

Infosafe No™ 5GF6E Issue Date : December 2019 Status : ISSUED

Product Name **BurgaFLUX Aluminium flux**

Classified as hazardous

1. Identification

GHS Product Identifier BurgaFLUX Aluminium flux
Product Code Part No. BF-F50
Company Name SuperCool Asia Pacific Pty Ltd (ABN 71 011 044 385)
Address 14 Motorway Circuit Ormeau
 QLD AUSTRALIA
Telephone/Fax Number Tel: (07) 5549-4000
 Fax: (07) 5549-4044
Emergency phone number (07) 5549-4000 (Mon-Fri; 8:30-4:30 AEST)
Recommended use of the chemical and restrictions on use Aluminium brazing flux

2. Hazard Identification

GHS classification of the substance/mixture Classified as Hazardous according to the Globally Harmonised System of Classification and Labelling of Chemicals (GHS) including Work, Health and Safety Regulations, Australia.
 Classified as Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail. (7th edition)
 Corrosive to Metals: Category 1
 Eye Damage/Irritation: Category 1
 Skin Corrosion/Irritation: Category 1B
 Acute Toxicity - Oral: Category 4
 Hazardous to the Aquatic Environment - Long-Term Hazard: Category 1
Signal Word (s) DANGER
Hazard Statement (s) May be corrosive to metals.
 Harmful if swallowed.
 Causes severe skin burns and eye damage.
 Very toxic to aquatic life with long lasting effects.
Precautionary statement – General Keep out of reach of children.
Pictogram (s) Corrosion, Exclamation mark, Environment



Precautionary statement – Prevention Keep only in original container.
 Do not breathe dust/fume/gas/mist/vapours/spray.
 Wear protective gloves/protective clothing/eye protection/face protection.
 Wash contaminated skin thoroughly after handling.
 Do not eat, drink or smoke when using this product.
 Avoid release to the environment.
Precautionary statement – Response IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing.
 Rinse skin with water/shower.
 Wash contaminated clothing before reuse.
 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 Immediately call a POISON CENTER or doctor/physician.
 Absorb spillage to prevent material damage.
Precautionary statement – Storage Store locked up.



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Precautionary statement – Disposal Dispose of contents/container to licenced disposal site.

3. Composition/information on ingredients

Ingredients	Name	CAS	Proportion
	zinc chloride	7646-85-7	10-30 %
	Non Hazardous Ingredients	-	Balance

4. First-aid measures

Inhalation If fumes or combustion products are inhaled remove from contaminated area. Lay patient down. Keep warm and rested. Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures. Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary. Transport to hospital, or doctor. If dust is inhaled, remove from contaminated area. Encourage patient to blow nose to ensure clear breathing passages. Ask patient to rinse mouth with water but to not drink water. Seek immediate medical attention.

Ingestion For advice, contact a Poisons Information Centre or a doctor at once. Urgent hospital treatment is likely to be needed. If swallowed do NOT induce vomiting. If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration. Observe the patient carefully. Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious. Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink. Transport to hospital or doctor without delay.

Skin If skin or hair contact occurs: Immediately flush body and clothes with large amounts of water, using safety shower if available. Quickly remove all contaminated clothing, including footwear. Wash skin and hair with running water. Continue flushing with water until advised to stop by the Poisons Information Centre. Transport to hospital, or doctor.

Eye contact If this product comes in contact with the eyes: Immediately hold eyelids apart and flush the eye continuously with running water. Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids. Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes. Transport to hospital or doctor without delay. Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.

First Aid Facilities Eye wash fountain, safety shower and normal washroom facilities.

Advice to Doctor Treat Symptomatically.

Other Information For advice in an emergency, contact a Poisons Information Centre (Phone Australia 13 1126) or a doctor at once.

5. Fire-fighting measures

Suitable extinguishing media Use carbon dioxide, dry chemical, foam, water mist or water spray.

Hazards from Combustion Products Non combustible material

Specific hazards arising from the chemical The product is non-combustible. Decomposition may produce toxic fumes of Hydrogen Chloride, Hydrogen Floride, Nitogen Oxides.

Hazchem Code 2X

Precautions in connection with Fire Fire fighters should wear Self-Contained Breathing Apparatus (SCBA) operated in positive pressure mode and full protective clothing to prevent exposure to vapours or fumes. Water spray may be used to cool down heat-exposed containers. Do not approach containers suspected to be hot.



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6. Accidental release measures

Clean-up Methods - Small Spillages Remove all ignition sources. Clean up all spills immediately. Avoid contact with skin and eyes. Control personal contact with the substance, by using protective equipment. Use dry clean up procedures and avoid generating dust. Place in a suitable, labelled container for waste disposal.

Clean-up Methods - Large Spillages Clear area of personnel and move upwind. Alert Fire Brigade and tell them location and nature of hazard. Wear full body protective clothing with breathing apparatus. Prevent, by any means available, spillage from entering drains or water course. Consider evacuation (or protect in place). Stop leak if safe to do so. Contain spill with sand, earth or vermiculite. Collect recoverable product into labelled containers for recycling. Neutralise/decontaminate residue (see Section 13 for specific agent). Collect solid residues and seal in labelled drums for disposal. Wash area and prevent runoff into drains. After clean up operations, decontaminate and launder all protective clothing and equipment before storing and re-using. If contamination of drains or waterways occurs, advise emergency services.

7. Handling and storage

Precautions for Safe Handling Avoid all personal contact, including inhalation. Wear protective clothing when risk of exposure occurs. Use in a well-ventilated area. Avoid contact with moisture. Avoid contact with incompatible materials. When handling, DO NOT eat, drink or smoke. Keep containers securely sealed when not in use. Avoid physical damage to containers. Always wash hands with soap and water after handling. Work clothes should be laundered separately. Launder contaminated clothing before re-use. Use good occupational work practice. Observe manufacturer's storage and handling recommendations contained within this SDS. Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions are maintained.

Conditions for safe storage, including any incompatibilities Store in original containers. Keep containers securely sealed. Store in a cool, dry, well-ventilated area. Store away from incompatible materials and foodstuff containers. Protect containers against physical damage and check regularly for leaks. Observe manufacturer's storage and handling recommendations contained within this SDS.

Other Information Lined metal can, lined metal pail/ can. Plastic pail. Polyliner drum. Packing as recommended by manufacturer. Check all containers are clearly labelled and free from leaks.

8. Exposure controls/personal protection

Occupational exposure limit values Safe Work Australia advises: Zinc chloride and Zinc chloride TWA 1 mg/m³, STEL 2 mg/m³

Biological Limit Values No biological limits allocated.

Appropriate engineering controls Provide sufficient ventilation to keep airborne levels below the exposure limits. Where vapours or mists are generated, particularly in enclosed areas, and natural ventilation is inadequate, a local exhaust ventilation system is required.

Respiratory Protection If engineering controls are not effective in controlling airborne exposure then an approved respirator with a replaceable mist/particulate filter should be used. Reference should be made to Australian/New Zealand Standards AS/NZS 1715, Selection, Use and Maintenance of Respiratory Protective Devices; and AS/NZS 1716, Respiratory Protective Devices, in order to make any necessary changes for individual circumstances.

Eye Protection Safety glasses with side shields, goggles or full-face shield as appropriate should be used. Final choice of appropriate eye/face protection will vary according to individual circumstances i.e. methods of handling or engineering controls and according to risk assessments undertaken. Eye protection should conform with Australian/New Zealand Standard AS/NZS 1337 - Eye Protectors for Industrial Applications.

Hand Protection Wear PVC gloves. Final choice of appropriate gloves will vary according to individual circumstances i.e. methods of handling or according to risk assessments undertaken. Reference should be made to AS/NZS 2161.1: Occupational protective gloves - Selection, use and maintenance.



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Body Protection Suitable protective workwear, e.g. impervious overalls buttoned at neck and wrist is recommended. Chemical resistant apron is recommended where large quantities are handled. Industrial clothing should conform to the specifications detailed in AS/NZS 2919: Industrial clothing.

9. Physical and chemical properties

Form Powder
Appearance Pink or Blue coloured odourless powder
Odour Nil
Melting Point 240 C Approx
Boiling Point 732 C for ZnCl₂
Solubility in Water Miscible
Specific Gravity Not available
pH Not applicable
Vapour Pressure Not applicable
Volatile Component Not applicable
Flash Point Not applicable
Flammability Not applicable
Auto-Ignition Temperature Not available
Flammable Limits - Lower Not available

10. Stability and reactivity

Chemical Stability Unstable in the presence of incompatible materials. Product is considered stable. Hazardous polymerisation will not occur
Conditions to Avoid See section 7
Incompatible Materials Contact with acids produces toxic fumes. Dangerous goods of other classes. Metals and their oxides or salts may react violently with chlorine trifluoride and bromine trifluoride. These trifluorides are hypergolic oxidisers. They ignite on contact (without external source of heat or ignition) with recognised fuels - contact with these materials, following an ambient or slightly elevated temperature, is often violent and may produce ignition. The state of subdivision may affect the results.
Hazardous Decomposition Products Decomposition may produce toxic fumes of: hydrogen chloride , hydrogen fluoride , nitrogen oxides (NO_x)
Hazardous Polymerization Will not occur.

11. Toxicological Information

Ingestion Accidental ingestion of the material may be harmful; animal experiments indicate that ingestion of less than 150 gram may be fatal or may produce serious damage to the health of the individual. The material can produce chemical burns within the oral cavity and gastrointestinal tract following ingestion. Soluble zinc salts produce irritation and corrosion of the alimentary tract with pain, and vomiting. Death can occur due to insufficiency of food intake due to severe narrowing of the oesophagus and pylorus
Inhalation Inhalation of dusts, generated by the material during the course of normal handling, may be damaging to the health of the individual. Inhalation of freshly formed zinc oxide particles sized below 1.5 microns and generally between 0.02 to 0.05 microns may result in 'metal fume fever', with symptoms resembling influenza. Symptoms may be delayed for up to 12 hours and begin with the sudden onset of thirst, and a sweet, metallic or foul taste in



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the mouth. Other symptoms include upper respiratory tract irritation accompanied by coughing and a dryness of the mucous membranes, lassitude and a generalised feeling of malaise. Mild to severe headache, nausea, occasional vomiting, fever or chills, exaggerated mental activity, profuse sweating, diarrhoea, excessive urination and prostration may also occur. Tolerance to the fumes develops rapidly, but is quickly lost. All symptoms usually subside within 24-36 hours following removal from exposure. Leucocytosis, a transient increase in white blood cell counts, is reported as a common finding in metal fume fever but is not known to be common amongst welders. Severe over-exposure to zinc oxide, following inhalation of fumes or finely divided dusts may result in bronchitis or pneumonia; a bluish skin tint may be present. Welding or flame cutting of metals with zinc or zinc dust coatings may result in inhalation of zinc oxide fume; high concentrations of zinc oxide fume may result in 'metal fume fever'; also known as 'brass chills', an industrial disease of short duration. [I.L.O] Symptoms include malaise, fever, weakness, nausea and may appear quickly if operations occur in enclosed or poorly ventilated area.

Skin The material can produce chemical burns following direct contact with the skin. Solution of material in moisture on the skin, or perspiration, may markedly increase skin corrosion and accelerate tissue destruction Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.

Eye The material can produce chemical burns to the eye following direct contact. Vapours or mists may be extremely irritating. If applied to the eyes, this material causes severe eye damage.

Chronic Effects Repeated or prolonged exposure to corrosives may result in the erosion of teeth, inflammatory and ulcerative changes in the mouth and necrosis (rarely) of the jaw. Bronchial irritation, with cough, and frequent attacks of bronchial pneumonia may ensue. Substance accumulation, in the human body, may occur and may cause some concern following repeated or long-term occupational exposure. There has been some concern that this material can cause cancer or mutations but there is not enough data to make an assessment. Long term exposure to high dust concentrations may cause changes in lung function i.e. pneumoconiosis, caused by particles less than 0.5 micron penetrating and remaining in the lung. Extended exposure to inorganic fluorides causes fluorosis, which includes signs of joint pain and stiffness, tooth discolouration, nausea and vomiting, loss of appetite, diarrhoea or constipation, weight loss, anaemia, weakness and general unwellness. There may also be frequent urination and thirst.

12. Ecological information

Persistence and degradability Zinc chloride: HIGH persistence

Mobility Zinc chloride: Low

Environmental Protection Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Prevent, by any means available, spillage from entering drains or water courses. DO NOT discharge into sewer or waterways.

Acute Toxicity - Fish Zinc chloride: LC50 96hr Fish 0.03mg/L

13. Disposal considerations

Disposal Considerations The disposal of the spilled or waste material must be done in accordance with applicable local and national regulations.

Product Disposal This material may be recycled if unused, or if it has not been contaminated so as to make it unsuitable for its intended use. Shelf life considerations should also be applied in making decisions of this type. Note that properties of a material may change in use, and recycling or reuse may not always be appropriate. In most instances the supplier of the material should be consulted. DO NOT allow wash water from cleaning or process equipment to enter drains. It may be necessary to collect all wash water for treatment before disposal. In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first. Where in doubt contact the



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responsible authority. Recycle wherever possible. Consult manufacturer for recycling options or consult local or regional waste management authority for disposal if no suitable treatment or disposal facility can be identified. Treat and neutralise at an approved treatment plant. Treatment should involve: Mixing or slurring in water; Neutralisation followed by: burial in a land-fill specifically licensed to accept chemical and / or pharmaceutical wastes or Incineration in a licensed apparatus (after admixture with suitable combustible material) Decontaminate empty containers. Observe all label safeguards until containers are cleaned and destroyed.

14. Transport information

Transport Information	This material is classified as a Class 8 Corrosive Substance and subsidiary Class 3 Flammable Liquid Dangerous Good according to the Australian Code for the Transport of Dangerous Goods. These substances are incompatible in a placard load with any of the following: - Class 1, Explosives, - Class 2.1, Flammable Gases, if both the Class 3 and Class 2.1 dangerous goods are in bulk, - Class 2.3, Toxic Gases, - Class 4.2 Spontaneously Combustible Substances, - Class 4.3, Dangerous When Wet Substances, - Class 5.1, Oxidising Agents & Class 5.2- Organic Peroxides, - Class 6, Toxic Substances (where the Toxic substances are cyanides and the corrosives are acids), - Class 7, Radioactive Substances, - Class 8, Corrosive Substances (concentrated strong acid is to be segregated from concentrated strong alkali), and are incompatible with food and food packaging in any quantity.
U.N. Number	1759
UN proper shipping name	CORROSIVE SOLID, N.O.S. - CONTAINS: ZINC CHLORIDE
Transport hazard class(es)	8
Hazchem Code	2X
Packing Group	III
EPG Number	8A2
IERG Number	37
IMDG EMS	F-A, S-B
Marine Pollutant	Yes

15. Regulatory information

Regulatory Information	Classified as Hazardous according to the Globally Harmonised System of Classification and labelling of Chemicals (GHS) including Work, Health and Safety regulations, Australia.
Poisons Schedule	S6
AICS (Australia)	Zinc chloride is listed.

16. Other Information

Date of preparation or last revision of SDS	December 2019
Literature References	Preparation of Safety Data Sheets for Hazardous Chemicals Code of Practice. Standard for the Uniform Scheduling of Medicines and Poisons. Australian Code for the Transport of Dangerous Goods by Road & Rail. Model Work Health and Safety Regulations, Schedule 10: Prohibited carcinogens, restricted carcinogens and restricted hazardous chemicals. Workplace exposure standards for airborne contaminants. Adopted biological exposure determinants, American Conference of Industrial



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Other Information

Hygienists (ACGIH).
Globally Harmonised System of classification and labelling of chemicals.
Raw material supplier SDS.
Reason for revision: New product
DO NOT MIX WITH OTHER CHEMICALS WITHOUT PRIOR CONSULTATION WITH THE MANUFACTURER. Always use product as directed. Never return any unused material to original drum.
The information sourced for the preparation of this document was correct and complete at the time of writing to the best of the writers knowledge. The document represents the commitment to the company's responsibilities surrounding the supply of this product, undertaken in good faith. This document should be taken as a safety guide for the product and its recommended uses but is in no way an absolute authority. Please consult the relevant legislation and regulations governing the use and storage of this type of product.
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