

## Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 30.11.2010

Revision: 30.11.2010

### 1 Identification of the substance/mixture and of the company/undertaking

- **Product identifier**
- **Trade name:** BRUNOX® Top-Kett
- **Relevant identified uses of the substance or mixture and uses advised against**
- **Application of the substance / the preparation**  
longterm corrosion inhibitor and high-tech lubricant  
Anticorrosion additive  
Lubricant
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
BRUNOX Korrosionsschutz GmbH  
Postfach 100127  
85001 Ingolstadt  
  
Tel. + 49/ (0) 841 961 29 04  
Fax + 49/ (0) 841 961 29 13  
E-mail: office@brunox.com  
  
·  
BRUNOX AG  
Tunnelstrasse 6  
CH - 8732 Neuhaus/SG  
  
Tel. +41/ (0)55 285 80 80  
Fax +41/ (0)55 285 80 81  
E-mail: office@brunox.com
- **Further information obtainable from:** Abteilung Produktsicherheit: Tel. +41/ (0)79 372 34 44
- **Emergency telephone number:**  
Toxikologisches Informationszentrum  
CH - 8030 Zürich, Freiestrasse 16  
Tel. +41/ 044 251 51 51  
Notruf - CH - : 145                      Notruf - D - : Giftnotrufzentrale 030 19240  
Notruf - AT - : 01 4064343              EUROPÄISCHE NOTRUFNR. : 112

### 2 Hazards identification

- **Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**



GHS02 flame

Flam. Liq. 3 H226 Flammable liquid and vapour.

- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**

R10-66: Flammable. Repeated exposure may cause skin dryness or cracking.

- **Information concerning particular hazards for human and environment:**

The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

At long or repeated contact with skin it may cause dermatitis due to the degreasing effect of the solvent.

- **Classification system:**

The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

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- **Label elements**
- **Labelling according to EU guidelines:**  
The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials.
- **Risk phrases:**  
10 Flammable.  
66 Repeated exposure may cause skin dryness or cracking.
- **Safety phrases:**  
2 Keep out of the reach of children.  
16 Keep away from sources of ignition - No smoking.  
23 Do not breathe fumes/aerosol.  
29/56 Do not empty into drains, dispose of this material and its container at hazardous or special waste collection point.  
46 If swallowed, seek medical advice immediately and show this container or label.  
51 Use only in well-ventilated areas.
- **Other hazards**  
The product does not contain any organic halogen compounds (AOX), nitrates, heavy metal compounds or formaldehydes.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

### 3 Composition/information on ingredients

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

CAS: 64742-47-8	Distillates (petroleum), hydrotreated light	50-100%
EINECS: 265-149-8	<ul style="list-style-type: none"> <li>✘ Xn R65</li> <li>R66</li> <li>⚠ Asp. Tox. 1, H304</li> </ul>	
CAS: 68608-26-4	sulfonic acids, petroleum, sodium salts	2.5-10%
	<ul style="list-style-type: none"> <li>✘ Xi R36</li> <li>⚠ Eye Irrit. 2, H319</li> </ul>	
- **Additional information:** For the wording of the listed risk phrases refer to section 16.

### 4 First aid measures

- **Description of first aid measures**
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** If skin irritation continues, consult a doctor.
- **After eye contact:** Rinse opened eye for several minutes under running water.
- **After swallowing:** If symptoms persist consult doctor.
- **Information for doctor:**
- **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.

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### 5 Firefighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** CO<sub>2</sub>, sand, extinguishing powder. Do not use water.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **Special hazards arising from the substance or mixture** Carbon monoxide (CO)
- **Advice for firefighters**
- **Protective equipment:** Wear self-contained respiratory protective device.
- **Additional information** Cool endangered receptacles with water spray.

### 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**  
Ensure adequate ventilation  
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:**  
Do not allow product to reach sewage system or any water course.  
Inform respective authorities in case of seepage into water course or sewage system.  
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).  
Ensure adequate ventilation.  
Do not flush with water or aqueous cleansing agents
- **Reference to other sections**  
See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

### 7 Handling and storage

- **Handling:**
- **Precautions for safe handling**  
Ensure good ventilation/exhaustion at the workplace.  
Prevent formation of aerosols.
- **Information about fire - and explosion protection:**  
Keep ignition sources away - Do not smoke.  
Protect against electrostatic charges.
- **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:** Store away from oxidizing agents.
- **Further information about storage conditions:**  
Store under lock and key and out of the reach of children.  
Keep container tightly sealed.
- **Specific end use(s)** No further relevant information available.

### 8 Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.

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- **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:**  
Wash hands before breaks and at the end of work.  
Do not inhale gases / fumes / aerosols.
- **Respiratory protection:**  
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.
- **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

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.
- **Penetration time of glove material**  
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:**



Tightly sealed goggles

## 9 Physical and chemical properties

- **Information on basic physical and chemical properties**
- **General Information**
- **Appearance:**

<b>Form:</b>	Fluid
<b>Colour:</b>	olivegelblich / olive-yellow
- **Odour:** Characteristic
- **Odour threshold:** Not determined.
- **pH-value:** Not determined.
- **Change in condition**

<b>Melting point/Melting range:</b>	Undetermined.
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<u>Boiling point/Boiling range:</u>	176°C
· <u>Flash point:</u>	51°C
· <u>Ignition temperature:</u>	210°C
· <u>Decomposition temperature:</u>	Not determined.
· <u>Self-igniting:</u>	Product is not selfigniting.
· <u>Danger of explosion:</u>	Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
· <u>Explosion limits:</u>	
<u>Lower:</u>	0.5 Vol %
<u>Upper:</u>	6.5 Vol %
· <u>Vapour pressure at 20°C:</u>	2 hPa
· <u>Density at 20°C:</u>	0.85 g/cm <sup>3</sup>
· <u>Relative density</u>	Not determined.
· <u>Vapour density</u>	Not determined.
· <u>Evaporation rate</u>	Not determined.
· <u>Solubility in / Miscibility with water:</u>	Not miscible or difficult to mix.
· <u>Segregation coefficient (n-octanol/water):</u>	Not determined.
· <u>Viscosity:</u>	
<u>Dynamic at 20°C:</u>	50 mPas
<u>Kinematic:</u>	Not determined.
· <u>Solvent content:</u>	
<u>Organic solvents:</u>	0.1 %
<u>VOC (EC)</u>	0.05 %
<u>Solids content:</u>	39.9 %
· <u>Other information</u>	No further relevant information available.

## 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 No further relevant information available.
- Incompatible materials: Starke Oxidationsmittel/strong oxidising agent
- Hazardous decomposition products: Carbon monoxide and carbon dioxide

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### **11 Toxicological information**

- **Information on toxicological effects**
- **Acute toxicity:**
- **Primary irritant effect:**
- **on the skin:**  
Bei längeren und/oder häufigem Hautkontakt sind Reizerscheinungen möglich.  
Prolonged skin contact will result in defatting of the skin, leading to irritation, and in some cases, dermatitis.
- **on the eye:** No irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**  
Inhalation of concentrated vapours as well as oral intake will lead to anaesthesia-like conditions and headache, dizziness, etc.

### **12 Ecological information**

- **Toxicity**
- **Acquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behaviour in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**  
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 Disposal considerations**

- **Waste treatment methods**
- **Recommendation**  
Must be specially treated adhering to official regulations.  
Must not be disposed together with household garbage. Do not allow product to reach sewage system.
- **European waste catalogue**  
20 01 26\* oil and fat other than those mentioned in 20 01 25  
20 01 40 metals
- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

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## 14 Transport information

### · Land transport ADR/RID (cross-border)



- **ADR/RID class:** 3 Flammable liquids.
- **Danger code (Kemler):** 30
- **UN-Number:** 1268
- **Packaging group:** III
- **Hazard label:** 3
- **UN proper shipping name:** 1268 PETROLEUM DISTILLATES, N.O.S.
- **Tunnel restriction code** D/E
- **Remarks:** solvent naphtha

### · Maritime transport IMDG:



- **IMDG Class:** 3
- **UN Number:** 1268
- **Label** 3
- **Packaging group:** III
- **EMS Number:** F-E,S-E
- **Marine pollutant:** No
- **Proper shipping name:** PETROLEUM DISTILLATES, N.O.S.
- **Remarks:** solvent naphtha

### · Air transport ICAO-TI and IATA-DGR:



- **ICAO/IATA Class:** 3
- **UN/ID Number:** 1268
- **Label** 3
- **Packaging group:** III
- **Proper shipping name:** PETROLEUM DISTILLATES, N.O.S.
- **Remarks:** solvent naphtha
- **UN "Model Regulation":** UN1268, PETROLEUM DISTILLATES, N.O.S., 3, III
- **Special precautions for user** Warning: Flammable liquids.
- **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** Not applicable.

## 15 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.

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- **Risk phrases:**
  - 10 Flammable.
  - 66 Repeated exposure may cause skin dryness or cracking.
- **Safety phrases:**
  - 2 Keep out of the reach of children.
  - 16 Keep away from sources of ignition - No smoking.
  - 23 Do not breathe fumes/aerosol.
  - 29/56 Do not empty into drains, dispose of this material and its container at hazardous or special waste collection point.
  - 46 If swallowed, seek medical advice immediately and show this container or label.
  - 51 Use only in well-ventilated areas.
- **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.

- **Relevant phrases**
  - H304 May be fatal if swallowed and enters airways.
  - H319 Causes serious eye irritation.
  - R36 Irritating to eyes.
  - R65 Harmful: may cause lung damage if swallowed.
  - R66 Repeated exposure may cause skin dryness or cracking.
- **Department issuing MSDS:** Abteilung Produktsicherheit
- **Contact:** siehe Seite 1 / see page 1
- **Abbreviations and acronyms:**
  - ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
  - RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
  - IMDG: International Maritime Code for Dangerous Goods
  - IATA: International Air Transport Association
  - IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)
  - ICAO: International Civil Aviation Organization
  - ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)
  - GHS: Globally Harmonized System of Classification and Labelling of Chemicals
  - VOC: Volatile Organic Compounds (USA, EU)