

1. Identification of Substance & Company

Product

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| Product name | Copper Antiseize |
| Other names | CU-800 |
| Product code | 6081520018 - EDL |
| HSNO approval | Aerosols (Flammable) Group Standard 2006, HSR002515 |
| UN number | 1950 |
| Packaging group | NA (Aerosol) |
| Hazchem code | 1T |
| Poison schedule | Not allocated |
| Uses | High temperature and high pressure-resistant, corrosion protection paste |

Company Details

| | |
|-----------|--|
| Company | EDL Fasteners LTD |
| Address | 70 Richard Pearse Drive Mangere, Manukau New Zealand |
| Telephone | +64 9 257 5536 |
| Fax | +64 9 257 5844 |
| Website | www.edlfast.co.nz |

Emergency Telephone Number: 0800-764 766

2. Hazard Identification

Hazard Classifications

This product has been approved under the Hazardous Substances and New Organisms Act (Aerosols (Flammable) Group Standard 2006, Approval HSR002515), and is classified as follows:

Classes:

- 2.1.2A flammable aerosol
- 6.1E acutely toxic by aspiration
- 6.3B mild skin irritant
- 6.4A eye irritant
- 9.1B harmful to the aquatic environment

SYMBOLS

DANGER



Other Classifications

There are no other classifications that are known to apply.

Hazard and Precautionary Statements

| | |
|---------------|---|
| Hazard | Extremely flammable aerosol. May be harmful if swallowed and enters airways. Causes mild skin irritation. Causes eye irritation. Harmful to aquatic life with long lasting effects. |
|---------------|---|



Precautionary Read label before use.
Keep away from sparks/open flames/hot surfaces. No smoking.
Do not spray on an open flame or other ignition source.
Pressurized container: Do not pierce or burn, even after use."
Keep out of reach of children.
Wash hands thoroughly after handling.
Wear protective gloves/protective clothing. Wear eye/face protection."
Do not breathe spray.
Do not eat, drink or smoke when using this product.
Avoid release to the environment.

Further precautionary statements can be found in Section 4 – First Aid.

3. Composition / Information on Ingredients

| Component | CAS/ Identification | Class for ingredient(s) | Conc (% w/w) |
|---------------------------|---------------------|-------------------------------------|--------------|
| pentane | 109-66-0 | 3.1B, 6.1E (oral), 6.3B, 6.4A, 9.1D | 1-20% |
| Butane | 106-97-8 | 2.1.1A | propellant |
| Propane | 74-98-6 | 2.1.1A | propellant |
| Isobutane | 75-28-5 | 2.1.1A | propellant |
| non hazardous ingredients | proprietary | non hazardous | not spec |

This is a commercial product whose exact ratio of components may vary. Trace quantities of impurities are also likely.

4. First Aid

General Information

You should call the National Poisons Centre if you feel that you may have been harmed, or irritated by this product. The number is 0800 764 766 (0800 POISON) (24 hr emergency service).

If medical advice is needed, have this MSDS, product container or label at hand. . If exposed or concerned: Get medical advice/ attention.

Recommended first aid facilities Ready access to running water is required. Accessible eyewash is recommended. Emergency shower, hand wash, soap. CPR training, oxygen mask.

Exposure

Swallowed IF SWALLOWED: Do NOT induce vomiting. Rinse mouth. Contact a doctor if you feel unwell.

Eye contact IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Apply continuous irrigation with water for at least 15 minutes holding eyelids apart. If symptoms persist, seek medical advice.

Skin contact IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: get medical advice/attention. Take off contaminated clothing and wash before re-use.

Inhaled IF INHALED: If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. If patient is unconscious, place in the recovery position (on the side) for transport and contact a doctor. If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.

Advice to Doctor

Treat symptomatically



5. Firefighting Measures

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| Fire and explosion hazards: | This product is a flammable aerosol. This product has the potential to cause fire or to create an additional hazard during fire. |
| Suitable extinguishing substances: | Carbon Dioxide, Water jet spray, Chemical powder, foam. |
| Unsuitable extinguishing substances: | High volume water jet. |
| Products of combustion: | Product may decompose in a fire and produce toxic or corrosive fumes. Hazardous decomposition products include carbon oxides, hydrocarbons, toxic pyrolysis products |
| Protective equipment: | Self-contained breathing apparatus. Safety boots, non-flammable overalls, gloves, hat and eye protection. |
| Hazchem code: | 1T (recommended, HAZCHEM signage not required) |

6. Accidental Release Measures

| | |
|-----------------------------|---|
| Containment | If greater than 3000L is stored, secondary containment and emergency plans to manage any potential spills must be in place. Prevent product from entering environment. |
| Emergency procedures | In the event of a large spillage alert the fire brigade to location and give brief description of hazard. Shut off all possible sources of ignition. Wear protective equipment to prevent skin, eye and respiratory exposure. Clear area of any unprotected personnel. Contain spill. Prevent by whatever means possible any spillage from entering drains, sewers, or water courses. If spray or gas escapes, increase ventilation. |
| Clean-up method | Collect product and seal in properly labelled containers or drums for disposal. If contamination of crops, sewers or waterways has occurred advise local emergency services. |
| Disposal | Mop up and collect recoverable material into labelled containers for recycling or salvage. Recycle containers wherever possible. This material may be suitable for approved landfill. Dispose of only in accord with all regulations. |
| Precautions | Wear protective equipment to prevent skin and eye contamination and the inhalation of vapour. Work up wind or increase ventilation. |

7. Storage & Handling

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|-----------------|--|
| Storage | Avoid storage of harmful substances with food. Store out of reach of children. Containers should be kept closed in order to minimise contamination. Keep in a cool, dry place. Avoid contact with incompatible substances as listed in Section 10. |
| Handling | Keep exposure to a minimum, and minimise the quantities kept in work areas. See section 8 with regard to personal protective equipment requirements. Avoid skin and eye contact and inhalation of vapour. |

8. Exposure Controls / Personal Protective Equipment

Workplace Exposure Standards

A workplace exposure standard (WES) has not been established by the NZ Department of Labour for this product. There is a general limit of 10mg/m³ for dusts and mists when limits have not otherwise been established.

| NZ Workplace Exposure Stds (OSH 2002) | Ingredient | WES-TWA | WES-STEL |
|---------------------------------------|------------|------------------------------|------------------------------|
| | Pentane | 600ppm 1770mg/m ³ | 750ppm 2210mg/m ³ |
| | Butane | 800ppm 1900mg/m ³ | NA |
| | Propane | NA | NA |
| | Isobutane | NA | NA |

Engineering Controls

In industrial situations, it is expected that employee exposure to hazardous substances will be controlled to a level as far below the WES as practicable by applying the hierarchy of control required by the Health and Safety in Employment Act 1992 (HSE). Exposure can be reduced by process modification, use of local exhaust ventilation, capturing substances at the source, or other methods. If you believe air borne concentrations of mists, dusts or vapours are high, you are advised to modify processes or increase ventilation.

Personal Protective Equipment

Eyes



To protect eyes, it is recommended that goggles, safety glasses or full face mask be worn. Avoid wearing contact lenses.

Skin



Avoid repeated or prolonged skin contact. Wear overalls, rubber boots and impervious gloves, e.g. nitrile rubber, NBR gloves. Remove protective clothing and wash exposed areas with soap and water prior to eating, drinking or smoking. Wash hands after handling.

Respiratory

A respirator with an organic vapour cartridge when airborne concentrations approach the WES (section 8) should be used. If using a respirator, ensure that the cartridges are correct for the potential air contamination and are in good working order.

WES Additional Information

No additional information

9. Physical & Chemical Properties

| | |
|---|----------------------------------|
| Appearance | Aerosol, copper coloured liquid |
| Odour | characteristic odour |
| pH | no data |
| Vapour pressure | 2.3-3.5bar/20°C, 5.5-6.5bar/50°C |
| Viscosity | no data |
| Boiling point | no data |
| Volatile materials | no data |
| Freezing / melting point | not reported |
| Solubility | insoluble in water |
| Specific gravity / density | no data |
| Flash point | no data |
| Danger of explosion | not explosive |
| Auto-ignition temperature | ~285°C |
| Upper and lower flammable limits | LEL = 1.4 Vol %, UEL = 8.0 Vol % |
| Corrosiveness | not corrosive |

10. Stability & Reactivity

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|---|---|
| Stability | This product is thermally stable when stored and used as directed. |
| Conditions to be avoided | Open flames, heat ignition sources. |
| Incompatible groups | Strong oxidising agents. |
| Hazardous decomposition products | None known. |
| Hazardous reactions | Heating aerosol can result in increase pressure and possible danger of explosion. |



11. Toxicological Information

Summary

No specific data is available for this product. Where available, toxicological data has been researched and data for the mixture calculated. The results of these calculations are presented below. The product is considered to have the following toxicity:

Supporting Data

| | | |
|----------------|---|--|
| Acute | Oral | No data for mixture is available. Using the LD ₅₀ 's for the ingredients, the estimated LD ₅₀ (oral, rat) for the mixture is >5000mg/kg. However the solvent is considered an acute oral toxicant by aspiration. |
| | Dermal | No data for mixture is available. Using LD ₅₀ 's for ingredients, the estimated LD ₅₀ (dermal, rat) for the mixture is >5,000 mg/kg. |
| | Inhaled | No data for mixture is available. Inhalation may cause drowsiness or dizziness. Using LC ₅₀ 's for ingredients, the estimated LC ₅₀ (inhalation, rat) for the mixture is >5,000 ppm. |
| | Eye | The mixture is considered to be an eye irritant, because some of the ingredients present are considered eye irritants in more concentrated form. |
| | Skin | The mixture is considered to be a mild skin irritant, because some of the ingredients (pentane) present are considered skin irritants in more concentrated form. |
| Chronic | Sensitisation | No data for mixture is available. No ingredient present at concentrations > 0.1% is considered a sensitizer. |
| | Mutagenicity | No data for mixture is available. No ingredient present at concentrations > 0.1% is considered a mutagen. |
| | Carcinogenicity | No data for mixture is available. No ingredient present at concentrations > 0.1% is considered a carcinogen. |
| | Reproductive / Developmental | No data for mixture is available. No ingredient present at concentrations > 0.1% is considered a reproductive or developmental toxicant or have any effects on or via lactation. |
| | Systemic | Inhalation may result in headaches, Dizziness, nausea, effects/damages to the central nervous system, narcotic effect and unconsciousness. |
| | Aggravation of existing conditions | None known. |

12. Ecological Data

Summary

No specific data is available for this product. Where available, ecotoxicological data has been researched and data for the mixture calculated. The results of these calculations are presented below. The product is considered to have the following ecotoxicity groups:

Supporting Data

| | |
|---------------------------------|--|
| Aquatic | No data for mixture is available. Using EC ₅₀ 's for ingredients, the calculated EC ₅₀ for the mixture is between 1 mg/L and 10 mg/L and at least one of the components is either bioaccumulative or persistent in the aquatic environment. Data considered includes: Pentane: 9.74mg/L (48hr, Daphnia magna) |
| Bioaccumulation | Not rapidly biodegradable. |
| Degradability | Not applicable. |
| Soil | No data available for the mixture. |
| Terrestrial vertebrate | This product is not considered harmful to terrestrial vertebrates. No LC ₅₀ (diet) data for ingredients are available and the classification is based on the LD ₅₀ (oral) – see section 11 – oral toxicity. |
| Terrestrial invertebrate | The mixture is not considered harmful to terrestrial invertebrates. |
| Biocidal | Not applicable |



| Environmental effect levels: | Ingredients | EEL |
|------------------------------|-------------|------------------|
| | Pentane | Data unavailable |
| | Butane | Data unavailable |
| | Propane | Data unavailable |
| | Isobutane | Data unavailable |

13. Disposal Considerations

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|-------------------------------|--|
| Restrictions | There are no product-specific restrictions, however, local council and resource consent conditions may apply, including requirements of trade waste consents. |
| Disposal method | Disposal of this product must comply with the requirements of the Resource Management Act for which approval should be sought from the Regional Authority. The substance must be treated and therefore rendered non-hazardous before discharge to the environment. |
| Contaminated packaging | Send empty aerosol can to landfill or similar. Do not puncture or incinerate. |

14. Transport Information

Transport according to NZS 5433 (Transport of Hazardous Substances on Land). Not considered a hazardous substance for transport.

| | | | |
|---------------------|-------------------|------------------------------|------------------|
| UN number: | 1950 | Proper shipping name: | AEROSOLS |
| Class(es): | 2 | Packing group: | Not applicable |
| Precautions: | Flammable aerosol | Hazchem code: | 1T (recommended) |

15. Regulatory Information

This product has been transferred to HSNO (Group standards), ERMA approval code:, Aerosols (Flammable) Group Standard 2006, HSR002515)

Specific Workplace Controls (as per HSNO approval referenced to Controls Matrix)

Key workplace requirements are:

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|-----------------------------------|---|
| MSDS | To be available within 10 minutes in workplaces storing >10L. |
| Labelling | No removal of labels and/or decanting of product into other containers can occur. |
| Emergency plan | Approved Evacuation Scheme required if > 3000L is stored. |
| Approved handler | Required if > 3000L is handled or stored. (Flammable aerosol) |
| Tracking | Not required. |
| Bunding and secondary containment | Required if > 3000L is stored. |
| Signage | Required if > 3000L is stored in any one location. |
| Test certificate | Required if > 3000L is stored in any one location. |
| Flammable zone | Must be established if > 3000L is stored in any one location. |
| Fire extinguisher | If > 3000L present. |

Other Legislation

In New Zealand, the use of this product may come under the Resource Management Act and Regulations, the Health, Safety in Employment Act and Regulations, local Council Rules and Regional Council Plans.

16. Other Information

Abbreviations

| | |
|------------------------|--|
| ACGIH | American Conference of Governmental Industrial Hygienists |
| Approval Code | ERMA approval code:, Aerosols (Flammable) Group Standard 2006, HSR002515) Controls, ERMA. www.ermanz.govt.nz |
| CAS Number | Unique Chemical Abstracts Service Registry Number |
| Controls Matrix | List of default controls linking regulation numbers to Matrix code (e.g. T1, I16). |
| EC₅₀ | Ecotoxic Concentration 50% – concentration in water which is fatal to 50% of a test population (e.g. daphnia, fish species). |
| ERMA | Environmental Risk Management Authority |
| HAZCHEM Code | Emergency action code of numbers and letters that provide information to emergency services, especially fire fighters |
| HSNO | Hazardous Substances and New Organisms (Act and Regulations) |
| IARC | International Agency for Research on Cancer |
| LD₅₀ | Lethal Dose 50% – dose which is fatal to 50% of a test population (usually rats). |
| LC₅₀ | Lethal Concentration 50% – concentration in air which is fatal to 50% of a test population (usually rats). |
| MSDS | Material Safety Data Sheet (or Safety Data Sheet) |
| OSH | The Occupational Safety and Health Service of the Department of Labour (NZ) |
| UN Number | United Nations Number |
| WES | Workplace Exposure Standard |

References

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|---|--|
| Data | Unless otherwise stated comes from the ERMA HSNO chemical classification information database (CCID) http://www.ermanz.govt.nz/hs/compliance/chemicals.html , for specific chemicals. |
| ERMA Transfer Gazettes Controls Matrix | Classifications and controls assigned for specific ingredients (consolidated gazette, 2004) Part of the ERMA New Zealand User Guide to the HSNO Control Regulations |
| WES 2002 | The NZ Workplace Exposure Standards Effective from 2002, published by OSH and available on their web site – www.osh.dol.govt.nz . |
| Other References: | Wuerth MSDS, ChemIDplus |

Disclaimer

This MSDS was prepared by Datachem LTD and is based on our current state of knowledge, including information obtained from suppliers. The MSDS is given in good faith and constitutes a guideline (not a guarantee of safety). The level of risk each substance poses is relevant to its properties (as summarised in the MSDS) AND HOW THE SUBSTANCE IS USED. While guidelines are given for personal protective equipment, such precautions must be relevant to the use. **The likely HSNO classifications for this MSDS have been estimated based on general information from the supplier (e.g., hazard, toxicological).** Full formulation details were not available. This MSDS is copyright Datachem and must not be copied, edited or used for other than intended purpose. To contact the MSDS author, email info@datachem.co.nz or phone: **+64 9 940 30 80**.

