SAFETY DATA SHEET Copper Antiseize

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

1.1. Product identifier

Copper Antiseize Product name

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses Anti-seize aerosol

1.3. Details of the supplier of the safety data sheet

Supplier BNR Ltd.

> Unit 516D Grants Rise Greenogue Business Park

Rathcoole Co. Dublin

1.4. Emergency telephone number

Emergency telephone +44 (0)7831 300868

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification

Physical hazards Aerosol 1 - H222, H229

Health hazards Skin Irrit. 2 - H315 STOT SE 3 - H336

Environmental hazards Aquatic Chronic 3 - H412

Classification (67/548/EEC or Xi;R38. F+;R12. N;R51/53. R67.

1999/45/EC)

Human health Gas or vapour is harmful on prolonged exposure or in high concentrations. In high

> concentrations, vapours and aerosol mists have a narcotic effect and may cause headache, fatigue, dizziness and nausea. Deliberately concentrating and inhaling the contents of this

container is dangerous and can be fatal.

Environmental The product contains a substance which is toxic to aquatic organisms and which may cause

long-term adverse effects in the aquatic environment.

Physicochemical Aerosol containers can explode when heated, due to excessive pressure build-up. The

product is extremely flammable. When sprayed on a naked flame or any incandescent

material the aerosol vapours can be ignited.

2.2. Label elements

Pictogram





Signal word Danger

Copper Antiseize

Hazard statements H222 Extremely flammable aerosol.

H229 Pressurised container: may burst if heated

H315 Causes skin irritation.

H336 May cause drowsiness or dizziness.

H412 Harmful to aquatic life with long lasting effects.

Precautionary statements 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.

P271 Use only outdoors or in a well-ventilated area.

P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.

P102 Keep out of reach of children.

P501 Dispose of contents/container in accordance with local regulations.

P260 Do not breathe vapour/spray.

P262 Do not get in eyes, on skin, or on clothing.

Contains HYDROCARBONS, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane

2.3. Other hazards

This product does not contain any substances classified as PBT or vPvB.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

PETROLEUM GASES, LIQUEFIED; PETROLEUM GAS

30-60%

Classification Classification (67/548/EEC or 1999/45/EC)

Flam. Gas 1 - H220 F+;R12 Carc. Cat. 1;R45 Muta. Cat. 2;R46

Press. Gas, Liquefied - H280

HYDROCARBONS, C6-C7, n-alkanes, isoalkanes, cyclics,

10-30%

<5% n-hexane

CAS number: — EC number: 921-024-6 REACH registration number: 01-

2119475514-35

Classification

Classification (67/548/EEC or 1999/45/EC)

Xn;R65. Xi;R38. F;R11. N;R51/53. R67.

Flam. Liq. 2 - H225 Skin Irrit. 2 - H315

Asp. Tox. 1 - H304

STOT SE 3 - H336

Aquatic Chronic 2 - H411

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HEXANE-norm <1%

CAS number: 110-54-3 EC number: 203-777-6 REACH registration number: 01-

2119480412-44

Classification Classification (67/548/EEC or 1999/45/EC)

Flam. Liq. 2 - H225 F;R11 Repr. Cat. 3;R62 Xn;R48/20,R65 Xi;R38 R67

STOT RE 2 - H373 N;R51/53

Skin Irrit. 2 - H315 Repr. 2 - H361f STOT SE 3 - H336 Asp. Tox. 1 - H304 Aquatic Chronic 2 - H411

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information Move affected person to fresh air at once.

Inhalation If spray/mist has been inhaled, proceed as follows. Move affected person to fresh air and

keep warm and at rest in a position comfortable for breathing. If breathing stops, provide artificial respiration. Keep affected person warm and at rest. Get medical attention

immediately.

Ingestion Rinse mouth thoroughly with water. Do not induce vomiting. Get medical attention.

Skin contact Remove contaminated clothing immediately and wash skin with soap and water.

Eye contact Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide

apart. Continue to rinse for at least 15 minutes and get medical attention.

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

General information The severity of the symptoms described will vary dependent on the concentration and the

length of exposure.

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

Notes for the doctor Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media Extinguish with foam, carbon dioxide, dry powder or water fog.

5.2. Special hazards arising from the substance or mixture

Specific hazards Containers can burst violently or explode when heated, due to excessive pressure build-up.

Vapours are heavier than air and may spread near ground and travel a considerable distance

to a source of ignition and flash back. Forms explosive mixtures with air. Extremely

flammable.

5.3. Advice for firefighters

Protective actions during

firefighting

Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. Warn firefighters that aerosols are involved. Use water to keep fire

exposed containers cool and disperse vapours.

SECTION 6: Accidental release measures

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6.1. Personal precautions, protective equipment and emergency procedures

Provide adequate ventilation. Use suitable respiratory protection if ventilation is inadequate. Personal precautions

Avoid inhalation of vapours.

6.2. Environmental precautions

Environmental precautions Avoid the spillage or runoff entering drains, sewers or watercourses. Contain spillage with

sand, earth or other suitable non-combustible material.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up Eliminate all sources of ignition. No smoking, sparks, flames or other sources of ignition near

> spillage. Provide adequate ventilation. Leave small quantities to evaporate, if safe to do so. Do not allow material to enter confined spaces, due to the risk of explosion. Absorb spillage

with non-combustible, absorbent material.

6.4. Reference to other sections

Reference to other sections For personal protection, see Section 8. For waste disposal, see Section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions Read and follow manufacturer's recommendations. Keep away from heat, sparks and open

flame. Do not spray on a naked flame or any incandescent material. Eliminate all sources of

ianition.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions Keep away from heat, sparks and open flame. Store at moderate temperatures in dry, well

ventilated area. Pressurized container: protect from sunlight and do not expose to

temperatures exceeding 50°C. Do not pierce or burn, even after use. Extremely flammable.

7.3. Specific end use(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.2.

SECTION 8: Exposure Controls/personal protection

8.1. Control parameters

Occupational exposure limits

PETROLEUM GASES, LIQUEFIED; PETROLEUM GAS

Long-term exposure limit (8-hour TWA): WEL 1000 ppm 1750 mg/m³ Short-term exposure limit (15-minute): WEL 1250 ppm 2180 mg/m³

HYDROCARBONS, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane

Long-term exposure limit (8-hour TWA): WEL 1200 mg/m³

HEXANE-norm

Long-term exposure limit (8-hour TWA): WEL 20 ppm 72 mg/m³

WEL = Workplace Exposure Limit

Ingredient comments WEL = Workplace Exposure Limits

8.2. Exposure controls

Appropriate engineering Provide adequate ventilation. Avoid inhalation of vapours and spray/mists. Observe any controls

occupational exposure limits for the product or ingredients.

Personal protection Do not eat, drink or smoke when using this product.

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Eyewface protection Eyewear complying with an approved standard should be worn if a risk assessment indicates

eye contact is possible. The following protection should be worn: Chemical splash goggles.

Hand protectionDue to the packaging form, aerosol, risk of skin contact is small. Chemical-resistant,

impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. It is recommended that gloves are made of the following material: Nitrile rubber. Polyvinyl alcohol (PVA). Viton rubber (fluoro rubber). The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can

provide information about the breakthrough time of the glove material.

Hygiene measures Wash hands after handling. Wash hands at the end of each work shift and before eating,

smoking and using the toilet. Use appropriate hand lotion to prevent defatting and cracking of

kin.

Respiratory protection If ventilation is inadequate, suitable respiratory protection must be worn.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Appearance Aerosol.

Colour Brown.

Odour Organic solvents.

Initial boiling point and range -40 to -2°C @ 1013 hPa

Flash point < -40°C

Upper/lower flammability or

explosive limits

Lower: 1.8% - Upper 9.5%

Vapour pressure ca. 590 to 1760 kPa @ 45°C

Vapour density ca. 1.5 at 15°C

Partition coefficient log Pow: ca. 2.3 to 2.8

Auto-ignition temperature 410-580°C

Comments Information given is applicable to the major ingredient.

9.2. Other information

Other information Not available.

Volatile organic compound This product contains a maximum VOC content of 490 g/l.

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity Stable at normal ambient temperatures and when used as recommended.

10.2. Chemical stability

Stability Avoid the following conditions: Heat, sparks, flames.

10.3. Possibility of hazardous reactions

Possibility of hazardous

reactions

Does not decompose when used and stored as recommended.

10.4. Conditions to avoid

Conditions to avoid Avoid heat, flames and other sources of ignition. Avoid exposing aerosol containers to high

temperatures or direct sunlight.

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10.5. Incompatible materials

Materials to avoid Keep away from oxidising materials, heat and flames.

10.6. Hazardous decomposition products

Hazardous decomposition

products

Does not decompose when used and stored as recommended. Thermal decomposition or combustion products may include the following substances: Toxic and corrosive gases or

vapours.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

General information Deliberately concentrating and inhaling the contents of this container is dangerous and can be

fatal.

In high concentrations, vapours and aerosol mists have a narcotic effect and may cause

headache, fatigue, dizziness and nausea. Unconsciousness, possibly death.

Skin contact Irritating to skin.

Eye contact Vapour or spray in the eyes may cause irritation and smarting.

Acute and chronic health

hazards

Arrhythmia (deviation from normal heart beat). Irritating to skin. In high concentrations,

vapours and aerosol mists have a narcotic effect and may cause headache, fatigue, dizziness

and nausea.

Route of entry Inhalation

Target organs Central nervous system Respiratory system, lungs

Medical symptoms Skin irritation. Arrhythmia (deviation from normal heart beat). Narcotic effect. Vapours may

cause drowsiness and dizziness.

SECTION 12: Ecological Information

Ecotoxicity This product has not been tested but contains ingredients which are toxic or very toxic to

aquatic organisms and may cause long term adverse effects in the aquatic environment. During normal use the volatility of the components and the packaging form, pressurised container, make entry into the aquatic environment unlikely, however, do not empty or discharge into drains or watercourses. Ensure container is empty before disposal to prevent

contents entering watercourses.

12.1. Toxicity

Toxicity Not available.

12.2. Persistence and degradability

Persistence and degradability Not available.

12.3. Bioaccumulative potential

Bioaccumulative potential Not available.

Partition coefficient log Pow: ca. 2.3 to 2.8

12.4. Mobility in soil

Mobility Not known.

12.5. Results of PBT and vPvB assessment

Copper Antiseize

Results of PBT and vPvB

assessment

Not available.

12.6. Other adverse effects

Other adverse effects Not available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information Do not puncture or incinerate, even when empty.

Disposal methodsDispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority. Containers should be thoroughly emptied before disposal

because of the risk of an explosion. Empty containers must not be punctured or incinerated

because of the risk of an explosion.

SECTION 14: Transport information

General This product is packed in accordance with the Limited Quantity Provisions of CDGCPL2, ADR

and IMDG. These provisions allow transport of aerosols of less than 1 litre packed in cartons of less than 30kg gross weight to be exempt from control providing that they are labelled in accordance with the requirements of these regulations to show that they are being transported

as Limited Quantities. Aerosols not so packed and labelled must show the following.

14.1. UN number

UN No. (ADR/RID) 1950

UN No. (IMDG) 1950

UN No. (ICAO) 1950

14.2. UN proper shipping name

Proper shipping name

(ADR/RID)

AEROSOLS

Proper shipping name

(IMDG)

AEROSOLS

Proper shipping name (ICAO) AEROSOLS

Proper shipping name (ADN) AEROSOLS

14.3. Transport hazard class(es)

ADR/RID class 2.1

ADR/RID label 2.1

IMDG class 2.1

ICAO class/division 2.1

Transport labels



14.4. Packing group

Not applicable.

14.5. Environmental hazards

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Environmentally hazardous substance/marine pollutant

No.

14.6. Special precautions for user

EmS F-D, S-U

Tunnel restriction code (D)

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Transport in bulk according to Not applicable.

Annex II of MARPOL 73/78

and the IBC Code

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

National regulations The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (SI 2009

No. 716).

EU legislation Commission Regulation (EU) No 453/2010 of 20 May 2010.

Guidance Workplace Exposure Limits EH40.

CHIP for everyone HSG228.

Safety Data Sheets for Substances and Preparations.

Approved Classification and Labelling Guide (Sixth edition) L131. British Aerosol Manufacturers Code of Practice 7th. Edition 1999

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16: Other information

Revision comments Supplemental information added.

Revision date 24/11/2015

Revision 2

SDS number 10964

SDS status Approved.

Risk phrases in full R11 Highly flammable.

R12 Extremely flammable. R38 Irritating to skin.

R48/20 Harmful: danger of serious damage to health by prolonged exposure through

inhalation.

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

environment.

R62 Possible risk of impaired fertility.

R65 Harmful: may cause lung damage if swallowed. R67 Vapours may cause drowsiness and dizziness.

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Hazard statements in full

H220 Extremely flammable gas.

H222 Extremely flammable aerosol.

H222 Extremely flammable aerosol.

H225 Highly flammable liquid and vapour.

H225 Highly flammable liquid and vapour.

H229 Pressurised container: may burst if heated

H229 Pressurised container: may burst if heated

H280 Contains gas under pressure; may explode if heated.

H304 May be fatal if swallowed and enters airways.

H304 May be fatal if swallowed and enters airways.

H315 Causes skin irritation.

H315 Causes skin irritation.

H336 May cause drowsiness or dizziness.

H336 May cause drowsiness or dizziness.

H361f Suspected of damaging fertility.

H361f Suspected of damaging fertility.

H373 May cause damage to organs through prolonged or repeated exposure.

H373 May cause damage to organs through prolonged or repeated exposure.

H411 Toxic to aquatic life with long lasting effects.

H411 Toxic to aquatic life with long lasting effects.

H412 Harmful to aquatic life with long lasting effects.

H412 Harmful to aquatic life with long lasting effects.

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.