Safety data sheet
according to Regulation (EC) No 1907/2006, Annex II

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

1.1 Product identifier

MoS2-Rostloeser XXL 600 mL
Art.: 1613

1.2 Relevant identified uses of the substance or mixture and uses advised against
Relevant identified uses of the substance or mixture:
Rust remover
Sector of use [SU]:
SU 3 - Industrial uses: Uses of substances as such or in preparations at industrial sites
SU21 - Consumer uses: Private households (=general public = consumers)
SU22 - Professional uses: Public domain (administration, education, entertainment, services, craftsmen)
Chemical product category [PC]:
PC24 - Lubricants, greases, release products
PC35 - Washing and cleaning products (including solvent based products)
Process category [PROC]:
PROC 1 - Use in closed process, no likelihood of exposure.
PROC 2 - Use in closed, continuous process with occasional controlled exposure
PROC 7 - Industrial spraying
PROC 8a - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities
PROC 8b - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities
PROC 9 - Transfer of substance or preparation into small containers (dedicated filling line, including weighing)
PROC11 - Non industrial spraying
Article Categories [AC]:
AC99 - Not required.
Environmental Release Category [ERC]:
ERC 4 - Industrial use of processing aids in processes and products, not becoming part of articles
ERC 7 - Industrial use of substances in closed systems
ERC 8a - Wide dispersive indoor use of processing aids in open systems
ERC 8d - Wide dispersive outdoor use of processing aids in open systems

Uses advised against:
No information available at present.

1.3 Details of the supplier of the safety data sheet
GB

LIQUI MOLY GmbH, Jerg-Wieland-Str. 4, 89081 Ulm-Lehr, Germany
Phone: (+49) 0731-1420-0, Fax: (+49) 0731-1420-88

Qualified person's e-mail address: info@chemical-check.de, k.schnurbusch@chemical-check.de Please DO NOT use for requesting Safety Data Sheets.

1.4 Emergency telephone number
Emergency information services / official advisory body:

Telephone number of the company in case of emergencies:
+49 (0) 700 / 24 112 112 (LMR)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) 1272/2008 (CLP)

Hazard class	Hazard category	Hazard statement
Skin Sens.	1	H317-May cause an allergic skin reaction.
Asp. Tox.	1	H304-May be fatal if swallowed and enters airways.
Aerosol	1	H222-Extremely flammable aerosol.
Aerosol	1	H229-Pressurised container: May burst if heated.

2.2 Label elements

Labeling according to Regulation (EC) 1272/2008 (CLP)

Danger

H317-May cause an allergic skin reaction. H222-Extremely flammable aerosol. H229-Pressurised container: May burst if heated.

P101-If medical advice is needed, have product container or label at hand. P102-Keep out of reach of children.
P210-Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P211-Do not spray on an open flame or other ignition source. P251-Do not pierce or burn, even after use. P261-Avoid breathing vapours or spray. P280-Wear protective gloves.
P333+P313-If skin irritation or rash occurs: Get medical advice/attention.
P410+P412-Protect from sunlight. Do not expose to temperatures exceeding 50 °C.
P501-Dispose of contents/container to special waste collection point.

EUH066-Repeated exposure may cause skin dryness or cracking.

Without adequate ventilation, formation of explosive mixtures may be possible.
Benzene, C9-13-alkyl derivs., distn. residues, sulfonated, calcium salts

2.3 Other hazards

The mixture does not contain any vPvB substance (vPvB = very persistent, very bioaccumulative) or is not included under XIII of the regulation (EC) 1907/2006.
The mixture does not contain any PBT substance (PBT = persistent, bioaccumulative, toxic) or is not included under XIII of the regulation (EC) 1907/2006.

REGULATION (EC) No 648/2004

30 % and more
aliphatic hydrocarbons

SECTION 3: Composition/information on ingredients

3.1 Substance

n.a.

3.2 Mixture

Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics	
Registration number (REACH)	01-2119457273-39-XXXX
Index	---
EINECS, ELINCS, NLP	918-481-9 (REACH-IT List-No.)
CAS	(64742-48-9)

content %	50-60
Classification according to Regulation (EC) 1272/2008 (CLP)	Asp. Tox. 1, H304

2-Butoxyethanol	**Substance for which an EU exposure limit value applies.**
Registration number (REACH)	01-2119475108-36-XXXX
Index	603-014-00-0
EINECS, ELINCS, NLP	203-905-0
CAS	111-76-2
content %	1-5
Classification according to Regulation (EC) 1272/2008 (CLP)	Acute Tox. 4, H302 Eye Irrit. 2, H319 Skin Irrit. 2, H315 Acute Tox. 4, H312 Acute Tox. 4, H332

Carbon dioxide	**Substance for which an EU exposure limit value applies.**
Registration number (REACH)	--
Index	---
EINECS, ELINCS, NLP	204-696-9
CAS	124-38-9
content %	1-5
Classification according to Regulation (EC) 1272/2008 (CLP)	---

Benzene, C9-13-alkyl derivs., distn. residues, sulfonated, calcium salts	
Registration number (REACH)	--
Index	---
EINECS, ELINCS, NLP	307-593-8
CAS	97675-24-6
content %	1-2,5
Classification according to Regulation (EC) 1272/2008 (CLP)	Skin Sens. 1, H317

For the text of the H-phrases and classification codes (GHS/CLP), see Section 16.
The substances named in this section are given with their actual, appropriate classification!
For substances that are listed in appendix VI, table 3.1/3.2 of the regulation (EC) no. 1272/2008 (CLP regulation) this means that all notes that may be given here for the named classification have been taken into account.
If, for example, the note P is applied for a hydrocarbon then this has already been taken into account for the classification named here.
Quote: "Note P - The classification as a carcinogen or mutagen need not apply if it can be shown that the substance contains less than 0,1 % w/w benzene (EINECS No 200-753-7)."
Article 4 of the regulation (EC) no. 1272/2008 (CLP regulation) was also observed and taken into account for the classification named here.

SECTION 4: First aid measures

4.1 Description of first aid measures

Inhalation

Remove person from danger area.
Supply person with fresh air and consult doctor according to symptoms.

Skin contact

Wash thoroughly using copious water - remove contaminated clothing immediately. If skin irritation occurs (redness etc.), consult doctor.

Eye contact

Remove contact lenses.
Wash thoroughly for several minutes using copious water. Seek medical help if necessary.

Ingestion

Rinse the mouth thoroughly with water.
Do not induce vomiting. Consult doctor immediately.
In case of vomiting, keep head low so that the stomach content does not reach the lungs.

4.2 Most important symptoms and effects, both acute and delayed

If applicable delayed symptoms and effects can be found in section 11 and the absorption route in section 4.1.
In certain cases, the symptoms of poisoning may only appear after an extended period / after several hours.

4.3 Indication of any immediate medical attention and special treatment needed

Symptomatic treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media
Suitable extinguishing media
Adapt to the nature and extent of fire.
Water jet spray/foam/CO2/dry extinguisher
Unsuitable extinguishing media
High volume water jet
5.2 Special hazards arising from the substance or mixture
In case of fire the following can develop:
Oxides of carbon
Toxic gases
Danger of bursting (explosion) when heated
Explosive vapour/air mixture
5.3 Advice for firefighters
In case of fire and/or explosion do not breathe fumes.
Protective respirator with independent air supply.
According to size of fire
Full protection, if necessary.
Cool container at risk with water.
Dispose of contaminated extinction water according to official regulations.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
Remove possible causes of ignition - do not smoke.
Ensure sufficient supply of air.
Avoid inhalation, and contact with eyes or skin.
6.2 Environmental precautions
Prevent from entering drainage system.
Prevent surface and ground-water infiltration, as well as ground penetration.
6.3 Methods and material for containment and cleaning up
If spray or gas escapes, ensure ample fresh air is available.
Active substance:
Soak up with absorbent material (e.g. universal binding agent, sand, diatomaceous earth) and dispose of according to Section 13.
6.4 Reference to other sections
For personal protective equipment see Section 8 and for disposal instructions see Section 13.

SECTION 7: Handling and storage

In addition to information given in this section, relevant information can also be found in section 8 and 6.1.
7.1 Precautions for safe handling
7.1.1 General recommendations
Ensure good ventilation.
Avoid inhalation of the vapours.
Keep away from sources of ignition - Do not smoke.
Take measures against electrostatic charging, if appropriate.
Do not use on hot surfaces.
Avoid contact with eyes or skin.
Eating, drinking, smoking, as well as food-storage, is prohibited in work-room.
Observe directions on label and instructions for use.
Use working methods according to operating instructions.
7.1.2 Notes on general hygiene measures at the workplace
General hygiene measures for the handling of chemicals are applicable.
Wash hands before breaks and at end of work.
Keep away from food, drink and animal feedingstuffs.
Remove contaminated clothing and protective equipment before entering areas in which food is consumed.

7.2 Conditions for safe storage, including any incompatibilities

Keep out of access to unauthorised individuals.
Not to be stored in gangways or stair wells.
Do not store with oxidizing agents.
Observe special regulations for aerosols!
Observe special storage conditions (in Germany, e.g., in accordance with the regulations in the "Betriebssicherheitsverordnung").
Keep protected from direct sunlight and temperatures over 50°C.
Store in a well-ventilated place.
Store cool.

7.3 Specific end use(s)

No information available at present.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Workplace exposure limit (WEL) of the total hydrocarbon solvent content of the mixture (RCP method according to EH40):
800 mg/m3

GB **Chemical Name**	Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics		Content %:50-60
WEL-TWA: 800 mg/m3	WEL-STEL: ---	---	
Monitoring procedures:	- Draeger - Hydrocarbons 2/a (81 03 581) - Draeger - Hydrocarbons 0,1%/c (81 03 571) - Compur - KITA-187 S (551 174)		
BMGV: ---		Other information: (WEL acc. to RCP-method, EH40)	

GB **Chemical Name**	2-Butoxyethanol		Content %:1-5
WEL-TWA: 25 ppm (123 mg/m3) (WEL), 20 ppm (98 mg/m3) (EU)	WEL-STEL: 50 ppm (246 mg/m3) (WEL, EU)	---	
Monitoring procedures:	- Compur - KITA-190 U(C) (548 873) DFG (D) (Loesungsmittelgemische 3) DFG (E) (Solvent mixtures 3) - 1998, 2002 - EU - project BC/CEN/ENTR/000/2002-16 card 32-2 (2004)		
BMGV: 240 mmol butoxyacetic acid/mol creatinine in urine, post shift (BMGV)		Other information: Sk (WEL)	

GB **Chemical Name**	Carbon dioxide		Content %:1-5
WEL-TWA: 5000 ppm (9150 mg/m3) (WEL), 5000 ppm (9000 mg/m3) (EU)	WEL-STEL: 15000 ppm (27400 mg/m3) (WEL)	---	
Monitoring procedures:	- Compur - KITA-126 B (549 475) - Compur - KITA-126 SA (549 467) - Compur - KITA-126 SB (548 816) - Compur - KITA-126 SF (549 491) - Compur - KITA-126 SG (550 210) - Compur - KITA-126 SH (549 509) - Compur - KITA-126 UH (549 517) - Draeger - Carbon Dioxide 100/a (81 01 811) - Draeger - Carbon Dioxide 0,1%/a (CH 23 501) - Draeger - Carbon Dioxide 0,5%/a (CH 31 401) - Draeger - Carbon Dioxide 1%/a (CH 25 101) - Draeger - Carbon Dioxide 5%/A (CH 20 301) - OSHA ID-172 (Carbon dioxide in workplace atmospheres) - 1990 - NIOSH 6603 (Carbon dioxide) - 1994		
BMGV: ---		Other information: ---	

GB **Chemical Name**	Oil mist, mineral		Content %:
WEL-TWA: 5 mg/m3 (ACGIH)	WEL-STEL: 10 mg/m3 (ACGIH)	---	
Monitoring procedures:	- Draeger - Oil 10/a-P (67 28 371) - Draeger - Oil Mist 1/a (67 33 031)		
BMGV: ---		Other information: ---	

GB WEL-TWA = Workplace Exposure Limit - Long-term exposure limit (8-hour TWA (= time weighted average) reference period) EH40. AGW = "Arbeitsplatzgrenzwert" (workplace limit value, Germany). | WEL-STEL = Workplace Exposure Limit - Short-term exposure limit (15-minute

reference period). | BMGV = Biological monitoring guidance value EH40. BGW = "Biologischer Grenzwert" (biological limit value, Germany) | Other information: Sen = Capable of causing occupational asthma. Sk = Can be absorbed through skin. Carc = Capable of causing cancer and/or heritable genetic damage.
** = The exposure limit for this substance is repealed through the TRGS 900 (Germany) of January 2006 with the goal of revision.

2-Butoxyethanol						
Area of application	**Exposure route / Environmental compartment**	**Effect on health**	**Descriptor**	**Value**	**Unit**	**Note**
Workers / employees	Human - dermal	Short term, systemic effects	DNEL	89	mg/kg bw/d	
Workers / employees	Human - inhalation	Short term, systemic effects	DNEL	663	mg/m3	
Workers / employees	Human - inhalation	Short term, local effects	DNEL	246	mg/m3	
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	75	mg/kg bw/d	
Workers / employees	Human - inhalation	Short term, systemic effects	DNEL	98	mg/m3	
Consumer	Human - dermal	Short term, systemic effects	DNEL	44,5	mg/kg bw/d	
Consumer	Human - inhalation	Short term, systemic effects	DNEL	426	mg/m3	
Consumer	Human - oral	Short term, systemic effects	DNEL	13,4	mg/kg bw/d	
Consumer	Human - inhalation	Short term, local effects	DNEL	123	mg/m3	
Consumer	Human - dermal	Short term, systemic effects	DNEL	38	mg/kg bw/d	
Consumer	Human - inhalation	Long term, systemic effects	DNEL	49	mg/m3	
Consumer	Human - oral	Short term, systemic effects	DNEL	3,2	mg/kg bw/d	
	Environment - freshwater		PNEC	8,8	mg/l	
	Environment - marine		PNEC	0,88	mg/l	
	Environment - sediment, freshwater		PNEC	34,6	mg/kg dw	
	Environment - soil		PNEC	2,8	mg/kg	
	Environment - sewage treatment plant		PNEC	463	mg/l	
	Environment - sediment, marine		PNEC	3,46	mg/kg dw	

8.2 Exposure controls
8.2.1 Appropriate engineering controls

Ensure good ventilation. This can be achieved by local suction or general air extraction.
If this is insufficient to maintain the concentration under the WEL or AGW values, suitable breathing protection should be worn.
Applies only if maximum permissible exposure values are listed here.

8.2.2 Individual protection measures, such as personal protective equipment

General hygiene measures for the handling of chemicals are applicable.
Wash hands before breaks and at end of work.
Keep away from food, drink and animal feedingstuffs.
Remove contaminated clothing and protective equipment before entering areas in which food is consumed.

Eye/face protection:
With danger of contact with eyes.
Tight fitting protective goggles with side protection (EN 166).

Skin protection - Hand protection:
Solvent resistant protective gloves (EN 374).
If applicable
Protective nitrile gloves (EN 374)
Minimum layer thickness in mm:

0,4
Permeation time (penetration time) in minutes:
> 480
The breakthrough times determined in accordance with EN 374 Part 3 were not obtained under practical conditions.
The recommended maximum wearing time is 50% of breakthrough time.
Protective hand cream recommended.

Skin protection - Other:
Protective working garments (e.g. safety shoes EN ISO 20345, long-sleeved protective working garments).

Respiratory protection:
If OES or MEL is exceeded.
Filter A P2 (EN 14387), code colour brown, white
Observe wearing time limitations for respiratory protection equipment.

Thermal hazards:
Not applicable

Additional information on hand protection - No tests have been performed.
In the case of mixtures, the selection has been made according to the knowledge available and the information about the contents.
Selection of materials derived from glove manufacturer's indications.
Final selection of glove material must be made taking the breakthrough times, permeation rates and degradation into account.
Selection of a suitable glove depends not only on the material but also on other quality characteristics and varies from manufacturer to manufacturer.
In the case of mixtures, the resistance of glove materials cannot be predicted and must therefore be tested before use.
The exact breakthrough time of the glove material can be requested from the protective glove manufacturer and must be observed.

8.2.3 Environmental exposure controls
No information available at present.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state:	Aerosol, Substance: Liquid
Colour:	Colourless
Odour:	Characteristic
Odour threshold:	Not determined
pH-value:	n.a.
Melting point/freezing point:	Not determined
Initial boiling point and boiling range:	Not determined
Flash point:	n.a.
Evaporation rate:	Not determined
Flammability (solid, gas):	Not determined
Lower explosive limit:	Not determined
Upper explosive limit:	Not determined
Vapour pressure:	Not determined
Vapour density (air = 1):	Not determined
Density:	0,858 g/ml (20°C)
Bulk density:	n.a.
Solubility(ies):	Not determined
Water solubility:	Insoluble
Partition coefficient (n-octanol/water):	Not determined
Auto-ignition temperature:	Not determined
Decomposition temperature:	Not determined
Viscosity:	Not determined
Explosive properties:	Product is not explosive.
Oxidising properties:	No

9.2 Other information

Miscibility:	Not determined
Fat solubility / solvent:	Not determined
Conductivity:	Not determined
Surface tension:	Not determined
Solvents content:	Not determined

SECTION 10: Stability and reactivity

10.1 Reactivity
Pressure increase will result in danger of bursting.

10.2 Chemical stability
Stable with proper storage and handling.

10.3 Possibility of hazardous reactions
No dangerous reactions are known.

10.4 Conditions to avoid
Heating, open flame, ignition sources
Pressure increase will result in danger of bursting.

10.5 Incompatible materials
Avoid contact with strong oxidizing agents.

10.6 Hazardous decomposition products
No decomposition when used as directed.

SECTION 11: Toxicological information

11.1 Information on toxicological effects
Possibly more information on health effects, see Section 2.1 (classification).

MoS2-Rostloeser XXL 600 mL Art.: 1613						
Toxicity / effect	**Endpoint**	**Value**	**Unit**	**Organism**	**Test method**	**Notes**
Acute toxicity, by oral route:	ATE	>2000	mg/kg			calculated value
Acute toxicity, by dermal route:	ATE	>2000	mg/kg			calculated value
Acute toxicity, by inhalation:	ATE	>20	mg/l/4h			calculated value, Vapours
Acute toxicity, by inhalation:	ATE	>5	mg/l/4h			calculated value, Aerosol
Skin corrosion/irritation:						n.d.a.
Serious eye damage/irritation:						n.d.a.
Respiratory or skin sensitisation:						n.d.a.
Germ cell mutagenicity:						n.d.a.
Carcinogenicity:						n.d.a.
Reproductive toxicity:						n.d.a.
Specific target organ toxicity - single exposure (STOT-SE):						n.d.a.
Specific target organ toxicity - repeated exposure (STOT-RE):						n.d.a.
Aspiration hazard:						n.d.a.
Symptoms:						n.d.a.

Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics						
Toxicity / effect	**Endpoint**	**Value**	**Unit**	**Organism**	**Test method**	**Notes**
Acute toxicity, by oral route:	LD50	>5000	mg/kg	Rat	OECD 401 (Acute Oral Toxicity)	
Acute toxicity, by dermal route:	LD50	>2000	mg/kg	Rat	OECD 402 (Acute Dermal Toxicity)	
Acute toxicity, by inhalation:	LC50	>5000	mg/m3/8h	Rat	OECD 403 (Acute Inhalation Toxicity)	
Skin corrosion/irritation:						Repeated exposure may cause skin dryness or cracking.
Serious eye damage/irritation:					OECD 405 (Acute Eye Irritation/Corrosion)	Not irritant
Respiratory or skin sensitisation:					OECD 406 (Skin Sensitisation)	Not sensitizising
Germ cell mutagenicity:					OECD 471 (Bacterial Reverse Mutation Test)	Negative, Analogous conclusion

Carcinogenicity:					OECD 453 (Combined Chronic Toxicity/Carcinogenicity Studies)	Negative, Analogous conclusion
Reproductive toxicity:					OECD 414 (Prenatal Developmental Toxicity Study)	Negative, Analogous conclusion
Reproductive toxicity:					OECD 421 (Reproduction/Developmental Toxicity Screening Test)	Negative, Analogous conclusion
Specific target organ toxicity - single exposure (STOT-SE):						No indications of such an effect.
Specific target organ toxicity - repeated exposure (STOT-RE):					OECD 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)	No indications of such an effect., Analogous conclusion
Aspiration hazard:						Yes
Symptoms:						unconsciousness, headaches, dizziness

2-Butoxyethanol

Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	1746	mg/kg	Rat		
Acute toxicity, by dermal route:	LD50	2275	mg/kg	Guinea pig	OECD 402 (Acute Dermal Toxicity)	Does not conform with EU classification.
Acute toxicity, by inhalation:	LC50	2-20	mg/l	Rat		
Skin corrosion/irritation:				Rabbit		Irritant, Product removes fat.
Serious eye damage/irritation:				Rabbit		Intensively irritant, Risk of serious damage to eyes.
Respiratory or skin sensitisation:				Guinea pig		Not sensitizising
Specific target organ toxicity - repeated exposure (STOT-RE):						
Symptoms:						acidosis, ataxia, breathing difficulties, respiratory distress, drowsiness, unconsciousness, annoyance, coughing, headaches, gastrointestinal disturbances, insomnia, mucous membrane irritation, dizziness

Carbon dioxide

Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Symptoms:						unconsciousness, blisters by skin-contact, vomiting, frostbite, annoyance, palpitations, itching, headaches, cramps, ear noises, dizziness

Benzene, C9-13-alkyl derivs., distn. residues, sulfonated, calcium salts

Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	>5000	mg/kg	Rat		
Acute toxicity, by dermal route:	LD50	>5000	mg/kg	Rat		
Skin corrosion/irritation:				Rabbit		Not irritant
Serious eye damage/irritation:				Rabbit		Not irritant

Germ cell mutagenicity:					OECD 471 (Bacterial Reverse Mutation Test)	Negative

SECTION 12: Ecological information

Possibly more information on environmental effects, see Section 2.1 (classification).

MoS2-Rostloeser XXL 600 mL
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Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
Toxicity to fish:							n.d.a.
Toxicity to daphnia:							n.d.a.
Toxicity to algae:							n.d.a.
Persistence and degradability:							The surfactant(s) contained in this mixture complies(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.
Bioaccumulative potential:							n.d.a.
Mobility in soil:							n.d.a.
Results of PBT and vPvB assessment							n.d.a.
Other adverse effects:							n.d.a.
Other information:							According to the recipe, contains no AOX.

Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics

Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
Toxicity to fish:	LC50	96h	>1000	mg/l	Oncorhynchus mykiss	OECD 203 (Fish, Acute Toxicity Test)	
Toxicity to daphnia:	EC50	48h	>1000	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	
Toxicity to algae:	NOELR	72h	1000	mg/l	Pseudokirchneriella subcapitata	OECD 201 (Alga, Growth Inhibition Test)	
Toxicity to algae:	ErL50	72h	>1000	mg/l	Pseudokirchneriella subcapitata	OECD 201 (Alga, Growth Inhibition Test)	
Persistence and degradability:		28d	80	%		OECD 301 F (Ready Biodegradability - Manometric Respirometry Test)	
Bioaccumulative potential:	Log Pow		5,5-7,2				
Mobility in soil:	Log Koc		>3				

Results of PBT and vPvB assessment							No PBT substance, No vPvB substance
Water solubility:			~10	mg/l			Slight
Water solubility:							Insoluble

2-Butoxyethanol

Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
Toxicity to fish:	LC50	96h	1474	mg/l	Oncorhynchus mykiss	OECD 203 (Fish, Acute Toxicity Test)	
Toxicity to daphnia:	EC50	48h	1550	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	
Toxicity to daphnia:	NOEC/NOEL	21d	100	mg/l	Daphnia magna	OECD 211 (Daphnia magna Reproduction Test)	
Toxicity to algae:	EC50	72h	1840	mg/l	Pseudokirchneriella subcapitata	OECD 201 (Alga, Growth Inhibition Test)	
Persistence and degradability:		28d	>99	%		OECD 302 B (Inherent Biodegradability - Zahn-Wellens/EMPA Test)	
Persistence and degradability:		28d	95	%		OECD 301 E (Ready Biodegradability - Modified OECD Screening Test)	
Bioaccumulative potential:	Log Pow		0,83				Negative
Mobility in soil:	H (Henry)		0,0000016	atm*m3/mol			
Results of PBT and vPvB assessment							No PBT substance, No vPvB substance
Toxicity to bacteria:	EC0	16h	>700	mg/l	Pseudomonas putida	DIN 38412 T.8	

Carbon dioxide

Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
Other adverse effects:							Greenhouse effect

Benzene, C9-13-alkyl derivs., distn. residues, sulfonated, calcium salts

Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
Toxicity to fish:	LC50	96h	>1000	mg/l	Pimephales promelas		Analogous conclusion
Toxicity to fish:	LC50	96h	10000	mg/l	Cyprinodon variegatus	OECD 203 (Fish, Acute Toxicity Test)	Analogous conclusion
Toxicity to daphnia:	EC50	48h	>1000	mg/l	Daphnia magna		Analogous conclusion
Toxicity to algae:	EC50	96h	>1000	mg/l	Selenastrum capricornutum		Analogous conclusion
Persistence and degradability:		28d	16	%		OECD 301 B (Ready Biodegradability - Co2 Evolution Test)	
Bioaccumulative potential:	Log Pow		>6,7				

SECTION 13: Disposal considerations

13.1 Waste treatment methods

For the substance / mixture / residual amounts

EC disposal code no.:
The waste codes are recommendations based on the scheduled use of this product.
Owing to the user's specific conditions for use and disposal, other waste codes may be allocated under certain circumstances. (2014/955/EU)
16 05 04 gases in pressure containers (including halons) containing hazardous substances
Recommendation:
Sewage disposal shall be discouraged.
Pay attention to local and national official regulations.
Take full aerosol cans to problem waste collection.
Take emptied aerosol cans to valuable material collection.

For contaminated packing material

Pay attention to local and national official regulations.
Recommendation:
Return to manufacturer with residual pressure.
Do not perforate, cut up or weld uncleaned container.

SECTION 14: Transport information

General statements

UN number:	1950

Transport by road/by rail (ADR/RID)

UN proper shipping name:	
UN 1950 AEROSOLS	
Transport hazard class(es):	2.1
Packing group:	-
Classification code:	5F
LQ (ADR 2015):	1 L
Environmental hazards:	Not applicable
Tunnel restriction code:	D

Transport by sea (IMDG-code)

UN proper shipping name:	
AEROSOLS	
Transport hazard class(es):	2.1
Packing group:	-
EmS:	F-D, S-U
Marine Pollutant:	n.a
Environmental hazards:	Not applicable

Transport by air (IATA)

UN proper shipping name:	
Aerosols, flammable	
Transport hazard class(es):	2.1
Packing group:	-
Environmental hazards:	Not applicable

Special precautions for user

Persons employed in transporting dangerous goods must be trained.
All persons involved in transporting must observe safety regulations.
Precautions must be taken to prevent damage.

Transport in bulk according to Annex II of MARPOL and the IBC Code

Freighted as packaged goods rather than in bulk, therefore not applicable.
Minimum amount regulations have not been taken into account.
Danger code and packing code on request.
Comply with special provisions.

SECTION 15: Regulatory information

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

For classification and labelling see Section 2.
Observe restrictions:
Comply with trade association/occupational health regulations.
Regulation (EC) No 1907/2006, Annex XVII
Observe youth employment law (German regulation).
Observe incident regulations.
Directive 2010/75/EU (VOC): ~ 58 %

15.2 Chemical safety assessment

A chemical safety assessment is not provided for mixtures.

SECTION 16: Other information

Revised sections: 1 - 16
These details refer to the product as it is delivered.
Employee instruction/training in handling hazardous materials is required.
Employee training in handling dangerous goods is required.

Classification and processes used to derive the classification of the mixture in accordance with the ordinance (EG) 1272/2008 (CLP):

Classification in accordance with regulation (EC) No. 1272/2008 (CLP)	Evaluation method used
Skin Sens. 1, H317	Classification according to calculation procedure.
Asp. Tox. 1, H304	Classification according to calculation procedure.
Aerosol 1, H222	Classification based on test data.
Aerosol 1, H229	Classification based on test data.

The following phrases represent the posted Hazard Class and Risk Category Code (GHS/CLP) of the product and the constituents (specified in Section 2 and 3).
H302 Harmful if swallowed.
H304 May be fatal if swallowed and enters airways.
H312 Harmful in contact with skin.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H332 Harmful if inhaled.

Skin Sens. — Skin sensitization
Asp. Tox. — Aspiration hazard
Aerosol — Aerosols
Acute Tox. — Acute toxicity - oral
Eye Irrit. — Eye irritation
Skin Irrit. — Skin irritation
Acute Tox. — Acute toxicity - dermal
Acute Tox. — Acute toxicity - inhalation

Any abbreviations and acronyms used in this document:

AC Article Categories
acc., acc. to according, according to
ACGIH American Conference of Governmental Industrial Hygienists
ADR Accord européen relatif au transport international des marchandises Dangereuses par Route (= European Agreement concerning the International Carriage of Dangerous Goods by Road)
AOEL Acceptable Operator Exposure Level

AOX Adsorbable organic halogen compounds
approx. approximately
Art., Art. no. Article number
ATE Acute Toxicity Estimate according to Regulation (EC) 1272/2008 (CLP)
BAM Bundesanstalt für Materialforschung und -prüfung (Federal Institute for Materials Research and Testing, Germany)
BAuA Bundesanstalt für Arbeitsschutz und Arbeitsmedizin (= Federal Institute for Occupational Health and Safety, Germany)
BCF Bioconcentration factor
BGV Berufsgenossenschaftliche Vorschrift (= Accident Prevention Regulation)
BHT Butylhydroxytoluol (= 2,6-Di-t-butyl-4-methyl-phenol)
BMGV Biological monitoring guidance value (EH40, UK)
BOD Biochemical oxygen demand
BSEF Bromine Science and Environmental Forum
bw body weight
CAS Chemical Abstracts Service
CEC Coordinating European Council for the Development of Performance Tests for Fuels, Lubricants and Other Fluids
CESIO Comité Européen des Agents de Surface et de leurs Intermédiaires Organiques
CIPAC Collaborative International Pesticides Analytical Council
CLP Classification, Labelling and Packaging (REGULATION (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures)
CMR carcinogenic, mutagenic, reproductive toxic
COD Chemical oxygen demand
CTFA Cosmetic, Toiletry, and Fragrance Association
DMEL Derived Minimum Effect Level
DNEL Derived No Effect Level
DOC Dissolved organic carbon
DT50 Dwell Time - 50% reduction of start concentration
DVS Deutscher Verband für Schweißen und verwandte Verfahren e.V. (= German Association for Welding and Allied Processes)
dw dry weight
e.g. for example (abbreviation of Latin 'exempli gratia'), for instance
EC European Community
ECHA European Chemicals Agency
EEA European Economic Area
EEC European Economic Community
EINECS European Inventory of Existing Commercial Chemical Substances
ELINCS European List of Notified Chemical Substances
EN European Norms
EPA United States Environmental Protection Agency (United States of America)
ERC Environmental Release Categories
ES Exposure scenario
etc. et cetera
EU European Union
EWC European Waste Catalogue
Fax. Fax number
gen. general
GHS Globally Harmonized System of Classification and Labelling of Chemicals
GWP Global warming potential
HET-CAM Hen's Egg Test - Chorionallantoic Membrane
HGWP Halocarbon Global Warming Potential
IARC International Agency for Research on Cancer
IATA International Air Transport Association
IBC Intermediate Bulk Container
IBC (Code) International Bulk Chemical (Code)
IC Inhibitory concentration
IMDG-code International Maritime Code for Dangerous Goods
incl. including, inclusive
IUCLID International Uniform ChemicaL Information Database
LC lethal concentration
LC50 lethal concentration 50 percent kill
LCLo lowest published lethal concentration
LD Lethal Dose of a chemical
LD50 Lethal Dose, 50% kill
LDLo Lethal Dose Low
LOAEL Lowest Observed Adverse Effect Level
LOEC Lowest Observed Effect Concentration

LOEL Lowest Observed Effect Level
LQ Limited Quantities
MARPOL International Convention for the Prevention of Marine Pollution from Ships
n.a. not applicable
n.av. not available
n.c. not checked
n.d.a. no data available
NIOSH National Institute of Occupational Safety and Health (United States of America)
NOAEC No Observed Adverse Effective Concentration
NOAEL No Observed Adverse Effect Level
NOEC No Observed Effect Concentration
NOEL No Observed Effect Level
ODP Ozone Depletion Potential
OECD Organisation for Economic Co-operation and Development
org. organic
PAH polycyclic aromatic hydrocarbon
PBT persistent, bioaccumulative and toxic
PC Chemical product category
PE Polyethylene
PNEC Predicted No Effect Concentration
POCP Photochemical ozone creation potential
ppm parts per million
PROC Process category
PTFE Polytetrafluorethylene
REACH Registration, Evaluation, Authorisation and Restriction of Chemicals (REGULATION (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals)
REACH-IT List-No. 9xx-xxx-x No. is automatically assigned, e.g. to pre-registrations without a CAS No. or other numerical identifier. List Numbers do not have any legal significance, rather they are purely technical identifiers for processing a submission via REACH-IT.
RID Règlement concernant le transport International ferroviaire de marchandises Dangereuses (= Regulation concerning the International Carriage of Dangerous Goods by Rail)
SADT Self-Accelerating Decomposition Temperature
SAR Structure Activity Relationship
SU Sector of use
SVHC Substances of Very High Concern
Tel. Telephone
ThOD Theoretical oxygen demand
TOC Total organic carbon
TRGS Technische Regeln für Gefahrstoffe (=Technical Regulations for Hazardous Substances)
UN RTDG United Nations Recommendations on the Transport of Dangerous Goods
VbF Verordnung über brennbare Flüssigkeiten (= Regulation for flammable liquids (Austria))
VOC Volatile organic compounds
vPvB very persistent and very bioaccumulative
WEL-TWA, WEL-STEL WEL-TWA = Workplace Exposure Limit - Long-term exposure limit (8-hour TWA (= time weighted average) reference period), WEL-STEL = Workplace Exposure Limit - Short-term exposure limit (15-minute reference period) (EH40, UK).
WHO World Health Organization
wwt wet weight

The statements made here should describe the product with regard to the necessary safety precautions - they are not meant to guarantee definite characteristics - but they are based on our present up-to-date knowledge.
No responsibility.
These statements were made by:

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