

**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® IX 50 - Spray****· 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. Aerosol 1 H222 Extremely flammable aerosol.

Aquatic Chronic 4 H413 May cause long lasting harmful effects to aquatic life.

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

Xi; Irritant

R38: Irritating to skin.



F+; Extremely flammable

R12: Extremely flammable.



N; Dangerous for the environment

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R51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

• **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.

Warning! Pressurized container.

• **Classification system:**

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

• **Label elements**

• **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:**



Xi Irritant  
F+ Extremely flammable  
N Dangerous for the environment

• **Hazard-determining components of labelling:**

Naphtha (petroleum), hydrodesulfurized light dearomatized  
Naphtha (petroleum), hydrotreated light

• **Risk phrases:**

12 Extremely flammable.

38 Irritating to skin.

51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

• **Safety phrases:**

2 Keep out of the reach of children.

16 Keep away from sources of ignition - No smoking.

23 Do not breathe aerosol.

29/56 Do not empty into drains, dispose of this material and its container at hazardous or special waste collection point.

38 In case of insufficient ventilation, wear suitable respiratory equipment.

45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

51 Use only in well-ventilated areas.

• **Special labelling of certain preparations:**

Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C.

Do not pierce or burn, even after use.

Do not spray on a naked flame or any incandescent material.

Buildup of explosive mixtures possible without sufficient ventilation.

• **Classification in accordance with Directive 75/324/EEC:** Extremely flammable

• **Other hazards**

• **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.

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#### · **Dangerous components:**

CAS: 92045-53-9	Naphtha (petroleum), hydrodesulfurized light dearomatized	25-50%
EINECS: 295-434-2	☒ Xn R65 ⚠ Asp. Tox. 1, H304	
CAS: 64742-49-0	Naphtha (petroleum), hydrotreated light	2.5-10%
EINECS: 265-151-9	☒ Xn R65 ⚠ Asp. Tox. 1, H304	
CAS: 64742-47-8	Distillates (petroleum), hydrotreated light	2.5-10%
EINECS: 265-149-8	☒ Xn R65 R66 ⚠ Asp. Tox. 1, H304	
CAS: 5131-66-8	3-butoxypropan-2-ol	2.5-10%
EINECS: 225-878-4	☒ Xi R36/38 ⚠ Skin Irrit. 2, H315; Eye Irrit. 2, H319	
CAS: 124-38-9	carbon dioxide	2.5-10%
EINECS: 204-696-9	⚠ Press. Gas, H280	

- **Additional information:** For the wording of the listed risk phrases refer to section 16.

## 4 First aid measures

#### · **Description of first aid measures**

- **General information:** Seek medical treatment.

#### · **After inhalation:**

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

- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.

- **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**

Nausea

Headache

Dizziness

#### · **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>, 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**

Wear protective equipment. Keep unprotected persons away.

#### · **Environmental precautions:**

Do not allow product to reach sewage system or any water course.

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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:**

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**

Store in cool, dry place in tightly closed receptacles.

Ensure good ventilation/exhaustion at the workplace.

Open and handle receptacle with care.

· **Information about fire - and explosion protection:**

Do not spray onto a naked flame or any incandescent material.

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C, i.e. electric lights. Do not pierce or burn, even after use.

· **Conditions for safe storage, including any incompatibilities**

· **Storage:**

· **Requirements to be met by storerooms and receptacles:**

Store only in the original receptacle.

Store in a cool location.

Observe official regulations on storing packagings with pressurized containers.

· **Information about storage in one common storage facility:**

Store away from foodstuffs.

Store away from oxidizing agents.

· **Further information about storage conditions:**

Store in a cool place. Heat will increase pressure and may lead to the receptacle bursting.

Keep container tightly sealed.

Do not seal receptacle gas tight.

Store in cool, dry conditions in well sealed receptacles.

Protect from heat and direct sunlight.

· **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.

· **Control parameters**

· **Ingredients with limit values that require monitoring at the workplace:**

**124-38-9 carbon dioxide**

WEL (Great Britain) Short-term value: 27400 mg/m<sup>3</sup>, 15000 ppm

Long-term value: 9150 mg/m<sup>3</sup>, 5000 ppm

NES (Australia) Short-term value: 54000 mg/m<sup>3</sup>, 30000 ppm

Long-term value: 9000 mg/m<sup>3</sup>, 5000 ppm

WES (New Zealand) Short-term value: 54000 mg/m<sup>3</sup>, 30000 ppm

Long-term value: 9000 mg/m<sup>3</sup>, 5000 ppm

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- **Additional information:** The lists valid during the making were used as basis.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**  
Keep away from foodstuffs, beverages and feed.  
Immediately remove all soiled and contaminated clothing  
Wash hands before breaks and at the end of work.  
Do not inhale gases / fumes / aerosols.  
Avoid contact with the skin.  
Avoid contact with the eyes and skin.
- **Respiratory protection:** Filter AX
- **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**  
Nitrile rubber, NBR  
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><u>Form:</u></b>	Aerosol
<b><u>Colour:</u></b>	Clear
- **Odour:** Characteristic
- **Odour threshold:** Not determined.
- **pH-value:** Not determined.
- **Change in condition**

<b><u>Melting point/Melting range:</u></b>	Undetermined.
<b><u>Boiling point/Boiling range:</u></b>	170°C

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- **Flash point:** < 0°C
- **Ignition temperature:** 210°C
- **Decomposition temperature:** Not determined.
- **Self-igniting:** Product is not selfigniting.
- **Danger of explosion:** Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
  
- **Explosion limits:**
  - Lower:** 0.5 Vol %
  - Upper:** 6.5 Vol %
- **Vapour pressure:** Not determined.
- **Density at 20°C:** 0.838 g/cm<sup>3</sup>
- **Relative density:** Not determined.
- **Vapour density:** Not determined.
- **Evaporation rate:** Not applicable.
- **Solubility in / Miscibility with water:** Not miscible or difficult to mix.
- **Segregation coefficient (n-octanol/water):** Not determined.
- **Viscosity:**
  - Dynamic:** Not determined.
  - Kinematic:** Not determined.
- **Solvent content:**
  - Organic solvents:** 40.1 %
  - VOC (EC)** 40.05 %
  - Solids content:** 3.0 %
- **Other information** 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** Danger of bursting.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** Carbon monoxide and carbon dioxide

## 11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**
- **Primary irritant effect:**
  - on the skin:** Irritant to skin and mucous membranes.
  - on the eye:** No irritating effect.
- **Sensitization:** No sensitizing effects known.

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- **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:  
Irritant

## 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.
- **Ecotoxicological effects:**
- **Remark:** Toxic for fish
- **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.  
Also poisonous for fish and plankton in water bodies.  
Toxic for aquatic organisms
- **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 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.

## 14 Transport information

- **Land transport ADR/RID (cross-border)**



- **ADR/RID class:** 2 5F Gases.
- **Danger code (Kemler):** -
- **UN-Number:** 1950

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- **Packaging group:** -
- **Hazard label:** 2.1
- **Special marking:** Symbol (fish and tree)
- **UN proper shipping name:** 1950 AEROSOLS
- **Tunnel restriction code** D

- **Maritime transport IMDG:**



- **IMDG Class:** 2.1
- **UN Number:** 1950
- **Label:** 2.1
- **Packaging group:** -
- **EMS Number:** F-D,S-U
- **Marine pollutant:** Yes  
Symbol (fish and tree)
- **Proper shipping name:** AEROSOLS
- **Air transport ICAO-TI and IATA-DGR:**



- **ICAO/IATA Class:** 2.1
- **UN/ID Number:** 1950
- **Label:** 2.1
- **Packaging group:** -
- **Proper shipping name:** AEROSOLS, flammable
- **UN "Model Regulation":** UN1950, AEROSOLS, 2.1
- **Special precautions for user** Warning: Gases.
- **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.
- **Code letter and hazard designation of product:**



Xi Irritant  
F+ Extremely flammable  
N Dangerous for the environment

- **Hazard-determining components of labelling:**  
Naphtha (petroleum), hydrodesulfurized light dearomatized  
Naphtha (petroleum), hydrotreated light
- **Risk phrases:**  
12 Extremely flammable.

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- 38 Irritating to skin.  
51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**• Safety phrases:**

- 2 Keep out of the reach of children.  
16 Keep away from sources of ignition - No smoking.  
23 Do not breathe aerosol.  
29/56 Do not empty into drains, dispose of this material and its container at hazardous or special waste collection point.  
38 In case of insufficient ventilation, wear suitable respiratory equipment.  
45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).  
51 Use only in well-ventilated areas.

**• Special labelling of certain preparations:**

- Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C.  
Do not pierce or burn, even after use.  
Do not spray on a naked flame or any incandescent material.  
Buildup of explosive mixtures possible without sufficient ventilation.

**• Classification in accordance with Directive 75/324/EEC:** Extremely flammable**• 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**

- H280 Contains gas under pressure; may explode if heated.  
H304 May be fatal if swallowed and enters airways.  
H315 Causes skin irritation.  
H319 Causes serious eye irritation.  
R36/38 Irritating to eyes and skin.  
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)