Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH)

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

*

1.1. Product identifier

Trade name/designation:

RAVENOL Bremsenreiniger Spray

Article No.:
1360030
UFI:
SRNJ-V089-2FDQ-7W9N

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

Use of the substance/mixture:
Technical Spray

1.3. Details of the supplier of the safety data sheet

Supplier (manufacturer/importer/only representative/downstream user/distributor):
Ravensberger Schmierstoffvertrieb GmbH
Jöllenbecker Str. 2
33824 Werther
D
Telephone: +49 5203 9719 0
Telefax: +49 5203 9719 40
E-mail: kontakt@ravenol.de
Website: www.ravenol.de
E-mail (competent person): technik@ravenol.de

1.4. Emergency telephone number

Abt. Technik (Produktsicherheit), 24h: +49 700 24 112 112 (Contract ID: RAV) , +49 5203 9719 0 (Mo-Do 7.30 Uhr - 16.30 Uhr, Fr 7.30 Uhr - 13.15 Uhr) (Only available during office hours.)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Hazard classes and hazard categories	Hazard statements	Classification pro cedure
Aerosols *(Aerosol 1)*	H222; H229: Extremely flammable aerosol.; Pressurised container: May burst if heated.	On basis of test data.
Skin corrosion/irritation *(Skin Irrit. 2)*	H315: Causes skin irritation.	Calculation method.
STOT-single exposure *(STOT SE 3)*	H336: May cause drowsiness or dizziness.	Calculation method.
Hazardous to the aquatic environment *(Aquatic Chronic 2)*	H411: Toxic to aquatic life with long lasting effects.	Calculation method.

2.2. Label elements

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

Hazard pictograms:

GHS02
Flame

GHS07
Exclamation mark

GHS09
Environment

Signal word: Danger

Hazard components for labelling:
Hydrocarbons, C6-C7, n-alkanes, iso-alkanes, cyclics, <5% n-hexane

hazard statements for physical hazards	
H222	Extremely flammable aerosol.
H229	Pressurised container: May burst if heated.

hazard statements for health hazards	
H315	Causes skin irritation.
H336	May cause drowsiness or dizziness.

Hazard statements for environmental hazards	
H411	Toxic to aquatic life with long lasting effects.

Supplemental hazard information: -

Precautionary Statements	
P101	If medical advice is needed, have product container or label at hand.
P102	Keep out of reach of children.

Precautionary Statements Prevention	
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.
P260	Do not breathe dusts or mists.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves/protective clothing/eye protection/face protection.

Precautionary Statements Response	
P302 + P352	IF ON SKIN: Wash with plenty of water/-.
P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P312	Call a POISON CENTER/doctor/Emergency telephone number if you feel unwell.
P332 + P313	If skin irritation occurs: Get medical advice/attention.

Precautionary Statements Storage	
P410 + P412	Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.

Precautionary Statements Disposal	
P501	Dispose of contents/container to an appropriate recycling or disposal facility.

2.3. Other hazards

Other adverse effects:

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

SECTION 3: Composition / information on ingredients

*

3.2. Mixtures

Additional information:

Regulation (EC) No. 648/2004 (Detergents regulation): Contains: >= 30% Hydrocarbons, aliphatic

Hazardous ingredients / Hazardous impurities / Stabilisers:

product identifiers	Substance name Classification according to Regulation (EC) No 1272/2008 [CLP]	Concen-tration
EC No.: 921-024-6 **REACH No.:** 01-2119475514-35	**Hydrocarbons, C6-C7, n-alkanes, iso-alkanes, cyclics, <5% n-hexane** Aquatic Chronic 2, Asp. Tox. 1, Flam. Liq. 2, STOT SE 3, Skin Irrit. 2  **Danger** H225-H304-H315-H336-H411	50 – ≤ 100 Vol-%
CAS No.: 124-38-9 **EC No.:** 204-696-9	**carbon dioxide** Press. Gas (Comp.) **Warning** H280	3 – ≤ 5 Vol-%

Full text of H- and EUH-phrases: see section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information:

First aider: Pay attention to self-protection! Remove persons to safety.
In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible). Never give anything by mouth to an unconscious person or a person with cramps.

Following inhalation:

Provide fresh air. Consult a doctor immediately in the case of inhaling spray mist and show him packing or label.

In case of skin contact:

After contact with skin, wash immediately with plenty of water and soap. Take off contaminated clothing and wash it before reuse. If skin irritation occurs: Get medical advice/attention.

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.

After ingestion:

Rinse mouth immediately and drink plenty of water. Observe risk of aspiration if vomiting occurs.

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

The following symptoms may occur: Headache, Dizziness, Nausea, fatigue, skin irritation

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

Treat symptomatically. Call a POISON CENTER. Symptoms may develop several hours following exposure; medical observation therefore necessary for at least 48 hours.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

Carbon dioxide (CO2)
Extinguishing powder
Foam
Water mist

Unsuitable extinguishing media:

Full water jet

5.2. Special hazards arising from the substance or mixture

Extremely flammable aerosol. Pressurized container: May burst if heated.

Hazardous combustion products:

Nitrogen oxides (NOx)
Carbon monoxide
Carbon dioxide (CO2)
Gases/vapours, toxic

5.3. Advice for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing.

5.4. Additional information

Move undamaged containers from immediate hazard area if it can be done safely. Use water spray jet to protect personnel and to cool endangered containers. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Personal precautions:

Use personal protection equipment. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Emergency procedures:

Remove all sources of ignition. Remove persons to safety. Provide adequate ventilation.

6.1.2. For emergency responders

Personal protection equipment:
Use appropriate respiratory protection.

6.2. Environmental precautions

Do not allow to enter into surface water or drains. Do not allow uncontrolled discharge of product into the environment. Danger of explosion.

6.3. Methods and material for containment and cleaning up

For containment:
Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents).

For cleaning up:
Clean contaminated articles and floor according to the environmental legislation.

Other information:
Treat the recovered material as prescribed in the section on waste disposal.

6.4. Reference to other sections

Safe handling: see section 7
Personal protection equipment: see section 8
Disposal: see section 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Protective measures

Advices on safe handling:
Pressurised container: May burst if heated. Do not pierce or burn, even after use. If handled uncovered, arrangements with local exhaust ventilation should be used if possible. Do not breathe gas/vapour/aerosol.

Fire prevent measures:
Do not spray on naked flames or any incandescent material. Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F. Keep away from sources of ignition - No smoking.

Measures to prevent aerosol and dust generation:
Use only in well-ventilated areas.

Advices on general occupational hygiene

Minimum standard for preventive measures while handling with working materials are specified in the TRGS 500.
When using do not eat, drink or smoke. Avoid contact with eyes and skin.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions:
Keep container tightly closed in a cool, well-ventilated place. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Requirements for storage rooms and vessels:
Observe legal regulations and regulations.

Hints on storage assembly:
Do not store together with:
Oxidizing agent
Pyrophoric or self-heating substances
Food and feedingstuffs

Storage class: 2B – Aerosol dispensers and lighters

Further information on storage conditions:
Protect against: Frost, UV-radiation/sunlight
maximum storage temperature: 50 °C

7.3. Specific end use(s)

Recommendation:
Observe technical data sheet.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1. Occupational exposure limit values

Limit value type (country of origin)	Substance name	① long-term occupational exposure limit value ② short-term occupational exposure limit value ③ Instantaneous value ④ Monitoring and observation processes ⑤ Remark
CH	carbon dioxide CAS No.: 124-38-9	① 5,000 ppm (9,000 mg/m³)
BE	carbon dioxide CAS No.: 124-38-9	① 5,000 ppm (9,131 mg/m³) ② 30,000 ppm (54,784 mg/m³) ⑤ (dioxyde de)
MAK (AT)	carbon dioxide CAS No.: 124-38-9	① 5,000 ppm (9,000 mg/m³)
CZ	carbon dioxide CAS No.: 124-38-9	① 5,004 ppm (9,000 mg/m³) ② 25,020 ppm (45,000 mg/m³)
PL	carbon dioxide CAS No.: 124-38-9	① 9,000 mg/m³ ② 27,000 mg/m³
NO	carbon dioxide CAS No.: 124-38-9	① 5,000 ppm (9,000 mg/m³)
IE	carbon dioxide CAS No.: 124-38-9	① 5,000 ppm (9,000 mg/m³) ② 15,000 ppm (27,000 mg/m³)
FI	carbon dioxide CAS No.: 124-38-9	① 5,000 ppm (9,000 mg/m³) ⑤ Räjäytys- ja louhintatyöt
LT	carbon dioxide CAS No.: 124-38-9	① 5,000 ppm (9,000 mg/m³) ⑤ Anglies dioksidas dažnai laikomas kaip indikatorius darbo patalpose, kuriose oro teršalai susidaro del žmoniu buvimo jose.
SE	carbon dioxide CAS No.: 124-38-9	① 5,000 ppm (9,000 mg/m³) ③ 10,000 ppm (180,000 mg/m³)
SK	carbon dioxide CAS No.: 124-38-9	① 5,000 ppm (9,000 mg/m³)
DK	carbon dioxide CAS No.: 124-38-9	① 5,000 ppm (9,000 mg/m³) ② 10,000 ppm (18,000 mg/m³)
MAK (AT)	carbon dioxide CAS No.: 124-38-9	② 10,000 ppm (18,000 mg/m³) ⑤ (max. 3x60 min./Schicht, Momentanwert)
VRI (FR)	carbon dioxide CAS No.: 124-38-9	① 5,000 ppm (9,000 mg/m³) ⑤ réglementaire indicative
BG	carbon dioxide CAS No.: 124-38-9	① 5,000 ppm (9,000 mg/m³)
HR	carbon dioxide CAS No.: 124-38-9	① 5,000 ppm (9,000 mg/m³)
ES	carbon dioxide CAS No.: 124-38-9	① 5,000 ppm (9,150 mg/m³) ② 15,000 ppm (27,400 mg/m³) ⑤ VLI
RO	carbon dioxide CAS No.: 124-38-9	① 5,000 ppm (9,000 mg/m³)
EE	carbon dioxide CAS No.: 124-38-9	① 5,000 ppm (9,000 mg/m³) ⑤ 8
LV	carbon dioxide CAS No.: 124-38-9	① 5,000 ppm (9,000 mg/m³)
Alberta (CA)	carbon dioxide CAS No.: 124-38-9	① 5,000 ppm (9,000 mg/m³) ② 30,000 ppm (54,000 mg/m³)

Limit value type (country of origin)	Substance name	① long-term occupational exposure limit value ② short-term occupational exposure limit value ③ Instantaneous value ④ Monitoring and observation processes ⑤ Remark
BC (CA)	carbon dioxide CAS No.: 124-38-9	① 5,000 ppm ② 15,000 ppm
IOELV (EU)	carbon dioxide CAS No.: 124-38-9	① 5,000 ppm (9,000 mg/m³)
JP	carbon dioxide CAS No.: 124-38-9	① 5,000 ppm (9,000 mg/m³)
WEL (GB)	carbon dioxide CAS No.: 124-38-9	① 5,000 ppm (9,150 mg/m³) ② 15,000 ppm (27,400 mg/m³)
SI	carbon dioxide CAS No.: 124-38-9	① 5,000 ppm (9,000 mg/m³) ② 10,000 ppm (18,000 mg/m³)
TW	carbon dioxide CAS No.: 124-38-9	① 5,000 ppm (9,000 mg/m³)
KR	carbon dioxide CAS No.: 124-38-9	① 5,000 ppm (9,000 mg/m³) ② 30,000 ppm (54,000 mg/m³)
IS	carbon dioxide CAS No.: 124-38-9	① 5,000 ppm (9,000 mg/m³)
HU	carbon dioxide CAS No.: 124-38-9	① 9,000 mg/m³
CN	carbon dioxide CAS No.: 124-38-9	① 9,000 mg/m³ ② 18,000 mg/m³
MY	carbon dioxide CAS No.: 124-38-9	① 5,000 ppm (9,000 mg/m³)
RU	carbon dioxide CAS No.: 124-38-9	① 9,000 mg/m³ ③ 27,000 mg/m³
GR	carbon dioxide CAS No.: 124-38-9	① 5,000 ppm (9,000 mg/m³) ② 30,000 ppm (54,000 mg/m³)
NL	carbon dioxide CAS No.: 124-38-9	① 9,000 mg/m³
TR	carbon dioxide CAS No.: 124-38-9	① 5,000 ppm (9,000 mg/m³)
OSHA (US)	carbon dioxide CAS No.: 124-38-9	① 5,000 ppm (9,000 mg/m³)
NIOSH (US)	carbon dioxide CAS No.: 124-38-9	① 5,000 ppm (9,000 mg/m³) ② 30,000 ppm (54,000 mg/m³)
ACGIH (US)	carbon dioxide CAS No.: 124-38-9	① 5,000 ppm (9,000 mg/m³) ② 30,000 ppm (54,000 mg/m³)
Québec (CA)	carbon dioxide CAS No.: 124-38-9	① 5,000 ppm (9,000 mg/m³) ② 30,000 ppm (54,000 mg/m³)
TRGS 900 (DE)	carbon dioxide CAS No.: 124-38-9	① 5,000 ppm (9,100 mg/m³) ② 10,000 ppm (18,200 mg/m³)

8.1.2. Biological limit values

No data available

8.1.3. DNEL-/PNEC-values

Substance name	DNEL value	① DNEL type ② Exposure route
Hydrocarbons, C6-C7, n-alkanes, iso-alkanes, cyclics, <5% n-hexane	2,035 mg/m³	① DNEL worker ② inhalative, long-term, systemic
Hydrocarbons, C6-C7, n-alkanes, iso-alkanes, cyclics, <5% n-hexane	608 mg/m³	① DNEL Consumer ② inhalative, long-term, systemic
Hydrocarbons, C6-C7, n-alkanes, iso-alkanes, cyclics, <5% n-hexane	773 mg/kg bw/day	① DNEL worker ② dermal, long-term, systemic
Hydrocarbons, C6-C7, n-alkanes, iso-alkanes, cyclics, <5% n-hexane	699 mg/kg bw/day	① DNEL Consumer ② dermal, long-term, systemic
Hydrocarbons, C6-C7, n-alkanes, iso-alkanes, cyclics, <5% n-hexane	699 mg/kg bw/day	① DNEL Consumer ② oral, long-term, systemic

8.2. Exposure controls

8.2.1. Appropriate engineering controls

See section 7. Additional information on plant design:
If handled uncovered, arrangements with local exhaust ventilation should be used if possible. Do not breathe gas/vapour/aerosol.

8.2.2. Personal protection equipment

Eye/face protection:
Suitable eye protection: Eye glasses with side protection
DIN-/EN-Norms: DIN EN 166

Skin protection:
Hand protection
Suitable material: NBR (Nitrile rubber), PVC (polyvinyl chloride), CR (polychloroprene, chloroprene rubber)
Thickness of the glove material: >= 0,4 mm
Breakthrough time (maximum wearing time) 480 min
Breakthrough times and swelling properties of the material must be taken into consideration.
The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances.
For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.
Tested protective gloves must be worn: EN ISO 374

Suitable protective clothing: Protective clothing

Respiratory protection:
Wear breathing apparatus if exposed to vapours/dusts/aerosols.
Suitable respiratory protection apparatus: Combination filtering device (EN 14387)
Filtering device with filter or ventilator filtering device of type: AX
Observe the wear time limits according GefStoffV in combination with the rules for using respiratory protection apparatus (BGR 190).

Other protection measures:
Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat or drink.

8.2.3. Environmental exposure controls

No data available

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance

Physical state: Aerosol **Colour:** colourless

Odour: characteristic

Safety relevant basis data

parameter		at °C	Method	Remark
pH	*not applicable*			
Melting point	*not determined*			
Freezing point	*not determined*			
Initial boiling point and boiling range	88 °C			
Decomposition temperature	*not determined*			
Flash point	-12 °C			
Evaporation rate	*not determined*			
Auto-ignition temperature	*not determined*			
Upper/lower flammability or explosive limits	*not determined*			
Vapour pressure	*not determined*			
Vapour density	*not determined*			
Density	673 kg/m³	20 °C		
Bulk density	*not applicable*			
Water solubility	The study does not need to be conducted because the substance is known to be insoluble in water.			
Partition coefficient: n-octanol/ water	*not applicable*			
Dynamic viscosity	*not determined*			
Kinematic viscosity	6.9 mm²/s	40 °C		

9.2. Other information

The information relates to the active ingredient.

SECTION 10: Stability and reactivity

10.1. Reactivity

Extremely flammable aerosol.

10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

10.3. Possibility of hazardous reactions

Extremely flammable aerosol. Pressurized container: May burst if heated.

10.4. Conditions to avoid

Keep away from sources of heat (e.g. hot surfaces), sparks and open flames.

10.5. Incompatible materials

Oxidizing agent
Pyrophoric or self-heating substances

10.6. Hazardous decomposition products

Nitrogen oxides (NOx), Carbon monoxide, Carbon dioxide (CO2), carbon black, aldehydes
Gases/vapours, toxic

Further information

Do not mix with other chemicals.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

CAS No.	Substance name	Toxicological information
	Hydrocarbons, C6-C7, n-alkanes, iso-alkanes, cyclics, <5% n-hexane	**LD_{50} oral:** >5,000 mg/kg (Rat) **LD_{50} dermal:** >2,800 – 3,100 mg/kg (Rabbit) **LC_{50} Acute inhalation toxicity (vapour):** >25.2 mg/l 4 h (Rat)

Acute oral toxicity:
Based on available data, the classification criteria are not met.

Acute dermal toxicity:
Based on available data, the classification criteria are not met.

Acute inhalation toxicity:
Based on available data, the classification criteria are not met.

Skin corrosion/irritation:
Causes skin irritation.

Serious eye damage/irritation:
Based on available data, the classification criteria are not met.

Respiratory or skin sensitisation:
Based on available data, the classification criteria are not met.

Germ cell mutagenicity:
No indications of human germ cell mutagenicity exist.

Carcinogenicity:
No indication of human carcinogenicity.

Reproductive toxicity:
No indications of human reproductive toxicity exist.

STOT-single exposure:
May cause drowsiness or dizziness.

STOT-repeated exposure:
Based on available data, the classification criteria are not met.

Aspiration hazard:
Based on available data, the classification criteria are not met.

Additional information:
The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP].

SECTION 12: Ecological information

12.1. Toxicity

CAS No.	Substance name	Toxicological information
	Hydrocarbons, C6-C7, n-alkanes, iso-alkanes, cyclics, <5% n-hexane	**LC_{50}:** 1 – 10 mg/l 4 d (fish, Pimephales promelas (fathead minnow)) **ErC_{50}:** >10 – 30 mg/l 3 d (Algae/water plant, Pseudokirchneriella subcapitata) **EC_{50}:** >1 – 10 mg/l 2 d (crustaceans, Daphnia magna (Big water flea))

Aquatic toxicity:
Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Additional ecotoxicological information:
Do not allow uncontrolled discharge of product into the environment.

12.2. Persistence and degradability

Abiotic degradation:
The product has not been tested.

Additional information:
Fast photochemische oxidation in the air.

12.3. Bioaccumulative potential

CAS No.	Substance name	Log K_{OW}	Bioconcentration factor (BCF)
	Hydrocarbons, C6-C7, n-alkanes, iso-alkanes, cyclics, <5% n-hexane	5.2	

Partition coefficient: n-octanol/water:
not applicable

Accumulation / Evaluation:
The product has not been tested.

12.4. Mobility in soil
The product has not been tested.

12.5. Results of PBT and vPvB assessment

CAS No.	Substance name	Results of PBT and vPvB assessment
	Hydrocarbons, C6-C7, n-alkanes, iso-alkanes, cyclics, <5% n-hexane	The substance in the mixture does not meet the PBT/vPvB criteria according to REACH, annex XIII.
124-38-9	carbon dioxide	The substance in the mixture does not meet the PBT/vPvB criteria according to REACH, annex XIII.

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

12.6. Other adverse effects
No information available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods
Do not allow to enter into surface water or drains. Dispose of waste according to applicable legislation.

13.1.1. Product/Packaging disposal
Waste codes/waste designations according to EWC/AVV

Waste code packaging:

15 01 04	Metallic packaging

Waste treatment options
Appropriate disposal / Product:
Dispose of waste according to applicable legislation.

Appropriate disposal / Package:
Non-contaminated packages may be recycled. Handle contaminated packages in the same way as the substance itself.

13.2. Additional information
The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

SECTION 14: Transport information

Land transport (ADR/RID)	Inland waterway craft (ADN)	Sea transport (IMDG)	Air transport (ICAO-TI / IATA-DGR)
14.1. UN-No.			
UN 1950	UN 1950	UN 1950	UN 1950
14.2. UN proper shipping name			
AEROSOLS	AEROSOLS	AEROSOLS (Hydrocarbons, C6-C7, n-alkanes, iso-alkanes, cyclics, <5% n-hexane)	AEROSOLS
14.3. Transport hazard class(es)			
 2.1	 2.1	 2.1	 2.1

*

Land transport (ADR/RID)	Inland waterway craft (ADN)	Sea transport (IMDG)	Air transport (ICAO-TI / IATA-DGR)
14.4. Packing group			
No data available			
14.5. Environmental hazards			
		 MARINE POLLUTANT	No
14.6. Special precautions for user			
Special provisions: **Limited quantity (LQ):** 1L **Excepted Quantities (EQ):** **Hazard identification number (Kemler No.):** **Classification code:** 5F **tunnel restriction code:** (D) **Remark:**	**Special provisions:** **Limited quantity (LQ):** 1L **Excepted Quantities (EQ):** **Classification code:** 5F **Remark:**	**Special provisions:** **Limited quantity (LQ):** 1L **Excepted Quantities (EQ):** **EmS-No.:** F-D; S-U **Remark:**	**Special provisions:** **Excepted Quantities (EQ):** **Remark:**

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

No transport as bulk according to IBC Code.

SECTION 15: Regulatory information

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

15.1.1. EU legislation

Other regulations (EU):

Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances [Seveso-III-Directive], Hazard categories:

- P3b 'Flammable' aerosols Category 1 or 2, not containing flammable gases Category 1 or 2 nor flammable liquids Category 1
- E2 Hazardous to the Aquatic Environment in Category Chronic 2

Aerosol directive (75/324/EEC)

15.1.2. National regulations

[DE] National regulations

Restrictions of occupation

Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC). Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.

Störfallverordnung

for substances contained in the product:

Hazard categories:

- P3b 'Flammable' aerosols Category 1 or 2, not containing flammable gases Category 1 or 2 nor flammable liquids Category 1
- E2 Hazardous to the Aquatic Environment in Category Chronic 2

Technische Anleitung Luft (TA-Luft)

Remark:

To follow: 5.2.5.

Water hazard class (WGK)

WGK:
2 - deutlich wassergefährdend

Source:
Self-classification (mixture; calculation rule).

Technische Regeln für Gefahrstoffe

TRGS 500
TRGS 510

Berufsgenossenschaftliche Vorschriften (BGV)

Berufsgenossenschaftliche Informationen (BGI) 868
Berufsgenossenschaftliche Regeln (BGR) 189, 190, 192, 195

15.2. Chemical Safety Assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information

*

16.1. Indication of changes

1.1.	Product identifier
3.2.	Mixtures
14.2.	UN proper shipping name
15.1.	Safety, health and environmental regulations/legislation specific for the substance or mixture
16.1.	Indication of changes

16.2. Abbreviations and acronyms

See overview table at www.euphrac.eu

16.3. Key literature references and sources for data

67/548/EEC - Dangerous Substances Directive
1999/45/EEC - Dangerous Preparations Directive
EC 1907/2006 - REACH Regulation
1272/2008 EC - Regulation on classification, labeling and packaging of substances and mixtures, and amending Directives 67/548/EEC and 1999/45/EC and Regulation (EC) No 1907/2006
Regulation (EC) No 1907/2006 (REACH), Annex II
European Chemicals Agency (ECHA), C & L classification and labeling inventory
European Chemicals Agency (ECHA), ECHA CHEM Registered substances
OECD The Global Portal to Information on Chemical Substances (ChemPortal)
Institute for Occupational Safety and Health of the German Social Accident Insurance (IFA): GESTIS substance database and International limit values for chemical substances
Federal Environment Agency, Section IV 2.4: Documentation and Information Centre substances hazardous to water Rigoletto (catalog substances hazardous to water)

16.4. Classification for mixtures and used evaluation method according to regulation (EC) No 1272/2008 [CLP]

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

Hazard classes and hazard categories	Hazard statements	Classification pro cedure
Aerosols *(Aerosol 1)*	H222; H229: Extremely flammable aerosol.; Pressurised container: May burst if heated.	On basis of test data.
Skin corrosion/irritation *(Skin Irrit. 2)*	H315: Causes skin irritation.	Calculation method.
STOT-single exposure *(STOT SE 3)*	H336: May cause drowsiness or dizziness.	Calculation method.
Hazardous to the aquatic environment *(Aquatic Chronic 2)*	H411: Toxic to aquatic life with long lasting effects.	Calculation method.

16.5. Relevant R-, H- and EUH-phrases (Number and full text)

Hazard statements	
H225	Highly flammable liquid and vapour.
H280	Contains gas under pressure; may explode if heated.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H336	May cause drowsiness or dizziness.
H411	Toxic to aquatic life with long lasting effects.

16.6. Training advice

No data available

16.7. Additional information

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.

* Data changed compared with the previous version