope.eu/safety-and-science-cosmetics-europe/reach-and-chemicals/use-and-exposure-information.html

Additional good practice advice beyond the REACH CSA

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

1. Exposure scenario 39.0

COLIPA - Formulation of Non-liquid Creams, high viscosity Products (large scale) COLIPA M1.8, M2.8, M3.8, M4.8, M5.8.1, M5.8.2, M6.8, M7.8, M8.8

ES Ref.: 39.0 ES Type: Worker

	SU10, SU21 PROC1, PROC2, PROC3, PROC5, PROC8a, PROC8b, PROC9, PROC14, PROC15 PC39 ERC2
Processes, tasks, activities covered	Use at industrial sites (IS)

2. Operational conditions and risk management measures

2.2. Contributing scenario controlling environmental exposure (ERC2)

	ERC2	Formulation into mixture
- 1		

Product characteristics

No additional information

Operational conditions		
Amounts used	Amounts used	1080 T/year
Frequency and duration of use	Release times per year	220
Environmental factors not influenced by risk management	River flow rate	18000 m³/d
environmental exposure	Release fraction to air from process (initial release prior to RMM):	0
	Release fraction to wastewater from process (initial release prior to RMM):	0,01
	Release fraction to soil from process (initial release prior to RMM):	0
	Fraction used at main source:	0,044
	Fraction of EU tonnage used in region:	0,1

Risk Management Measures		
Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil		https://www.cosmeticseurope.eu/s afety-and-science-cosmetics- europe/reach-and-chemicals/use- and-exposure-information.html
Conditions and measures related to sewage treatment plant	Release to municipal sewage treatment plant :	2000 m³/d

Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions
Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

PROC3	Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition
PROC14	Tabletting, compression, extrusion, pelettisation, granulation
PROC15	Use as laboratory reagent

Product characteristics

No additional information

Operational conditions		
Frequency and duration of use	Exposure duration	> 4 H/Day
Other given operational conditions affecting workers exposure	Indoor use	

Risk Management Measures		
Technical conditions and measures to control dispersion from source towards the worker	Not applicable	
Conditions and measures related to personal protection, hygiene and health evaluation	Not applicable	

2.1.2. Contributing scenario controlling worker exposure (PROC5, PROC8a, PROC8b, PROC9)

PROC5	Mixing or blending in batch processes
PROC8a	Transfer of substance or mixture (charging and discharging) at non-dedicated facilities
PROC8b	Transfer of substance or mixture (charging and discharging) at dedicated facilities
PROC9	Transfer of substance or preparation into small containers (dedicated filling line, including weighing)

Product characteristics

No additional information

perational conditions		
Frequency and duration of use	Exposure duration	> 4 H/Day
Other given operational conditions affecting workers exposure	Indoor use	

Risk Management Measures		
Technical conditions and measures to control dispersion from source towards the worker	Not applicable	
Conditions and measures related to personal protection, hygiene and health evaluation	Breakthrough time (maximum wearing time)	> 4 h
	protective gloves	99 %

3. Exposure estimation and reference to its source

Information for contributing exposure scenario	
	COLIPA SPERC 2.1.h.v1, - ,https://www.cosmeticseurope.eu/safety-and-science-cosmetics-europe/reach-and-chemicals/use-and-exposure-information.html

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

Information for contributing exposure scenario	
2.1.2 COLIPA SPERC 2.1.h.v1, - ,https://www.cosmeticseurope.eu/safety-and-science-cosmetics-europe/reach-and-chemicals/use-and-exposure-information.html	

3.2. Environment

Information for contributing exposure scenario	
	COLIPA SPERC 2.1.h.v1, - ,https://www.cosmeticseurope.eu/safety-and-science-cosmetics-europe/reach-and-chemicals/use-and-exposure-information.html

4. Guidance to Downstream User to evaluate whether he works inside the boundaries set by the ES

4.1. Health

Guidance - Health	Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels
Website	https://www.cosmeticseurope.eu/safety-and-science-cosmetics-europe/reach-and-chemicals/use-and-exposure-information.html

4.2. Environment

Guidance - Environment	Predicted exposures are not expected to exeed the PNECs when the Risk Management Measures/Operational Conditions outlined in section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels
Website	https://www.cosmeticseurope.eu/safety-and-science-cosmetics-europe/reach-and-chemicals/use-and-exposure-information.html

Additional good practice advice beyond the REACH CSA

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

1. Exposure scenario 40.0

COLIPA - Formulation of Non-liquid Creams, high viscosity Products (medium scale) COLIPA M1.9, M2.9, M3.9, M4.9, M5.9.1, M5.9.2, M6.9, M7.9, M8.9

ES Ref.: 40.0 ES Type: Worker

Use descriptors	SU10, SU21 PROC1, PROC2, PROC3, PROC5, PROC8a, PROC8b, PROC9, PROC14, PROC15 PC39 ERC2
Processes, tasks, activities covered	Use at industrial sites (IS)

2. Operational conditions and risk management measures

2.2. Contributing scenario controlling environmental exposure (ERC2)

	ERC2	Formulation into mixture
- 1		

Product characteristics

No additional information

Operational conditions		
Amounts used	Amounts used	1080 T/year
Frequency and duration of use	Release times per year	220
Environmental factors not influenced by risk management	River flow rate	18000 m³/d
Other given operational conditions affecting environmental exposure	Release fraction to air from process (initial release prior to RMM):	0
	Release fraction to wastewater from process (initial release prior to RMM):	0,02
	Release fraction to soil from process (initial release prior to RMM):	0
	Fraction used at main source:	0,022
	Fraction of EU tonnage used in region:	0,1

Risk Management Measures		
Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil		https://www.cosmeticseurope.eu/s afety-and-science-cosmetics- europe/reach-and-chemicals/use- and-exposure-information.html
Conditions and measures related to sewage treatment plant	Release to municipal sewage treatment plant :	2000 m³/d

PROC1	Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions
PROC2	Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

	Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition
PROC14	Tabletting, compression, extrusion, pelettisation, granulation
PROC15	Use as laboratory reagent

Product characteristics

No additional information

Operational conditions		
Frequency and duration of use	Exposure duration	> 4 H/Day
Other given operational conditions affecting workers exposure	Indoor use	

Risk Management Measures		
Technical conditions and measures to control dispersion from source towards the worker	Not applicable	
Conditions and measures related to personal protection, hygiene and health evaluation	Not applicable	

2.1.2. Contributing scenario controlling worker exposure (PROC5, PROC8a, PROC8b, PROC9)

PROC5	Mixing or blending in batch processes
PROC8a	Transfer of substance or mixture (charging and discharging) at non-dedicated facilities
PROC8b	Transfer of substance or mixture (charging and discharging) at dedicated facilities
PROC9	Transfer of substance or preparation into small containers (dedicated filling line, including weighing)

Product characteristics

No additional information

Operational conditions		
Frequency and duration of use	Exposure duration	> 4 H/Day
Other given operational conditions affecting workers exposure	Indoor use	

Risk Management Measures		
Technical conditions and measures to control dispersion from source towards the worker	Not applicable	
Conditions and measures related to personal protection, hygiene and health evaluation	Breakthrough time (maximum wearing time)	> 4 h
	protective gloves	99 %

3. Exposure estimation and reference to its source

Information for contributing exposure scenario	
	COLIPA SPERC 2.1.i.v1, - ,https://www.cosmeticseurope.eu/safety-and-science-cosmetics-europe/reach-and-chemicals/use-and-exposure-information.html

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

Information for contributing exposure scenario	
	COLIPA SPERC 2.1.i.v1, - ,https://www.cosmeticseurope.eu/safety-and-science-cosmetics-europe/reach-and-chemicals/use-and-exposure-information.html

3.2. Environment

Information for contributing exposure scenario	
	COLIPA SPERC 2.1.i.v1, - ,https://www.cosmeticseurope.eu/safety-and-science-cosmetics-europe/reach-and-chemicals/use-and-exposure-information.html

4. Guidance to Downstream User to evaluate whether he works inside the boundaries set by the ES

4.1. Health

Guidance - Health	Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels
Website	https://www.cosmeticseurope.eu/safety-and-science-cosmetics-europe/reach-and-chemicals/use-and-exposure-information.html

4.2. Environment

Guidance - Environment	Predicted exposures are not expected to exeed the PNECs when the Risk Management Measures/Operational Conditions outlined in section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels
Website	https://www.cosmeticseurope.eu/safety-and-science-cosmetics-europe/reach-and-chemicals/use-and-exposure-information.html

Additional good practice advice beyond the REACH CSA

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

1. Exposure scenario 41.0

COLIPA - Formulation of Non-liquid Creams, high viscosity Products (small scale) COLIPA M1.10, M2.10, M3.10, M4.10, M5.10.1, M5.10.2, M6.10, M7.10, M8.10 ES Ref.: 41.0

ES Type: Worker

·	SU10, SU21 PROC1, PROC2, PROC3, PROC5, PROC8a, PROC8b, PROC9, PROC14, PROC15 PC39 ERC2
Processes, tasks, activities covered	Use at industrial sites (IS)

2. Operational conditions and risk management measures

2.2. Contributing scenario controlling environmental exposure (ERC2)

	ERC2	Formulation into mixture
- 1		

Product characteristics

No additional information

Operational conditions		
Amounts used	Amounts used	1080 T/year
Frequency and duration of use	Release times per year	220
Environmental factors not influenced by risk management	River flow rate	18000 m³/d
Other given operational conditions affecting environmental exposure	Release fraction to air from process (initial release prior to RMM):	0
	Release fraction to wastewater from process (initial release prior to RMM):	0,04
	Release fraction to soil from process (initial release prior to RMM):	0
	Fraction used at main source:	0,011
	Fraction of EU tonnage used in region:	0,1

Risk Management Measures		
Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil	,	https://www.cosmeticseurope.eu/s afety-and-science-cosmetics- europe/reach-and-chemicals/use- and-exposure-information.html
Conditions and measures related to sewage treatment plant	Release to municipal sewage treatment plant :	2000 m³/d

Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions
Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

	Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition
PROC14	Tabletting, compression, extrusion, pelettisation, granulation
PROC15	Use as laboratory reagent

Product characteristics

No additional information

Operational conditions		
Frequency and duration of use	Exposure duration	> 4 H/Day
Other given operational conditions affecting workers exposure	Indoor use	

Risk Management Measures		
Technical conditions and measures to control dispersion from source towards the worker	Not applicable	
Conditions and measures related to personal protection, hygiene and health evaluation	Not applicable	

2.1.2. Contributing scenario controlling worker exposure (PROC5, PROC8a, PROC8b, PROC9)

PROC5	Mixing or blending in batch processes
PROC8a	Transfer of substance or mixture (charging and discharging) at non-dedicated facilities
PROC8b	Transfer of substance or mixture (charging and discharging) at dedicated facilities
PROC9	Transfer of substance or preparation into small containers (dedicated filling line, including weighing)

Product characteristics

No additional information

Operational conditions		
Frequency and duration of use	Exposure duration	> 4 H/Day
Other given operational conditions affecting workers exposure	Indoor use	

Risk Management Measures		
Technical conditions and measures to control dispersion from source towards the worker	Not applicable	
Conditions and measures related to personal protection, hygiene and health evaluation	Breakthrough time (maximum wearing time)	> 4 h
	protective gloves	99 %

3. Exposure estimation and reference to its source

Information for contributing exposure scenario	
	COLIPA SPERC 2.1.j.v1, - ,https://www.cosmeticseurope.eu/safety-and-science-cosmetics-europe/reach-and-chemicals/use-and-exposure-information.html

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

Information for contributing exposure scenario		
	COLIPA SPERC 2.1.j.v1, - ,https://www.cosmeticseurope.eu/safety-and-science-cosmetics-europe/reach-and-chemicals/use-and-exposure-information.html	

3.2. Environment

Information for contributing exposure scenario		
	COLIPA SPERC 2.1.j.v1, - ,https://www.cosmeticseurope.eu/safety-and-science-cosmetics-europe/reach-and-chemicals/use-and-exposure-information.html	

4. Guidance to Downstream User to evaluate whether he works inside the boundaries set by the ES

4.1. Health

Guidance - Health	Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels	
Website	https://www.cosmeticseurope.eu/safety-and-science-cosmetics-europe/reach-and-chemicals/use-and-exposure-information.html	

4.2. Environment

Guidance - Environment	Predicted exposures are not expected to exeed the PNECs when the Risk Management Measures/Operational Conditions outlined in section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels
Website	https://www.cosmeticseurope.eu/safety-and-science-cosmetics-europe/reach-and-chemicals/use-and-exposure-information.html

Additional good practice advice beyond the REACH CSA

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

1. Exposure scenario 42.0

COLIPA - Formulation of body care soap (large scale) COLIPA M1.14, M2.14, M3.14, M4.14, M5.14.1, M5.14.2, M6.14, M7.14, M8.14 ES Ref.: 42.0 ES Type: Worker

· ·	SU10, SU21 PROC1, PROC2, PROC3, PROC5, PROC8a, PROC8b, PROC9, PROC14, PROC15 PC39 ERC2
Processes, tasks, activities covered	Use at industrial sites (IS)

2. Operational conditions and risk management measures

2.2. Contributing scenario controlling environmental exposure (ERC2)

22	Formulation into mixture
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Product characteristics

No additional information

Operational conditions		
Amounts used	Amounts used	1080 T/year
Frequency and duration of use	Release times per year	220
Environmental factors not influenced by risk management	River flow rate	18000 m³/d
Other given operational conditions affecting environmental exposure	Release fraction to air from process (initial release prior to RMM):	0
	Release fraction to wastewater from process (initial release prior to RMM):	0,04
	Release fraction to soil from process (initial release prior to RMM):	0
	Fraction used at main source:	0,011
	Fraction of EU tonnage used in region:	0,1

Risk Management Measures		
Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil		https://www.cosmeticseurope.eu/s afety-and-science-cosmetics- europe/reach-and-chemicals/use- and-exposure-information.html
Conditions and measures related to sewage treatment plant	Release to municipal sewage treatment plant :	2000 m³/d

PROC1	Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions
PROC2	Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

	Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition
PROC14	Tabletting, compression, extrusion, pelettisation, granulation
PROC15	Use as laboratory reagent

Product characteristics

No additional information

Operational conditions			
Frequency and duration of use Exposure duration > 4 H/Day			
Other given operational conditions affecting workers exposure	Indoor use		

Risk Management Measures		
Technical conditions and measures to control dispersion from source towards the worker	Not applicable	
Conditions and measures related to personal protection, hygiene and health evaluation	Not applicable	

2.1.2. Contributing scenario controlling worker exposure (PROC5, PROC8a, PROC8b, PROC9)

PROC5	Mixing or blending in batch processes
PROC8a	Transfer of substance or mixture (charging and discharging) at non-dedicated facilities
PROC8b	Transfer of substance or mixture (charging and discharging) at dedicated facilities
PROC9	Transfer of substance or preparation into small containers (dedicated filling line, including weighing)

Product characteristics

No additional information

Operational conditions		
Frequency and duration of use	Exposure duration	> 4 H/Day
Other given operational conditions affecting workers exposure	Indoor use	

Risk Management Measures		
Technical conditions and measures to control dispersion from source towards the worker	Not applicable	
Conditions and measures related to personal	Breakthrough time (maximum wearing time)	> 4 h
protection, hygiene and health evaluation	protective gloves	99 %

3. Exposure estimation and reference to its source

Information for contributing exposure scenario	
	COLIPA SPERC 2.3.a.v1, - ,https://www.cosmeticseurope.eu/safety-and-science-cosmetics-europe/reach-and-chemicals/use-and-exposure-information.html

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

Information for contributing exposure scenario	
	COLIPA SPERC 2.3.a.v1, - ,https://www.cosmeticseurope.eu/safety-and-science-cosmetics-europe/reach-and-chemicals/use-and-exposure-information.html

3.2. Environment

Information for contributing exposure scenario	
	COLIPA SPERC 2.3.a.v1, - ,https://www.cosmeticseurope.eu/safety-and-science-cosmetics-europe/reach-and-chemicals/use-and-exposure-information.html

4. Guidance to Downstream User to evaluate whether he works inside the boundaries set by the ES

4.1. Health

Guidance - Health	Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels
Website	https://www.cosmeticseurope.eu/safety-and-science-cosmetics-europe/reach-and-chemicals/use-and-exposure-information.html

4.2. Environment

Guidance - Environment	Predicted exposures are not expected to exeed the PNECs when the Risk Management Measures/Operational Conditions outlined in section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels
Website	https://www.cosmeticseurope.eu/safety-and-science-cosmetics-europe/reach-and-chemicals/use-and-exposure-information.html

Additional good practice advice beyond the REACH CSA

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

1. Exposure scenario 43.0

COLIPA - Formulation of body care soap (medium scale) COLIPA M1.15, M2.15, M3.15, M4.15, M5.15.1, M5.15.2, M6.15, M7.15, M8.15 ES Ref.: 43.0 ES Type: Worker

·	SU10, SU21 PROC1, PROC2, PROC3, PROC5, PROC8a, PROC8b, PROC9, PROC14, PROC15 PC39 ERC2
Processes, tasks, activities covered	Use at industrial sites (IS)

2. Operational conditions and risk management measures

2.2. Contributing scenario controlling environmental exposure (ERC2)

Е	ERC2	Formulation into mixture
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Product characteristics

No additional information

Operational conditions		
Amounts used	Amounts used	1080 T/year
Frequency and duration of use	Release times per year	220
Environmental factors not influenced by risk management	River flow rate	18000 m³/d
Other given operational conditions affecting environmental exposure	Release fraction to air from process (initial release prior to RMM):	0
	Release fraction to wastewater from process (initial release prior to RMM):	0,01
	Release fraction to soil from process (initial release prior to RMM):	0
	Fraction used at main source:	0,44
	Fraction of EU tonnage used in region:	0,1

Risk Management Measures		
Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil		https://www.cosmeticseurope.eu/s afety-and-science-cosmetics- europe/reach-and-chemicals/use- and-exposure-information.html
Conditions and measures related to sewage treatment plant	Release to municipal sewage treatment plant :	2000 m³/d

PROC1	Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions
PROC2	Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

	Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition
PROC14	Tabletting, compression, extrusion, pelettisation, granulation
PROC15	Use as laboratory reagent

Product characteristics

No additional information

Operational conditions		
Frequency and duration of use	Exposure duration	> 4 H/Day
Other given operational conditions affecting workers exposure	Indoor use	

Risk Management Measures		
Technical conditions and measures to control dispersion from source towards the worker	Not applicable	
Conditions and measures related to personal protection, hygiene and health evaluation	Not applicable	

2.1.2. Contributing scenario controlling worker exposure (PROC5, PROC8a, PROC8b, PROC9)

PROC5	Mixing or blending in batch processes
PROC8a	Transfer of substance or mixture (charging and discharging) at non-dedicated facilities
PROC8b	Transfer of substance or mixture (charging and discharging) at dedicated facilities
PROC9	Transfer of substance or preparation into small containers (dedicated filling line, including weighing)

Product characteristics

No additional information

Operational conditions		
Frequency and duration of use	Exposure duration	> 4 H/Day
Other given operational conditions affecting workers exposure	Indoor use	

Risk Management Measures		
Technical conditions and measures to control dispersion from source towards the worker	Not applicable	
Conditions and measures related to personal protection, hygiene and health evaluation	Breakthrough time (maximum wearing time)	> 4 h
	protective gloves	99 %

3. Exposure estimation and reference to its source

Information for contributing exposure scenario	
	COLIPA SPERC 2.3.b.v1, - ,https://www.cosmeticseurope.eu/safety-and-science-cosmetics-europe/reach-and-chemicals/use-and-exposure-information.html

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

Information for contributing exposure scenario	
	COLIPA SPERC 2.3.b.v1, - ,https://www.cosmeticseurope.eu/safety-and-science-cosmetics-europe/reach-and-chemicals/use-and-exposure-information.html

3.2. Environment

Information for contributing exposure scenario	
	COLIPA SPERC 2.3.b.v1, - ,https://www.cosmeticseurope.eu/safety-and-science-cosmetics-europe/reach-and-chemicals/use-and-exposure-information.html

4. Guidance to Downstream User to evaluate whether he works inside the boundaries set by the ES

4.1. Health

Guidance - Health	Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels
Website	https://www.cosmeticseurope.eu/safety-and-science-cosmetics-europe/reach-and-chemicals/use-and-exposure-information.html

4.2. Environment

Guidance - Environment	Predicted exposures are not expected to exeed the PNECs when the Risk Management Measures/Operational Conditions outlined in section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels
Website	https://www.cosmeticseurope.eu/safety-and-science-cosmetics-europe/reach-and-chemicals/use-and-exposure-information.html

Additional good practice advice beyond the REACH CSA

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

1. Exposure scenario 44.0

COLIPA - Formulation of body care soap (small scale) COLIPA M1.9, M2.9, M3.9, M4.9, M5.9.1, M5.9.2, M6.9, M7.9, M8.9 ES Ref.: 44.0 ES Type: Worker

·	SU10, SU21 PROC1, PROC2, PROC3, PROC5, PROC8a, PROC8b, PROC9, PROC14, PROC15 PC39 ERC2
Processes, tasks, activities covered	Use at industrial sites (IS)

2. Operational conditions and risk management measures

2.2. Contributing scenario controlling environmental exposure (ERC2)

ERC2 Formulation into mixture	
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Product characteristics

No additional information

Operational conditions		
Amounts used	Amounts used	1080 T/year
Frequency and duration of use	Release times per year	20
Environmental factors not influenced by risk management	River flow rate	18000 m³/d
Other given operational conditions affecting environmental exposure	Release fraction to air from process (initial release prior to RMM):	0
	Release fraction to wastewater from process (initial release prior to RMM):	0,02
	Release fraction to soil from process (initial release prior to RMM):	0
	Fraction used at main source:	0,0185
	Fraction of EU tonnage used in region:	0,1

Risk Management Measures		
Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil		https://www.cosmeticseurope.eu/s afety-and-science-cosmetics- europe/reach-and-chemicals/use- and-exposure-information.html
Conditions and measures related to sewage treatment plant	Release to municipal sewage treatment plant :	2000 m³/d

PROC1	Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions
PROC2	Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

	Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition
PROC14	Tabletting, compression, extrusion, pelettisation, granulation
PROC15	Use as laboratory reagent

Product characteristics

No additional information

Operational conditions		
Frequency and duration of use	Exposure duration	> 4 H/Day
Other given operational conditions affecting workers exposure	Indoor use	

Risk Management Measures		
Technical conditions and measures to control dispersion from source towards the worker	Not applicable	
Conditions and measures related to personal protection, hygiene and health evaluation	Not applicable	

2.1.2. Contributing scenario controlling worker exposure (PROC5, PROC8a, PROC8b, PROC9)

PROC5	Mixing or blending in batch processes
PROC8a	Transfer of substance or mixture (charging and discharging) at non-dedicated facilities
PROC8b	Transfer of substance or mixture (charging and discharging) at dedicated facilities
PROC9	Transfer of substance or preparation into small containers (dedicated filling line, including weighing)

Product characteristics

No additional information

Operational conditions		
Frequency and duration of use	Exposure duration	> 4 H/Day
Other given operational conditions affecting workers exposure	Indoor use	

Risk Management Measures		
Technical conditions and measures to control dispersion from source towards the worker	Not applicable	
Conditions and measures related to personal protection, hygiene and health evaluation	Breakthrough time (maximum wearing time)	> 4 h
	protective gloves	99 %

3. Exposure estimation and reference to its source

Information for contributing exposure scenario	
	COLIPA SPERC 2.3.b.v1, - ,https://www.cosmeticseurope.eu/safety-and-science-cosmetics-europe/reach-and-chemicals/use-and-exposure-information.html

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

Information for contributing exposure scenario		
	COLIPA SPERC 2.3.b.v1, - ,https://www.cosmeticseurope.eu/safety-and-science-cosmetics-europe/reach-and-chemicals/use-and-exposure-information.html	

3.2. Environment

Information for contributing exposure scenarion	io .
	COLIPA SPERC 2.3.c.v1, - ,https://www.cosmeticseurope.eu/safety-and-science-cosmetics-europe/reach-and-chemicals/use-and-exposure-information.html

4. Guidance to Downstream User to evaluate whether he works inside the boundaries set by the ES

4.1. Health

Guidance - Health	Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels
Website	https://www.cosmeticseurope.eu/safety-and-science-cosmetics-europe/reach-and-chemicals/use-and-exposure-information.html

4.2. Environment

Guidance - Environment	Predicted exposures are not expected to exeed the PNECs when the Risk Management Measures/Operational Conditions outlined in section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels
Website	https://www.cosmeticseurope.eu/safety-and-science-cosmetics-europe/reach-and-chemicals/use-and-exposure-information.html

Additional good practice advice beyond the REACH CSA

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

1. Exposure scenario 45.0

COLIPA - Wide Dispersive Use in 'Down the Drain' products - hair and skin care products (Consumers and Professionals)

Fraction of EU tonnage to region: 0,053 - End use of cosmetic products

ES Ref.: 45.0 ES Type: Worker

Use descriptors	SU10, SU21 ERC8a
Processes, tasks, activities covered	Use at industrial sites (IS)

2. Operational conditions and risk management measures

2.2. Contributing scenario controlling environmental exposure (ERC8a)

ERC8a Widespread use of non-reactive processing aid (no inclusion into or onto article, indoor)

Product characteristics

No additional information

Operational conditions		
Amounts used	Fraction of EU tonnage used in region:	0,53
	Amounts used	1080 T/year
Frequency and duration of use	Release times per year	365
Environmental factors not influenced by risk management	River flow rate	18000 m³/d
Other given operational conditions affecting environmental exposure	Release fraction to air from process (initial release prior to RMM):	0
	Release fraction to wastewater from process (initial release prior to RMM):	1
	Release fraction to soil from process (initial release prior to RMM):	0
	Fraction used at main source:	0,0075
	Fraction of EU tonnage used in region:	0,1

Risk Management Measures			
Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil	COLIPA SPERC 8a.1.a.v1	https://www.cosmeticseurope.eu/s afety-and-science-cosmetics- europe/reach-and-chemicals/use- and-exposure-information.html	
Conditions and measures related to sewage treatment plant	Release to municipal sewage treatment plant :	2000 m³/d	

3. Exposure estimation and reference to its source

3.1. Health

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

3.2. Environment

Information for contributing exposure scenari	o
	COLIPA SPERC 8a.1.a.v1, - ,https://www.cosmeticseurope.eu/safety-and-science-cosmetics-europe/reach-and-chemicals/use-and-exposure-information.html

4. Guidance to Downstream User to evaluate whether he works inside the boundaries set by the ES

4.1. Health

Guidance - Health Not applicable		Not applicable
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4.2. Environment

Guidance - Environment	Predicted exposures are not expected to exeed the PNECs when the Risk Management Measures/Operational Conditions outlined in section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels
Website	https://www.cosmeticseurope.eu/safety-and-science-cosmetics-europe/reach-and-chemicals/use-and-exposure-information.html

Additional good practice advice beyond the REACH CSA

Annex to the safety data sheet: Exposure scenario
CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

1. Exposure scenario 46.0

COLIPA - Wide Dispersive Use of Aerosol products for hair and skin care (Non-propellants) Fraction of EU tonnage to region: 0,053 - End use of cosmetic products

ES Ref.: 46.0 ES Type: Worker

Use descriptors	SU10, SU21 ERC8a
Processes, tasks, activities covered	Use at industrial sites (IS)

2. Operational conditions and risk management measures

2.2. Contributing scenario controlling environmental exposure (ERC8a)

ERC8a Widespread use of non-reactive processing aid (no inclusion into or onto article, indoor)

Product characteristics

No additional information

Operational conditions		
Amounts used	Fraction of EU tonnage used in region:	0,53
	Amounts used	2700 T/year
Frequency and duration of use	Release times per year	365
Environmental factors not influenced by risk management	River flow rate	18000 m³/d
Other given operational conditions affecting environmental exposure	Release fraction to air from process (initial release prior to RMM):	0
	Release fraction to wastewater from process (initial release prior to RMM):	1
	Release fraction to soil from process (initial release prior to RMM):	0
	Fraction used at main source:	0,0075
	Fraction of EU tonnage used in region:	0,1

Risk Management Measures		
Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil	COLIPA SPERC 8a.1.c.v1	https://www.cosmeticseurope.eu/s afety-and-science-cosmetics- europe/reach-and-chemicals/use- and-exposure-information.html
Conditions and measures related to sewage treatment plant	Release to municipal sewage treatment plant :	2000 m³/d

3. Exposure estimation and reference to its source

3.1. Health

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

3.2. Environment

Information for contributing exposure scenarion	io
	COLIPA SPERC 8a.1.c.v1, - ,https://www.cosmeticseurope.eu/safety-and-science-cosmetics-europe/reach-and-chemicals/use-and-exposure-information.html

4. Guidance to Downstream User to evaluate whether he works inside the boundaries set by the ES

4.1. Health

Guidance - Health	Not applicable
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4.2. Environment

Guidance - Environment	Predicted exposures are not expected to exeed the PNECs when the Risk Management Measures/Operational Conditions outlined in section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels
Website	https://www.cosmeticseurope.eu/safety-and-science-cosmetics-europe/reach-and-chemicals/use-and-exposure-information.html

Additional good practice advice beyond the REACH CSA

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

1. Exposure scenario 47.0

Manufacture of substances	
ES Ref.: 47.0 ES Type: Worker	

Use descriptors	SU3 PROC1, PROC2, PROC3, PROC4, PROC8a, PROC8b, PROC9, PROC15 ERC1
Processes, tasks, activities covered	Use at industrial sites (IS)

2. Operational conditions and risk management measures

2.2. Contributing scenario controlling environmental exposure (ERC2)

ERC2 Formulation into mixture	
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Product characteristics

No additional information

Operational conditions		
Amounts used	Amounts used	> 1000 T/year
Frequency and duration of use	Release times per year	200
Environmental factors not influenced by risk management	River flow rate	6912000 m³/d
Other given operational conditions affecting environmental exposure	No direct discharge to marine water compartment	
	Release fraction to air from process (initial release prior to RMM):	0
	Release fraction to wastewater from process (initial release prior to RMM):	0,01
	Release fraction to soil from process (initial release prior to RMM):	0
	Fraction used at main source:	1
	Fraction of EU tonnage used in region:	1

Risk Management Measures		
Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil	spERC : Manufacture of amides, C8-C18 (even- numbered) and C18 (unsatd.), N, N-bis(hydroxyethyl)	https://www.cosmeticseurope.eu/s afety-and-science-cosmetics- europe/reach-and-chemicals/use- and-exposure-information.html
Conditions and measures related to sewage treatment plant	Release to municipal sewage treatment plant :	1300 m³/d
Conditions and measures related to external recovery of waste	Reduction of sludge to soil:	99 %

PROC1	Chemical production or refinery in closed process without likelihood of exposure or	
	processes with equivalent containment conditions	

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

PROC2	Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions
PROC3	Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition
PROC15	Use as laboratory reagent

Product characteristics

No additional information

Operational conditions		
Frequency and duration of use	Exposure duration	> 4 H/Day
Other given operational conditions affecting workers exposure	Indoor use	

Risk Management Measures		
Technical conditions and measures to control dispersion from source towards the worker	Not applicable	
Conditions and measures related to personal protection, hygiene and health evaluation	Not applicable	

2.1.2. Contributing scenario controlling worker exposure (PROC5, PROC8a, PROC8b, PROC9)

PROC5	Mixing or blending in batch processes
PROC8a	Transfer of substance or mixture (charging and discharging) at non-dedicated facilities
PROC8b	Transfer of substance or mixture (charging and discharging) at dedicated facilities
PROC9	Transfer of substance or preparation into small containers (dedicated filling line, including weighing)

Product characteristics

No additional information

Operational conditions		
Frequency and duration of use	Exposure duration	> 4 H/Day
Other given operational conditions affecting workers exposure	Indoor use	

Risk Management Measures		
Technical conditions and measures to control dispersion from source towards the worker	Not applicable	
Conditions and measures related to personal protection, hygiene and health evaluation	protective gloves	99 %
	Breakthrough time (maximum wearing time)	> 4 h

Annex to the safety data sheet: Exposure scenario CAS-No.: 68603-42-9, 68155-07-7 (related CAS numbers) Product form: Substance Physical state: Liquid

3. Exposure estimation and reference to its source

3.1. Health

Information for contributing exposure scenario	
2.1.1	spERC,Manufacture of amides, C8-C18 (even-numbered) and C18 (unsatd.), N, N-bis(hydroxyethyl)
2.1.2	spERC,Manufacture of amides, C8-C18 (even-numbered) and C18 (unsatd.), N, N-bis(hydroxyethyl)

3.2. Environment

Information for contributing exposure scenario	
2.2	spERC :Manufacture of amides, C8-C18 (even-numbered) and C18 (unsatd.), N, N-bis(hydroxyethyl)

4. Guidance to Downstream User to evaluate whether he works inside the boundaries set by the ES

4.1. Health

Guidance - Health	Predicted exposures are not expected to exceed the DN(M)EL when the Risk
	Management Measures/Operational Conditions outlined in Section 2 are implemented

4.2. Environment

Guidance - Environment	Predicted exposures are not expected to exeed the PNECs when the Risk Management
	Measures/Operational Conditions outlined in section 2 are implemented. Where other Risk
	Management Measures/Operational Conditions are adopted, then users should ensure
	that risks are managed to at least equivalent levels

Additional good practice advice beyond the REACH CSA