

EU Material Safety Data Sheet

According to 91/155 EC & 93/112 EWG

Printing date 21.01.2003

Reviewed on 21.01.2003

1 Identification of substance:

- **Product details:**

- **Trade name:** BRUNOX Epoxy Spray

- **Application of the substance / the preparation:**

Priming

Anticorrosion additive

- **Manufacturer/Supplier:**

BRUNOX AG

Etzelstrasse 4

CH-8730 Uznach

Tel: +41-055-285 80 80

Fax: +41-055-285 80 81

- **Informing department:** Product safety department

- **Emergency information:**

Toxic and Informations center Zürich

CH 8030 Zürich 0041-01-251 51 51

Distributor in New Zealand

R A Johnstone & Co Ltd

739 Great South Road, Otahuhu

PO Box 97 948 SAMC Manukau 2240

Auckland. New Zealand

Tel: + 64 9 261 0333

Fax: + 64 9 261 0330

www.raj.co.nz









Emergency telephone in New Zealand(24 hours) National Poison Center : 0800 POISON [764 766]
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2 Composition/Data on components:

- **Chemical characterization**

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

- **components:**

CAS: 67-64-1 EINECS: 200-662-2	acetone	 Xi,  F; R 11-36-66-67	25-50%
CAS: 107-98-2 EINECS: 203-539-1	1-methoxypropan-2-ol	R 10	2.5-10%
CAS: 108-10-1 EINECS: 203-550-1	4-methylpentan-2-one	 Xn,  F; R 11-20-36/37-66	2.5-10%
CAS: 67-63-0 EINECS: 200-661-7	propan-2-ol	 Xi,  F; R 11-36-67	2.5-10%
CAS: 124-38-9 EINECS: 204-696-9	carbon dioxide		2.5-10%
CAS: 112-34-5 EINECS: 203-961-6	2-(2-butoxyethoxy)ethanol	 Xi; R 36	2.5-10%
CAS: 64-18-6 EINECS: 200-579-1	formic acid	 C; R 35	< 2.5%

3 Hazards identification

- **Hazard designation:**



Xi Irritant
F Highly flammable



- **Information pertaining to particular dangers for man and environment**

The marking is valid for all pressurized container up to 50ml carrying capacity.

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.

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Trade name: BRUNOX Epoxy Spray

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Warning! Pressurized container.

Has a narcotizing effect.

R 11 Highly flammable.

R 36 Irritating to eyes.

R 67 Vapours may cause drowsiness and dizziness.

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. Keep away from sources of ignition -

No smoking.

Keep out of the reach of children

· **Classification system**

The classification is in line with current EC lists. It is expanded, however, by information from technical literature and by information furnished by supplier companies.

4 First aid measures

- **General information** Instantly remove any clothing soiled by the product.
- **After inhalation** Supply fresh air; consult doctor in case of symptoms.
- **After skin contact** Instantly wash with water and soap and rinse thoroughly.
- **After eye contact**
Rinse opened eye for several minutes under running water. If symptoms persist, consult doctor.
- **After swallowing** In case of persistent symptoms consult doctor.

5 Fire fighting measures

- **Suitable extinguishing agents**
CO₂, extinguishing powder or water jet. Fight larger fire with alcohol-resistant foam.
- **For safety reasons unsuitable extinguishing agents**
Water.
Water with a full water jet.
- **Special hazards caused by the material, its products of combustion or resulting gases:**
Formation of toxic gases is possible during heating or in case of fire.
- **Protective equipment:**
Do not inhale explosion gases or combustion gases.
Put on breathing apparatus.
- **Additional information** Cool endangered containers with water spray jet.

6 Accidental release measures

- **Person-related safety precautions:** Wear protective equipment. Keep unprotected persons away.
- **Measures for environmental protection:**
Inform respective authorities in case product reaches water or sewage system.
Do not allow to enter drainage system, surface or ground water.
- **Measures for cleaning/collecting:**
Ensure adequate ventilation.
Do not flush with water or aqueous cleansing agents
Absorb liquid components with liquid-binding material.

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7 Handling and storage

- **Handling**
- **Information for safe handling:** Store in cool, dry place in tightly closed containers.
- **Information about protection against explosions and fires:**
 - Do not spray on flames or red-hot objects.
 - Keep ignition sources away - Do not smoke.
 - Protect against electrostatic charges.
 - Beware: Container is pressurized. Keep away from direct sun exposure and temperatures over 50°C. Do not open by force or throw into fire even after use.
- **Storage**
- **Requirements to be met by storerooms and containers:**
 - Store in cool location.
 - Store only in the original container.
 - Observe official regulations on storing packagings with pressurized containers.
- **Information about storage in one common storage facility:** Store away from foodstuffs.
- **Further information about storage conditions:**
 - Store in cool, dry conditions in well sealed containers.

8 Exposure controls and personal protection

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

- **Components with limit values that require monitoring at the workplace:**

67-64-1 acetone

OES (Great Britain)	Short-term value: 3620 mg/m ³ , 1500 ppm Long-term value: 1810 mg/m ³ , 750 ppm
TLV (European Union)	Long-term value: 1210 mg/m ³ , 500 ppm

107-98-2 1-methoxypropan-2-ol

OES (Great Britain)	Short-term value: 1120 mg/m ³ , 300 ppm Long-term value: 375 mg/m ³ , 100 ppm Sk
TLV (European Union)	Short-term value: 568 mg/m ³ , 150 ppm Long-term value: 375 mg/m ³ , 100 ppm Skin

108-10-1 4-methylpentan-2-one

OES (Great Britain)	Short-term value: 416 mg/m ³ , 100 ppm Long-term value: 208 mg/m ³ , 50 ppm Sk Bmg
TLV (European Union)	Short-term value: 208 mg/m ³ , 50 ppm Long-term value: 83 mg/m ³ , 20 ppm

67-63-0 propan-2-ol

OES (Great Britain)	Short-term value: 1250 mg/m ³ , 500 ppm Long-term value: 999 mg/m ³ , 400 ppm
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64-18-6 formic acid

OES (Great Britain)	Long-term value: 9.6 mg/m ³ , 5 ppm ILV
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- **Additional information:** The lists that were valid during the compilation were used as basis.
- **Personal protective equipment**
- **General protective and hygienic measures**
 - Keep away from foodstuffs, beverages and food.

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Take off immediately all contaminated clothing

Wash hands during breaks and at the end of the work.

Avoid contact with the eyes and skin.

· **Breathing equipment:** Use breathing protection in case of insufficient ventilation.

· **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 safety glasses.

9 Physical and chemical properties:

· General Information

Form:	Aerosol
Colour:	According to product specification
Odour:	Characteristic

· Change in condition

Melting point/Melting range: Not determined

Boiling point/Boiling range: -78°C

· **Flash point:** 10°C

· **Ignition temperature:** 270°C

· **Self-inflammability:** Product is not self igniting.

· **Danger of explosion:** Product is not explosive. However, formation of explosive air/ steam mixtures is possible.

· Critical values for explosion:

Lower: 2.2 Vol %

Upper: 12.8 Vol %

· **Vapour pressure at 20°C:** 240 hPa

· **Density at 20°C** 0.837 g/cm³

· Solubility in / Miscibility with

Water: Not miscible or difficult to mix

· Solvent content:

Organic solvents: 68.8 %

Water: 17.0 %

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· Solids content:	0.8 %
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10 Stability and reactivity

- **Thermal decomposition/ Conditions to be avoided:** Protect from heat and direct sunlight.
- **Dangerous reactions** no dangerous reactions known
- **Dangerous products of decomposition:** none

11 Toxicological information

- **Acute toxicity:**
- **LD/LC50 values that are relevant for classification:** no data available.
- **Primary irritant effect:**
- **on the skin:** Frequent and/ or presistent contact with skin may cause skin irritation.
- **on the eye:** Irritant effect.
- **Sensitization:** No sensitizing effect known.
- **Additional toxicological information:**
The product shows the following dangers according to the calculation method of the General EC Classification Guidelines for Preparations as issued in the latest version:
Irritant

12 Ecological information:

- **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 bodies or sewage system.

13 Disposal considerations

- **Product:**
- **Recommendation**
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
Hand over to disposers of hazardous waste.

· European waste catalogue

16 05 04	gases in pressure containers (including halons) containing dangerous substances
20 01 27	paint, inks, adhesives and resins containing dangerous substances

- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

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14 Transport information

- Land transport ADR/RID (cross-border)



- ADR/RID-GGVS/E Class: 2.5F Gases.
- Kemler Number: 23
- UN-Number: 1950
- Packaging group: -
- Label: 2.1
- Designation of goods: Aerosols

- Maritime transport IMDG:



- IMDG Class: 2.1
- UN Number: 1950
- Label: 2.1
- Packaging group: -
- EMS Number: F-D,S-U
- Marine pollutant: No
- Correct technical name: AEROSOLS

- Air transport ICAO-TI and IATA-DGR:



- ICAO/IATA Class: 2.1
- UN/ID Number: 1950
- Label: 2.1
- Packaging group: -
- Correct technical name: AEROSOLS, flammable

15 Regulatory information

- Designation according to EC guidelines:

The product has been classified and labelled in accordance with EC Directives / Ordinance on Hazardous Materials (GefStoffV)

- Code letter and hazard designation of product:



Xi Irritant
F Highly flammable

- Risk phrases:

11 Highly flammable.
36 Irritating to eyes.

The HSNO Approval Number for this Group Standard is HSR002515.

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67 Vapours may cause drowsiness and dizziness.

- **Safety phrases:**

- 3 Keep in a cool place.
- 9 Keep container in a well-ventilated place.
- 16 Keep away from sources of ignition - No smoking.
- 24/25 Avoid contact with skin and eyes.
- 29/56 Do not empty into drains, dispose of this material and its container at hazardous or special waste collection point.
- 33 Take precautionary measures against static discharges.
- 43 In case of fire, use sand, carbon dioxide or powdered extinguishing agent. Never use water.
- 46 If swallowed, seek medical advice immediately and show this container or label.
- 51 Use only in well-ventilated areas.

- **Special designation 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. Keep away from sources of ignition - No smoking.
Keep out of the reach of children

- **National regulations**

- **Technical instructions (air):**

Class	Share in %
Wasser	10-25
I	< 2,5
II	2,5-10
III	50-100

- **Water hazard class:** Water hazard class 1 (Self-assessment): slightly hazardous for water.

16 Other information:

Information is based on our current knowledge but does not establish a promise of product characteristics and does not substantiate any contractual legal relationship.

- **Relevant R-phrases**

- 10 Flammable.
- 11 Highly flammable.
- 20 Harmful by inhalation.
- 35 Causes severe burns.
- 36 Irritating to eyes.
- 36/37 Irritating to eyes and respiratory system.
- 66 Repeated exposure may cause skin dryness or cracking.
- 67 Vapours may cause drowsiness and dizziness.

- **Contact:** BRUNOX AG Frau Dr. B. Lieberherr

- * **Data compared to the previous version altered.**

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