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

1.1 Product identifier

Trade name/designation joke Clean 100 S

Unique Formula Identifier UFI: KC00-60K6-500N-G0GS

Product category PC-CLN-OTH Other cleaning, care and maintenance products (excludes biocidal products)

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

Sector of uses [SU]
SU22 Professional uses: Public domain (administration, education, entertainment, services, craftsmen)
SU3 Industrial uses

Process categories [PROC]
PROC8a Transfer of substance or mixture (charging and discharging) at non- dedicated facilities
PROC9 Transfer of substance or mixture into small containers (dedicated filling line, including weighing)
PROC13 Treatment of articles by dipping and pouring

Environmental release categories [ERC]
ERC8a Widespread use of non-reactive processing aid (no inclusion into or onto article, indoor)
ERC6b Use of reactive processing aid at industrial site (no inclusion into or onto article)

Product Categories [PC]
PC35 Washing and cleaning products

Use of the substance/mixture
Acid cleaning concentrate, also for pickling Stainless steel surfaces

* **Uses advised against**
Do not use for injecting or spraying.

1.3 Details of the supplier of the safety data sheet

Supplier
joke Technology GmbH
Asselborner Weg 14-16
D-51249 Bergisch Gladbach
Telephone +49 (0) 22 04 / 8 39-0
Telefax +49 (0) 22 04 / 8 39-60
E-mail info@joke.de
Website https://www.joke-technology.com/

Department responsible for information:
Telephone +49 (0) 22 04 / 8 39-0
Telefax +49 (0) 22 04 / 8 39-60

E-mail (competent person):
sida@joke.de

1.4 Emergency telephone number

Vergiftungs-I-Z. Freiburg (Sprache / Language: DE, EN)	+49 (0) 761 / 1 92 40
REACH and CLP UK CA Help Desk	+44 171 635 9191

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [CLP]	Classification procedure
Eye Irrit. 2, H319	

Hazard statements for health hazards
H319 Causes serious eye irritation.

Remark
Contains 2-methyl-2H-isothiazo-3-one. Can cause allergic reactions.

2.2 Label elements

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

Hazard pictograms

GHS07

Signal word
Warning

Hazard statements
H319 Causes serious eye irritation.

Precautionary statements
P280 Wear protective gloves/protective clothing and eye protection/face protection.
P302 + P352 IF ON SKIN: Wash with plenty of water and soap.
P301 + P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
P301 + P330 + P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333 + P313 If skin irritation or rash occurs: Get medical advice/attention.
P337 + P313 If eye irritation persists: Get medical advice/attention.

Special rules for supplemental label elements for certain mixtures
EUH208 Contains Methylchloroisothiazolinone, Methylisothiazolinone. Can cause allergic reactions.

Other labelling
Labelling for contents according to regulation (EC) No. 648/2004:
< 5% anionic surfactants
< 5% non-ionic surfactants
Benzisothiazolinone (<5 ppm)
Methylisothiazolinone (<5 ppm)

2.3 Other hazards

Adverse human health effects and symptoms
This product does not contain a substance that has endocrine disrupting properties with respect to humans as no components meets the criteria.

Adverse environmental effects
Harmful to aquatic organisms.
This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

Results of PBT and vPvB assessment
Product does not contain any PBT / vPvB substances according to the formulation.

SECTION 3: Composition / information on ingredients

3.1 Substances

not applicable

3.2 Mixtures

Hazardous ingredients

CAS No.	EC No.	Substance name	Concentration	Classification according to Regulation (EC) No 1272/2008 [CLP]	SCL/ M/ ATE
5949-29-1	201-069-1	Citronensäure-Monohydrat	20 weight-%	Eye Irrit. 2; H319 STOT SE 3; H335	
68411-30-3	270-115-0	Alkylbenzolsulfonate, C10-13-Alkylderivate, Na-Salze	< 1 weight-%	Acute Tox. 4; H302 Skin Irrit. 2; H315 Eye Dam. 1; H318 Aquatic Chronic 3; H412	ATE(oral): 1080 mg/kg
2682-20-4	220-239-6	2-Methyl-2H-isothiazo-3-on	≥ 0.00015 < 0.0005 weight-%	Acute Tox. 3; H301 Acute Tox. 3; H311 Acute Tox. 2; H330 Skin Corr. 1B; H314 Eye Dam. 1; H318 Skin Sens. 1A; H317 Aquatic Acute 1; H400 Aquatic Chronic 1; H410; EUH071	M=10 (Aquatic Acute 1) M=1 (Aquatic Chronic 1)

REACH No.	Substance name
01-2119457026-42	Citronensäure-Monohydrat
01-2119489428-22	Alkylbenzolsulfonate, C10-13-Alkylderivate, Na-Salze

Additional information

Aqueous, acidic mixture of anionic and nonionic surfactants, salts of organic acids and citric acid chloride-free.

SECTION 4: First aid measures

4.1 Description of first aid measures

General information
In the event of persistent symptoms receive medical treatment.

Following inhalation
No data available

Following skin contact
Wash immediately with:
Water
In case of skin irritation, consult a physician.

After eye contact
After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.

Following ingestion
Do NOT induce vomiting.
If swallowed seek medical advice immediately and show the doctor packing or label.
Rinse mouth immediately and drink plenty of water.
Seek medical advice immediately.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms
This information is not available.

Effects
This information is not available.

4.3 Indication of any immediate medical attention and special treatment needed

Notes for the doctor
This information is not available.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media
Foam
Extinguishing powder
Carbon dioxide (CO_2)
Water spray jet

Unsuitable extinguishing media
Full water jet

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products
In case of fire formation of dangerous gases possible.
In the event of fire the following can be released:
Carbon monoxide
Sulphur oxides

5.3 Advice for firefighters

Special protective equipment for firefighters
In case of fire: Wear self-contained breathing apparatus.
Wear full chemical protective clothing.

Additional information
The product itself does not burn.
Co-ordinate fire-fighting measures to the fire surroundings.
Do not inhale explosion and combustion gases.

* SECTION 6: Accidental release measures

* 6.1 Personal precautions, protective equipment and emergency procedures

* **For non-emergency personnel**
Use personal protection equipment.
Special danger of slipping by leaking/spilling product.

For emergency responders
Personal protection equipment
Use breathing apparatus if exposed to vapours/dust/aerosol.
Forms slippery surfaces with water.
Special danger of slipping by leaking/spilling product.

6.2 Environmental precautions

Do not allow to enter into surface water or drains.

6.3 Methods and material for containment and cleaning up

For containment
Take up with absorbent material (e.g. sand, kieselguhr, acid binder, general-purpose binder, sawdust).
Flush away residues with water.
Take up mechanically and send for disposal.

6.4 Reference to other sections

Safe handling: see section 7
Personal protection equipment: see section 8

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Protective measures
Avoid:
generation/formation of aerosols
Do not inhale aerosols
Avoid contact of molten material with skin.
Take the usual precautions when handling with chemicals.
The product is not:
Combustible
Keep the packing dry and well sealed to prevent contamination and absorbtion of humidity.

Advices on general occupational hygiene
Make available sufficient washing facilities
Keep away from food and drink.
Wash hands before breaks and after work.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels
Keep only in original container (with safety valve).

Storage class
12 non-combustible liquids that cannot be assigned to any of the above storage classes

Materials to avoid
Do not store together with:
alkali
Food and feedingstuffs

Further information on storage conditions
Keep locked up and out of reach of children.
Protect from heat and direct solar radiation.
Do not keep at temperatures below -5°C.
Do not keep at temperatures above 30°C.
Storage time: 3 years.

7.3 Specific end use(s)

Recommendation
This information is not available.

* SECTION 8: Exposure controls/personal protection

8.1 Control parameters

DNEL worker

CAS No.	Substance name	DNEL value	DNEL type	Remark
68411-30-3	Alkylbenzolsulfonate, C10-13-Alkylderivate, Na-Salze	119 mg/kg bw/day	long-term dermal (systemic)	Assessment factor 100
68411-30-3	Alkylbenzolsulfonate, C10-13-Alkylderivate, Na-Salze	7.6 mg/m³	acute inhalative (systemic)	Assessment factor 25

PNEC

CAS No.	Substance name	PNEC Value	PNEC type	Remark
68411-30-3	Alkylbenzolsulfonate, C10-13-Alkylderivate, Na-Salze	0.268 mg/L	aquatic, freshwater	Assessment factor 1
68411-30-3	Alkylbenzolsulfonate, C10-13-Alkylderivate, Na-Salze	3.43 mg/L	sewage treatment plant (STP)	Assessment factor 10

* 8.2 Exposure controls

* Personal protection equipment

Eye/face protection
tightly fitting goggles

Hand protection
chemical-resistant gloves
Information on glove material [type / type, thickness, penetration time, force]: butyl, 0.5 mm, > = 8 h
Angaben zum Handschuhmaterial [Art/Typ, Dicke, Durchdringzeit/Tragedauer, Benetzungsstärke]: EN 374, NBR (Nitrilkautschuk), 480 min., 0,35mm
Angaben zum Handschuhmaterial [Art/Typ, Dicke, Durchdringzeit/Tragedauer, Benetzungsstärke]: EN 374, FKM, 480 min., 0,4mm

* **Environmental exposure controls**

* **Technical measures to prevent exposure**
Before discharging a wastewater into sewage treatment plants, neutralisation is usually required.
Do not allow to enter surface waters

Avoid penetration into the subsoil/soil

Additional information
Arbeitsplatzgrenzwerte für Citronensäure

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state
liquid

Colour
yellowish

Odour
fruity

Safety relevant basis data

	Value	Method	Source, Remark
Odour threshold:			not determined
Melting point/freezing point	solidifying range ≤ -5 °C		
Boiling point or initial boiling point and boiling range	> 100 °C		
flammability	solid		not applicable
flammability	gaseous		not applicable
Lower and upper explosion limit	Upper explosion limit		not applicable
Lower and upper explosion limit	Lower explosion limit		not applicable
Flash point			No flash point up to 100 °C.
Auto-ignition temperature	345 °C		Wert für Citronensäure
Auto-ignition temperature			not determined
Decomposition temperature	≥ 100 °C		
pH	in delivery state 1.6 (20°C)		
Viscosity	dynamic 1.8 mPa*s (20°C)		
Solubility(ies)	Water solubility		miscible
Solubility(ies)			not determined

	Value	Method	Source, Remark
Partition coefficient n-octanol/water (log value)	-1.72 (20°C)		Citronensäure
Vapour pressure	approx. 23 hPa (20°C)		
Density and/or relative density	1.082 g/cm³ (20°C)		
Density and/or relative density			not determined
Relative vapour density	0.62		Wert für Wasser
particle characteristics			not applicable

9.2 Other information

Information with regard to physical hazard classes

Explosives

Assessment/classification
The mixture does not contain explosive substances (CLP I 2.1.4.3 a).
CLP I 2.1.4.3.(a): The classification procedure need not be applied because there are no chemical groups in the molecule that indicate explosive properties.
that indicate explosive properties are present in the molecule.

flammable gases

Assessment/classification
not applicable

Aerosols

Assessment/classification
The classification criteria for this hazard class are not met by definition.

Oxidising gas

Assessment/classification
not applicable

Gases under pressure

Assessment/classification
not applicable

flammable liquids

Assessment/classification
No flash point up to 100 °C.

flammable solids

Assessment/classification
not applicable

Self-reactive substances and mixtures

Assessment/classification
The mixture does not contain self-reactive substances (CLP I 2.8.4.2 a).
CLP I 2.8.4.2 a: No chemical groups are present in the molecule that indicate explosive or self-reactive properties

Pyrophoric liquids

Assessment/classification
Das Gemisch enthält keine pyrophore Stoffe - nicht selbstentzündlich (CLP I 2.9.4.1).
CLP I 2.9.4.1: Das Einstufungsverfahren für pyrophore Flüssigkeiten braucht nicht angewandt zu werden, wenn die
Erfahrung bei der Herstellung oder Handhabung zeigt, dass sich der Stoff oder das Gemisch in Berührung mit Luft und bei
normalen Temperaturen nicht von selbst entzündet (d. h. von diesem Stoff ist bekannt, dass er bei Raumtemperatur über
längere Zeiträume (Tage) hinweg stabil ist)

Pyrophoric solids

Assessment/classification
not applicable

self-heating substances and mixtures

Assessment/classification
The mixture does not contain self-heating substances

Substances or mixtures which, in contact with water, emit flammable gases

Assessment/classification
not relevant - no flammable gases are generated in contact with water (CLP I 2.12.4.1).
CLP I 2.12.4.1: The classification procedure for this class need not be applied (a) if the chemical structure of the substance or mixture does not contain any metals or metalloids, or (b) if experience shows that the substance or mixture does not contain any metals or metalloids.
structure of the substance or mixture does not contain metals or metalloids; or b) if the experience of manufacture or handling
(b) if manufacturing or handling experience shows that the substance or mixture does not react with water, e.g. because the substance is manufactured with
(c) if the substance or mixture is known to be soluble in water and to form a stable mixture.
and forms a stable mixture.

Oxidising liquids

Assessment/classification
The mixture does not contain any oxidizing (fire-promoting) substances.

Oxidising solids

Assessment/classification
not applicable

Organic peroxides

Assessment/classification
The mixture does not contain organic peroxides

Corrosive to metals

Assessment/classification
Based on available data, the classification criteria are not met.

Desensitised explosives

Assessment/classification
The mixture does not contain any desensitized explosive substances

Other safety characteristics

	Value	Method	Source, Remark
Evaporation rate	0.36	ASTM D3539	
Solvent content	0 %		
Water content			not determined
Solid content			not determined
Solvent separation test			not determined
Explosive properties			none
Oxidising properties			none

Other information
This information is not available.

SECTION 10: Stability and reactivity

10.1 Reactivity

exothermic reaction
Reactions with alkalies.

10.2 Chemical stability

Stable at ambient temperature.

10.3 Possibility of hazardous reactions

Reactions with strong alkalies.

10.4 Conditions to avoid

Direct sunlight.
Evolution of heat.

10.5 Incompatible materials

Reactions with strong alkalies.

10.6 Hazardous decomposition products

None, when used as intended.

Additional information

No data available

* SECTION 11: Toxicological information

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

Acute toxicity

Animal data

	Effective dose	Method,Evaluation	Source, Remark
Acute oral toxicity	> 5000 mg/kg	ATE (acute toxicity estimate)	

	Effective dose	Method,Evaluation	Source, Remark
	CAS No.68411-30-3 Alkylbenzolsulfonate, C10-13-Alkylderivate, Na-Salze 1080 mg/kg Species Rat		
Acute dermal toxicity	> 5000 mg/kg	ATE (acute toxicity estimate)	
Acute inhalation toxicity	Acute inhalation toxicity (gas)		not relevant

Assessment/classification
Based on available data, the classification criteria are not met.

Skin corrosion/irritation

Animal data

Result / Evaluation	Method	Source, Remark
slightly irritant	Expert judgment and weight of evidence determination.	

Serious eye damage/irritation

Animal data

Result / Evaluation	Method	Source, Remark
Irritant.	Calculation method.	

Sensitisation to the respiratory tract

Assessment/classification
Based on available data, the classification criteria are not met.

Skin sensitisation

Animal data

Result / Evaluation	Dose / Concentration	Method	Source, Remark
not sensitising.			Contains 2-methyl-2H-isothiazo-3-one. Can cause allergic reactions.

Germ cell mutagenicity

Assessment/classification
Based on available data, the classification criteria are not met.

Carcinogenicity

Assessment/classification
Based on available data, the classification criteria are not met.

Reproductive toxicity

Assessment/classification
Based on available data, the classification criteria are not met.

Overall Assessment on CMR properties

The mixture is not classified as mutagenic / not classified as carcinogenic / not classified as toxic for reproduction

* **STOT-single exposure**

STOT SE 1 and 2

Other information
The mixture is not classified as specific target organ toxic (single exposure).

Assessment/classification
Based on available data, the classification criteria are not met.

* **STOT SE 3**

* **Irritation to respiratory tract**

* **Assessment/classification**
May cause respiratory irritation.
Based on available data, the classification criteria are not met.

Narcotic effects

Assessment/classification
Based on available data, the classification criteria are not met.

STOT-repeated exposure

Other information
The mixture is not classified as specific target organ toxic (repeated exposure).

Assessment/classification
Based on available data, the classification criteria are not met.

Aspiration hazard

Remark
Based on available data, the classification criteria are not met.
The mixture is not classified as toxic to aspiration

11.2 Information on other hazards

Symptoms related to the physical, chemical and toxicological characteristics

	Effective dose	Method,Evaluation	Source, Remark
Endocrine disrupting properties			This product does not contain a substance that has endocrine disrupting properties with respect to humans as no components meets the criteria.

* **Other information**

Has a degreasing effect on the skin.
OECD 435 : not corrosive to skin

* SECTION 12: Ecological information

* **12.1 Toxicity**

* **Aquatic toxicity**

	Effective dose	Method,Evaluation	Source, Remark
Acute (short-term) fish toxicity	CAS No.68411-30-3 Alkylbenzolsulfonate, C10-13-Alkylderivate, Na-Salze LC50: 1.67 mg/L		
	LC50: 164 mg/L	calculated	
Chronic (long-term) fish toxicity	CAS No.68411-30-3 Alkylbenzolsulfonate, C10-13-Alkylderivate, Na-Salze NOEC 0.63 mg/L Species Pimephales promelas (fathead minnow) Test duration 196 d		
Acute (short-term) toxicity to crustacea	EC50 91 mg/L	calculated	After neutralisation, reduction in toxic effects is observed.
	CAS No.68411-30-3 Alkylbenzolsulfonate, C10-13-Alkylderivate, Na-Salze EC50 1.62 mg/L		
Chronic (long-term) toxicity to aquatic invertebrate	CAS No.68411-30-3 Alkylbenzolsulfonate, C10-13-Alkylderivate, Na-Salze NOEC 1.18 mg/L Species Daphnia magna (Big water flea) Test duration 21 d		
Acute (short-term) toxicity to algae and cyanobacteria	EC50 10.5 mg/L	calculated	After neutralisation, reduction in toxic effects is observed.
	CAS No.68411-30-3 Alkylbenzolsulfonate, C10-13-Alkylderivate, Na-Salze EC50 20 mg/L		
Chronic (long-term) toxicity to aquatic algae and cyanobacteria	not determined		
Toxicity to other aquatic plants/organisms	not determined		
Toxicity to microorganisms	not determined		

Assessment/classification
Harmful to aquatic life.

12.2 Persistence and degradability

	Value	Method	Source, Remark
Biodegradation	Degradation rate > 95 %	calculated	DOC reduction Readily biodegradable (according to OECD criteria).

	Value	Method	Source, Remark
Biodegradation	Degradation rate > 70 % Test duration 28 h	OECD 301A/ ISO 7827/ EEC 92/69/V, C.4-A	CAS-Nr.: 68411-30-3
Biodegradation	Degradation rate 100 %	Neutralization, pH measurement	Acidic properties 100% eliminable by neutralization.
Biodegradation	Degradation rate 85 % Test duration 29 d	OECD 301B/ ISO 9439/ EEC 92/69/V, C.4-C	CAS-Nr.: 68411-30-3
Biodegradation	Degradation rate 97 % Test duration 28 d	OECD 301B/ ISO 9439/ EEC 92/69/V, C.4-C	CAS-Nr.: 5949-29-1
Biodegradation	Degradation rate 48- 56 % Test duration 28 d	OECD 301B/ ISO 9439/ EEC 92/69/V, C.4-C	CAS-Nr.:2682-20-4-2

12.3 Bioaccumulative potential

Assessment/classification
Eine Anreicherung in Organismen ist nicht zu erwarten

12.4 Mobility in soil

Assessment/classification
Alkylbenzenesulfonates, C10-13-alkyl derivatives, Na salts: weakly mobile in the ground.

Citric acid: weak adsorption on the ground, mobile in the ground.

2-Methyl-2H-isothiazo-3-one: weak adsorption on the ground, mobile in the soil.

12.5 Results of PBT and vPvB assessment

Product does not contain any PBT / vPvB substances according to the formulation.

12.6 Endocrine disrupting properties

	Effective dose	Method,Evaluation	Source, Remark
Endocrine disrupting properties			This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

12.7 Other adverse effects

	Value	Method	Source, Remark
Ozone depletion potential (ODP):			Based on available data, the classification criteria are not met.

Additional ecotoxicological information

	Value	Method	Source, Remark
Chemical oyxgen demand (COD)	158 mgO2/g	calculated	
AOX			The product contains no organically bound halogens.

Additional information
Do not allow uncontrolled discharge of product into the environment.
The surfactants contained are biodegradable according to Annex III of the EU Detergents Regulation (EC) No. 648/2004.
After neutralization : not classified as acutely hazardous to water
The mixture is not classified as a chronic water hazard.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Waste codes/waste designations according to EWC/AVV

Waste code product	Waste name
200130	detergents other than those mentioned in 20 01 29

Appropriate disposal / Product
Must not be disposed together with household garbage.
Product is allowed to discharge into sewage treatment plants, but in accordance with official regulations.
Neutralize with alkalies or lime.

Appropriate disposal / Package
Non-contaminated packages may be recycled.

Remark
none

SECTION 14: Transport information

	Land transport (ADR/RID)	Sea transport (IMDG)	Air transport (ICAO-TI / IATA-DGR)
14.1 UN number or ID number	-	-	-
14.2 UN proper shipping name	-	-	-
14.3 Transport hazard class(es)	-	-	-
14.4 Packing group	-	-	-
14.5 Environmental hazards	-	-	-

14.6 Special precautions for user
none

14.7 Maritime transport in bulk according to IMO instruments
not applicable

All transport carriers
none

Land transport (ADR/RID)
Remark
Not classified for this transport carrier.

Sea transport (IMDG)

Remark
No hazardous material as defined by the prescriptions.

Air transport (ICAO-TI / IATA-DGR)

Remark
No hazardous material as defined by the prescriptions.

SECTION 15: Regulatory information

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

EU legislation

Authorisations
not relevant

Restrictions on use
Regulation (EC) No 1907/2006 (REACH), Annex XVII No. 3 - not relevant for intended use
Regulation (EC) No 1907/2006 (REACH), Annex XVII No. 75 - not relevant for intended use

Restrictions of occupation
Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC).

Other regulations (EU)

To follow:
Regulation (EC) No. 648/2004 (Detergents regulation)

Directive 2010/75/EU on industrial emissions [Industrial Emissions Directive] VOC
VOC content, delivery state 0 %

15.2 Chemical Safety Assessment

National regulations

No chemical safety assessment was carried out for the mixture itself.

SECTION 16: Other information

Indication of changes
* Data changed compared with the previous version

Abbreviations and acronyms
For abbreviations and acronyms, see: ECHA Guidance on information requirements and chemical safety assessment, chapter R.20 (Table of terms and abbreviations).
ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
ASTM: American Society for Testing and Materials
ATE: Acute Toxicity Estimate
AVV: Waste Shipment Ordinance (DE)
DGR: Dangerous Goods Regulations (IATA)
DNEL: derived no-effect level
DOC: Dissolved Organic Carbon
IATA: International Air Transport Association
ICAO: International Civil Aviation Organization
IMDG: International Maritime Dangerous Goods
IMO: International Maritime Organization
JArbSchG: Youth Labor Protection Act (DE)
OECD: Organisation for Economic Cooperation and Development
PBT: persistent and bioaccumulative and toxic
PNEC: Predicted No Effect Concentration
RID: Dangerous goods regulations for transport by rail
SCL: Specific concentration limit
TI: Technical Instruction
TRGS: Technical Rules for Hazardous Substances
VOC: Volatile organic compounds
vPvB: very persistent, very bioaccumulative

Key literature references and sources for data
European Chemicals Agency, http://echa.europa.eu/.
Datasheets of the manufacturer

Additional information
National and local regulations concerning chemicals shall be observed.
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.

Relevant H- and EUH-phrases (Number and full text)

H301	Toxic if swallowed.
H302	Harmful if swallowed.
H311	Toxic in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H330	Fatal if inhaled.
H335	May cause respiratory irritation.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

Indication of changes
* Data changed compared with the previous version