



Revision date: 15 Nov 2023 Version: 4 Print date: 15 Nov 2023

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 Racing Brake Fluid R 325+

Article No.:

1350604

UFI:

7QHH-QMWX-70QH-HTT5

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

Use of the substance/mixture:

brake fluids

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]

Hazard classes and hazard categories	Hazard statements	Classification procedure
Reproductive toxicity (Repr. 2)	H361d: Suspected of damaging the unborn child.	Calculation method.

2.2. Label elements

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

Hazard pictograms:



GHS08

Health hazard

Signal word: Warning



Revision date: 15 Nov 2023 Version: 4 Print date: 15 Nov 2023

Hazard components for labelling:

tris[2-[2-(2-methoxyethoxy)ethoxy]ethyl] orthoborate

Hazard statements for health hazards

H361d	Suspected of damaging the unborn child.
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Supplemental hazard information

EUH208	Contains Oxirane, 2-methyl-, polymer with oxirane, bis(2-aminopropyl) ether. May produce an allergic reaction.
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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

P280	Wear protective gloves and eye/face protection.
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Precautionary statements Response

P301 + P310	IF SWALLOWED: Immediately call a POISON CENTER/doctor/Emergency telephone number.
P308 + P313	IF exposed or concerned: Get medical advice/attention.

Precautionary statements Storage

P405	Store locked up.
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Precautionary statements Disposal

P501	Dispose of contents/container to an appropriate recycling or disposal facility.
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* **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]	Concentration
CAS No.: 30989-05-0 EC No.: 250-418-4 REACH No.: 01-2119462824-33-XXXX	tris[2-[2-(2-methoxyethoxy)ethoxy]ethyl] orthoborate Repr. 2 (H361d) Warning	30 - < 90 weight-%
CAS No.: 65605-36-9	Oxirane, 2-methyl-, polymer with oxirane, bis(2-aminopropyl) ether Eye Dam. 1 (H318), Skin Corr. 1B (H314), Skin Sens. 1 (H317) Danger	0 - < 1 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.



Revision date: 15 Nov 2023 Version: 4 Print date: 15 Nov 2023

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**

Suspected of damaging the unborn child.

Contains Oxirane, 2-methyl-, polymer with oxirane, bis(2-aminopropyl) ether. 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

* **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

When hot, product develops flammable vapours.

Hazardous combustion products:

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

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 personal protection equipment (refer to 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).



Revision date: 15 Nov 2023 Version: 4 Print date: 15 Nov 2023

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:

Wear personal protection equipment (refer to 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. storage temperature 15-30 °C

Requirements for storage rooms and vessels:

No special measures are necessary.

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



Revision date: 15 Nov 2023 Version: 4 Print date: 15 Nov 2023

8.1.3. DNEL-/PNEC-values

Substance name	DNEL value	① DNEL type ② Exposure route
tris[2-[2-(2-methoxyethoxy)ethoxy]ethyl] orthoborate CAS No.: 30989-05-0 EC No.: 250-418-4	29.1 mg/m ³	① DNEL worker ② Long-term - inhalation, systemic effects
tris[2-[2-(2-methoxyethoxy)ethoxy]ethyl] orthoborate CAS No.: 30989-05-0 EC No.: 250-418-4	7.2 mg/m ³	① DNEL Consumer ② Long-term - inhalation, systemic effects
tris[2-[2-(2-methoxyethoxy)ethoxy]ethyl] orthoborate CAS No.: 30989-05-0 EC No.: 250-418-4	8.3 mg/kg bw/day	① DNEL worker ② Long-term - dermal, systemic effects
tris[2-[2-(2-methoxyethoxy)ethoxy]ethyl] orthoborate CAS No.: 30989-05-0 EC No.: 250-418-4	4.1 mg/kg bw/day	① DNEL Consumer ② Long-term - dermal, systemic effects

Substance name	PNEC Value	① PNEC type
tris[2-[2-(2-methoxyethoxy)ethoxy]ethyl] orthoborate CAS No.: 30989-05-0 EC No.: 250-418-4	211.2 µg/L	① PNEC aquatic, freshwater
tris[2-[2-(2-methoxyethoxy)ethoxy]ethyl] orthoborate CAS No.: 30989-05-0 EC No.: 250-418-4	21.12 µg/L	① PNEC aquatic, marine water
tris[2-[2-(2-methoxyethoxy)ethoxy]ethyl] orthoborate CAS No.: 30989-05-0 EC No.: 250-418-4	100 mg/L	① PNEC sewage treatment plant
tris[2-[2-(2-methoxyethoxy)ethoxy]ethyl] orthoborate CAS No.: 30989-05-0 EC No.: 250-418-4	0.76 mg/kg bw/day	① PNEC sediment, freshwater
tris[2-[2-(2-methoxyethoxy)ethoxy]ethyl] orthoborate CAS No.: 30989-05-0 EC No.: 250-418-4	0.076 mg/kg bw/day	① PNEC sediment, marine water

* 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)
 Thickness of the glove material: ≥ 0,2 mm



Revision date: 15 Nov 2023 Version: 4 Print date: 15 Nov 2023

Breakthrough time: 480 min
 Suitable material: Butyl caoutchouc (butyl rubber)
 Thickness of the glove material: $\geq 0,3$ 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: amber

Odour: characteristic

Safety relevant basis data

Parameter	Value	at °C	① Method ② Remark
pH	7 - 8,5	20 °C	
Melting point	< -50 °C		
Freezing point	No data available		
Initial boiling point and boiling range	300 °C		
Flash point	> 120 °C		
Evaporation rate	No data available		
Auto-ignition temperature	> 280 °C		
Upper/lower flammability or explosive limits	No data available		
Vapour pressure	No data available		
Vapour density	No data available		
Density	1,040 - 1,095 kg/m ³	20 °C	
Bulk density	not applicable		
Water solubility	miscible		
Partition coefficient: n-octanol/water	1.5	20 °C	
Dynamic viscosity	No data available		
Kinematic viscosity	10 - 15 mm ² /s	20 °C	

* **9.2. Other information**

Not applicable

SECTION 10: Stability and reactivity

* **10.1. Reactivity**

No known hazardous reactions.

* **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.



Revision date: 15 Nov 2023 Version: 4 Print date: 15 Nov 2023

10.5. Incompatible materials

Materials to avoid: Oxidising agent, strong, Strong acid, Alkali (lye), concentrated, Reducing agent, strong

* 10.6. Hazardous decomposition products

Hazardous combustion products: Carbon monoxide, Carbon dioxide (CO₂), Nitrogen oxides (NO_x),
During heating or in case of fire, toxic gases is possible.

Further information

No information available.

SECTION 11: Toxicological information

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

tris[2-[2-(2-methoxyethoxy)ethoxy]ethyl] orthoborate	CAS No.: 30989-05-0	EC No.: 250-418-4
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LD ₅₀ oral: >2,000 mg/kg (Rat)

LD ₅₀ dermal: >2,000 mg/kg (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:

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 Oxirane, 2-methyl-, polymer with oxirane, bis(2-aminopropyl) ether. 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:

Suspected of damaging the unborn child.

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:

No data available

* 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.



Revision date: 15 Nov 2023 Version: 4 Print date: 15 Nov 2023

SECTION 12: Ecological information

* 12.1. Toxicity

tris[2-[2-(2-methoxyethoxy)ethoxy]ethyl] orthoborate CAS No.: 30989-05-0 EC No.: 250-418-4
LC₅₀ : 222.2 - <1,010 mg/L 4 d (fish)
LC₅₀ : >222.2 mg/L 2 d (fish, <i>Oncorhynchus mykiss</i> (previous name: <i>Salmo gairdneri</i>))
LC₅₀ : >222.2 mg/L 3 d (fish, <i>Oncorhynchus mykiss</i> (previous name: <i>Salmo gairdneri</i>))
LC₅₀ : >222.2 mg/L 4 d (fish, <i>Oncorhynchus mykiss</i> (previous name: <i>Salmo gairdneri</i>))
EC₅₀ : 211.2 - <960 mg/L 2 d (crustaceans)
EC₅₀ : 224.4 - <1,020 mg/L 3 d (Algae/water plant)
EC₅₀ : >224.4 mg/L 3 d (Algae/water plant, <i>Raphidocelis subcapitata</i> (new name: <i>Pseudokirchneriella subcapitata</i>))
EC₅₀ : >211.2 mg/L 2 d (crustaceans, <i>Daphnia magna</i>) OECD Guideline 202 (<i>Daphnia</i> sp. Acute Immobilisation Test)
NOEC : 224.4 mg/L 3 d (Algae/water plant, <i>Raphidocelis subcapitata</i> (new name: <i>Pseudokirchneriella subcapitata</i>))
NOEC : <211.2 mg/L 1 d (crustaceans, <i>Daphnia magna</i>) OECD Guideline 202 (<i>Daphnia</i> sp. Acute Immobilisation Test)
NOEC : <211.2 mg/L 2 d (crustaceans, <i>Daphnia magna</i>) OECD Guideline 202 (<i>Daphnia</i> sp. Acute Immobilisation Test)

Assessment/classification:

The substance/mixture does not fulfill 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

tris[2-[2-(2-methoxyethoxy)ethoxy]ethyl] orthoborate CAS No.: 30989-05-0 EC No.: 250-418-4
Biodegradation: Yes, rapidly

Biodegradation:

Readily biodegradable.

* 12.3. Bioaccumulative potential

tris[2-[2-(2-methoxyethoxy)ethoxy]ethyl] orthoborate CAS No.: 30989-05-0 EC No.: 250-418-4
Log K_{OW} : < 3

Partition coefficient: n-octanol/water:

1.5 at °C: 20

Accumulation / Evaluation:

No indication of bioaccumulation potential. Log K_{OW} < 2,0

* 12.4. Mobility in soil

The product has not been tested.

12.5. Results of PBT and vPvB assessment

tris[2-[2-(2-methoxyethoxy)ethoxy]ethyl] orthoborate CAS No.: 30989-05-0 EC No.: 250-418-4
Results of PBT and vPvB assessment: This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII.
Oxirane, 2-methyl-, polymer with oxirane, bis(2-aminopropyl) ether CAS No.: 65605-36-9
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 non-target 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.



Revision date: 15 Nov 2023 Version: 4 Print date: 15 Nov 2023

13.1.1. Product/Packaging disposal

Waste codes/waste designations according to EWC/AVV

Waste code product

16 01 13 *	brake fluids
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*: Evidence for disposal must be provided.

Directive 2008/98/EC (Waste Framework Directive)

HP 10	Toxic for reproduction
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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

Land transport (ADR/RID)	Inland waterway craft (ADN)	Sea transport (IMDG)	Air transport (ICAO-TI / IATA-DGR)
14.1. 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 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	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 precautions for user			
not relevant	not relevant	not relevant	not relevant

14.7. Maritime transport in bulk according to IMO instruments

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):

This product is not assigned to a hazard category.

15.1.2. National regulations

[DE] National regulations

Restrictions of occupation

Observe restrictions to employment for juveniles 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 (12. BImSchV)

for substances contained in the product:

This product is not assigned to a hazard category.



Revision date: 15 Nov 2023 Version: 4 Print date: 15 Nov 2023

Technische Anleitung zur Reinhaltung der Luft (TA-Luft)

Remark:

To follow: 5.2.5

Water hazard class

WGK:

1 - slightly hazardous to water

Source:

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

Technische Regeln für Gefahrstoffe

TRGS 500
TRGS 510

Berufsgenossenschaftliche Vorschriften (DGUV-Vorschriften)

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



[SK] National regulations

Other regulations, restrictions and prohibition regulations

Zákon č. 67/2010 Z.z., o podmienkach uvedenia chemických látok a chemických zmesí na trh a o zmene a doplnení niektorých zákonov (chemický zákon).
Zákon č. 124/2006 Z. z. o bezpečnosti a ochrane zdravia pri práci a o zmene a doplnení niektorých zákonov.
Zákon NR SR č. 355/2007 Z.z., o ochrane, podpore a rozvoji verejného zdravia a o zmene a doplnení niektorých zákonov, v znení neskorších predpisov.
Nariadenie vlády SR 471/2011 Z.z., ktorým sa mení nariadenie vlády Slovenskej republiky č. 355/2006 Z. z. o ochrane zamestnancov pred rizikami súvisiacimi s expozíciou chemickým faktorom pri práci, Príloha č.1.
Zákon č. 79/2015 Z.z. o odpadoch v znení neskorších predpisov.
Vyhláška MV SR č. 96/2004 Z.z., ktorou sa ustanovujú zásady protipožiarnej bezpečnosti pri manipulácii a skladovaní horľavých kvapalín, ťažkých vykurovacích olejov a rastlinných a živočíšnych tukov a olejov.
Zákon NR SR č. 137/2010 Z.z. o ovzduší v znení neskorších predpisov.
Zákon č. 319/2013 Z.z. o pôsobnosti orgánov štátnej správy pre sprístupňovanie biocídnych výrobkov na trh a ich používanie a o zmene a doplnení niektorých zákonov (biocídny zákon).

15.2. Chemical Safety Assessment

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

* **15.3. Additional information**

Tactile warning according to EN/ISO 11683.

SECTION 16: Other information

* **16.1. Indication of changes**

1.1.	Product identifier
2.1.	Classification of the substance or mixture
2.2.	Label elements
2.3.	Other hazards
3.2.	Mixtures
4.1.	Description of first aid measures
4.2.	Most important symptoms and effects, both acute and delayed
4.3.	Indication of any immediate medical attention and special treatment needed
5.1.	Extinguishing media
5.2.	Special hazards arising from the substance or mixture
5.3.	Advice for firefighters
5.4.	Additional information
6.1.	Personal precautions, protective equipment and emergency procedures
6.2.	Environmental precautions
6.3.	Methods and material for containment and cleaning up



Revision date: 15 Nov 2023 Version: 4 Print date: 15 Nov 2023

6.5.	Additional information
7.1.	Precautions for safe handling
7.2.	Conditions for safe storage, including any incompatibilities
8.2.	Exposure controls
9.1.	Information on basic physical and chemical properties
9.2.	Other information
10.1.	Reactivity
10.2.	Chemical stability
10.4.	Conditions to avoid
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
12.4.	Mobility in soil
12.6.	Endocrine disrupting properties
13.1.	Waste treatment methods
15.1.	Safety, health and environmental regulations/legislation specific for the substance or mixture
15.3.	Additional information
16.1.	Indication of changes
16.2.	Abbreviations and acronyms
16.4.	Classification for mixtures and used evaluation method according to regulation (EC) No 1272/2008 [CLP]

* **16.2. Abbreviations and acronyms**

ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
CAS	Chemical Abstracts Service
CLP	Classification, Labelling and Packaging
DNEL	derived no-effect level
EC ₅₀	Effective Concentration 50%
EN	European Standard
EWC	European Waste Catalogue
IBC	Intermediate Bulk Container
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods
IMO	International Maritime Organization
ISO	International Standards Organisation
KG	body weight
LC ₅₀	Lethal (fatal) Concentration 50%
LD ₅₀	Lethal (fatal) Dose 50%
NFPA	National Fire Protection Association
NOEC	No Observed Effect Concentration
OECD	Organisation for Economic Cooperation and Development
PBT	persistent and bioaccumulative and toxic
PNEC	Predicted No Effect Concentration
REACH	Registration, Evaluation and Authorization of Chemicals
RID	Dangerous goods regulations for transport by rail
TRGS	Technische Regeln für Gefahrstoffe
UN	United Nations

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



Revision date: 15 Nov 2023 Version: 4 Print date: 15 Nov 2023

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)

Substance name	Type	source of supply
tris[2-[2-(2-methoxyethoxy)ethoxy]ethyl] orthoborate CAS No.: 30989-05-0 EC No.: 250-418-4	LC ₅₀ ; EC ₅₀ ; NOEC	Source: European Chemicals Agency, http://echa.europa.eu/

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

Hazard classes and hazard categories	Hazard statements	Classification procedure
Reproductive toxicity (<i>Repr. 2</i>)	H361d: Suspected of damaging the unborn child.	Calculation method.

16.5. List of relevant hazard statements and/or precautionary statements from sections 2 to 15

Hazard statements	
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H361d	Suspected of damaging the unborn child.

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.