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Safety data sheet according to 1907/2006/EC, Article 31

Printing date 09.06.2020 Version number 16 Revision: 07.06.2020

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

· 1.1 Product identifier

- Trade name: BRUNOX® LUB & COR® (AEROSOL)
- 1.2 Relevant identified uses of the substance or mixture and uses advised against
- · Sector of Use
- SU3 Industrial uses: Uses of substances as such or in preparations at industrial sites
- SU21 Consumer uses: Private households / general public / consumers
- SU22 Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

· Product category

PC2 Adsorbents

PC14 Metal surface treatment products

PC24 Lubricants, greases, release products

· Process category

PROC7 Industrial spraying

PROC11 Non industrial spraying

PROC17 Lubrication at high energy conditions in metal working operations

PROC18 General greasing /lubrication at high kinetic energy conditions

· Environmental release category

ERC4 Use of non-reactive processing aid at industrial site (no inclusion into or onto article)

ERC8a Widespread use of non-reactive processing aid (no inclusion into or onto article, indoor)

ERC8d Widespread use of non-reactive processing aid (no inclusion into or onto article, outdoor)

Application of the substance / the mixture

Anticorrosion additive

Lubricant

· 1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier:

BRUNOX Korrosionsschutz GmbH Adlzreiterstrasse 13, 85051 Ingolstadt Postfach 100127, 85001 Ingolstadt

Tel. + 49/ (0) 841 961 29 04 Fax + 49/ (0) 841 961 29 13 E-mail: office@brunox.com

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BRUNOX AG Tunnelstrasse 6 CH - 8732 Neuhaus/SG

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Trade name: BRUNOX® LUB & COR® (AEROSOL)

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· Further information obtainable from:

Abteilung Produktsicherheit / Product Safety Department:

Tel. - Switzerland: +41/ (0)55 285 80 80 Tel. - Germany: +49 / (0)841 961 29 04

Mo - Do / Mon - Thu: 08:00 - 16:00 Uhr

Fr / Fri: 08:00 - 12:00 Uhr

· 1.4 Emergency telephone number:

Toxikologisches Informationszentrum CH - 8030 Zürich, Freiestrasse 16

Tel. +41/ 044 251 51 51 Notruf - CH, STIZ: 145

Notruf - D - : Giftnotrufzentrale 030 19240 EUROPÄISCHE NOTRUFNR.: 112

H222-H229 Extremely flammable aerosol. Pressurised container: May burst if

Notruf - BE -: 070 -245 245 Notruf - GB -: 844 892 0111

Notruf - IE - : + 353 1 837 9964 (medical professionals); + 353 1 809 2166 (public)

Notruf - IS - : + 354 543 22 22

Notruf - JP - : + 81 72 727 2499; + 81 29 852 9999

Notruf - NZ -: 0800 764 766

Notruf - PK -: + 92 21 9920509; + 92 21 35686535

Notruf - PH -: + 632 524 10 78; + 632 544 84 00; local 2311

Notruf - SA -: + 966 146 77 353, + 966 3 8155 646; Ext. 280, 282, 283

Notruf - TH -: + 66 201 1086 Notruf - UAE -: 800 424

Notruf - ZA -: + 27 824 910 160

SECTION 2: Hazards identification

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



Aerosol 1

GHS02 flame

heated.



GHS09 environment

Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.



Skin Irrit. 2

H315

Causes skin irritation.

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Eye Irrit. 2 H319 Causes serious eye irritation.

STOT SE 3 H336 May cause drowsiness or dizziness.

· 2.2 Label elements

· Labelling according to Regulation (EC) No 1272/2008

The product is classified and labelled according to the CLP regulation.

Hazard pictograms







GHS02 GHS07 GHS09

· Signal word Danger

· Hazard-determining components of labelling:

Naphtha (petroleum), hydrodesulfurized light dearomatized

Naphtha (petroleum), hydrotreated light

· Hazard statements

H222-H229 Extremely flammable aerosol. Pressurised container: May burst if heated.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H336 May cause drowsiness or dizziness.

H411 Toxic to aquatic life with long lasting effects.

Precautionary statements

P101 If medical advice is needed, have product container or label at hand.

P102 Keep out of reach of children.

P103 Read label before use.

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition

sources. No smoking.

P211 Do not spray on an open flame or other ignition source.

P251 Do not pierce or burn, even after use.

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P271 Use only outdoors or in a well-ventilated area.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact

lenses, if present and easy to do. Continue rinsing.

P405 Store locked up.

P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F. Dispose of contents/container in accordance with local/regional/national/

international regulations.

· 2.3 Other hazards

· Results of PBT and vPvB assessment

· <u>PBT:</u> Not applicable. · <u>vPvB:</u> Not applicable.

GF



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SECTION 3: Composition/information on ingredients

3.2 Mixtures

· Description: Mixture of substances listed below with nonhazardous additions.

· Dangerous components:

CAS: 92045-53-9 Naphtha (petroleum), hydrodesulfurized light ≥20-<25%

EINECS: 295-434-2 dearomatized

Asp. Tox. 1, H304
Aquatic Chronic 2, H411

Skin Irrit. 2, H315; STOT SE 3, H336

CAS: 64742-49-0 Naphtha (petroleum), hydrotreated light ≥20-<25%

Aquatic Chronic 2, H411

*\tilde{\infty} Skin Irrit. 2, H315; STOT SE 3, H336

CAS: 64742-47-8 Distillates (petroleum), hydrotreated light 2.5-10%

CAS: 68608-26-4 sulfonic acids, petroleum, sodium salts ≥2.5-<10%

Reg.nr.: 01-2119527859-22-XXXX 🚯 Skin Irrit. 2, H315; Eye Irrit. 2, H319

CAS: 5131-66-8 3-butoxypropan-2-ol ≥2.5-<10%

Reg.nr.: 01-2119475527-28-XXXX

CAS: 124-38-9 carbon dioxide 2.5-10%

EINECS: 204-696-9 substance with a Community workplace exposure

limit

· Additional information: For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

· 4.1 Description of first aid measures

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

After skin contact:

If skin irritation continues, consult a doctor.

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.
- · 4.2 Most important symptoms and effects, both acute and delayed

Nausea Headache Dizziness

· Hazards Danger of pneumonia.

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· 4.3 Indication of any immediate medical attention and special treatment needed

If swallowed or in case of vomiting, danger of entering the lungs.

SECTION 5: Firefighting measures

- · 5.1 Extinguishing media
- · Suitable extinguishing agents: Foam
- For safety reasons unsuitable extinguishing agents: Water with full jet
- 5.2 Special hazards arising from the substance or mixture

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

In case of fire, the following can be released:

Carbon monoxide (CO)

- 5.3 Advice for firefighters
- · Protective equipment:

Do not inhale explosion gases or combustion gases.

Wear self-contained respiratory protective device.

Wear fully protective suit.

• Additional information Cool endangered receptacles with water spray.

SECTION 6: Accidental release measures

· 6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation

Keep away from ignition sources.

Wear protective equipment. Keep unprotected persons away.

6.2 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.

• 6.3 Methods and material for containment and cleaning up: Ensure adequate ventilation.

· 6.4 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.

SECTION 7: Handling and storage

· 7.1 Precautions for safe handling

Keep away from heat and direct sunlight.

Use only in well ventilated areas.

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.

Use explosion-proof apparatus / fittings and spark-proof tools.

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Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

Pressurised 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.

· 7.2 Conditions for safe storage, including any incompatibilities

· Storage:

· Requirements to be met by storerooms and receptacles:

Store in a cool location.

Observe official regulations on storing packagings with pressurised containers.

· Information about storage in one common storage facility:

Store away from foodstuffs.

Store away from oxidising 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 container tightly sealed.

Do not seal receptacle gas tight.

Store in cool, dry conditions in well sealed receptacles.

Protect from heat and direct sunlight.

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

SECTION 8: Exposure controls/personal protection

- · Additional information about design of technical facilities: No further data; see item 7.
- · 8.1 Control parameters

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

CAS: 124-38-9 carbon dioxide

WEL (Great Britain) Short-term value: 27400 mg/m³, 15000 ppm

Long-term value: 9150 mg/m³, 5000 ppm

NES (Australia) Short-term value: 54000 mg/m³, 30000 ppm

Long-term value: 9000 22500* mg/m³, 5000 12500* ppm

*in coal mines

WES (Australia) Short-term value: 54000 mg/m³, 30000 ppm

Long-term value: 9000 *22500 mg/m³, 5000 *12500 ppm

*in coal mines

WES (New Zealand) Short-term value: 54000 mg/m³, 30000 ppm

Long-term value: 9000 mg/m³, 5000 ppm

· Additional information: The lists valid during the making were used as basis.

· 8.2 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.



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Do not inhale gases / fumes / aerosols.

Avoid contact with the skin.

Avoid contact with the eyes and skin.

Respiratory protection:

Filter A/P2 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

· Body protection: Light weight protective clothing

SECTION 9: Physical and chemical properties

- 9.1 Information on basic physical and chemical properties
- · General Information

· Appearance:

Form: Aerosol

Colour: olivegelblich / olive-yellow

Odour: CharacteristicOdour threshold: Not determined.pH-value: Not determined.

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· Change in condition

Melting point/freezing point: Undetermined. Initial boiling point and boiling range: 170 °C (338 °F)

· Flash point: Not applicable, as aerosol.

Flammability (solid, gas): Not applicable.
 Ignition temperature: 210 °C (410 °F)
 Decomposition temperature: Not determined.

· **Auto-ignition temperature:** Product is not selfigniting.

• Explosive properties: 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 (68 °F):** 0.84 g/cm³ (7.0098 lbs/gal)

Relative density
 Vapour density
 Evaporation rate
 Not determined.
 Not applicable.

· Solubility in / Miscibility with

water: Not miscible or difficult to mix.

· Partition coefficient: n-octanol/water: Not determined.

· Viscosity:

Dynamic: Not determined. **Kinematic:** Not determined.

· Solvent content:

 Organic solvents:
 48.0 %

 VOC (EC)
 0.00 %

 Solids content:
 3.0 %

• **9.2 Other information** No further relevant information available.

SECTION 10: Stability and reactivity

- · 10.1 Reactivity No further relevant information available.
- · 10.2 Chemical stability
- · Thermal decomposition / conditions to be avoided:

No decomposition if used according to specifications.

- · 10.3 Possibility of hazardous reactions Danger of bursting.
- 10.4 Conditions to avoid No further relevant information available.

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- **10.5 Incompatible materials:** No further relevant information available.
- · 10.6 Hazardous decomposition products: Carbon monoxide and carbon dioxide

SECTION 11: Toxicological information

- · 11.1 Information on toxicological effects
- · Acute toxicity Based on available data, the classification criteria are not met.
- · LD/LC50 values relevant for classification:

ATE (Acute Toxicity Estimates)

Inhalative LC50/4 h >68.2 mg/l (rat)

CAS: 5131-66-8 3-butoxypropan-2-ol

Oral LD50 3,300 mg/kg (rat)

Dermal LD50 >2,000 mg/kg (rabbit)

Inhalative LC50/4 h >3.41 mg/l (rat)

- · Primary irritant effect:
- Skin corrosion/irritation

Causes skin irritation.

· Serious eye damage/irritation

Causes serious eye irritation.

- Respiratory or skin sensitisation Based on available data, the classification criteria are not met.
- · CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)
- · Germ cell mutagenicity Based on available data, the classification criteria are not met.
- · Carcinogenicity Based on available data, the classification criteria are not met.
- Reproductive toxicity Based on available data, the classification criteria are not met.
- · STOT-single exposure

May cause drowsiness or dizziness.

- · STOT-repeated exposure Based on available data, the classification criteria are not met.
- · Aspiration hazard Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

- · 12.1 Toxicity
- · Aquatic toxicity:

CAS: 5131-66-8 3-butoxypropan-2-ol

LC50/96 h 560-1,000 mg/l (Poecilia reticulata (Guppy))

EC50/48h >1,000 mg/l (daphnia)

- · 12.2 Persistence and degradability No further relevant information available.
- · 12.3 Bioaccumulative potential No further relevant information available.
- · 12.4 Mobility in soil No further relevant information available.
- · Ecotoxical effects:
- · Remark: Toxic for fish

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- · Additional ecological information:
- · General notes:

Also poisonous for fish and plankton in water bodies.

Toxic for aquatic organisms

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.

- · 12.5 Results of PBT and vPvB assessment
- · PBT: Not applicable.
- · vPvB: Not applicable.
- · 12.6 Other adverse effects No further relevant information available.

SECTION 13: Disposal considerations

- · 13.1 Waste treatment methods
- · Recommendation

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

- European waste catalogue
- HP 3 Flammable
- HP 4 Irritant skin irritation and eye damage
- HP 5 Specific Target Organ Toxicity (STOT)/Aspiration Toxicity
- HP 14 Ecotoxic
- Uncleaned packaging:
- Recommendation: Disposal must be made according to official regulations.

SECTION 14: Transport information

· 14.1 UN-Number

· ADR/RID/ADN, IMDG, IATA UN1950

· 14.2 UN proper shipping name

· <u>ADR/RID/ADN</u> 1950 AEROSOLS, ENVIRONMENTALLY

HAZARDOUS

· IMDG AEROSOLS, MARINE POLLUTANT

· <u>IATA</u> AEROSOLS, flammable

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· 14.3 Transport hazard class(es)

· ADR/RID/ADN



· <u>Class</u> 2 5F Gases.

· Label 2.1

·IMDG



· Class
 · Label
 2.1
 2.1

·IATA



• <u>Class</u> 2.1 • Label 2.1

· 14.4 Packing group

· ADR/RID/ADN, IMDG, IATA Void

· 14.5 Environmental hazards:

· Marine pollutant: Yes

Symbol (fish and tree)
Special marking (ADR/RID/ADN):
Symbol (fish and tree)

· 14.6 Special precautions for user

Danger code (Kemler):

• EMS Number: F-D,S-U

• Stowage Code SW1 Protected from sources of heat.

Warning: Gases.

SW22 For AEROSOLS with a maximum capacity of 1 litre: Category A. For AEROSOLS with a capacity above 1 litre: Category B. For WASTE AEROSOLS: Category C, Clear of living quarters.

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• Segregation Code SG69 For AEROSOLS with a maximum capacity of

1 litre: Segregation as for class 9. Stow "separated

from" class 1 except for division 1.4. For AEROSOLS with a capacity above 1 litre:

Segregation as for the appropriate subdivision of class 2. For WASTE AEROSOLS: Segregation as

for the appropriate subdivision of class 2.

· 14.7 Transport in bulk according to Annex II

of Marpol and the IBC Code Not applicable.

· Transport/Additional information:

· ADR/RID/ADN

Limited quantities (LQ)

· Excepted quantities (EQ) Code: E0

Not permitted as Excepted Quantity

Transport category 2
Tunnel restriction code

IMDG

Limited quantities (LQ)

· Excepted quantities (EQ) Code: E0

Not permitted as Excepted Quantity

· UN "Model Regulation": UN 1950 AEROSOLS, 2.1, ENVIRONMENTALLY

HAZARDOUS

SECTION 15: Regulatory information

- · 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- · Directive 2012/18/EU
- · Named dangerous substances ANNEX I None of the ingredients is listed.
- Seveso category

E2 Hazardous to the Aquatic Environment

P3b FLAMMABLE AEROSOLS

- · Qualifying quantity (tonnes) for the application of lower-tier requirements 200 t
- · Qualifying quantity (tonnes) for the application of upper-tier requirements 500 t
- · REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3
- · 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 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.

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· Relevant phrases

H225 Highly flammable liquid and vapour.

H226 Flammable liquid and vapour.

H304 May be fatal if swallowed and enters airways.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H336 May cause drowsiness or dizziness.

H411 Toxic to aquatic life with long lasting effects.

· Department issuing SDS: Abteilung Produktsicherheit

· Contact: siehe Seite 1 / see page 1

· Abbreviations and acronyms:

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations

Concerning the International Transport of Dangerous Goods by Rail)

ICAO: International Civil Aviation Organisation

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the

International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Aerosol 1: Aerosols - Category 1

Flam. Liq. 2: Flammable liquids - Category 2

Flam. Liq. 3: Flammable liquids – Category 3 Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

STOT SE 3: Specific target organ toxicity (single exposure) - Category 3

Asp. Tox. 1: Aspiration hazard - Category 1

Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard - Category 2

* Data compared to the previous version altered.