

Material Safety Data Sheet
acc. to ISO/DIS 11014

Printing date 11/30/2010

Reviewed on 11/30/2010

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

- **Product identifier**
- **Trade name:** BRUNOX® Turbo-Spray - Spray
- **Relevant identified uses of the substance or mixture and uses advised against**
- **Application of the substance / the preparation**
Cleaning, Lubrication, Anticorrosion, Polishing, Maintenance, Penetrating oil, Contact Spray
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
BRUNOX Korrosionsschutz GmbH
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85001 Ingolstadt

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2 Composition/information on ingredients

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

64742-47-8 Distillates (petroleum), hydrotreated light	50-100%
⚠ H304	
64742-56-9 Distillates (petroleum), solvent-dewaxed light paraffinic	10-25%
68608-26-4 sulfonic acids, petroleum, sodium salts	2.5-10%
⚠ H319	
124-38-9 carbon dioxide	2.5-10%
⚠ H280	

3 Hazards identification

- **Classification of the substance or mixture**



GHS02 Flame

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H222 Extremely flammable aerosol.

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

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 international guidelines.

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

Warning! Pressurized container.

Classification system:

The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.

Label elements**Labelling according to EU guidelines:**

Observe the general safety regulations when handling chemicals.

The product has been classified and marked in accordance with directives on hazardous materials.

Code letter and hazard designation of product:

Flammable

Risk phrases:

Repeated exposure may cause skin dryness or cracking.

Safety phrases:

Keep out of the reach of children.

Keep away from sources of ignition - No smoking.

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

If swallowed, seek medical advice immediately and show this container or label.

Use only in well-ventilated areas.

Special labelling of certain preparations:

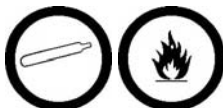
Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C, i.e. electric lights. Do not pierce or burn, even after use.

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

Classification in accordance with Directive 75/324/EEC: Flammable**Hazard description:****WHMIS-symbols:**

A - Compressed gas

B5 - Flammable aerosol

**Classification system:****NFPA ratings (scale 0 - 4)**

Health = 0

Fire = 3

Reactivity = 1

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· HMIS-ratings (scale 0 - 4)

HEALTH	0	Health = 0
FIRE	3	Fire = 3
REACTIVITY	1	Reactivity = 1

- Other hazards
- Results of PBT and vPvB assessment
- PBT: Not applicable.
- vPvB: Not applicable.

4 First aid measures

- Description of first aid measures
- General information: Seek medical treatment.
- 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
Nausea
Headache
Dizziness
- Indication of any immediate medical attention and special treatment needed
If swallowed or in case of vomiting, danger of entering the lungs.

5 Firefighting measures

- Extinguishing media
- Suitable extinguishing agents:
CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- Special hazards arising from the substance or mixture
In case of fire, the following can be released:
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
Keep away from ignition sources
Wear protective equipment. Keep unprotected persons away.
- Environmental precautions:
Do not allow to penetrate the ground/soil.
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: Ensure adequate ventilation.

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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** Use only in well ventilated areas.
- **Information about protection against explosions and fires:**
Do not spray on a naked flame or any incandescent material.
Keep ignition sources away - Do not smoke.
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.
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.
Store under lock and key and out of the reach of children.
Keep receptacle tightly sealed.
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Control parameters**
- **Components with limit values that require monitoring at the workplace:**
64742-47-8 Distillates (petroleum), hydrotreated light
EL 200 mg/m³
Skin
- 124-38-9 carbon dioxide**
EL Short-term value: 15000 ppm
Long-term value: 5000 ppm
EV Short-term value: 54.000 mg/m³, 30.000 ppm
Long-term value: 9.000 mg/m³, 5.000 ppm
- **Additional information:** The lists that were valid during the creation were used as basis.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:** Wash hands before breaks and at the end of work.
- **Breathing equipment:** Filter A/P2
- **Protection of hands:**
Use gloves of stable material (e.g. Nitrile) - if necessary tricoted to improve the wearability.
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

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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:** Not required.

9 Physical and chemical properties

- **Information on basic physical and chemical properties**

- **General Information**

- **Appearance:**

Form:

Aerosol

Color:

Clear

- **Odor:**

Characteristic

- **Odour threshold:**

Not determined.

- **pH-value:**

Not determined.

- **Change in condition**

Melting point/Melting range:

-60°C

Boiling point/Boiling range:

175°C

- **Flash point:**

78°C

- **Ignition temperature:**

210°C

- **Decomposition temperature:**

Not determined.

- **Auto igniting:**

Product is not selfigniting.

- **Danger of explosion:**

Not determined.

- **Explosion limits:**

Lower:

0.5 Vol %

Upper:

6.5 Vol %

- **Vapor pressure at 20°C:**

2 hPa

- **Density at 20°C:**

0.83 g/cm³

- **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 at 20°C:

4 mPas

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<u>Kinematic:</u>	Not determined.
· <u>Solvent content:</u>	
<u>Organic solvents:</u>	0.5 %
<u>Solids content:</u>	2.0 %
· <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** Danger of bursting.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** Starke Oxidationsmittel/strong oxidising agent
- **Hazardous decomposition products:**
Carbon monoxide
Carbon dioxide

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.

12 Ecological information

- **Toxicity**
- **Acquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behavior 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 (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.

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13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**
Must be specially treated adhering to official regulations.
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

- **DOT regulations:**



- **Hazard class:** 2.1
- **Identification number:** UN1950
- **Packing group:** -
- **Proper shipping name (technical name):** AÉROSOLS, flammable
- **Label:** 2.1

- **TDG (Transport dangerous goods):**



- **TDG class:** 2 5F Gases
- **Danger code (Kemler):** -
- **UN-Number:** 1950
- **Packaging group:** -
- **Label:** 2.1
- **UN proper shipping name:** 1950 AEROSOLS

- **Maritime transport IMDG:**



- **IMDG Class:** 2.1
- **UN Number:** 1950
- **Label:** 2.1
- **Packaging group:** -
- **EMS Number:** F-D,S-U
- **Marine pollutant:** NEIN
No

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· **Propper shipping name:** AEROSOLS

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



- **ICAO/IATA Class:** 2.1
- **UN/ID Number:** 1950
- **Label:** 2.1
- **Packaging group:** -
- **Propper 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**
- **Sara**
- **Section 355 (extremely hazardous substances):**
None of the ingredients is listed.
- **Section 313 (Specific toxic chemical listings):**
None of the ingredients is listed.
- **TSCA (Toxic Substances Control Act):**
All ingredients are listed.
- **Proposition 65**
- **Chemicals known to cause cancer:**
None of the ingredients is listed.
- **Chemicals known to cause reproductive toxicity for females:**
None of the ingredients is listed.
- **Chemicals known to cause reproductive toxicity for males:**
None of the ingredients is listed.
- **Chemicals known to cause developmental toxicity:**
None of the ingredients is listed.
- **Carcinogenic categories**
- **EPA (Environmental Protection Agency)**
None of the ingredients is listed.
- **IARC (International Agency for Research on Cancer)**
None of the ingredients is listed.
- **NTP (National Toxicology Program)**
None of the ingredients is listed.
- **TLV (Threshold Limit Value established by ACGIH)**
None of the ingredients is listed.

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- **NIOSH-Ca (National Institute for Occupational Safety and Health)**
None of the ingredients is listed.
- **OSHA-Ca (Occupational Safety & Health Administration)**
None of the ingredients is listed.
- **Canadian substance listings:**
- **Canadian Domestic Substances List (DSL)**
All ingredients are listed.
- **Canadian Ingredient Disclosure list (limit 0.1%)**
None of the ingredients is listed.
- **Canadian Ingredient Disclosure list (limit 1%)**
124-38-9 carbon dioxide
- **Product related hazard informations:**
Observe the general safety regulations when handling chemicals.
The product has been classified and marked in accordance with directives on hazardous materials.
- **Hazard symbols:**
 Flammable
- **Risk phrases:**
Repeated exposure may cause skin dryness or cracking.
- **Safety phrases:**
Keep out of the reach of children.
Keep away from sources of ignition - No smoking.
Do not empty into drains, dispose of this material and its container at hazardous or special waste collection point.
If swallowed, seek medical advice immediately and show this container or label.
Use only in well-ventilated areas.
- **Special labeling of certain preparations:**
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.
Do not spray on a naked flame or any incandescent material.
- **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.

- **Department issuing MSDS:** Abteilung Produktsicherheit
- **Contact:** siehe Seite 1 / see page 1
- **Abbreviations and acronyms:**
IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation
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)
ACGIH: American Conference of Governmental Industrial Hygienists
NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA)
WHMIS: Workplace Hazardous Materials Information System (Canada)