

## Safety Data Sheet

according to 1907/2006/EC, Article 31

Printing date 27.05.2009

Revision: 27.05.2009

### \* 1 Identification of the substance/preparation and of the company/undertaking

- **Trade name:** FRIGOMET 81 N
- **Article number:** 92301
- **Application of the substance / the preparation:** Preparation for industrial application
- **Manufacturer/Supplier:**  
Oemeta Chemische Werke GmbH  
Ossenpadd 54  
D-25436 Uetersen  
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- **Information in case of emergency:**  
Giftinformationszentrum  
Universitätsklinikum Mainz  
Emergency number: ++49(0)6131/19240 (24 h)

### \* 2 Hazards identification

- **Hazard description:** Not applicable.
- **Information concerning particular hazards for human and environment:**  
The standard application is mixed with water in process-dependant concentrations of approx. 3 - 12 %.  
The product does not have to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.  
Heightened danger of slipping when the product is spilled on the floor.
- **After inhalation:**  
Concentrate: not applicable  
Water-mixed condition: Under unfavourable conditions, the use of water-mixed cooling lubricants and their associated additives can potentially generate aerosols and fumes. Long-term and repeated exposure can result in hypersensitivity and respiratory irritation. The exposure can be reduced through the application of suitable technical measures. For further information, please refer to the bibliographical references in Chapter 16.
- **After skin contact:**  
Concentrate: The concentrate causes the loss of natural oils and maceration of the skin.  
Water-mixed condition: Prolonged and frequent skin contact results in the loss of natural oils and drying of the skin. Non-observance of proper skin protection, cleansing and care can result in skin irritations and contact dermatitis. For further information, please refer to the bibliographical references in Chapter 16.
- **After eye contact:**  
Concentrate: The product acts as a short-term irritant to the eyes. Rinse eyes immediately after any contact, see also Chapter 4.  
Water-mixed condition: Splashes of cooling lubricant can cause mild short-term irritation to the eyes. These irritations can be further increased by any solid particles (abraded materials/chips). Rinse eyes immediately after any contact, see also Chapter 4.
- **After swallowing:**  
Concentrate: Can cause nausea and vomiting. Small quantities do not cause lasting damage.  
Water-mixed condition: Can cause nausea and vomiting. Small quantities do not cause lasting damage.
- **Classification system:**  
The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

### 3 Composition/information on ingredients

- **Description:**  
Mixture of substances listed below with nonhazardous additions.

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Mixture contains alkanolamines, surfactants, additives

**- Dangerous components:**

CAS: 141-43-5 EINECS: 205-483-3	2-aminoethanol	 C, Xn; R 20/21/22-34	1-5%
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**- Additional information:** For the wording of the listed risk phrases refer to section 16.

#### 4 First aid measures

- **General information:** No special measures required.
- **After inhalation:**  
Concentrate: not applicable  
Water-mixed condition: In case of respiratory irritation, supply fresh air; if problems persist, seek medical advice.
- **After skin contact:**  
Concentrate: Wash with warm water and soap, then apply skin care cream.  
Water-mixed condition: Wash with warm water and soap, then apply skin care cream. For further information, please refer to the bibliographical references in Chapter 16.
- **After eye contact:**  
Concentrate: Rinse open eyes for several minutes under running water. If problems persist, seek medical advice.  
Wear safety goggles when handling concentrate.  
Water-mixed condition: Rinse open eyes under running water. If problems persist, seek medical advice and check eyes for foreign objects (abraded material/chips).
- **After swallowing:**  
For concentrate and water-mixed condition: Do not induce vomiting; if problems persist, seek medical advice.

#### 5 Fire-fighting measures

- **Suitable extinguishing agents:**  
CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Special hazards caused by the substance, its products of combustion or resulting gases:**  
Formation of toxic gases is possible during heating or in case of fire.
- **Protective equipment:** Wear self-contained respiratory protective device.
- **Additional information:** Collect contaminated fire fighting water separately. It must not enter the sewage system.

#### 6 Accidental release measures

- **Person-related safety precautions:** Particular danger of slipping on leaked/spilled product.
- **Measures for environmental protection:** Do not allow to enter sewers/ surface or ground water.
- **Measures for cleaning/collecting:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
- **Additional information:** See Section 13 for disposal information.

#### 7 Handling and storage

- **Handling:**
- **Information for safe handling:**



Concentrate: Wear safety goggles when handling concentrate. Change all contaminated items of clothing.  
Water-mixed condition: No special measures are required. Change all contaminated items of clothing.

- **Information about fire - and explosion protection:** No special measures required.
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**  
Unsuitable material for receptacles and pipes: Copper, Copper alloy and Zinc.

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- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**  
Storage temperature between 10 °C to 30 °C (= 50 °F to 86 °F).  
In closed original container and at storage temperature of 30 °C (86 °F) maximum product keeps stable for at least 12 months.
- **Storage class:** 10

### \* 8 Exposure controls/personal protection

- **Additional information about design of technical facilities:**  
Under unfavourable conditions, the use of water-mixed cooling lubricants can potentially generate aerosols and fumes. Long-term and repeated exposure can result in hypersensitivity and respiratory irritation. The exposure can be reduced through the application of suitable technical measures. For further information, please refer to the bibliographical references in Chapter 16.

#### - Ingredients with limit values that require monitoring at the workplace:

##### 141-43-5 2-aminoethanol (1-5%)

IOELV (EU)	Short-term value: 7,6 mg/m <sup>3</sup> , 3 ppm Long-term value: 2,5 mg/m <sup>3</sup> , 1 ppm Skin
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- **Additional information:** The lists valid during the making were used as basis.
- **Personal protective equipment:**
- **General protective and hygienic measures:**  
The usual precautionary measures are to be adhered to when handling chemicals.  
Avoid close or long term contact with the skin.  
Do not eat, drink, smoke or sniff while working.  
Be sure to clean skin thoroughly after work and before breaks.  
Do not carry product impregnated cleaning cloths in trouser pockets.
- **Respiratory protection:** Not required.
- **Protection of hands:**  
Concentrate: The wearing of protective gloves is recommended when handling the concentrate. After short-term contact without gloves, wash affected areas thoroughly with soap and water.  
Water-mixed condition: Hand protection is generally not required as long as protective ointments, cleansing and skin care creams are used. The wearing of protective gloves is recommended if compressed air is used to blow off the cooling lubricant, as the latter may contain solid particles.  
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
- **Material of gloves:**  
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.



Recommendation: 740 Dermatril (KCL, Germany) with a layer thickness of at least 0,1 mm

- **Penetration time of glove material:**  
The breakthrough-time for these gloves is > 480 min (performance index: class 6)
- **Eye protection:**  
Concentrate: Wear safety goggles.  
Water-mixed condition: The wearing of safety goggles is recommended if compressed air is used to blow off the cooling lubricant, as the latter may contain solid particles.

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### 9 Physical and chemical properties

#### - General Information

**Form:** Fluid  
**Colour:** Yellow-brown  
**Odour:** Mild

- **Flash point:** Not applicable.
- **Self-igniting:** Product is not selfigniting.
- **Danger of explosion:** Product does not present an explosion hazard.
- **Density at 20°C:** 1,08 g/cm<sup>3</sup> (DIN 51757)
- **Solubility in / Miscibility with water:** Fully miscible.
- **pH-value at 20°C:** 10 (DIN 51369)
- **Viscosity:**  
**Kinematic at 40°C:** 15 mm<sup>2</sup>/s (DIN 53018)

### 10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:** Avoid heating of concentrate > 100 °C (> 212 °F).
- **Dangerous reactions:** Reacts with strong acids and oxidizing agents.
- **Dangerous decomposition products:** No dangerous decomposition products known.

### 11 Toxicological information

- **Acute toxicity:**
- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** Can shortly be irritating in case of direct contact.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**  
The product is not subject to classification according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version.  
When used and handled according to specifications, the product does not have any harmful effects to our experience and the information provided to us.

### 12 Ecological information

- **Information about elimination (persistence and degradability):** biodegradable
- **Additional ecological information:**
- **According to the formulation contains the following heavy metals and compounds from the EU guideline NO. 76/464 EC:**  
The product contains organically bounded iodine.
- **General notes:**  
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water  
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

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### \* 13 Disposal considerations

- **Product:**
- **Recommendation**  
Must not be disposed together with household garbage. Do not allow product to reach sewage system.
- **European waste catalogue**  
Wastes marked with an asterisk are considered to be hazardous waste pursuant to Directive 91/689/EEC on hazardous waste.  
12 01 10 \*: synthetic machining oils  
12 01 09 \*: machining emulsions and solutions free of halogens
- **Uncleaned packaging:**
- **Recommendation:**  
Empty contaminated packagings thoroughly. They may be recycled after thorough and proper cleaning.
- **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

### \* 14 Transport information

- **Land transport ADR/RID (cross-border)**
- **ADR/RID class:** -
- **Maritime transport IMDG:**
- **IMDG Class:** -
- **Air transport ICAO-TI and IATA-DGR:**
- **ICAO/IATA Class:** -
- **Transport/Additional information:** Not dangerous according to the above specifications.

### 15 Regulatory information

- **Labelling according to EU guidelines:**  
Observe the general safety regulations when handling chemicals.  
The product is not subject to identification regulations under EU Directives and the Ordinance on Hazardous Materials (German GefStoffV).
- **Special labelling of certain preparations:**  
Safety data sheet available for professional user on request.

### \* 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.

- **Relevant R-phrases**  
20/21/22 Harmful by inhalation, in contact with skin and if swallowed.  
34 Causes burns.
- **Training hints**  
Further information on the safe application of metal working fluids are to be found in:  
Metal working fluids - health and safety in the workplace (<http://www.hse.gov.uk/metalworking/index.htm>)
- **Department issuing MSDS:** Oemeta Chemische Werke GmbH - Technical Department
- **\* Data compared to the previous version altered.**