

SAFETY DATA SHEET

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

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

1.1. Product identifier

Trade name/designation:

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

Use of the substance/mixture:

water-miscible metalworking fluid

1.3. Details of the supplier of the safety data sheet

Supplier (manufacturer/importer/only representative/downstream user/distributor):

Curtis Systems GmbH

Geheimrat-Hummel-Platz Nr. 4

65239 Hochheim

Germany

Telephone: 0614690738-0

Telefax: 061469073845

E-mail: info@curtis-systems.de

E-mail (competent person): weimer@curtis-systems.de

1.4. Emergency telephone number

Technical department: 06146-90738-33 (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 procedure
Hazardous to the aquatic environment (Aquatic Chronic 3)	H412: Harmful to aquatic life with long lasting effects.	
Respiratory or skin sensitisation (Skin Sens. 1)	H317: May cause an allergic skin reaction.	

* 2.2. Label elements

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

Hazard pictograms:



GHS07

Exclamation mark

Signal word: Warning

Hazard components for labelling:

1,2-benzisothiazol-3(2H)-one

hazard statements for health hazards

H317 May cause an allergic skin reaction.

Hazard statements for environmental hazards

H412 Harmful to aquatic life with long lasting effects.

Precautionary Statements Prevention

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P272 Contaminated work clothing should not be allowed out of the workplace.

P273 Avoid release to the environment.

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Precautionary Statements Response

P302 + P352	IF ON SKIN: Wash with plenty of water/...
P321	Specific treatment (see ... on this label).
P333 + P313	If skin irritation or rash occurs: Get medical advice/attention.

2.3. Other hazards

No data available

SECTION 3: Composition / information on ingredients

3.2. Mixtures

Description:

Mixture of corrosion inhibitors and additives in aqueous solution.

Additional information:

Substance with a common (EC) occupational exposure limit value. See section 8.

Hazardous ingredients / Hazardous impurities / Stabilisers:

product identifiers	Substance name Classification according to Regulation (EC) No 1272/2008 [CLP]	Concentration
CAS No.: 10043-35-3 EC No.: 234-343-4 REACH No.: 01-2119486683-25-0000	Boric acid <i>Candidate List of Substances of Very High Concern for Authorisation!</i> Repr. 1B Danger H360FD	< 5.5 Wt %
CAS No.: 31075-24-8	Poly(oxyethylen(dimethyliminio)- ethylen(dimethyliminioethylen))-dichloride Acute Tox. 4, Aquatic Acute 1, Aquatic Chronic 1 Warning H302-H332-H400-H410	0.5 - < 1 Wt %
CAS No.: 2634-33-5 EC No.: 220-120-9	1,2-benzisothiazol-3(2H)-one Acute Tox. 4, Aquatic Acute 1, Eye Dam. 1, Skin Irrit. 2, Skin Sens. 1 Danger H302-H315-H317-H318-H400	0.25 - 0.5 Wt %

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

SECTION 4: First aid measures

4.1. Description of first aid measures

General information:

Change contaminated, saturated clothing.

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

Following inhalation:

Following inhalation - Provide fresh air.

In case of respiratory tract irritation, consult a physician.

In case of skin contact:

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

In case of skin irritation, consult a physician.

After eye contact:

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

After ingestion:

Let water be drunken in little sips (dilution effect).

Do NOT induce vomiting.

Call a physician immediately.

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

No information available.

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

First Aid, decontamination, treatment of symptoms.

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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

Suitable extinguishing media Sand alcohol resistant foam Extinguishing powder Dry extinguishing powder

Unsuitable extinguishing media:

Full water jet

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products:

In case of fire may be liberated: Carbon monoxide Carbon dioxide (CO₂). Nitrogen oxides (NO_x).

5.3. Advice for firefighters

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

5.4. Additional information

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.
Avoid contact with skin, eyes and clothes.

6.1.2. For emergency responders

No data available

6.2. Environmental precautions

Do not allow to enter into surface water or drains.
Prevent spread over a wide area (e.g. by containment or oil barriers).

6.3. Methods and material for containment and cleaning up

For containment:

Cover drains.
Make sure spills can be contained, e.g. in sump pallets or kerbed areas.

For cleaning up:

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents).
Collect in closed containers for 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:

All work processes must always be designed so that the following is as low as possible: Inhalation Skin contact Eye contact
Always close containers tightly after the removal of product.

Fire prevent measures:

Usual measures for fire prevention.

Environmental precautions:

Shafts and sewers must be protected from entry of the product.
Provide for retaining containers, eg. floor pan without outflow.

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Advices on general occupational hygiene

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.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels:

Keep container tightly closed.

Keep/Store only in original container.

Hints on storage assembly:

Materials to avoid: Oxidising agent

Storage class: 12 - non-combustible liquids that cannot be assigned to any of the above storage classes

Further information on storage conditions:

Further information on storage conditions Protect against: Heat Frost

Recommended storage temperature 15-25 °C

storage stability max. 1 year.

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
TRGS 900 (DE)	Boric acid CAS No.: 10043-35-3	① 0.5 mg/m ³ ② 1 mg/m ³ ⑤ (einatembare Fraktion)

8.1.2. Biological limit values

No data available

8.1.3. DNEL-/PNEC-values

No data available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Technical measures and the application of suitable work processes have priority over personal protection equipment.

8.2.2. Personal protection equipment



Eye/face protection:

Tightly sealed safety glasses.

Skin protection:

Hand protection: Tested protective gloves must be worn - In case of prolonged or frequently repeated skin contact:

Suitable material: Suitable material: NBR (Nitrile rubber) Butyl caoutchouc (butyl rubber)

Thickness of the glove material: 0,7 mm

Breakthrough time (maximum wearing time): > 480

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Respiratory protection:

With correct and proper use, and under normal conditions, breathing protection is not required.

Respiratory protection necessary at: exceeding exposure limit values, insufficient ventilation, aerosol or mist formation

Other protection measures:

Draw up and observe skin protection programme.

Before starting work, apply water-resistant skincare preparations.

Do not put any product-impregnated cleaning rags into your trouser pockets.

Avoid contact with skin, eyes and clothes.

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: Liquid

Colour: yellow

Odour: characteristic

Safety relevant basis data

parameter		at °C	Method	Remark
pH	≈ 9	20 °C		
Melting point	<i>not determined</i>			
Freezing point	<i>not determined</i>			
Initial boiling point and boiling range	> 100 °C			
Decomposition temperature	<i>not determined</i>			
Flash point	<i>not applicable</i>		DIN EN ISO 2592	
Evaporation rate	<i>not determined</i>			
Auto-ignition temperature	<i>not determined</i>			
Upper/lower flammability or explosive limits	<i>not determined</i>			
Vapour pressure	<i>not determined</i>			
Vapour density	<i>not determined</i>			
Density	1.133 g/cm ³	15 °C	DIN EN ISO 12185	
Bulk density	<i>not determined</i>			
Water solubility	completely miscible			
Partition coefficient: n-octanol/water	<i>not determined</i>			
Dynamic viscosity	<i>not determined</i>			
Kinematic viscosity	≈ 25 mm ² /s	20 °C		

9.2. Other information

No data available

SECTION 10: Stability and reactivity

10.1. Reactivity

There are no data available on the mixture itself.

10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

10.3. Possibility of hazardous reactions

No hazardous reactions known.

10.4. Conditions to avoid

Protect against: Frost

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10.5. Incompatible materials

Materials to avoid Oxidising agent Acid

10.6. Hazardous decomposition products

Does not decompose when used for intended uses.

SECTION 11: Toxicological information

* 11.1. Information on toxicological effects

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:

There are no data available on the preparation/mixture itself.
slightly irritant but not relevant for classification.
The statement is derived from the properties of the single components.

Serious eye damage/irritation:

slightly irritant but not relevant for classification.
The statement is derived from the properties of the single components.

Respiratory or skin sensitisation:

There are no data available on the preparation/mixture itself.
May cause sensitization by skin contact.
The statement is derived from products of similar structure or composition.

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.

SECTION 12: Ecological information

* 12.1. Toxicity

CAS No.	Substance name	Toxicological information
31075-24-8	Poly(oxyethylen(dimethyliminio)-ethylen(dimethyliminioethylen))-dichloride	LC₅₀: 13 mg/l 4 d (Gnathopausia zoea) EC₅₀: 0.37 mg/l 2 d (Daphnia Magna)
2634-33-5	1,2-benzisothiazol-3(2H)-one	LC₅₀: 1.6 - 16 mg/l 4 d (fish) EC₅₀: 4.4 mg/l 2 d (crustaceans)

Aquatic toxicity:

There are no data available on the mixture itself.
The ecotoxicological properties of this mixture are determined by the ecotoxicological properties of the single components (see section 3).

Assessment/classification:

Harmful to aquatic life with long lasting effects.

12.2. Persistence and degradability

Biodegradation:

Part of the components is biodegradable.

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12.3. Bioaccumulative potential

Accumulation / Evaluation:

No information available.

12.4. Mobility in soil

There are no data available on the mixture itself.

12.5. Results of PBT and vPvB assessment

CAS No.	Substance name	Results of PBT and vPvB assessment
31075-24-8	Poly(oxyethylen(dimethyliminio)-ethylen(dimethyliminioethylen))-dichloride	—
2634-33-5	1,2-benzisothiazol-3(2H)-one	—

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

12.6. Other adverse effects

No data available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

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

13.1.1. Product/Packaging disposal

Waste codes/waste designations according to EWC/AVV

Waste code product:

12 01 09 *	machining emulsions and solutions free of halogens
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*: Evidence for disposal must be provided.

Waste treatment options

Appropriate disposal / Product:

Dispose of waste according to applicable legislation.

Appropriate disposal / Package:

Dispose of waste according to applicable legislation. Delivery to an approved waste disposal company. Non-contaminated packages may be recycled.

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			

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

not relevant

SECTION 15: Regulatory information

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

15.1.1. EU legislation

No data available

15.1.2. National regulations

[DE] National regulations

Water hazard class (WGK)

WGK:

2 - deutlich wassergefährdend

Source:

Self-classification (mixture; calculation rule).

Technische Regeln für Gefahrstoffe

TRGS 611

15.2. Chemical Safety Assessment

No information available.

SECTION 16: Other information

16.1. Indication of changes

2.1.	Classification of the substance or mixture
2.2.	Label elements
3.2.	Mixtures
9.1.	Information on basic physical and chemical properties
11.1.	Information on toxicological effects
12.1.	Toxicity
15.1.	Safety, health and environmental regulations/legislation specific for the substance or mixture

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16.2. Abbreviations and acronyms

No data available

16.3. Key literature references and sources for data

No data available

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 procedure
Hazardous to the aquatic environment (Aquatic Chronic 3)	H412: Harmful to aquatic life with long lasting effects.	
Respiratory or skin sensitisation (Skin Sens. 1)	H317: May cause an allergic skin reaction.	

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

Hazard statements	
H302	Harmful if swallowed.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H332	Harmful if inhaled.
H360FD	May damage fertility. May damage the unborn child.

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Hazard statements

H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

16.6. Training advice

No data available

16.7. Additional information

No data available

* Data changed compared with the previous version