SURFAC CAT 176 MB

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878
Issue date: 13/09/2023 Revision date: 19/02/2024 Supersedes version of: 13/09/2023 Version: 2.0

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

1.1. Product identifier

Product form	: Mixture
Trade name	: SURFAC CAT 176 MB
Product code	: CAT176MB
Synonyms	: Cetyl trimethyl ammonium chloride; Cetrimonium Chloride
Product group	: Raw material

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

1.2.1. Relevant identified uses

Main use category	: Cosmetic use
Use of the substance/mixture	: Conditioner

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Supplier
Fizzywhiz.
23 Maritime Enterprise Park,
Atlas Rd, Bootle, L20 4DY
Liverpool, United Kingdom T +44
01519220041 info@fizzywhiz.com -
https://fizzywhiz.com

Only Representative
Banner Chemicals Benelux NV
Science Park/ Incubator Darwin Office A 212, Galileilaan 15
Niel 2845, Belgium
T +32 491 285 474

1.4. Emergency telephone number

Emergency number : +44 (0) 870 190 6777 (National Emergency Centre); +44 (0)1270 502891

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Acute toxicity (dermal), Category 4	**CLP]** H312
Skin corrosion/irritation, Category 1, Sub-Category 1C	H314
Serious eye damage/eye irritation, Category 1	H318
Hazardous to the aquatic environment – Acute Hazard, Category 1	H400
Hazardous to the aquatic environment – Chronic Hazard, Category 1	H410

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

Adverse physicochemical, human health and environmental effects
Harmful if swallowed. Causes serious eye damage.

2.2. Label elements

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

Hazard pictograms (CLP)

Signal word (CLP): Danger

Contains: Cetrimonium chloride

Hazard statements (CLP)	:	H312 - Harmful in contact with skin. H314 - Causes severe skin burns and eye damage. H410 - Very 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 clothing, eye protection, face protection. P301+P330+P331+P310 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting. Immediately call a doctor, a POISON CENTER. P302+P352 - IF ON SKIN: Wash with plenty of soap and water. P303+P361+P353+P310 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. Immediately call a doctor, a POISON CENTER. 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 doctor, a POISON CENTER. P501 - Dispose of contents and container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

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/vPvB substances ≥ 0.1% assessed in accordance with REACH Annex XIII

Component	
Cetrimonium chloride (112-02-7)	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

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 %

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Cetrimonium chloride	CAS-No.: 112-02-7 EC-No.: 203-928-6 REACH-no: 01-2119970558-23	>25-<35	Acute Tox. 4 (Oral), H302 (ATE=450 mg/kg bodyweight) Acute Tox. 3 (Dermal), H311 (ATE=300 mg/kg bodyweight) Skin Corr. 1C, H314 Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410

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

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. If you feel unwell, seek medical advice.

First-aid measures after skin contact : Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. If skin irritation occurs: Get medical advice/attention.

First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician immediately.

First-aid measures after ingestion : Rinse mouth out with water. Maintain an open airway. Do not induce vomiting. Do not give an unconscious person anything to drink. Get immediate medical advice/attention.

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

Symptoms/effects after inhalation : May cause respiratory irritation.

Symptoms/effects after skin contact : Burns. Cracking of the skin. irritation (itching, redness, blistering).

Symptoms/effects after eye contact : Serious damage to eyes. Blurred vision. redness, itching, tears. stinging.

Symptoms/effects after ingestion : Burns to the gastric/intestinal mucosa. Gastric perforation.

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide. Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire : Toxic fumes may be released. Carbon dioxide. Carbon monoxide. Hydrogen chloride. Nitrogen oxides (NOx) (as NO2).

5.3. Advice for firefighters

Firefighting instructions : Evacuate area. Use water spray or fog for cooling exposed containers. Collect contaminated extinguishing water separately and must not enter the sewage system.

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Notify authorities if product enters sewers or public waters. Keep unnecessary and unprotected personnel away from the spillage. Keep upwind.

6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area. Avoid contact with skin and eyes.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Prevent liquid from entering sewers, watercourses, underground or low areas.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Take up liquid spill into absorbent material. Mechanically recover the product. Do not flush into surface water or sewer system.

Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Avoid contact with skin and eyes. Wear personal protective equipment. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Protect from sunlight. Protect from freezing. Store in a well-ventilated place. Keep container tightly closed. It may exhibit crystallization if subjected to low temperatures.

Incompatible materials : Strong oxidizing agents. anionic surfactants.

Storage temperature : > 15 – < 40 °C

7.3. Specific end use(s)

No additional information available

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**

Cetrimonium chloride (112-02-7)	
DNEL/DMEL (Workers)	
Long-term - systemic effects, dermal	4.7 mg/kg bodyweight/day
PNEC (Water)	
PNEC aqua (freshwater)	0.42 µg/l
PNEC aqua (marine water)	0.0415 µg/l
PNEC aqua (intermittent, freshwater)	0.12 µg/l
PNEC aqua (intermittent, marine water)	0.012 µg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	68 mg/kg dwt
PNEC sediment (marine water)	6.8 mg/kg dwt

PNEC (Soil)	
PNEC soil	1.66 mg/kg dwt
PNEC (STP)	
PNEC sewage treatment plant	0.4 mg/l

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Appropriate engineering controls:
Ensure good ventilation of the work station.

8.2.2. Personal protection equipment

Personal protective equipment symbol(s):

8.2.2.1. Eye and face protection

Eye protection:
Chemical goggles or safety glasses

8.2.2.2. Skin protection

Skin and body protection:
Protective clothing (EN 14605 or EN 13034)

Hand protection:
Wear suitable gloves tested to EN374

Hand protection					
Type	**Material**	**Permeation**	**Thickness (mm)**	**Penetration**	**Standard**
Disposable gloves	Nitrile rubber (NBR)	6 (> 480 minutes)	0.4mm		

8.2.2.3. Respiratory protection

Respiratory protection:
In case of insufficient ventilation, wear suitable respiratory equipment

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

Environmental exposure controls: Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	Liquid
Colour	:	Colourless. light yellow.
Appearance	:	clear.

Odour	:	characteristic.
Odour threshold	:	Not available
Melting point	:	Not available
Freezing point	:	5 °C
Boiling point	:	≈ 100 °C
Flammability	:	Non flammable.
Lower explosion limit	:	Not available
Upper explosion limit	:	Not available
Flash point	:	Not available
Auto-ignition temperature	:	Not available
Decomposition temperature	:	Not available
pH	:	6 – 9
pH solution concentration	:	10 %

Viscosity, kinematic	:	Not available
Solubility	:	Water: Miscible
Partition coefficient n-octanol/water (Log Kow)	:	Not available
Vapour pressure	:	23 hPa
Vapour pressure at 50°C	:	Not available
Density	:	≈ 0.97 g/cm³
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

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

10.5. Incompatible materials

Strong oxidizing agents. Strong acids. Strong alkalis. anionic surfactants.

10.6. Hazardous decomposition products

Carbon dioxide. Carbon monoxide. Hydrogen chloride. Nitrogen oxides (NOx) (as NO2).

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) : Harmful in contact with skin.
Acute toxicity (inhalation) : Not classified

SURFAC CAT 176 MB	
LD50 oral rat	> 2000 mg/kg
LD50 dermal rabbit	> 1760 mg/kg

Cetrimonium chloride (112-02-7)	
LD50 oral rat	699.9 mg/kg bodyweight male
LD50 oral	450 mg/kg bodyweight female
LD50 dermal	4300 mg/kg bodyweight

Skin corrosion/irritation : Causes severe skin burns.
pH: 6 – 9
Additional information : (OECD 404 method) rabbit

Serious eye damage/irritation : Causes serious eye damage.
pH: 6 – 9
Additional information : (OECD 405 method) rabbit

Respiratory or skin sensitisation : Not classified
Additional information : (OECD 406 method)
Guinea pig

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Not classified

Cetrimonium chloride (112-02-7)	
NOAEL (animal/male, F1)	61 mg/kg bodyweight rat
NOAEL (animal/female, F1)	40 mg/kg bodyweight rabbit

STOT-single exposure : Not classified

STOT-repeated exposure : Not classified

Cetrimonium chloride (112-02-7)	
NOAEL (oral, rat, 90 days)	≈ 113 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents), Guideline: EU Method B.26 (Sub-Chronic Oral Toxicity Test: Repeated Dose 90-Day Oral Toxicity Study in Rodents), Guideline: EPA OPPTS 870.3100 (90-Day Oral Toxicity in Rodents)

NOAEL (dermal, rat/rabbit, 90 days)	10 mg/kg bodyweight Animal: rabbit, Guideline: OECD Guideline 410 (Repeated Dose Dermal Toxicity: 21/28-Day Study)

Aspiration hazard : Not classified

11.2. Information on other hazards

No additional information available

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment. Hazardous

to the aquatic environment, short–term (acute) : Very toxic to aquatic life.

Hazardous to the aquatic environment, long–term : Very toxic to aquatic life with long lasting effects. (chronic)

SURFAC CAT 176 MB	
EC50 - Crustacea [1]	0.3 mg/l Daphnia magna (Water flea)
EC50 72h - Algae [1]	0.3 mg/l Pseudokirchneriella subcapitata

Cetrimonium chloride (112-02-7)	
LC50 - Fish [1]	0.21 mg/l
EC50 - Crustacea [1]	12 µg/l Test organisms (species): Daphnia magna
EC50 - Crustacea [2]	0.093 mg/l
EC50 - Other aquatic organisms [1]	0.96 mg/l microorganisms
EC50 72h - Algae [1]	≈ 0.113 mg/l Test organisms (species): Raphidocelis subcapitata (previous names: Pseudokirchneriella subcapitata, Selenastrum capricornutum)
NOEC (chronic)	0.4 mg/l microorganisms

Cetrimonium chloride (112-02-7)	
NOEC chronic fish	32.2 µg/L Pimephales promelas
NOEC chronic crustacea	< 0.08 mg/l
NOEC chronic algae	68 µg/L Pseudokirchneriella subcapitata

12.2. Persistence and degradability

SURFAC CAT 176 MB	
Persistence and degradability	Readily biodegradable.

Cetrimonium chloride (112-02-7)	
Persistence and degradability	Readily biodegradable.
Biodegradation	> 60 % (OECD 301D method)

12.3. Bioaccumulative potential

SURFAC CAT 176 MB	
Bioaccumulative potential	Low bioaccumulation potential.

Cetrimonium chloride (112-02-7)	
BCF - Fish [1]	70.8
Bioconcentration factor (BCF REACH)	79
Partition coefficient n-octanol/water (Log Kow)	3.08
Bioaccumulative potential	Low bioaccumulation potential.

12.4. Mobility in soil

SURFAC CAT 176 MB	
Mobility in soil	soluble in water

12.5. Results of PBT and vPvB assessment

SURFAC CAT 176 MB
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

Component	
Cetrimonium chloride (112-02-7)	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 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 %.

12.7. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods : Do not discharge into drains. Dispose of contents/container in accordance with licensed collector's sorting instructions.

Product/Packaging disposal recommendations : Dispose in a safe manner in accordance with local/national regulations. Clean with water. Recycle following cleaning.

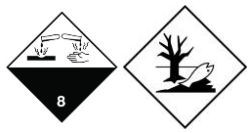
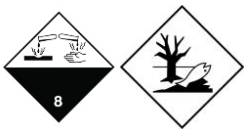
HP Code : HP6 - "Acute Toxicity:" waste which can cause acute toxic effects following oral or dermal administration, or inhalation exposure.
HP8 - "Corrosive:" waste which on application can cause skin corrosion.
HP14 - "Ecotoxic:" waste which presents or may present immediate or delayed risks for one or more sectors of the environment

SECTION 14: Transport information

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

ADR	IMDG	IATA	ADN	RID
14.1. UN number or ID number				
UN 1760	UN 1760	UN 1760	UN 1760	UN 1760
14.2. UN proper shipping name				
CORROSIVE LIQUID, N.O.S. (Cetyl trimethyl ammonium chloride)	CORROSIVE LIQUID, N.O.S. (Cetyl trimethyl ammonium chloride)	Corrosive liquid, n.o.s. (Cetyl trimethyl ammonium chloride)	CORROSIVE LIQUID, N.O.S. (Cetyl trimethyl ammonium chloride)	CORROSIVE LIQUID, N.O.S. (Cetyl trimethyl ammonium chloride)
Transport document description				
UN 1760 CORROSIVE LIQUID, N.O.S. (Cetyl trimethyl ammonium chloride), 8, III, (E), ENVIRONMENTALLY HAZARDOUS	UN 1760 CORROSIVE LIQUID, N.O.S. (Cetyl trimethyl ammonium chloride), 8, III, MARINE POLLUTANT/ENVIRONMENTALLY HAZARDOUS	UN 1760 Corrosive liquid, n.o.s. (Cetyl trimethyl ammonium chloride), 8, III, ENVIRONMENTALLY HAZARDOUS	UN 1760 CORROSIVE LIQUID, N.O.S. (Cetyl trimethyl ammonium chloride), 8, III, ENVIRONMENTALLY HAZARDOUS	UN 1760 CORROSIVE LIQUID, N.O.S. (Cetyl trimethyl ammonium chloride), 8, III, ENVIRONMENTALLY HAZARDOUS
14.3. Transport hazard class(es)				
8	8	8	8	8

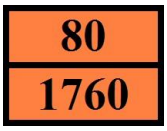
Mixed packing provisions (ADR) : MP19
Portable tank and bulk container instructions (ADR) : T7
Portable tank and bulk container special provisions (ADR) : TP1, TP28
Tank code (ADR) : L4BN
Vehicle for tank carriage : AT
Transport category (ADR) : 3
Special provisions for carriage - Packages (ADR) : V12
Hazard identification number (Kemler No.) : 80

				
14.4. Packing group				
III	III	III	III	III
14.5. Environmental ha ards				
Dangerous for the environment: Yes	Dangerous for the environment: Yes Marine pollutant: Yes	Dangerous for the environment: Yes	Dangerous for the environment: Yes	Dangerous for the environment: Yes
No supplementary information available				

14.6. Special precautions for user

Overland transport

Classification code (ADR) : C9
Special provisions (ADR) : 274
Limited quantities (ADR) : 5l
Excepted quantities (ADR) : E1
Packing instructions (ADR) : P001, IBC03, LP01, R001

Orange plates : 

Tunnel restriction code (ADR) : E
EAC code : 2X

Transport by sea

Special provisions (IMDG) : 223, 274
Limited quantities (IMDG) : 5 L
Excepted quantities (IMDG) : E1
Packing instructions (IMDG) : P001, LP01
IBC packing instructions (IMDG) : IBC03
Tank instructions (IMDG) : T7
Tank special provisions (IMDG) : TP1, TP28
EmS-No. (Fire) : F-A
EmS-No. (Spillage) : S-B
Stowage category (IMDG) : A
Stowage and handling (IMDG) : SW2
Properties and observations (IMDG) : Causes burns to skin, eyes and mucous membranes.

Air transport

PCA Excepted quantities (IATA) : E1
PCA Limited quantities (IATA) : Y841
PCA limited quantity max net quantity (IATA) : 1L
PCA packing instructions (IATA) : 852
PCA max net quantity (IATA) : 5L
CAO packing instructions (IATA) : 856
CAO max net quantity (IATA) : 60L
Special provisions (IATA) : A3, A803
ERG code (IATA) : 8L

Inland waterway transport

Classification code (ADN) : C9
Special provisions (ADN) : 274
Limited quantities (ADN) : 5 L
Excepted quantities (ADN) : E1
Carriage permitted (ADN) : T
Equipment required (ADN) : PP, EP
Number of blue cones/lights (ADN) : 0

Rail transport

Classification code (RID) : C9
Special provisions (RID) : 274
Limited quantities (RID) : 5L
Excepted quantities (RID) : E1
Packing instructions (RID) : P001, IBC03, LP01, R001
Mixed packing provisions (RID) : MP19
Portable tank and bulk container instructions (RID) : T7
Portable tank and bulk container special provisions (RID) : TP1, TP28
Tank codes for RID tanks (RID) : L4BN
Transport category (RID) : 3

Special provisions for carriage – Packages (RID) : W12
Colis express (express parcels) (RID) : CE8
Hazard identification number (RID) : 80

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

REACH Annex XVII (Restriction List)

EU restriction list (REACH Annex XVII)		
Reference code	**Applicable on**	**Entry title or description**
3(b)	SURFAC CAT 176 MB	Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 3.1 to 3.6, 3.7 adverse effects on sexual function and fertility or on development, 3.8 effects other than narcotic effects, 3.9 and 3.10
3(c)	SURFAC CAT 176 MB	Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard class 4.1

REACH Annex XIV (Authorisation List)

Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

REACH Candidate List (SVHC)

Contains no substance(s) listed on the REACH Candidate List

PIC Regulation (Prior Informed Consent)

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

POP Regulation (Persistent Organic Pollutants)

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

Ozone Regulation (1005/2009)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 1005/2009 on substances that deplete the ozone layer)

Seveso Directive (Disaster Risk Reduction)

Seveso Additional information : Category: E1 Hazardous to the Aquatic Environment
Qualifying quantity (tonnes) for the application of lower-tier requirements: 100 t
Qualifying quantity (tonnes) for the application of upper-tier requirements: 200 t

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**

Germany

Employment restrictions : Observe restrictions according Act on the Protection of Working Mothers (MuSchG).
Observe restrictions according Act on the Protection of Young People in Employment (JArbSchG).
Water hazard class (WGK) : WGK 3, Highly hazardous to water (Classification according to AwSV, Annex 1).
Storage class (LGK, TRGS 510) : LGK 8B - Non-combustible corrosive substances.

Joint storage table :

LGK 1	LGK 2A	LGK 2B	LGK 3	LGK 4.1A
LGK 4.1B	LGK 4.2	LGK 4.3	LGK 5.1A	LGK 5.1B
LGK 5.1C	LGK 5.2	LGK 6.1A	LGK 6.1B	LGK 6.1C
LGK 6.1D	LGK 6.2	LGK 7	LGK 8A	LGK 8B
LGK 10	LGK 11	LGK 12	LGK 13	LGK 10-13

Joint storage not permitted for : LGK 1, LGK 5.1A, LGK 5.2, LGK 6.2, LGK 7.
Joint storage with restrictions permitted for : LGK 4.1A, LGK 4.2, LGK 4.3, LGK 5.1C.
Joint storage permitted for : LGK 2A, LGK 2B, LGK 3, LGK 4.1B, LGK 5.1B, LGK 6.1A, LGK 6.1B, LGK 6.1C, LGK 6.1D, LGK 8A, LGK 8B, LGK 10, LGK 11, LGK 12, LGK 13, LGK 10-13.
Hazardous Incident Ordinance (12. BImSchV) : Is not subject of the Hazardous Incident Ordinance (12. BImSchV)

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Indication of changes

Section	Changed item	Change	Comments
	Supersedes version of	Added	
	Revision date	Added	
	UN-No. (RID)	Modified	
	Equipment required (ADN)	Modified	
	Danger labels (ADN)	Modified	
	Classification code (ADN)	Modified	
	Proper Shipping Name (RID)	Modified	
	Hazard identification number (RID)	Modified	
	Tank codes for RID tanks (RID)	Modified	
	Portable tank and bulk container special provisions (RID)	Modified	
	Portable tank and bulk container instructions (RID)	Modified	
	Special provisions (RID)	Modified	
	Classification code (RID)	Modified	
	Tank code (ADR)	Modified	
	Portable tank and bulk container special provisions (ADR)	Modified	
	Portable tank and bulk container instructions (ADR)	Modified	
	Properties and observations (IMDG)	Added	
	Stowage and handling (IMDG)	Added	
	ERG code (IATA)	Modified	

	Special provisions (IATA)	Modified	
	CAO max net quantity (IATA)	Modified	
	CAO packing instructions (IATA)	Modified	
	PCA max net quantity (IATA)	Modified	

Indication of changes

Section	Changed item	Change	Comments
	PCA packing instructions (IATA)	Modified	
	PCA limited quantity max net quantity (IATA)	Modified	
	PCA Limited quantities (IATA)	Modified	
	Danger labels (IATA)	Modified	
	Proper Shipping Name (IATA)	Modified	
	Proper Shipping Name (IMDG)	Modified	
	Danger labels (IMDG)	Modified	
	EmS-No. (Spillage)	Modified	
	Tank special provisions (IMDG)	Modified	
	Tank instructions (IMDG)	Modified	
	Special provisions (IMDG)	Modified	
5.3	EAC code	Modified	
14.1	UN-No. (ADR)	Modified	
14.1	UN-No. (ADN)	Modified	
14.1	UN-No. (IMDG)	Modified	
14.1	UN-No. (IATA)	Modified	
14.2	Proper Shipping Name (ADN)	Modified	
14.2	Proper Shipping Name (ADR)	Modified	
14.3	Danger labels (RID)	Modified	
14.3	Danger labels (ADR)	Modified	
14.3	Class (ADR)	Modified	
14.6	Special provisions (ADN)	Modified	
14.6	Special provisions (ADR)	Modified	
14.6	Hazard identification number (Kemler No.)	Modified	
14.6	Classification code (ADR)	Modified	
14.6	Packing instructions (IMDG)	Modified	

Abbreviations and acronyms:	
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate

BCF	Bioconcentration factor
BLV	Biological limit value
BOD	Biochemical oxygen demand (BOD)
COD	Chemical oxygen demand (COD)
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC-No.	European Community number

Abbreviations and acronyms:	
EC50	Median effective concentration
EN	European Standard
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
OEL	Occupational Exposure Limit
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
STP	Sewage treatment plant
ThOD	Theoretical oxygen demand (ThOD)
TLM	Median Tolerance Limit
VOC	Volatile Organic Compounds
CAS-No.	Chemical Abstract Service number
N.O.S.	Not Otherwise Specified
vPvB	Very Persistent and Very Bioaccumulative
ED	Endocrine disrupting properties

Full text of H- and EUH-statements:	
Acute Tox. 3 (Dermal)	Acute toxicity (dermal), Category 3
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Acute 1	Hazardous to the aquatic environment – Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment – Chronic Hazard, Category 1
H302	Harmful if swallowed.
H311	Toxic in contact with skin.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H400	Very toxic to aquatic life.

H410	Very toxic to aquatic life with long lasting effects.
Full text of H- and EUH-statements:	
Skin Corr. 1C	Skin corrosion/irritation, Category 1, Sub-Category 1C

Data sources : ECHA (European Chemicals Agency).

The classification complies with : ATP 12

Safety Data Sheet (SDS), EU

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.