Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 26.01.2021 Version number 7 Revision: 26.01.2021

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

· **Product identifier**

· **Trade name: WALLAMID KD 11**

· **Article number:** 531082
· **CAS Number:**
68603-42-9
· **EC number:**
271-657-0
· **Registration number** 01-2119490100-53 (EC931-329-6)
· **Relevant identified uses of the substance or mixture and uses advised against** .
· **Application of the substance / the mixture** Emulsifier
· **Uses advised against** No further relevant information available.

· **Details of the supplier of the safety data sheet**
· **Manufacturer/Supplier:**
Wall Chemie GmbH
Am Selder 25
D-47906 KEMPEN
DEUTSCHLAND
Tel.: +49 2152 8999 0
E-Mail: sicherheit@wall-chemie.com

· **Further information obtainable from:** Safety and health group
· **Emergency telephone number:**
This number is serviced during office hours: +49 2152 8999 0
Giftinformationszentrum Nord 24h-information: +49 551 19240

2 Hazards identification

· **Classification of the substance or mixture**
· **Classification according to Regulation (EC) No 1272/2008**

GHS05 corrosion

Eye Dam. 1 H318 Causes serious eye damage.

GHS09 environment

Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.

GHS07

Skin Irrit. 2 H315 Causes skin irritation.

· **Label elements**
· **Labelling according to Regulation (EC) No 1272/2008**
The substance is classified and labelled according to the CLP regulation.
· **Hazard pictograms**

GHS05 GHS09

· **Signal word** Danger

· **(Hazard-determining) components of labelling:** 68603-42-9 Fatty acid diethanolamide

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· **Hazard statements**
H315 Causes skin irritation.
H318 Causes serious eye damage.
H411 Toxic to aquatic life with long lasting effects.
· **Precautionary statements**

P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
P302+P352	IF ON SKIN: Wash with plenty of soap and water.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P391	Collect spillage.

· **Other hazards**
· **Results of PBT and vPvB assessment**
· **PBT:** Not applicable.
· **vPvB:** Not applicable.

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3 Composition/information on ingredients

· **Chemical characterisation: Substances**
· **CAS No. Description**
68603-42-9 Fatty acid diethanolamide
· **Identification number(s)**
· **EC number:** 271-657-0
· **Additional information:**
Substance name (other) / REACH:
Amides, C8-18 (even numbered) and C18-unsatd., N, N-bis(hydroxyethyl)
EC: 931-329-6 / CAS: --

· **Impurities and stabilising additives:**
Contains <3% of an identified impurity deriving from the process used:
2.2'-Iminodiethanol
CAS: 111-42-2

4 First aid measures

· **Description of first aid measures**
· **After inhalation:**
In case of unconsciousness place patient stably in side position for transportation.
Supply fresh air; consult doctor in case of complaints.
· **After skin contact:**
Immediately wash with water and soap and rinse thoroughly.
If skin irritation continues, consult a doctor.
· **After eye contact:**
Rinse opened eye for several minutes under running water. Then consult a doctor.
· **After swallowing:**
Seek medical treatment.
Rinse mouth.
Do not induce vomiting.
· **Information for doctor:**
· **Most important symptoms and effects, both acute and delayed**
No further relevant information available.

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· **Indication of any immediate medical attention and special treatment needed**
Risk of aspiration.

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5 Firefighting measures

· **Extinguishing media**
· **Suitable extinguishing agents:**
CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
· **For safety reasons unsuitable extinguishing agents:** Water with full jet
· **Special hazards arising from the substance or mixture**
In case of fire, the following can be released:
Organic decomposition products
Carbon oxides (COx)
Nitrogen oxides (NOx)
· **Advice for firefighters**
· **Protective equipment:** Use suitable breathing apparatus if necessary.

6 Accidental release measures

· **Personal precautions, protective equipment and emergency procedures**
Particular danger of slipping on leaked/spilled product.
Avoid contact with the eyes and skin.
Wear protective equipment. Keep unprotected persons away.
· **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
· **Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Ensure adequate ventilation.
· **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

· **Handling:**
· **Precautions for safe handling**
Ensure good ventilation/exhaustion at the workplace.
Open and handle receptacle with care.
Prevent formation of aerosols.
Wear protective clothing.
Do not eat, drink or smoke in working area.
· **Information about fire - and explosion protection:** No special measures required.

· **Conditions for safe storage, including any incompatibilities**
· **Storage:**
· **Requirements to be met by storerooms and receptacles:** Store only in the original receptacle.
· **Information about storage in one common storage facility:** Not required.
· **Further information about storage conditions:** None.
· **Storage class:** Combustible liquid.
· **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

· **Additional information about design of technical facilities:** No further data; see item 7.

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· **Control parameters**
· **Ingredients with limit values that require monitoring at the workplace:**

· **DNELs**		
Dermal	DNEL (Long-term, systemic effects)	4.16 mg/kg/d (worker)
Inhalative	DNEL (Long-term, systemic effects)	73.4 mg/m³ (worker)

· **PNECs**	
PNEC	0.0024 mg/l (--) (marine water (Intermittent releases))
	0.007 mg/l (fresh water)
	0.0007 mg/l (seawater)
	0.024 mg/l (water (intermittent release))
	830 mg/l (wastewater treatment plant)
PNEC	0.195 mg/kg (Sediment (Süßwasser))
	0.019 mg/kg (sediment)
	0.035 mg/kg (soil)

· **Additional information:** The lists valid during the making were used as basis.

· **Exposure controls**
· **Personal protective equipment:**
· **General protective and hygienic measures:**
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work.
Avoid contact with the eyes and skin.
Do not eat, drink, smoke or sniff while working.
The recommended specification of the protective clothing articles is to be chosen according to the duration of the exposition, the concentration and the amount of the dangerous substances at the working environment. Seek advice of the suppliers.
· **Respiratory protection:**
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.
· **Protection of hands:**

Protective gloves

· **Material of gloves**
e.g. Nitrile rubber, NBR
Recommended thickness of the material: ≥ 0.5 mm
· **Penetration time of glove material**
Minimum breakthrough time : > 120 min (Permeation according to EN 374 Part 3: level 4)
· **Eye protection:**

Tightly sealed goggles (EN 166).

· **Body protection:** Protective work clothing

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9 Physical and chemical properties

· **Information on basic physical and chemical properties**	
· **General Information**	
· **Appearance:**	
Form:	Fluid
Colour:	Yellowish
· **Odour:**	Characteristic
· **Odour threshold:**	Not determined.
· **pH-value (10 g/l) at 20 °C:**	9.0-11.0
· **Change in condition**	
Melting point/freezing point:	Undetermined.
Initial boiling point and boiling range:	Undetermined.
· **Flash point:**	Undetermined.
· **Flammability (solid, gas):**	Not applicable.
· **Decomposition temperature:**	Not determined.
· **Auto-ignition temperature:**	Not determined.
· **Explosive properties:**	Product does not present an explosion hazard.
· **Explosion limits:**	
Lower:	Not determined.
Upper:	Not determined.
· **Vapour pressure:**	Not determined.
· **Density at 20 °C:**	0.99 g/cm³
· **Relative density**	Not determined.
· **Vapour density**	Not determined.
· **Evaporation rate**	Not determined.
· **Solubility in / Miscibility with water:**	Dispersible.
· **Partition coefficient: n-octanol/water:**	Product is an emulsifier.
· **Viscosity:**	
Dynamic at 20 °C:	800 mPas
Kinematic:	Not determined.
· **Other information**	No further relevant information available.

10 Stability and reactivity

· **Reactivity** Product is stable under normal ambient conditions.
· **Chemical stability**
· **Thermal decomposition / conditions to be avoided:**
No decomposition if used according to specifications.
· **Possibility of hazardous reactions** No dangerous reactions known.
· **Conditions to avoid** No further relevant information available.
· **Incompatible materials:** No further relevant information available.
· **Hazardous decomposition products:** No dangerous decomposition products known.

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11 Toxicological information

· **Information on toxicological effects**
· **Acute toxicity** Based on available data, the classification criteria are not met.

· **LD/LC50 values relevant for classification:**		
Oral	LD50	>2,000 mg/kg (rat)
Dermal	LD50	>2,000 mg/kg (rat)

· **Primary irritant effect:**
· **Skin corrosion/irritation**
Causes skin irritation.
· **Serious eye damage/irritation**
Causes serious eye damage.
· **Respiratory or skin sensitisation** No sensitising effects known.
· **Additional toxicological information:**
· **CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)**
· **Germ cell mutagenicity** no data
· **Carcinogenicity** no data
· **Reproductive toxicity** no data
· **STOT-single exposure** no data
· **STOT-repeated exposure** no data
· **Aspiration hazard** no data

12 Ecological information

· **Toxicity**

· **Aquatic toxicity:**	
EC50	3.9 mg/l (alga) (72 h (nominal) / REACH Dossier)
	3.2 mg/l (daphne) (48 h (nominal) / REACH Dossier)
LC50	2.4 mg/l (fish) (96 h (nominal) / REACH Dossier)
chronic NOEC / ECx	0.3 mg/l (alga) (72 h (nominal) / REACH Dossier)
	0.07 mg/l (daphne) (21d / 0,1mg/l (nominal)/ REACH Dossier)
	0.32 mg/l (fish) ((REACH dossier))

· **Persistence and degradability**
These surfactants comply with the biodegradability criteria as laid down in Regulation (EC) No. 648/2004 on detergents. Data to support this assertion are held at the disposal of the competent authorities of the Member States and will be made available to them, at their direct request or at the request of a detergent manufacturer.
readily biodegradable
Degradation rate >90% Time (d) 28 days Method OECD 301B
· **Behaviour in environmental systems:**
· **Bioaccumulative potential** No further relevant information available.
· **Mobility in soil** No further relevant information available.
· **Additional ecological information:**
· **General notes:**
Water hazard class 2 (German Regulation) (Assessment by list): hazardous for water
Do not allow product to reach ground water, water course or sewage system.
Danger to drinking water if even small quantities leak into the ground.
· **Results of PBT and vPvB assessment**
· **PBT:** Not applicable.
· **vPvB:** Not applicable.
· **Other adverse effects** No further relevant information available.

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13 Disposal considerations

· **Waste treatment methods**
· **Recommendation**
Can be burned with household garbage after consulting with the waste disposal facility operator and the pertinent authorities and adhering to the necessary technical regulations.
· **Waste disposal key:**
Determine wastes code in compliance with local waste management company according the European Waste Catalogue (EWC).

· **Uncleaned packaging:**
· **Recommendation:** Disposal must be made according to official regulations.
· **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

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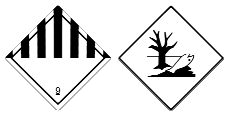
14 Transport information

· **UN-Number**	
· **ADR, IMDG, IATA**	UN3082
· **UN proper shipping name**	
· **ADR**	3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Fatty acid diethanolamide)
· **IMDG**	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Fatty acid diethanolamide), MARINE POLLUTANT
· **IATA**	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Fatty acid diethanolamide)
· **Transport hazard class(es)**	
· **ADR, IMDG, IATA**	
· **Class**	9 Miscellaneous dangerous substances and articles.
· **Label**	9
· **Packing group**	
· **ADR, IMDG, IATA**	III
· **Environmental hazards:**	
· **Marine pollutant:**	Yes (P) Symbol (fish and tree)
· **Special marking (ADR):**	Symbol (fish and tree)
· **Special marking (IATA):**	Symbol (fish and tree)
· **Special precautions for user**	Warning: Miscellaneous dangerous substances and articles.
· **Hazard identification number (Kemler code):**	90
· **EMS Number:**	F-A,S-F
· **Stowage Category**	A
· **Transport in bulk according to Annex II of Marpol and the IBC Code**	Not applicable.

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· **Transport/Additional information:**

· **ADR**	
· **Limited quantities (LQ)**	5L
· **Excepted quantities (EQ)**	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· **Transport category**	3
· **Tunnel restriction code**	(-)
· **IMDG**	
· **Limited quantities (LQ)**	5L
· **Excepted quantities (EQ)**	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· **UN "Model Regulation":**	UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Fatty acid diethanolamide), 9, III

15 Regulatory information

· **Safety, health and environmental regulations/legislation specific for the substance or mixture**

· **Directive 2012/18/EU**
· **Seveso category** HAZARDOUS TO THE AQUATIC ENVIRONMENT E2
· **Qualifying quantity (tonnes) for the application of lower-tier requirements** 200 t
· **Qualifying quantity (tonnes) for the application of upper-tier requirements** 500 t
· **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3
· **Chemical safety assessment:** A Chemical Safety Assessment has been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Department issuing SDS:** Safety and Health group
· **Contact:** Dr. Astrid Kawka, Dr. Dieter Kawka
· **Abbreviations and acronyms:**
ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
P: Marine Pollutant
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
DNEL: Derived No-Effect Level (REACH)
PNEC: Predicted No-Effect Concentration (REACH)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Skin Irrit. 2: Skin corrosion/irritation – Category 2
Eye Dam. 1: Serious eye damage/eye irritation – Category 1
Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2
· *** Data compared to the previous version altered.**

Anhang zum **Sicherheitsdatenblatt**

gemäß 1907/2006/EG, Artikel 31

Druckdatum: 04.07.2018 überarbeitet am: 04.07.2018

Inhalt

Titles of registered exposure scenarios
Please note, that this is just an overview of the main exposure scenarios of the pure substance. For detailed information, please contact us stating the title(s) of the scenario(s) that are relevant for you at info@wall-chemie.com
Keyword REACH KD11 - Exposure Scenarios

(C8-18 and C18-unsatd. DEA - Wallchemie - CSR (Ch 9-10) - 04May18)

Life Cycle description

Manufacture

M-1 (Exposure scenario 1)	**Manufacture of the substance** **Environment contributing scenario(s):** CS 1 Manufacture of the substance ERC 1 **Worker contributing scenario(s):** CS 2 Closed process without likelihood of exposure PROC 1 CS 3 Closed continuous process with occasional controlled exposure PROC 2 CS 4 Closed batch processes with occasional controlled exposure PROC 3 CS 5 Processes with opportunity for exposure PROC 5 CS 6 Transfer of substance at non-dedicated facilities PROC 8a CS 7 Transfer of substance at dedicated facilities PROC 8b CS 8 Cleaning and maintenance activities PROC 8a CS 9 Sampling and analysis at laboratory PROC 15		

Formulation or re-packing

F-1 Cosmetics Europe uses (Exposure Scenario 2)	**Manufacture of cosmetic products** **Market sector:** Cosmetics Europe uses **Product category formulated:** PC 39: Cosmetics, personal care products **Environment contributing scenario(s) / SPERC:** CS 1 Manufacture of cosmetic products ERC 2 Cosmetics Europe 2.1.a.v2: Formulation of low viscosity liquids (large scale) CS 2 Manufacture of cosmetic products ERC 2 Cosmetics Europe 2.1.b.v2: Formulation of low viscosity liquids (medium scale) CS 3 Manufacture of cosmetic products ERC 2 Cosmetics Europe 2.1.c.v2: Formulation of low viscosity liquids (small Scale) CS 4 Manufacture of cosmetic products ERC 2 Cosmetics Europe 2.1.d.v2: Formulation of Fine Fragrances - Cleaning with Water CS 5 Manufacture of cosmetic products ERC 2 Cosmetics Europe 2.1.f.v2: Formulation of High Viscosity Body Care Products (medium scale) CS 6 Manufacture of cosmetic products ERC 2 Cosmetics Europe 2.1.g.v2: Formulation of High Viscosity Body Care Products (small scale) CS 7 Manufacture of cosmetic products ERC 2 Cosmetics Europe 2.1.h.v2: Formulation of Non-liquid Creams (large scale) CS 8 Manufacture of cosmetic products ERC 2 Cosmetics Europe 2.1.i.v2: Formulation of Non-liquid Creams (medium scale) CS 9 Manufacture of cosmetic products ERC 2 Cosmetics Europe 2.1.j.v2: Formulation of Non-liquid Creams (small scale)		

	CS 10	Manufacture of cosmetic products Cosmetics Europe 2.2.a.v2: Formulation of cosmetic products involving cleaning with organic solvents (varnish, removers, decorative cosmetics, spray, lacquer, fine fragrance, solar oil, solid products) (large scale)	ERC 2
	CS 11	Manufacture of cosmetic products Cosmetics Europe 2.2.b.v2: Formulation of cosmetic products involving cleaning with organic solvents (varnish, removers, decorative cosmetics, spray, lacquer, fine fragrance, solar oil, solid products) (medium scale)	ERC 2
	CS 12	Manufacture of cosmetic products Cosmetics Europe 2.2.c.v2: Formulation of cosmetic products involving cleaning with organic solvents (varnish, removers, decorative cosmetics, spray, lacquer, fine fragrance, solar oil, solid products) (small scale)	ERC 2
	CS 13	Manufacture of cosmetic products Cosmetics Europe / AISE 2.3.a.v2 - Formulation of solid cosmetic and home care products (large scale)	ERC 2
	CS 14	Manufacture of cosmetic products Cosmetics Europe / AISE 2.3.b.v2 - Formulation of solid cosmetic and home care products (medium scale)	ERC 2
	CS 15	Manufacture of cosmetic products Cosmetics Europe / AISE 2.3.c.v2 - Formulation of solid cosmetic and home care products (small scale)	ERC 2
	Worker contributing scenario(s) / SWED:		
	CS 16	Formulation of cosmetic products in closed process without likelihood of exposure or processes with equivalent containment conditions CE SWED F1-I	PROC 1
	CS 17	Formulation of cosmetic products in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions CE SWED F2-I	PROC 2
	CS 18	Formulation of cosmetic products in closed batch processes with occasional controlled exposure or processes with equivalent containment condition CE SWED F3-I	PROC 3
	CS 19	Mixing or blending in batch processes during formulation of cosmetic products CE SWED F5-I	PROC 5
	CS 20	Transfer of substance or mixture (charging or discharging) at non-dedicated facilities in formulation of cosmetic products CE SWED F8a-I	PROC 8a
	CS 21	Transfer of substance or mixture (charging or discharging) at dedicated facilities in formulation of cosmetic products CE SWED F8b-I	PROC 8b
	CS 22	Transfer of substance or mixture into small containers (dedicated filling line, inclusing weighing) in formulation of cosmetic products CE SWED F9-I	PROC 9
	CS 23	Tabletting, compression, extrusion, pelletisation, granulation during formulation of cosmetic products CE SWED F14-I	PROC 14
	CS 24	Use as laboratory reagent during formulation processes of cosmetic	

		products CE SWED F15-I	PROC 15
F-2 A.I.S.E uses (Exposure Scenario 5)	**Formulation into mixture; Washing, cleaning, maintenance and disinfecting products** **Market sector:** A.I.S.E. uses **Product category formulated:** PC 3: Air care products; PC 8: Biocidal Products; PC 31: Polishes and Wax Blends; PC 35: Washing and Cleaning Products **Environment contributing scenario(s) / SPERC:**		
	CS 1	Formulation of Granular Detergents/Maintenance Products -Regular & Compact (large scale) AISE 2.1a.v2	ERC 2
	CS 2	Formulation of Granular Detergents/Maintenance Products -Regular & Compact (medium scale) AISE 2.1b.v2	ERC 2
	CS 3	Formulation of Granular Detergents/Maintenance Products -Regular & Compact (small scale) AISE 2.1c.v2	ERC 2
	CS 4	Formulation of liquid Detergents/Maintenance Products: Low Viscosity (large scale) AISE 2.1g.v2	ERC 2
	CS 5	Formulation of liquid Detergents/Maintenance Products: Low Viscosity (medium scale) AISE 2.1h.v2	ERC 2
	CS 6	Formulation of liquid Detergents/Maintenance Products: Low Viscosity (small scale) AISE 2.1i.v2	ERC 2
	CS 7	Formulation of liquid Detergents/Maintenance Products: High Viscosity (large scale) AISE 2.1j.v2	ERC 2
	CS 8	Formulation of liquid Detergents/Maintenance Products: High Viscosity (medium scale) AISE 2.1k.v2	ERC 2
	CS 9	Formulation of liquid Detergents/Maintenance Products: High Viscosity (small scale) AISE 2.1l.v2	ERC 2
	Worker contributing scenario(s) / SWED:		
	CS 10	Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions.	PROC 1
	CS 11	Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions.	PROC 2
	CS 12	Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition.	PROC 3
	CS 13	Chemical production where opportunity for exposure arises	PROC 4
	CS 14	Mixing or blending in batch processes	PROC 5

	CS 15	Transfer of substance or preparation (charging/discharging) from/ to vessels/large containers at dedicated facilities	PROC 8b
	CS 16	Transfer of substance or preparation into small containers (dedicated filling line, including weighing)	PROC 9
	CS 17	Tabletting, compression, extrusion or pelletisation	PROC 14
F-3 ATIEL uses (Exposure scenario 14)	**Group A - Formulation** **Market sector:** ATIEL uses **Product category formulated:** PC 17: Hydraulic Fluids; PC 24: Lubricants, Greases, Release Products; PC 25: Metal Working Fluids **Environment contributing scenario(s) / SPERC:** CS 1 Industrial formulation of lubricant additives, lubricants and greases. ATIEL-ATC SPERC 2.Ai-a.v1 — ERC 2 CS 2 Industrial formulation of lubricant additives, lubricants and greases. ATIEL-ATC SPERC 2.Ai-l.v1 — ERC 2 **Worker contributing scenario(s) / SWED:** CS 3 Material storage — PROC 1 CS 4 Material storage — PROC 2 CS 5 Closed continuous processes at elevated temperature with sampling, including grease manufacture — PROC 2 CS 6 Closed batch process with sampling, blending and filling including small and bulk quantity additions — PROC 3 CS 7 Open batch processes including blending, filling, mixing and addition of both bulk and small quantities — PROC 4 CS 8 Open batch processes including blending, filling, mixing and addition of both bulk and small quantities — PROC 5 CS 9 Sample collection of formulation — PROC 4 CS 10 Sample collection of incoming raw materials — PROC 8b CS 11 Bulk transfers by fixed pipe or flexible hose — PROC 8b CS 12 Small pack (drum/bag) transfers - dedicated facility — PROC 8b CS 13 Small pack (drum/bag) transfers - non dedicated facility — PROC 8a CS 14 Top filling of bulk containers — PROC 8b CS 15 Filling of drums and small packages — PROC 9 CS 16 QC & Laboratory — PROC 15 CS 17 Maintenance & cleaning — PROC 8b	

Uses at industrial sites

IW-1 A.I.S.E uses (Exposure scenario 6)	**Washing, cleaning and disinfecting products** **Market sector:** A.I.S.E. uses **Product category used:** PC 8: Biocidal Products; PC 35: Washing and Cleaning Products **Sector of use:** SU 1: Agriculture, forestry, fishery; SU 2a: Mining (without offshore industries); SU 2b: Offshore industries; SU 4: Manufacture of food products; SU 5: Manufacture of textiles, leather, fur; SU 6a: Manufacture of wood and wood products; SU 6b: Manufacture of pulp, paper and paper products;

SU 7: Printing and reproduction of recorded media; SU 8: Manufacture of bulk, large scale chemicals (including petroleum products); SU 9: Manufacture of fine chemicals; SU 11: Manufacture of rubber products; SU 12: Manufacture of plastics products, including compounding and conversion; SU 13: Manufacture of other non-metallic mineral products, e.g. plasters, cement; SU 14: Manufacture of basic metals, including alloys; SU 15: Manufacture of fabricated metal products, except machinery and equipment; SU 16: Manufacture of computer, electronic and optical products, electrical equipment; SU 17: General manufacturing, e.g. machinery, equipment, vehicles, other transport equipment.; SU 18: Manufacture of furniture; SU 19: Building and construction work; SU 20: Health services; SU 23: Electricity, steam, gas water supply and sewage treatment; SU 24: Scientific research and development

Environment contributing scenario(s) / SPERC:

CS 1	Use of non-reactive processing aid at industrial site (no inclusion into or onto article) AISE 4.1.v2	ERC 4

Worker contributing scenario(s) / SWED:

CS 2	Transfer and dilution of concentrated product by using dedicated dosing system AISE_SWED_IS_8b_1_L	PROC 8b
CS 3	Transfer and dilution of concentrated product by using dedicated dosing system AISE_SWED_IS_8b_1_S	PROC 8b
CS 4	Transfer and dilution of concentrated product by using dedicated dosing system AISE_SWED_IS_8b_2_L	PROC 8b
CS 5	Transfer and dilution of concentrated product by using dedicated dosing system AISE_SWED_IS_8b_2_S	PROC 8b
CS 6	Industrial use; Use in closed process AISE_SWED_IS_1_1	PROC 1
CS 7	Industrial use; Use in closed process AISE_SWED_IS_2_1	PROC 2
CS 8	Industrial use; Automated task; Semi-automated task; Dedicated equipment AISE_SWED_IS_4_1	PROC 4
CS 9	Industrial use; Automated task; Semi-automated task; Dedicated equipment AISE_SWED_IS_4_2	PROC 4
CS 10	Industrial spraying; Automated task; Open systems; Long term AISE_SWED_IS_7_1 v.2	PROC 7
CS 11	Industrial spraying; Automated task; Open systems; Long term AISE_SWED_IS_7_2	PROC 7
CS 12	Industrial spraying; Automated task; Open systems; Short term AISE_SWED_IS_7_3	PROC 7
CS 13	Industrial spraying; Automated task; Open systems; Long term AISE_SWED_IS_7_4	PROC 7
CS 14	Industrial spraying; Automated task; Open systems; Long term AISE_SWED_IS_7_5	PROC 7

	CS 15	Brushing; Automated task; medium RMM AISE_SWED_IS_10_1	PROC 10
	CS 16	Brushing; Automated task AISE_SWED_IS_10_2	PROC 10
	CS 17	Industrial use; Treatment of articles by dipping and pouring AISE_SWED_IS_13_1	PROC 13
	CS 18	Industrial use; Treatment of articles by dipping and pouring AISE_SWED_IS_13_2	PROC 13
	CS 19	Industrial use; Treatment of articles by dipping and pouring AISE_SWED_IS_13_3	PROC 13
	CS 20	Industrial uses; Treatment of articles by dipping and pouring AISE_SWED_IS_13_4	PROC 13
	CS 21	Equipment maintenance	PROC 8a
IW-2 A.I.S.E. uses (Exposure scenario 7)	**Metal surface treatment products** **Market sector:** A.I.S.E. uses **Product category used:** PC 14: Metal surface treatment products **Sector of use:** SU 17: General manufacturing, e.g. machinery, equipment, vehicles, other transport equipment. **Environment contributing scenario(s) / SPERC:**		
	CS 1	Industrial Use of Me-salts in conversion coating - Nickel AISE 5.1a.v2	ERC 5
	CS 2	Industrial Use of Me-salts in conversion coating - Zinc, Chromium, Copper, Manganese AISE 5.1b.v2	ERC 5
	Worker contributing scenario(s) / SWED:		
	CS 3	Transfer and dilution of concentrated product by using dedicated dosing system AISE_SWED_IS_8b_1_L	PROC 8b
	CS 4	Transfer and dilution of concentrated product by using dedicated dosing system AISE_SWED_IS_8b_1_S	PROC 8b
	CS 5	Brushing; Automated task; medium RMM AISE_SWED_IS_10_1	PROC 10
	CS 6	Industrial uses; Treatment of articles by dipping and pouring AISE_SWED_IS_13_4	PROC 13
	CS 7	Industrial uses; Treatment of articles by dipping and pouring AISE_SWED_IS_13_3	PROC 13
	CS 8	Industrial spraying; Automated task; Open systems; Long term AISE_SWED_IS_7_1 v.2	PROC 7
	CS 9	Industrial spraying; Automated task; Open systems; Long term AISE_SWED_IS_7_2	PROC 7
IW-3 ATIEL uses	**Group F – Industrial use of lubricants in high energy open processes** **Market sector:** ATIEL uses **Product category used:** PC 24: Lubricants, Greases, Release Products; PC 25: Metal Working Fluids		

(Exposure Scenario 15)	**Environment contributing scenario(s) / SPERC:**		
	CS 1	Industrial use of lubricants in high energy open processes ATIEL-ATC SPERC 4.Fi.v1	ERC 4
	Worker contributing scenario(s) / SWED:		
	CS 2	Material storage	PROC 1
	CS 3	Material storage	PROC 2
	CS 4	Automated metal rolling / forming	PROC 2
	CS 5	Fill bath with fluid	PROC 8b
	CS 6	Metal machining operations	PROC 17
	CS 7	Use of high speed machinery (not MWF uses) - open systems giving rise to mist	PROC 17
	CS 8	Use of high speed machinery (not MWF uses) - open systems giving rise to mist	PROC 18
	CS 9	Semi-automated metal rolling / forming	PROC 17
	CS 10	Draining, maintenance & cleaning of equipment	PROC 8b
IW-4 Industrial end use in oil and gas sector (Exposure scenario 17)	**Industrial use in oil and gas drilling and production operations-1** **Market sector:** Industrial end use in oil and gas sector **Product category used:** PC 41: Oil and gas exploration or production products **Sector of use:** SU 2a: Mining (without offshore industries); SU 2b: Offshore industries **Environment contributing scenario(s):**		
	CS 1	Industrial use in oil and gas drilling and production operations	ERC 4
	CS 2	Industrial use in oil and gas drilling and production operations	ERC 6b
	Worker contributing scenario(s):		
	CS 3	Closed batch processes with occasional controlled exposure	PROC 3
	CS 4	Process with opportunity for exposure	PROC 4
	CS 5	Mixing or blending in batch processes	PROC 5
	CS 6	Transfer of substance at non-dedicated facilities	PROC 8a
	CS 7	Transfer of substance at dedicated facilities	PROC 8b
	CS 8	Transfer of substance in small containers	PROC 9
	CS 9	Use as laboratory reagent	PROC 15
IW-5 Industrial end use in oil and gas sector (Exposure scenario 18)	**Industrial use in oil and gas drilling and production operations-2** **Market sector:** Industrial end use in oil and gas sector **Product category used:** PC 41: Oil and gas exploration or production products **Sector of use:** SU 2a: Mining (without offshore industries); SU 2b: Offshore industries **Environment contributing scenario(s):**		
	CS 1	Industrial use in oil and gas drilling and production operations-2	ERC 4
	CS 2	Industrial use in oil and gas drilling and production operations-2	ERC 6b
	Worker contributing scenario(s):		
	CS 3	Closed processes without exposure	PROC 1
	CS 4	Closed continuous processes with occasional controlled exposure	PROC 2
	CS 5	Closed batch processes with occasional controlled exposure	PROC 3
	CS 6	Processes with opportunity for exposure	PROC 4
	CS 7	Transfer of substance at non-dedicated facilities	PROC 8a
	CS 8	Transfer of substance at dedicated facilities	PROC 8b

	CS 9	Transfer of substance in small containers	PROC 9
	CS 10	Use as laboratory reagent	PROC 15

Uses by professional workers

PW-1 Cosmetics Europe uses (Exposure scenario 3)	**Widespread use by professional workers - Hairdressing services** **Market sector:** Cosmetics Europe uses **Product category used:** PC 39: Cosmetics, personal care products **Environment contributing scenario(s) / SPERC:** CS 1 Hairdressing services — ERC 8a Cosmetics Europe 8a.1.a.v2: Wide Dispersive Use in 'Down the Drain' products - hair and skin care products (Consumers and Professionals) CS 2 Hairdressing services — ERC 8a Cosmetics Europe 8a.1.b.v2 Wide Dispersive Use in Aerosol products for hair and skin care (Propellants) CS 3 Hairdressing services — ERC 8a Cosmetics Europe 8a.1.c.v2 Wide Dispersive Use of Aerosol products for hair and skin care (Non-Propellants) **Worker contributing scenario(s) / SWED:** CS 4 Mixing or blending in batch processes during professional application of cosmetic products — PROC 5 CS 5 Transfer of substance or mixture (charging or discharging) at non-dedicated facilities during professional application of cosmetic products — PROC 8a
PW-2 A:I:S:E uses (Exposure Scenario 8)	**Widespread use by professional workers - Professional uses; Washing, cleaning and disinfecting products** **Market sector:** A.I.S.E. uses **Product category used:** PC 8: Biocidal Products; PC 35: Washing and Cleaning Products **Sector of use:** SU 1: Agriculture, forestry, fishery; SU 2a: Mining (without offshore industries); SU 2b: Offshore industries; SU 4: Manufacture of food products; SU 5: Manufacture of textiles, leather, fur; SU 6a: Manufacture of wood and wood products; SU 6b: Manufacture of pulp, paper and paper products; SU 7: Printing and reproduction of recorded media; SU 8: Manufacture of bulk, large scale chemicals (including petroleum products); SU 9: Manufacture of fine chemicals; SU 11: Manufacture of rubber products; SU 12: Manufacture of plastics products, including compounding and conversion; SU 13: Manufacture of other non-metallic mineral products, e.g. plasters, cement; SU 14: Manufacture of basic metals, including alloys; SU 15: Manufacture of fabricated metal products, except machinery and equipment; SU 16: Manufacture of computer, electronic and optical products, electrical equipment; SU 17: General manufacturing, e.g. machinery, equipment, vehicles, other transport equipment.; SU 18: Manufacture of furniture; SU 19: Building and construction work; SU 20: Health services; SU 23: Electricity, steam, gas water supply and sewage treatment; SU 24: Scientific research and development **Environment contributing scenario(s) / SPERC:**

	CS 1	Widespread use of non-reactive processing aid (no inclusion into or onto article, indoor) AISE 8a.1a.v2	ERC 8a
	Worker contributing scenario(s) / SWED:		
	CS 2	Transfer of professional product to a container (bottle/bucket/machine) AISE_SWED_PW_8a_1_L	PROC 8a
	CS 3	Transfer of professional product to a container (bottle/bucket/machine) AISE_SWED_PW_8a_1_S	PROC 8a
	CS 4	Transfer of professional product via a dedicated system (bottle/machine) AISE_SWED_PW_8a_2_L	PROC 8a
	CS 5	Transfer of professional product via a dedicated system (bottle/machine) AISE_SWED_PW_8a_2_S	PROC 8a
	CS 6	Use in closed process; Professional uses AISE_SWED_PW_1_1	PROC 1
	CS 7	Professional uses; Use in closed process AISE_SWED_PW_3_1	PROC 3
	CS 8	Professional uses; Semi-closed system AISE_SWED_PW_4_1	PROC 4
	CS 9	Professional uses; (Trigger) spraying AISE_SWED_PW_11_1	PROC 11
	CS 10	Professional uses; (Trigger) spraying AISE_SWED_PW_11_2	PROC 11
	CS 11	Professional uses; Spraying; AISE_SWED_PW_11_3	PROC 11
	CS 12	Professional uses; Spraying; AISE_SWED_PW_11_4	PROC 11
	CS 13	Professional uses; Brushing after trigger spraying or brushing with tools AISE_SWED_PW_10_1	PROC 10
	CS 14	Professional uses; Brushing after trigger spraying or brushing with tools AISE_SWED_PW_10_2	PROC 10
	CS 15	Professional uses; Manual application AISE_SWED_PW_19_1	PROC 19
	CS 16	Professional uses; Manual application AISE_SWED_PW_19_2	PROC 19
	CS 17	Professional uses; Treatment of articles by dipping, soaking or pouring AISE_SWED_PW_13_1	PROC 13
	CS 18	Professional uses; Treatment of articles by dipping, soaking or pouring AISE_SWED_PW_13_2	PROC 13
	CS 19	Professional uses; Treatment of articles by dipping, soaking or pouring; short-term AISE_SWED_PW_13_3	PROC 13
PW-3 A.I.S.E. uses (Exposure scenario 9)	**Widespread use by professional workers - Professional uses; Polishes and wax blends** **Market sector:** A.I.S.E. uses **Product category used:** PC 31: Polishes and Wax Blends **Sector of use:** SU 5: Manufacture of textiles, leather, fur; SU 6a: Manufacture of wood and wood products; SU 18: Manufacture of furniture **Environment contributing scenario(s) /**		

	SPERC: CS 1 Widespread use of non-reactive processing aid (no inclusion into or onto article, indoor) AISE 8a.1a.v2 — ERC 8a **Worker contributing scenario(s) /** **SWED:** CS 2 Transfer of professional product to a container (bottle/bucket/machine); medium RMM — PROC 8a CS 3 Transfer of professional product via a dedicated system (bottle/machine); no RMM — PROC 8a CS 4 Professional uses; Fully closed equipment — PROC 1 CS 5 Professional uses; Semi-closed system — PROC 4 CS 6 Professional uses; Brushing; no RMM — PROC 10 CS 7 Professional uses; Brushing; medium RMM — PROC 10 CS 8 Professional uses; Manual application; no RMM — PROC 19 CS 9 Professional uses; Manual application; medium RMM — PROC 19 CS 10 Professional uses; Treatment of articles by dipping, soaking or pouring; medium RMM — PROC 13 CS 11 Professional uses; Treatment of articles by dipping, soaking or pouring; no RMM — PROC 13 CS 12 Professional uses; Treatment of articles by dipping, soaking or pouring; short-term; medium RMM — PROC 13
PW-4 ATIEL uses (Exposure scenario 16)	**Widespread use by professional workers - Group F - Professional use of lubricants in high energy open processes** **Market sector:** ATIEL uses **Product category used:** PC 24: Lubricants, Greases, Release Products; PC 25: Metal Working Fluids **Environment contributing scenario(s) /** **SPERC:** CS 1 Professional use of lubricants in high energy open processes ATIEL-ATC SPERC 8.Fp.v1 — ERC 8a **Worker contributing scenario(s) /** **SWED:** CS 2 Material storage — PROC 1 CS 3 Material storage — PROC 2 CS 4 Fill bath with fluid — PROC 8a CS 5 Metal machining operations, e.g. drilling, grinding etc. giving risk to mist — PROC 17 CS 6 Use of high speed machinery (not MWF uses) - open systems giving rise to mist — PROC 17 CS 7 Use of high speed machinery (not MWF uses) - open systems giving rise to mist — PROC 18 CS 8 Draining, maintenance & cleaning of equipment — PROC 8a

Consumer uses

C-1	**End use of cosmetic products**

Cosmetics Europe uses (Exposure scenario 4)	**Market sector:** Cosmetics Europe uses **Environment contributing scenario(s) /** **SPERC:** CS 1	End use of cosmetic products Cosmetics Europe 8a.1.a.v2: Wide Dispersive Use in 'Down the Drain' products - hair and skin care products (Consumers and Professionals)	ERC 8a
	CS 2	End use of cosmetic products Cosmetics Europe 8a.1.b.v2 Wide Dispersive Use in Aerosol products for hair and skin care (Propellants)	ERC 8a
	CS 3	End use of cosmetic products Cosmetics Europe 8a.1.c.v2 Wide Dispersive Use of Aerosol products for hair and skin care (Non-Propellants)	ERC 8a
	Consumer contributing scenario(s) / **SCED:** CS 4	End use of cosmetic products	PC 39
C-2 A:I:S:E. uses (Exposure scenario 10)	**Air care products** **Market sector:** A.I.S.E. uses **Environment contributing scenario(s) /** **SPERC:** CS 1	Wide dispersive use; Air care products; Non-Propellants AISE 8a.1b.v2	ERC 8a
	CS 2	Wide dispersive use; Air care products; Propellants AISE 8a.1c.v2	ERC 8a
	Consumer contributing scenario(s) / **SCED:** CS 3	Consumer uses; Air care products; non-aerosol AISE_SCED_PC3_7_a_1	PC 3
	CS 4	Consumer uses; Air care products; aerosol AISE_SCED_PC3_7_b_1	PC 3
C-3 A.I.S.E. uses (Exposure scenario 11)	**Washing and cleaning products** **Market sector:** A.I.S.E. uses **Environment contributing scenario(s) /** **SPERC:** CS 1	Wide dispersive use; 'Down the Drain' cleaning and maintenance products AISE 8a.1a.v2	ERC 8a
	CS 2	Wide dispersive use; Air care products; Non-Propellants AISE 8a.1b.v2	ERC 8a
	CS 3	Wide dispersive use; Air care products; Propellants AISE 8a.1c.v2	ERC 8a
	Consumer contributing scenario(s) / **SCED:** CS 4	Consumer uses; Laundry products AISE_SCED_PC35_1_a_1	PC 35
	CS 5	Consumer uses; Fabric conditioners AISE_SCED_PC35_2_a_1	PC 35

	CS 6	Consumer uses; Surface cleaners; Non-spray application AISE_SCED_PC35_3_a_1	PC 35
	CS 7	Consumer uses; Liquid surface cleaner; Spray application AISE_SCED_PC35_3_b_1	PC 35
	CS 8	Consumer uses; Machine dishwashing products AISE_SCED_PC35_4_a_1	PC 35
	CS 9	Consumer uses; Hand dishwashing products AISE_SCED_PC35_5_a_1	PC 35
C-4 A.I.S.E. uses (Exposure scenario 12)	**Polishes and wax blends** **Market sector:** A.I.S.E. uses **Environment contributing scenario(s) / SPERC:**		
	CS 1	Wide dispersive use; Polishes and wax blends	ERC 8a
	Consumer contributing scenario(s) / SCED:		
	CS 2	Consumer uses; polishes and wax blends; Non Spray application AISE_SCED_PC31_6_a_1	PC 31
	CS 3	Consumer uses; polishes and wax blends; Spray application AISE_SCED_PC31_6_b_1	PC 31
C-5 A.I.S.E. uses (Exposure scenario 13)	**Biocidal products (e.g. disinfectants, pest control)** **Market sector:** A.I.S.E. uses **Environment contributing scenario(s):**		
	CS 1	Wide dispersive use; Biocidal products (e.g. disinfectants, pest control)	ERC 8a
	Consumer contributing scenario(s):		
	CS 2	Consumer uses; Biocidal products (e.g. disinfectants, pest control)	PC 8

Uses advised against

No uses advised against are identified.

Exposure controls / personal protection

Appropriate engineering controls: Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value.

ENVIRONMENTAL EXPOSURE CONTROLS:

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

INDIVIDUAL PROTECTION MEASURES:

Respiratory protection:	Use appropriate respiratory protection if there is the potential to exceed the exposure limit(s).
Eye/face protection	Optional face shield; Eye protection with chemical goggles.
Skin protection	Substance/task appropriate gloves; Skin coverage with appropriate barrier material based on potential for contact with the chemicals