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

1.1. Product identifier
Trade name/designation: EMUGE Thread Cutting Oil No. 2+ CAST IRON

1.2. Relevant identified uses of the substance or mixture and uses advised against
Use of the substance/mixture:
Non water-miscible metalworking fluid

1.3. Details of the supplier of the safety data sheet
Supplier (manufacturer/importer/only representative/downstream user/distributor):
EMUGE-Werk Richard Glimpel GmbH & Co. KG
Fabrik für Präzisionswerkzeuge
Nürnberger Str. 96-100, 91207 Lauf, GERMANY
Telefon: +49 (0) 91 23 / 1 86-0
Fax: +49 (0) 91 23 / 1 43 13
E-mail: martin.rittger@emuge.de

1.4. Emergency telephone number
Mo. - Thu. 7.00 - 15.00 h Contact: Martin Rittger, Sicherheitsfachkraft
Fr. 7.00 - 14.00 h Phone: +49 (0) 91 23 / 1 86-0 odern -0
E-mail: martin.rittger@emuge.de

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: -
Supplemental Hazard information (EU): -
Precautionary statements: -

2.3. Other hazards
Other adverse effects:
No risks worthy of mention. Please observe the information on the safety data sheet at all times.

SECTION 3: Composition / information on ingredients

3.2. Mixtures
Description:
Mixture of mineral oil and additives.

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

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.

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:
High power water jet

5.2. Special hazards arising from the substance or mixture
In case of fire may be liberated: Carbon monoxide Carbon dioxide (CO2) Sulphur oxides

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. Remove all sources of ignition.
Special danger of slipping by leaking/spilling product.

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

6.5. Additional information
No data available
SECTION 7: Handling and storage

7.1. Precautions for safe handling

Protective measures

Advises 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.
Keep away from sources of ignition - No smoking.
Take precautionary measures against static discharges.

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

Advises on general occupational hygiene
Wash hands before breaks and after work.
Do not put any product-impregnated cleaning rags into your trouser pockets.
When using do not eat, drink, smoke, sniff.

7.2. Conditions for safe storage, including any incompatibilities

Packaging materials:
Keep/Store only in original container.

Requirements for storage rooms and vessels:
Keep container tightly closed. Provide for retaining containers, eg. floor pan without outflow.
Only use containers specifically approved for the substance/product.
Floors should be impervious, resistant to liquids and easy to clean.

Hints on storage assembly:
Materials to avoid: Oxidising agent

Storage class: 10 – 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 min. 1 year.
Minimum shelf life: 3 years (from delivery date EMUGE Werk Lauf)

7.3. Specific end use(s)

Recommendation: Observe technical data sheet.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters
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

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:
Set out skin protection guidelines.
Wash hands before breaks and after work.
Apply skin care products after work.
Do not put any product-impregnated cleaning rags into your trouser pockets.

8.2.3. Environmental exposure controls
See section 7. No additional measures necessary.

8.3. Additional information
No data available

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance
Physical state: liquid
Colour: brown

Safety relevant basis data

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<th>Method</th>
<th>Remark</th>
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<td>pH</td>
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<td>Melting point</td>
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<td>Freezing point</td>
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<td>Initial boiling point and boiling range</td>
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<td>Decomposition temperature (°C):</td>
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<tr>
<td>Flash point</td>
<td>&gt; 170 – 0 °C</td>
<td>DIN EN ISO 25 92</td>
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<tr>
<td>Evaporation rate</td>
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<tr>
<td>Ignition temperature in °C</td>
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<tr>
<td>Upper/lower flammability or explosive limits</td>
<td>0.6 – 7 %</td>
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<td></td>
</tr>
<tr>
<td>Vapour pressure</td>
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</tr>
<tr>
<td>Vapour density</td>
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</tr>
<tr>
<td>Relative density</td>
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<td>15 °C</td>
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<td>Bulk density</td>
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<td>Water solubility (g/L)</td>
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<td>Partition coefficient: n-octanol/water</td>
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<tr>
<td>Dynamic viscosity</td>
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<td>Kinematic viscosity</td>
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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.

10.3. Possibility of hazardous reactions
No hazardous reactions known.

10.4. Conditions to avoid
Protect against: Heat Frost

10.5. Incompatible materials
Materials to avoid Oxidising agent

10.6. Hazardous decomposition products
No decomposition under normal conditions.
Combustion products:
Carbon dioxide. Carbon monoxide Sulphur oxides

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute oral toxicity:
Toxicological data are not available.

Acute dermal toxicity:
Toxicological data are not available.

Acute inhalation toxicity:
Toxicological data are not available.

Skin corrosion/irritation:
There are no data available on the preparation/mixture itself.
Not an irritant.
The statement is derived from products of similar structure or composition.

Eye damage/irritation:
Not an irritant.
The statement is derived from products of similar structure or composition.

Respiratory or skin sensitisation:
not sensitising.

Carcinogenicity:
The components in this formulation do not meet the criteria for classification as CMR category 1 or 2.

STOT-single exposure:
No information available.

STOT-repeated exposure:
No information available.

Aspiration hazard:
For viscosity data, see section 9.

SECTION 12: Ecological information

12.1. Toxicity

Aquatic toxicity:
There are no data available on the mixture itself.
harmless to aquatic organisms up to the tested concentration

12.2. Persistence and degradability

Biodegradation:
No information available.

12.3. Bioaccumulative potential
No data available
12.4. Mobility in soil
There are no data available on the mixture itself. It is adsorbed by the ground and has low mobility.

12.5. Results of PBT and vPvB assessment
The components in this formulation do not meet the criteria for classification as PBT or vPvB.

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 07 * | mineral-based machining oils free of halogens (except emulsions and solutions) |

*: 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.
Non-contaminated packages may be recycled.

13.2. Additional information
No data available

SECTION 14: Transport information

No dangerous good in sense of these transport regulations.

<table>
<thead>
<tr>
<th>14.1. UN-No.</th>
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</thead>
<tbody>
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<td>14.2. UN proper shipping name</td>
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<td>14.3. Transport hazard class(es)</td>
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<tr>
<td>14.4. Packing group</td>
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</tr>
<tr>
<td>14.5. Environmental hazards</td>
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</tr>
<tr>
<td>14.6. Special precautions for user</td>
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</tr>
</tbody>
</table>

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
Störfallverordnung
Remark:
- Water hazard class (WGK)
  WGK:
  1 - schwach wassergefährdend
Source:
Anh. 4

15.2. Chemical Safety Assessment
No information available.

15.3. Additional information
No data available

SECTION 16: Other information

16.1. Indication of changes
9.1. Information on basic physical and chemical properties

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]:
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)
No data available

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 information, 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 information is not necessarily valid for the new made-up material.
Available ex stock in plastic containers

- 1 kg container  Art. no. FZ191115.01
- 5 kg container  Art. no. FZ191115.05
- 10 kg container Art. no. FZ191115.10
- 20 kg container Art. no. FZ191115.20

For up-to-date safety information, see: [www.emuge.de/msds](http://www.emuge.de/msds)

An overview of our thread cutting oils and pastes can be found in our flyer „cooling lubricants“, available under article no. ZP10067.DEGB