



BUEHLER

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Safety data sheet

according to 1907/2006/EC, Article 31 and 453/2010/EC


Printing date 23.09.2011

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

- **Product identifier**
- **Trade name: RECI CLEAN**
- **Article number:** 4130200
- **Application of the substance / the preparation:** Preparation for industrial application.
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Bühler GmbH
In der Steele 2
40599 Düsseldorf
E-Mail: info@buehler-met.de
Internet: www.buehler-met.de
- **Further information obtainable from:**
Bühler GmbH
Phone +49 (0) 211/974 10-0
Fax +49 (0) 211/974 10-79
- **Emergency telephone number:**
Giftinformationszentrum
Universitätsklinikum Mainz
Emergency number: +49(0)6131/19240 (24 h)




* 2. Section - Hazards identification

- **Classification of the substance or mixture**
- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**
 C; Corrosive
R34: Causes burns.
- **Information concerning particular hazards for human and environment:**
The standard application is mixed with water in process-dependant concentrations of approx. 1.0 - 2.0 %.
Heightened danger of slipping when the product is spilled on the floor.
- **Classification system:**
The classification is according to the latest editions of the EU-lists, and extended by company and literature data.
- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

* 3. Section - Composition/information on ingredients

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

- **Dangerous components:**

	Alkanolamine  Xi R36	10-20%
CAS: 3586-55-8 EINECS: 222-720-6	(Ethylendioxy)dimethanole  Xn R22;  Xi R38-41	5-10%

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CAS: 1310-58-3 EINECS: 215-181-3	potassium hydroxide  C R35;  Xn R22	1-5%
CAS: 28519-02-0 EINECS: 249-063-8	disodiumdodecyl(sulphonatophenoxy)benzenesulphonate  Xi R41;  N R51/53	1-5%
CAS: 3811-73-2 EINECS: 223-296-5	pyridine-2-thiol 1-oxide, sodium salt  Xn R20/21/22;  Xi R36/38;  N R50	0,1-1%

- Additional information:

Alkanolamine - generic name according directive 1999/45/EG, article 15.(Ref.: 72243-075568, Germany)
For the wording of the listed risk phrases refer to section 16.

4. Section - First aid measures

- Description of first aid measures**- General information:** No special measures required.**- After inhalation:**

Supply fresh air; consult doctor in case of complaints.

In case of unconsciousness place patient stably in side position for transportation.

- After skin contact:

Immediately wash with water and soap and rinse thoroughly.

Seek medical treatment.

- 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:

Drink plenty of water and provide fresh air. Call for a doctor immediately.

For concentrate and water-mixed condition: Do not induce vomiting; if problems persist, seek medical advice.

- 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. Section - Firefighting measures

- Extinguishing media**- Suitable extinguishing agents:**Extinguishing powder or CO₂.

Fight larger fire with alcohol resistant foam.

Do not use water in a full jet.

Use fire extinguishing methods suitable to surrounding conditions.

- Special hazards arising from the substance or mixture

Formation of toxic gases is possible during heating or in case of fire.

- Advice for firefighters**- Protective equipment:** Wear self-contained respiratory protective device.**- Additional information** Collect contaminated fire fighting water separately. It must not enter the sewage system.

6. Section - Accidental release measures

- Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

- Environmental precautions: Do not allow to enter sewers/ surface or ground water.**- Methods and material for containment and cleaning up:**

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

Use neutralizing agent.

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

- Reference to other sections See Section 13 for disposal information.

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7. Section - Handling and storage

- Handling:

- Precautions for safe handling

Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.



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.

- Conditions for safe storage, including any incompatibilities

- Storage:

- Requirements to be met by storerooms and receptacles:

Unsuitable material for receptacles and pipes: Copper, Copper alloy and Zinc.

- Information about storage in one common storage facility: Not required.

- Further information about storage conditions:

Keep container tightly sealed.

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 6 months.

- Storage class: 8

- Specific end use(s) No further relevant information available.

8. Section - 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.

- Control parameters

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

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

- 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.

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Avoid close or long term contact with the skin.

Avoid contact with the eyes and 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:

Protective gloves

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.

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Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- Material of gloves:

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

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.

- 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.

9. Section - Physical and chemical properties

- Information on basic physical and chemical properties**- General Information****- Appearance:****Form:** Fluid**Colour:** Colourless**- Odour:** Characteristic**- pH-value at 20°C:** >11 (DIN 51369)**- Flash point:** Not applicable.**- Self-igniting:** Product is not selfigniting.**- Danger of explosion:** Product does not present an explosion hazard.**- Density at 20°C:** 1,05 g/cm³ (DIN 51757)**- Solubility in / Miscibility with water:** Fully miscible.**- Viscosity:****Kinematic at 40°C:** 2 mm²/s (DIN 53018)**- Other information** No further relevant information available.

10. Section - Stability and reactivity

- Reactivity**- Chemical stability****- Thermal decomposition / conditions to be avoided:** Avoid heating of concentrate > 100 °C (> 212 °F).**- Possibility of hazardous reactions** Reacts with strong acids and oxidizing agents.**- Conditions to avoid** No further relevant information available.**- Incompatible materials:** No further relevant information available.**- Hazardous decomposition products:** Formaldehyde

11. Section - Toxicological information

- Information on toxicological effects**- Acute toxicity:****- LD/LC50 values relevant for classification:****1310-58-3 potassium hydroxide**

Oral | LD50 | 273 mg/kg (rat)

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- **Primary irritant effect:**
- **on the skin:** Caustic effect on skin and mucous membranes.
- **on the eye:** Strong caustic effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**
The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:
Corrosive
Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

12. Section - Ecological information

- **Persistence and degradability** Moderately /partly biodegradable
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**
Must not reach sewage water or drainage ditch undiluted or unneutralized.
Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water
Do not allow product to reach ground water, water course or sewage system.
Danger to drinking water if even small quantities leak into the ground.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

* 13. Section - Disposal considerations

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

- European waste catalogue

07 06 99	wastes not otherwise specified
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- **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. Section - Transport information

- **UN-Number**
- **ADR, IMDG, IATA** UN1760
- **UN proper shipping name**
- **ADR** 1760 CORROSIVE LIQUID, N.O.S. (POTASSIUM HYDROXIDE, ALKANOLAMIN)
- **IMDG, IATA** CORROSIVE LIQUID, N.O.S. (POTASSIUM HYDROXIDE, ALKANOLAMIN)
- **Transport hazard class(es)**
- **ADR**



- **Class** 8 (C9) Corrosive substances.

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- Label 8

- IMDG, IATA



- Class 8 Corrosive substances.
 - Label 8
 - Packing group
 - ADR, IMDG, IATA III
 - Environmental hazards:
 - Marine pollutant: No
 - Special precautions for user Warning: Corrosive substances.
 - Danger code (Kemler): 80
 - EMS Number: F-A,S-B
 - Segregation groups Alkalis
 - Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code Not applicable.
 - Transport/Additional information:

- ADR

- Limited quantities (LQ) 5L
 - Transport category 3
 - Tunnel restriction code E

15. Section - Regulatory information

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

- Labelling according to EU guidelines:

The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials.

- Code letter and hazard designation of product:



C Corrosive

- Risk phrases:

34 Causes burns.

- Safety phrases:

26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
 36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
 60 This material and its container must be disposed of as hazardous waste.

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

* 16. Section - 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 phrases

R20/21/22 Harmful by inhalation, in contact with skin and if swallowed.
 R22 Harmful if swallowed.
 R35 Causes severe burns.
 R36 Irritating to eyes.
 R36/38 Irritating to eyes and skin.

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- R38 Irritating to skin.
- R41 Risk of serious damage to eyes.
- R50 Very toxic to aquatic organisms.
- R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

- 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: Bühler GmbH, Düsseldorf**- * Data compared to the previous version altered.**