

**Safety data sheet**  
**according to 1907/2006/EC, Article 31**

Version 5-1 - Revision: 23.07.2016 – Printing date: 10.07.2017

**MICRO 1100 – Cooling lubricant**

**1. Identification of the substance/mixture and of the company/undertaking**

**Product identifier:** **MICRO 1100 – Cooling lubricant**

**Relevant identified uses:** Cutting and non-cutting metal-shaping processes

**Uses advised against:** --

**Manufacturer/Supplier:** **microjet® GmbH**  
 Im Husarenlager 13  
 76187 Karlsruhe  
 Tel.: 0049 (0)7 21 / 27 66 97 0 - Fax: 0049 (0)7 21 / 27 66 97 90  
 info@microjet.de

Emergency telephone number: see above

**2. Hazards identification**

**- Classification of the substance or mixture**  
**Classification according to Directive 1272/2008:**  
 The product is not classified according to the CLP regulations.

**- Labelling elements to Regulation (EC) No 1272/2008 (CLP/GHS)**  
 Void

**- Hazard pictograms**  
 Void

**- Signal word:** Void

**-Hazard statements:** Void

**-Additional information:** EUH208 Contains 1,2-benzisothiazol-3(2H)-one. May produce an allergic reaction  
 EUH210 Safety data sheet available on request.

**-Other hazards**

**Results of PBT and vPvB assessment**





**PBT:** The criteria to identify an ingredient as a PBT substance in compliance with REACH are according to our information currently not available.

**vPvB:** The criteria to identify an ingredient as a vPvB substance in compliance with REACH are according to our information currently not available.

**3. Composition/information on ingredients**

**- Chemical characterization:** Mixtures

**- Description:** Mixture of alcohol derivatives, additives and water.

<b>- Dangerous components:</b>		
CAS: 1303-96-4 EINECS: 215-540-4	disodium tetraborate, decahydrate  Repr. 1B, H360FD	< 0,4%
CAS: 95-14-7 EINECS: 202-394-1	benzotriazole  Aquatic Chronic 2, H411;  Acute Tox. 4, H302; Eye Irrit. 2, H319	0,1 – 0,5%
CAS: 111-46-6 EINECS: 203-872-2	diethylene glycol  STOT RE 2, H373; Acute Tox. 4, H302	0,1 – 0,5%
<b>- Candidate List of Substance of Very High Concern (SVHC)</b>		
1303-96-4	disodium tetraborate, decahydrate	< 0,4%

**- Additional information:** The product covered by this msds includes one or more of the substances above a concentration of 0,1% weight by weight (w/w) in the Candidate List of Substances of Very High Concern (SVHC) for authorization published by ECHA, see above.  
 Water-extendable metalworking fluid concentrate

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### 4. First aid measures

· Description of first aid measures

· General information:

Remove any clothing soiled by the product.

In case of occurring of symptoms or in doubt consult a doctor.

If a doctor is consulted show this material safety data sheet.

· After inhalation:

Supply fresh air; consult doctor in case of complaints.

· After skin contact:

Wash with water and soap and rinse thoroughly.

· After eye contact:

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

· After swallowing:

Do not induce vomiting; call for medical help immediately.

· Most important symptoms and effects, both acute and delayed

No further relevant information available.

· Indication of any immediate medical attention and special treatment needed

No further relevant information available.

### 5. Firefighting measures

· Extinguishing media

· Suitable extinguishing agents:

CO<sub>2</sub>, powder or water spray. Fight larger fire with alcohol resistant foam.

· For safety reasons unsuitable extinguishing agents:

Water with full jet

· Special hazards arising from the substance or mixture

Under certain fire conditions, traces of other toxic gases cannot be excluded, e.g.: Carbon monoxide (CO)

· Advice for firefighters

Wear self-contained respiratory protective device.

· Protective equipment:

Cool endangered receptacles with water spray.

· Additional information

Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

### 6. Accidental release measures

· Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation.

Particular danger of slipping on leaked/spilled product.

· Environmental precautions:

Do not allow to enter sewers/ surface or ground water.

Do not allow to penetrate the ground/soil.

Keep contaminated washing water and dispose of appropriately.

· Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

Remove from the water surface (e.g. skim or suck off).

· Reference to other sections

See Section 8 for information on personal protection equipment.

See Section 7 for information on safe handling.

See Section 13 for disposal information.

### 7. Handling and storage

· Handling:

· Precautions for safe handling

Ensure good ventilation/exhaust at the workplace.

Open and handle receptacle with care.

· Information about fire - and explosion protection:

Fumes can combine with air to form an explosive mixture above the flash point.

· Conditions for safe storage, including any incompatibilities

· Storage:

· Requirements to be met by storerooms and receptacles:

Store only in the original receptacle.

· Information about storage in one common storage facility:

Not required.

· Further information about storage conditions:

Store in cool, dry conditions in well sealed receptacles.

Protect from heat, direct sunlight and UV-rays.

Storage stability under the described conditions: 6 months.

· Specific end use(s)

No further relevant information available.

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### 8. Exposure controls/personal protection

#### Additional information about design of technical facilities:

No further data; see item 7.

#### Control parameters

Ingredients with limit values that require monitoring at the workplace:
<b>111-46-6 diethylene glycol</b>
WEL (Great Britain) Long-term value: 101 mg/m <sup>3</sup> , 23 ppm
<b>1303-96-4 Disodium tetraborate, decahydrate</b>
WEL (Great Britain) Long-term value: 5 mg/m <sup>3</sup>

#### Additional information:

The lists valid during the making were used as basis.

#### Exposure controls

#### Personal protective equipment:

- General protective and hygienic measures:** The usual precautionary measures are to be adhered to when handling chemicals.  
Wash hands before breaks and at the end of work.  
Immediately remove all soiled and contaminated clothing
- Respiratory protection:** Not necessary if room is well-ventilated.
- Protection of hands:** Protective gloves
- Material of gloves** Nitrile rubber, NBR
- Penetration time of glove material** At a glove thickness of about 0,7 mm the value of the permeation breakthrough in accordance with EN 374 is for chemically similar products according to the manufacturer: >480 min. (Degradation EN 374 rating class 6)  
These statements are based on laboratory test methods which could not simulate working conditions exactly. The responsibility rests with the end user for choosing the right gloves for his application.
- Eye protection:** Goggles recommended during refilling
- Body protection:** Protective work clothing

### 9. Physical and chemical properties

#### Information on basic physical and chemical properties

#### General Information

#### Appearance:

**Form:** Fluid  
**Colour:** Yellow

**Odour:** Mild  
Other threshold: not determined  
**pH-value:** 9.1

#### Change in condition

**Melting point/Melting range:** Undetermined  
**Boiling point/Boiling range:** Undetermined

**Flash point:** Not applicable  
**Flammability (solid, gaseous):** Not applicable.  
**Ignition temperature:** Not determined  
**Decomposition temperature:** Not determined.  
Self-igniting: Product is not selfigniting.  
**Danger of explosion:** Product is not present an explosive hazard.

#### Explosion limits:

**Lower:** Not determined  
**Upper:** Not determined

**Vapour pressure at 20°C:** Not determined  
**Density at 20°C:** 1.05 g/cm<sup>3</sup>  
Relative density: Not determined.  
Vapour density: Not determined.  
Evaporation rate: Not determines.

#### Solubility in / Miscibility with water:

Fully miscible

**Partition coefficient (n-octan/water):** Not determined.

#### Viscosity:

**Kinematic at 40°C:** ~ 2 mm<sup>2</sup>/s

#### Solvent content:

**VOC (EC):** None

#### Other information

Oxidising properties: not determined

#### Additional information

The data of the explosion limits are based on the base oil.

The above named properties are measured according to part A of the annex V of the EC-Regulation 67/548/EC or according to other comparable methods.

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### 10. Stability and reactivity

- **Reactivity**
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** see above
- **Incompatible materials:** Strong oxidizing agents
- **Hazardous decomposition products:** No dangerous decomposition products known.

### 11. Toxicological information

#### -Information on toxicological effects

**Acute toxicity**  
**LD/LC50 values relevant for classification:** No further relevant information available.

**Primary irritant effect:**  
**Skin corrosion/irritation:** After a long exposure on skin and mucous membrane the concentrate can cause irritations.

**Serious eye damage/irritation:** moderate irritation to the eye

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

**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.

### 12. Ecological information

#### Toxicity

**Acquatic toxicity:** No further relevant information available

· **Persistence and degradability** Not easily biodegradable

· **Behaviour in environmental systems:** No further relevant information available.

· **Bioaccumulative potential** No further relevant information available.

· **Mobility in soil** No further relevant information available.

· **Ecotoxicological effects:**

· **Additional ecological information:**

· **General notes:** Water hazard class 1 (German Regulation) (Self-assessment):  
slightly hazardous for water  
Do not allow product to reach ground water, water course or sewage system.

· **Results of PBT and vPvB assessment**

· **PBT:** The criteria to identify an ingredient as a PBT substance in compliance with REACH are according to our information currently not available.

· **vPvB:** The criteria to identify an ingredient as a vPvB substance in compliance with REACH are according to our information currently not available.

· **Other adverse effects** No further relevant information available.

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### 13. Disposal considerations

**Waste treatment methods**

- Recommendation** Must not be disposed together with household garbage. Do not allow product to reach sewage system.

<b>- European waste catalogue:</b>	
12 01 09*	machining emulsions and solutions free of halogens

**Uncleaned packaging:**

- Recommendation:** Disposal must be made according to official regulations.
- Recommended cleaning agents: Water, if necessary together with cleaning agents

### 14. Transport information

**UN-Number**

- ADR Void
- ADN, IMDG, IATA Void

**UN proper shipping name**

- ADR Void
- ADN, IMDG, IATA Void

**Transport hazard class(es)**

- ADR, IMDG, IATA
- Class Void
- Label Void
- ADN/R Class: Void

**Packing group**

- ADR Void
- IMDG, IATA Void

**Environmental hazards:**

- Marine pollutant: No

**Special precautions for user**

Not applicable.

- Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** Not applicable.

**Transport/Additional information:**

- ADR
- Excepted quantities (EQ) Void
- Limited quantity (LQ) Void
- Transport category Void
- Tunnel restriction code Void
- IMDG
- Remarks: Void
- IATA
- UN "Model Regulation": -

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### 15. Regulatory information

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

- **Labelling according to Regulation (EC) No 1272/2008:** Void
- **Hazard pictograms:** Void
- **Signal word:** Void
- **Hazard statements:** Void
- **Directive 2012/18/EU:** Void
- **National regulations:**
- **Breakdown regulations:** The product is not subject to the Hazardous Incidents Ordinance.
- **Waterhazard class:** Water hazard class 1 (Self-assessment): slightly hazardous for water.
- **Other regulations, limitations and prohibitive regulations**

**Substances of very high concern**

**(SVHC) according to REACH, Article**

**57:** Sodium tetraborate decahydrate EC 215-540-4

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

### 16. \*Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Reasons for alterations** General revision.
- **Relevant phrases** H302 Harmful if swallowed.  
H319 Causes serious eye irritation.  
H360FD May damage fertility. May damage the unborn child.  
H373 May cause damage to the kidneys through prolonged or repeated exposure.  
H411 Toxic to aquatic life with long lasting effects.

- **Abbreviations and acronyms:**

REACH: Registration, Evaluation and Authorisation of Chemicals (regulation (EC) No 1907/2006)  
PBT: persistent, bioaccumulative, toxic  
vPvB: very persistent, very bioaccumulative  
SVHC: Substances of Very High Concern  
EC: European Community  
NLP: no longer polymers  
EINECS: European Inventory of Existing Commercial Chemical Substances  
ELINCS: European List of Notified Chemical Substances  
CAS: Chemical Abstracts Service (division of the American Chemical Society)  
WEL: Worktime Exposure Limit  
TWA: Time Weighted Average concentration  
STEL: Short Time Exposure Limit  
OEL: Occupational Exposure Limit  
TLV: Threshold limit value  
TWA: Time Weighted Average concentration  
STEL: Short Time Exposure Limit  
IOELV: Indicative Occupational Exposure Limit Value  
WEL: Worktime Exposure Limit  
ACGIH: American Conference of Governmental Industrial Hygienists  
EC50: ecotoxic concentration, 50 percent  
NOEC: no observed effect concentrations  
NOELR: No observed effect loading rate  
LC50: Lethal concentration, 50 percent  
LD50: Lethal dose, 50 percent  
VOC: Volatile Organic Compounds (USA, EC)  
ADR: Accord européen sur le transport des marchandises Dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)  
IMDG: International Maritime Code for Dangerous Goods  
IATA: International Air Transport Association  
Acute Tox. 4: Acute toxicity, Hazard Category 4  
Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2  
Repr. 1B: Reproductive toxicity, Hazard Category 1B  
STOT RE 2: Specific target organ toxicity - Repeated exposure, Hazard Category 2  
Aquatic Chronic 2: Hazardous to the aquatic environment - Chronic Hazard, Category 2

· \* Data compared to the previous