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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 HST SAE 5W-40

Article No.:

1111147

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

Produktsicherheit 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): sdb@ravenol.de

1.4. Emergency telephone number

24 hr. emergency phone number, 24h: +49 700 24 112 112 (Contract ID: RAV) / +1 872 5888271 (Contract ID: RAV)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

The mixture is classified as not hazardous according to regulation (EC) No 1272/2008 [CLP].

2.2. Label elements

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

According to EC directives or the corresponding national regulations the product does not have to be labelled.

Hazard statements: none

Supplemental hazard information		
EUH208	Contains Molybdenum alkylthiocarbamide complex. May produce an allergic reaction.	
EUH210	Safety data sheet available on request.	

Precautionary statements: none

2.3. Other hazards

Other adverse effects:

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

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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]	Concentration
CAS No.: 36878-20-3 EC No.: 253-249-4 REACH No.: 01-2119488911-28	bis(nonylphenyl)amine Aquatic Chronic 4 (H413)	0 - < 1.5 weight-%
CAS No.: 1190625-94-5 EC No.: 931-468-2 REACH No.: 01-2119498288-19	C14-16-18 Alkyl phenol Aquatic Chronic 4 (H413), Skin Irrit. 2 (H315) Warning	0 - < 1.5 weight-%
CAS No.: 28629-66-5 EC No.: 249-109-7 REACH No.: 01-2119953278-28	zinc bis(O,O-diisooctyl) bis(dithiophosphate) Aquatic Chronic 2 (H411), Eye Dam. 1 (H318), Skin Irrit. 2 (H315) ♦ approx Danger Specific concentration limit (SCL) Eye Dam. 1; H318: $C \ge 15\%$ Eye Irrit. 2; H319: $C \ge 15\%$	0 - < 1.5 weight-%
EC No.: 457-320-2 REACH No.: 01-0000019337-66	Molybdenum alkylthiocarbamide complex Aquatic Chronic 3 (H412), Skin Irrit. 2 (H315), Skin Sens. 1B (H317) Warning	0 - < 0.15 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 eve 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

Contains Molybdenum alkylthiocarbamide complex. May produce an allergic reaction.

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

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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:

Personal protection equipment: see section 8

Emergency procedures:

Eliminate all ignition sources if safe to do so. Remove persons to safety. 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).

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.

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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 (TRGS 510, Germany): 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

No data available

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
bis(nonylphenyl)amine CAS No.: 36878-20-3 EC No.: 253-249-4	5 mg/kg bw/ day	DNEL worker Long-term - dermal, systemic effects
C14-16-18 Alkyl phenol	1.17 mg/m³	① DNEL worker
CAS No.: 1190625-94-5 EC No.: 931-468-2		② Long-term – inhalation, systemic effects
Molybdenum alkylthiocarbamide	3.52 mg/m ³	① DNEL worker
complex EC No.: 457-320-2		② Long-term – inhalation, systemic effects
Molybdenum alkylthiocarbamide	2.24 mg/kg	① DNEL worker
complex EC No.: 457-320-2		② Long-term - dermal, systemic effects
Molybdenum alkylthiocarbamide	0.112 mg/cm ²	① DNEL worker
complex EC No.: 457-320-2		② Long-term - dermal, local effects

Substance name	PNEC Value	① PNEC type
bis(nonylphenyl)amine CAS No.: 36878-20-3 EC No.: 253-249-4	412 μg/L	① PNEC aquatic, freshwater
bis(nonylphenyl)amine CAS No.: 36878-20-3 EC No.: 253-249-4	41.2 μg/L	① PNEC aquatic, marine water
bis(nonylphenyl)amine CAS No.: 36878-20-3 EC No.: 253-249-4	1 mg/L	① PNEC aquatic, intermittent release
C14-16-18 Alkyl phenol CAS No.: 1190625-94-5 EC No.: 931-468-2	100 μg/L	① PNEC aquatic, freshwater



Substance name	PNEC Value	① PNEC type
C14-16-18 Alkyl phenol CAS No.: 1190625-94-5 EC No.: 931-468-2	10 μg/L	① PNEC aquatic, marine water
C14-16-18 Alkyl phenol CAS No.: 1190625-94-5 EC No.: 931-468-2	100 mg/L	① PNEC sewage treatment plant
C14-16-18 Alkyl phenol CAS No.: 1190625-94-5 EC No.: 931-468-2	4,266.16 mg/ kg bw/day	① PNEC sediment, freshwater
C14-16-18 Alkyl phenol CAS No.: 1190625-94-5 EC No.: 931-468-2	426.62 mg/kg bw/day	① PNEC sediment, marine water
C14-16-18 Alkyl phenol CAS No.: 1190625-94-5 EC No.: 931-468-2	852.58 mg/kg bw/day	① PNEC soil
C14-16-18 Alkyl phenol CAS No.: 1190625-94-5 EC No.: 931-468-2	3.3 mg/kg bw/ day	① PNEC secondary poisoning
C14-16-18 Alkyl phenol CAS No.: 1190625-94-5 EC No.: 931-468-2	1 mg/L	① PNEC aquatic, intermittent release
Molybdenum alkylthiocarbamide complex EC No.: 457-320-2	0.081 mg/L	① PNEC aquatic, freshwater
Molybdenum alkylthiocarbamide complex EC No.: 457-320-2	0.008 mg/L	① PNEC aquatic, marine water
Molybdenum alkylthiocarbamide complex EC No.: 457-320-2	10 mg/L	① PNEC sewage treatment plant
Molybdenum alkylthiocarbamide complex EC No.: 457-320-2	195 mg/kg	① PNEC sediment, freshwater
Molybdenum alkylthiocarbamide complex EC No.: 457-320-2	19.5 mg/kg	① PNEC sediment, marine water
Molybdenum alkylthiocarbamide complex EC No.: 457-320-2	0.872 mg/kg	① PNEC soil
Molybdenum alkylthiocarbamide complex EC No.: 457-320-2	20 mg/kg	① PNEC secondary poisoning

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. 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.

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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: tawny

Odour: characteristic

Safety relevant basis data

Parameter	Value	at °C	① Method
			② Remark
pH	not applicable		
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	850 kg/m³	15 °C	
Relative density	not determined		
Bulk density	not applicable		
Water solubility	practically insoluble		
Partition coefficient: n-octanol/water	not applicable		
Dynamic viscosity	not determined		
Kinematic viscosity	78 mm²/s	40 °C	

9.2. Other information

Not applicable

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



SECTION 11: Toxicological information

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

bis(nonylphenyl)amine CAS No.: 36878-20-3 EC No.: 253-249-4

 LD_{50} oral: >5,000 mg/kg (Rat)

LD₅₀ dermal: >2,000 mg/kg (Rabbit)

LC₅₀ Acute inhalation toxicity (dust/mist): >5 mg/L

C14-16-18 Alkyl phenol CAS No.: 1190625-94-5 EC No.: 931-468-2

LD₅₀ oral: 2,000 mg/kg **LD₅₀ dermal:** 2,000 mg/kg

Molybdenum alkylthiocarbamide complex EC No.: 457-320-2

LD₅₀ oral: >2,000 mg/kg (Rat) OECD Guideline 425

LD₅₀ dermal: >2,000 mg/kg (Rat) OECD Guideline 402

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 Molybdenum alkylthiocarbamide complex. 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:

Observe risk of aspiration if vomiting occurs.

For viscosity data, see section 9.

Additional information:

Frequently or prolonged contact with skin may cause dermal irritation.

11.2. Information on other hazards

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:

No data available.

SECTION 12: Ecological information

12.1. Toxicity

bis(nonylphenyl)amine CAS No.: 36878-20-3 EC No.: 253-249-4

 LC_{50} : >100 mg/L 4 d (fish)

EC₅₀: >100 mg/L 2 d (crustaceans)

EC₅₀: 600 mg/L 3 d (Algae/water plant)

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C14-16-18 Alkyl phenol CAS No.: 1190625-94-5 EC No.: 931-468-2 EC₅₀: 100 mg/L 2 d (crustaceans) EC₅₀: 100 mg/L 2 d (Algae/water plant) Molybdenum alkylthiocarbamide complex EC No.: 457-320-2 LC₅₀: 670 mg/L 4 d (fish) EC₅₀: 50 mg/L 2 d (crustaceans)

NOEC: 100 mg/L 21 d (crustaceans) EC₅₀: 9.62 mg/L 3 d (Algae/water plant) NOEC: 4.05 mg/L 3 d (Algae/water plant)

Assessment/classification:

The substance/mixture does not fullfill the criteria of the acute aquatic toxicity according to Regulation (EC) No 1272/2008 [CLP], Annex I.

Additional ecotoxicological information:

Do not allow uncontrolled discharge of product into the environment.

12.2. Persistence and degradability

bis(nonylphenyl)amine CAS No.: 36878-20-3 EC No.: 253-249-4 Biodegradation: -

Biodegradation:

Not readily biodegradable (according to OECD criteria)

Additional information:

The product has not been tested.

12.3. Bioaccumulative potential

bis(nonylphenyl)amine CAS No.: 36878-20-3 EC No.: 253-249-4 Log Kow: 7.6 **Bioconcentration factor (BCF):** 1,584.89

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

bis(nonylphenyl)amine CAS No.: 36878-20-3 EC No.: 253-249-4 Results of PBT and vPvB assessment: This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII. C14-16-18 Alkyl phenol CAS No.: 1190625-94-5 EC No.: 931-468-2 Results of PBT and vPvB assessment: This substance does not meet the PBT/vPvB criteria of REACH. Annex XIII. zinc bis(O,O-diisooctyl) bis(dithiophosphate) CAS No.: 28629-66-5 EC No.: 249-109-7 Results of PBT and vPvB assessment: This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII.

Results of PBT and vPvB assessment: This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII.

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

12.6. Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to nontarget organisms as no components meets the criteria.

12.7. 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.

Appropriate disposal / Package:

Non-contaminated packages may be recycled.

Other disposal recommendations:

Consult the appropriate local waste disposal expert about waste disposal.

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 number or	4.1. UN number or ID number					
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 ship	ping 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 haza	14.3. Transport hazard class(es)					
not relevant	not relevant	not relevant	not relevant			
14.4. Packing group						
not relevant	not relevant	not relevant	not relevant			
14.5. Environmental hazards						
not relevant	not relevant	not relevant	not relevant			
14.6. Special precau	14.6. Special precautions for user					
not relevant	not relevant	not relevant	not relevant			

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU legislation

Other regulations (EU):

Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances [Seveso-III-Directive]: This product is not assigned to a hazard category. Safety data sheet available on request.

15.1.2. National regulations

[DE] National regulations

Störfallverordnung (12. BlmschV)

for substances contained in the product:

This product is not assigned to a hazard category.

Technische Anleitung zur Reinhaltung der Luft (TA-Luft)

Remark:

To follow: 5.2.5 Water hazard class

WGK:

2 - obviously hazardous to water

Self-classification (mixture; calculation rule).

Identification number 436

Technische Regeln für Gefahrstoffe

TRGS 510



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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

Dänemark: Bekendtgørelse af lov om arbeidsmiliø: Beskæftigelsesministeriets lovbekendtgørelse nr. 1072 af 7. september 2010

Lister over stoffer og processer, der anses for at vaere kraeftfremkaldende

[FR] National regulations

Other regulations, restrictions and prohibition regulations

Frankreich: Tableaux de maladies professionelles

Nomenclature des installations classées pour la protection de l'environnement

Articles L. 4523-1 à L. 4523-17. L. 4611-1 à L. 4614-16. R. 4523-1 à R. 4523-17 et R. 4612-1 à R. 4615-21 du Code du travail

[NL] National regulations

Other regulations, restrictions and prohibition regulations

Niederlande: Lijst vank kankerverwekkende, mutagene en voor de voortplanting giftige stoffen (SZW)

Algemeene beoordelingsmethodiek Water (ABM)

Nederlandse emissierichtlijn (NeR)

NIET-Limitatieve lijst an voor de voortplanting giftige stoffen - Borstvoeding

NIET-Limitatieve lijst an voor de voortplanting giftige stoffen - Vruchtbaarheid

NIET-Limitatieve lijst an voor de voortplanting giftige stoffen - Ontwikkeling

SZW-lijst van kankerverwekkende stoffen

SZW-lijst van mutagene stoffen

Wet van 18 maart 1999, houdende bepalingen ter verbetering van de arbeidsomstandigheden

(Arbeidsomstandighedenwet)

Wet op de ondernemingsraden 1971

[CH] National regulations

Other regulations, restrictions and prohibition regulations

Mengenschwelle (Schweiz - StFV)

Gefahrencode

Brandverhütung, BVD (Schweiz)

15.2. Chemical Safety Assessment

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

15.3. Additional information

No data available.

SECTION 16: Other information

16.1. Indication of changes

1.3.	Details of the supplier of the safety data sheet
1.4.	Emergency telephone number
2.2.	Label elements
3.2.	Mixtures
4.2.	Most important symptoms and effects, both acute and delayed
6.1.	Personal precautions, protective equipment and emergency procedures
7.1.	Precautions for safe handling
8.1.	Control parameters
9.1.	Information on basic physical and chemical properties
9.2.	Other information
10.6.	Hazardous decomposition products
11.1.	Information on hazard classes as defined in Regulation (EC) No 1272/2008
11.2.	Information on other hazards
12.1.	Toxicity
12.2.	Persistence and degradability
12.3.	Bioaccumulative potential



12.5.	Results of PBT and vPvB assessment
12.6.	Endocrine disrupting properties
15.1.	Safety, health and environmental regulations/legislation specific for the substance or mixture
16.1.	Indication of changes
16.5.	Relevant R-, H- and EUH-phrases (Number and full text)

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

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]

The mixture is classified as not hazardous according to regulation (EC) No 1272/2008 [CLP].

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

Hazard statements		
H315	Causes skin irritation.	
H317	May cause an allergic skin reaction.	
H318	Causes serious eye damage.	
H319	Causes serious eye irritation.	
H411	Toxic to aquatic life with long lasting effects.	
H412	Harmful to aquatic life with long lasting effects.	
H413	May cause long lasting harmful effects to aquatic life.	

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.