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 WIV II SAE 0W-30

Article No.:
1111101

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

Use of the substance/mixture:
Lubricant

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
Germany
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 (Company ID: RAV) (outside USA/Canada) 011 49 700 24 112 112 (Company ID: RAV) (inside USA/Canada), +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
Hazardous to the aquatic environment *(Aquatic Chronic 3)*	H412: Harmful to aquatic life with long lasting effects.	Calculation method.

*

2.2. Label elements

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

Hazard components for labelling:
Phenol, dodecyl-, branched; Phosphorodithioic acid, mixed O,O-bis(sec-Bu and 1,3-dimethylbutyl) esters, zinc salts

Hazard statements for environmental hazards	
H412	Harmful to aquatic life with long lasting effects.

Supplemental hazard information	
EUH208	Contains Benzenesulfonic acid, methyl-, mono-C20-24-branched alkyl derivs., Calcium salts. May produce an allergic reaction.

Precautionary statements Prevention	
P273	Avoid release to the environment.

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

Hazardous ingredients / Hazardous impurities / Stabilisers:

product identifiers	Substance name Classification according to Regulation (EC) No 1272/2008 [CLP]	Concen-tration
CAS No.: 68784-31-6 **EC No.:** 272-238-5 **REACH No.:** 01-2119657973-23	**Phosphorodithioic acid, mixed O,O-bis(sec-Bu and 1,3-dimethylbutyl) esters, zinc salts** Aquatic Chronic 2, Eye Dam. 1 **Danger** H318-H411	0 – < 1 weight-%
CAS No.: 722503-68-6 **EC No.:** 682-816-2	**Benzenesulfonic acid, methyl-, mono-C20-24-branched alkyl derivs., Calcium salts** Skin Sens. 1B **Warning** H317	0 – < 0.5 weight-%
CAS No.: 121158-58-5 **EC No.:** 310-154-3 **REACH No.:** 01-2119513207-49	**Phenol, dodecyl-, branched** Aquatic Acute 1, Aquatic Chronic 1, Eye Dam. 1, Repr. 1B, Skin Corr. 1C **Danger** H314-H360F-H410 M-factor (acute): 10 M-factor (chronic): 10	0 – < 0.2 weight-%

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

SECTION 4: First aid measures

4.1. Description of first aid measures

General information:

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible). Remove victim out of the danger area. Remove contaminated, saturated clothing. If unconscious but breathing normally, place in recovery position and seek medical advice. Do not leave affected person unattended.

Following inhalation:

Provide fresh air. Consult a doctor immediately.

In case of skin contact:

After contact with skin, wash immediately with plenty of water and soap. Consult a doctor immediately.

After eye contact:

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist.

Following ingestion:

Rinse mouth thoroughly with water. Do NOT induce vomiting. Consult a doctor immediately.

Self-protection of the first aider:

Use personal protection equipment. No direct artificial respiration to be given by first aider.

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

No known symptoms to date.

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

Treat symptomatically. Observe risk of aspiration if vomiting occurs.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

Co-ordinate fire-fighting measures to the fire surroundings.
Carbon dioxide (CO2)
Extinguishing powder
alcohol resistant foam
Use water spray jet to protect personnel and to cool endangered containers.

Unsuitable extinguishing media:

Full water jet

5.2. Special hazards arising from the substance or mixture

During heating or in case of fire, toxic gases is possible.
The formation of combustible vapours is possible at temperatures above: Flash point

Hazardous combustion products:

Carbon monoxide, Carbon dioxide (CO2), Nitrogen oxides (NOx),
During heating or in case of fire, toxic gases is possible.

5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus. Protective clothing.

5.4. Additional information

Do not inhale explosion and combustion gases. Move undamaged containers from immediate hazard area if it can be done safely. 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. Special danger of slipping by leaking/spilling product.

Protective equipment:

Wear protective gloves/protective clothing/eye protection/face protection.

Emergency procedures:

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

6.1.2. For emergency responders

Personal protection equipment:

Use personal protection equipment.

6.2. Environmental precautions

Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains. Prevent spread over a wide area (e.g. by containment or oil barriers). In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

6.3. Methods and material for containment and cleaning up

For containment:

Suitable material for taking up: Sand, Kieselguhr, Universal binder, Chemical binding agents, containing acids
Prevent spread over a wide area (e.g. by containment or oil barriers).

For cleaning up:

Remove from the water surface (e.g. skimming, sucking). Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents).

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
Disposal: see section 13
Personal protection equipment: see section 8

6.5. Additional information

Clear spills immediately. Use appropriate container to avoid environmental contamination.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Protective measures

Advices on safe handling:

Personal protection equipment: see section 8. When using do not eat, drink, smoke, sniff. Wash hands before breaks and after work. Do not put any product-impregnated cleaning rags into your trouser pockets. Clear spills immediately. Use appropriate container to avoid environmental contamination.

Fire prevent measures:

No special fire protection measures are necessary.

Environmental precautions:
Shafts and sewers must be protected from entry of the product.

Advices on general occupational hygiene
Minimum standard for preventive measures while handling with working materials are specified in the TRGS 500.

7.2. Conditions for safe storage, including any incompatibilities
Technical measures and storage conditions:
Keep container tightly closed in a cool, well-ventilated place.

Requirements for storage rooms and vessels:
Suitable container/equipment material: Floors should be impervious, resistant to liquids and easy to clean. Shafts and sewers must be protected from entry of the product.
Keep/Store only in original container.

Hints on storage assembly:
not required

Storage class: 10 – Combustible liquids that cannot be assigned to any of the above storage classes

Further information on storage conditions:
Store in a cool dry place. Keep away from heat.

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
VLA (FR)	2,6-Di-tert-butyl-p-cresol CAS No.: 128-37-0 EC No.: 204-881-4	① 10 mg/m³
WEL (GB)	2,6-Di-tert-butyl-p-cresol CAS No.: 128-37-0 EC No.: 204-881-4	① 10 mg/m³
BE	2,6-Di-tert-butyl-p-cresol CAS No.: 128-37-0 EC No.: 204-881-4	① 2 mg/m³ ⑤ (vapeur et Aérosol)
IE	2,6-Di-tert-butyl-p-cresol CAS No.: 128-37-0 EC No.: 204-881-4	① 2 mg/m³
MY	2,6-Di-tert-butyl-p-cresol CAS No.: 128-37-0 EC No.: 204-881-4	① 10 mg/m³
HTP (FI)	2,6-Di-tert-butyl-p-cresol CAS No.: 128-37-0 EC No.: 204-881-4	① 10 mg/m³ ② 20 mg/m³
MAK (AT)	2,6-Di-tert-butyl-p-cresol CAS No.: 128-37-0 EC No.: 204-881-4	① 10 mg/m³
CH	2,6-Di-tert-butyl-p-cresol CAS No.: 128-37-0 EC No.: 204-881-4	① 10 mg/m³ ② 40 mg/m³ ⑤ (einatembare Fraktion)
BG	2,6-Di-tert-butyl-p-cresol CAS No.: 128-37-0 EC No.: 204-881-4	① 10 mg/m³ ② 50 mg/m³
HR	2,6-Di-tert-butyl-p-cresol CAS No.: 128-37-0 EC No.: 204-881-4	① 10 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
DK	2,6-Di-tert-butyl-p-cresol CAS No.: 128-37-0 EC No.: 204-881-4	① 10 mg/m³
Alberta (CA)	2,6-Di-tert-butyl-p-cresol CAS No.: 128-37-0 EC No.: 204-881-4	① 10 mg/m³
TRGS 900 (DE)	2,6-Di-tert-butyl-p-cresol CAS No.: 128-37-0 EC No.: 204-881-4	① 10 mg/m³ ② 40 mg/m³ ⑤ (Aerosol und Dampf, einatembare Fraktion)
BC (CA)	2,6-Di-tert-butyl-p-cresol CAS No.: 128-37-0 EC No.: 204-881-4	① 2 mg/m³ ⑤ (inhalable fraction and vapor)
SI	2,6-Di-tert-butyl-p-cresol CAS No.: 128-37-0 EC No.: 204-881-4	① 10 mg/m³ ② 40 mg/m³ ⑤ (frakcija ki jo je mogoče vdihniti)
KR	2,6-Di-tert-butyl-p-cresol CAS No.: 128-37-0 EC No.: 204-881-4	① 2 mg/m³
IS	2,6-Di-tert-butyl-p-cresol CAS No.: 128-37-0 EC No.: 204-881-4	① 10 mg/m³
GR	2,6-Di-tert-butyl-p-cresol CAS No.: 128-37-0 EC No.: 204-881-4	① 10 mg/m³
ES	2,6-Di-tert-butyl-p-cresol CAS No.: 128-37-0 EC No.: 204-881-4	① 10 mg/m³
NIOSH (US)	2,6-Di-tert-butyl-p-cresol CAS No.: 128-37-0 EC No.: 204-881-4	① 10 mg/m³
ACGIH (US)	2,6-Di-tert-butyl-p-cresol CAS No.: 128-37-0 EC No.: 204-881-4	① 2 mg/m³ ⑤ (inhalable fraction and vapor)
Québec (CA)	2,6-Di-tert-butyl-p-cresol CAS No.: 128-37-0 EC No.: 204-881-4	① 10 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
Phenol, dodecyl-, branched CAS No.: 121158-58-5 EC No.: 310-154-3	44.18 mg/m³	① DNEL worker ② Acute - inhalation, systemic effects
Phenol, dodecyl-, branched CAS No.: 121158-58-5 EC No.: 310-154-3	0.25 mg/kg	① DNEL worker ② Long-term - dermal, systemic effects
Phenol, dodecyl-, branched CAS No.: 121158-58-5 EC No.: 310-154-3	166 mg/kg	① DNEL worker ② Acute – dermal, systemic effects

Substance name	PNEC Value	① PNEC type
Distillates (petroleum), solvent-refined heavy pa raffinic CAS No.: 64741-88-4 EC No.: 265-090-8	9.33 mg/kg	① PNEC secondary poisoning
Phenol, dodecyl-, branched CAS No.: 121158-58-5 EC No.: 310-154-3	0.074 µg/l	① PNEC aquatic, freshwater
Phenol, dodecyl-, branched CAS No.: 121158-58-5 EC No.: 310-154-3	0.0074 µg/l	① PNEC aquatic, marine water
Phenol, dodecyl-, branched CAS No.: 121158-58-5 EC No.: 310-154-3	100 mg/l	① PNEC sewage treatment plant
Phenol, dodecyl-, branched CAS No.: 121158-58-5 EC No.: 310-154-3	0.226 mg/kg	① PNEC sediment, freshwater
Phenol, dodecyl-, branched CAS No.: 121158-58-5 EC No.: 310-154-3	0.0266 mg/kg	① PNEC sediment, marine water
Phenol, dodecyl-, branched CAS No.: 121158-58-5 EC No.: 310-154-3	0.37 µg/l	① PNEC aquatic, intermittent release

8.2. Exposure controls

8.2.1. Appropriate engineering controls

See section 7. No additional measures necessary.

8.2.2. Personal protection equipment

Eye/face protection:

During transfer: Eye glasses with side protection
Wear eye/face protection. 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: 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:

Usually no personal respirative protection necessary.

8.2.3. Environmental exposure controls

See section 7. No additional measures necessary.

SECTION 9: Physical and chemical properties

*

9.1. Information on basic physical and chemical properties

Appearance

Physical state: Liquid
Colour: brown
Odour: characteristic

Safety relevant basis data

parameter		at °C	Method	Remark
pH	6.5	20 °C		
Melting point	*not determined*			
Freezing point	*not determined*			
Initial boiling point and boiling range	*not determined*			
Decomposition temperature	*not determined*			
Flash point	234 °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	845 kg/m³	15 °C		
Bulk density	*not applicable*			
Water solubility	*not determined*			
Partition coefficient: n-octanol/ water	*not applicable*			
Dynamic viscosity	*not determined*			
Kinematic viscosity	51.91 mm²/s	40 °C		

9.2. Other information
No data available

SECTION 10: Stability and reactivity

10.1. Reactivity
No known hazardous reactions. Risk of explosion if heated under confinement.

10.2. Chemical stability
The mixture is chemically stable under recommended conditions of storage, use and temperature.

10.3. Possibility of hazardous reactions
No hazardous reaction when handled and stored according to provisions.

10.4. Conditions to avoid
To avoid thermal decomposition do not overheat.

10.5. Incompatible materials
Materials to avoid: Acid, Oxidising agent, Reducing agent

10.6. Hazardous decomposition products
Hazardous combustion products: Carbon dioxide, Carbon monoxide, Nitrogen oxides (NOx)

SECTION 11: Toxicological information

*
11.1. Information on toxicological effects

Substance name	Toxicological information
Distillates (petroleum), hydrotreated heavy paraffinic; Base oil - not specified CAS No.: 64742-54-7 EC No.: 265-157-1	**LD_{50} oral:** 5,000 mg/kg (Rat) OECD 401 **LD_{50} dermal:** 5,000 mg/kg (Rabbit) OECD 402 **LC_{50} Acute inhalation toxicity (dust/mist):** 5.53 mg/l 4 h (Rat) OECD 403
Phenol, dodecyl-, branched CAS No.: 121158-58-5 EC No.: 310-154-3	**LD_{50} oral:** 2,100 – 2,200 mg/kg (rat) **LD_{50} dermal:** 15,000 mg/kg (rabbit)

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

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

Respiratory or skin sensitisation:
Contains Benzenesulfonic acid, methyl-, mono-C20-24-branched alkyl derivs., Calcium salts. May produce an allergic reaction.

Germ cell mutagenicity:
Based on available data, the classification criteria are not met.

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

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

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

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:
No data available

SECTION 12: Ecological information

*

12.1. Toxicity

Substance name	Toxicological information
Distillates (petroleum), hydrotreated heavy paraffinic; Base oil - not specified CAS No.: 64742-54-7 EC No.: 265-157-1	**LC_{50}:** 100 mg/l 4 d (fish) **NOEC:** 100 mg/l 4 d (fish) **EC_{50}:** 10,000 mg/l 2 d (crustaceans) **LC_{50}:** 10,000 mg/l 4 d (crustaceans) **NOEC:** 100 mg/l 3 d (Algae/water plant)
Phenol, dodecyl-, branched CAS No.: 121158-58-5 EC No.: 310-154-3	**LC_{50}:** ≥40 mg/l 2 d (fish) **LC_{50}:** ≥0.58 – 0.58 mg/l 4 d (crustaceans) **NOEC:** ≥0.07 mg/l 3 d (Algae/water plant)

Assessment/classification:
Harmful to aquatic life with long lasting effects.

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

12.2. Persistence and degradability

Biodegradation:
Not readily biodegradable (according to OECD criteria)

12.3. Bioaccumulative potential

Substance name	Log K_{OW}	Bioconcentration factor (BCF)
Phenol, dodecyl-, branched CAS No.: 121158-58-5 EC No.: 310-154-3	7.14	

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

Substance name	Results of PBT and vPvB assessment
Distillates (petroleum), hydrotreated heavy paraffinic; Base oil - not specified CAS No.: 64742-54-7 EC No.: 265-157-1	The substance in the mixture does not meet the PBT/ vPvB criteria according to REACH, annex XIII.
Benzenesulfonic acid, methyl-, mono-C20-24-branched alkyl derivs., Calcium salts CAS No.: 722503-68-6 EC No.: 682-816-2	The substance in the mixture does not meet the PBT/ vPvB criteria according to REACH, annex XIII.
Phenol, dodecyl-, branched CAS No.: 121158-58-5 EC No.: 310-154-3	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
Dispose of waste according to applicable legislation.

Waste treatment options
Appropriate disposal / Product:
Dispose of waste according to applicable legislation. Consult the appropriate local waste disposal expert about waste disposal.

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

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

No dangerous good in sense of these transport regulations.

Land transport (ADR/ RID)	Inland waterway craft (ADN)	Sea transport (IMDG)	Air transport (ICAO-TI / IATA-DGR)
* **14.1. UN-No.**			
No dangerous good in sense of these transport regulations.	No dangerous good in sense of these transport regulations.	No dangerous good in sense of these transport regulations.	No dangerous good in sense of these transport regulations.
* **14.2. UN proper shipping name**			
No dangerous good in sense of these transport regulations.	No dangerous good in sense of these transport regulations.	No dangerous good in sense of these transport regulations.	No dangerous good in sense of these transport regulations.
* **14.3. Transport hazard class(es)**			
not relevant			
* **14.4. Packing group**			
not relevant			
* **14.5. Environmental hazards**			
not relevant			
* **14.6. Special precautions for user**			
not relevant			

14.7. Transport in bulk according to Annex II of Marpol 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:

- E1 Hazardous to the Aquatic Environment in Category Acute 1 or Chronic 1
- E2 Hazardous to the Aquatic Environment in Category Chronic 2

15.1.2. National regulations

[DE] National regulations

Störfallverordnung

for substances contained in the product:

Hazard categories:

- E1 Hazardous to the Aquatic Environment in Category Acute 1 or Chronic 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:

2 - deutlich wassergefährdend

Source:

Self-classification (mixture; calculation rule).
Identification number 436

Technische Regeln für Gefahrstoffe

TRGS 510
TRGS 500

Berufsgenossenschaftliche Vorschriften (DGUV-Vorschriften)

Berufsgenossenschaftliche Informationen (DGUV-Informationen) 868
Berufsgenossenschaftliche Regeln (DGUV-Regeln) 189, 190, 192, 195

Other regulations, restrictions and prohibition regulations

Altöl-Verordnung (AltölV)

[DK] National regulations

Other regulations, restrictions and prohibition regulations

Lister over stoffer og processer, der anses for at være kræftfremkaldende

[FR] National regulations

Other regulations, restrictions and prohibition regulations

Tableaux de maladies professionnelles
Nomenclature des installations classées pour la protection de l'environnement

[NL] National regulations

Other regulations, restrictions and prohibition regulations

Lijst van kankerverwekkende, mutagene, en voor de voortplanting giftige stoffen SZW
Algemeene beoordelingsmethodiek Water (ABM)
Nederlandse emissierichtlijn (NeR)

15.2. Chemical Safety Assessment

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

SECTION 16: Other information

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16.1. Indication of changes

2.1.	Classification of the substance or mixture
2.2.	Label elements
3.2.	Mixtures

8.1.	Control parameters
9.1.	Information on basic physical and chemical properties
11.1.	Information on toxicological effects
12.1.	Toxicity
12.5.	Results of PBT and vPvB assessment
14.1.	UN 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
16.1.	Indication of changes

16.2. Abbreviations and acronyms

See overview table at www.euphrac.eu
For abbreviations and acronyms, see: ECHA Guidance on information requirements and chemical safety assessment, chapter R.20 (Table of terms and abbreviations).

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
Hazardous to the aquatic environment *(Aquatic Chronic 3)*	H412: Harmful to aquatic life with long lasting effects.	Calculation method.

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

Hazard statements	
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H360F	May damage fertility.
H410	Very toxic to aquatic life with long lasting effects.
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