

Material Safety Data Sheet

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| Infosafe No. | IHH1F | Issue Date : May 2008 | ISSUED by CULBEAG |
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Product Name : **SODIUM BISULPHATE**

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY/UNDERTAKING

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| Product Name | SODIUM BISULPHATE |
| Product Use | Flux for decomposing minerals, substitute for sulfuric acid in dyeing, disinfectant, manufacture of sodium hydrosulfide, sodium sulfate and soda alum, liberating carbon dioxide in carbonic acid baths, in thermophores, carbonizing wool, manufacture of magnesia cements, paper, soap, perfumes, foods, industrial cleaners, metal pickling compounds, lab reagent. |
| Company Name | CULBEAG HOLDINGS Pty Ltd (ABN 95 007 197 079) |
| Address | 19 Allied Drive Tullamarine VICTORIA 3043 Australia |
| Emergency Tel. | 03 9335 4400 |
| Telephone Number/Fax | Tel: 03 9335 4400 Fax: 03 9335 1750 |
| Email | sales@culbeag.com.au |

2. COMPOSITION/INFORMATION ON INGREDIENTS

| Ingredients | Name | CAS | Proportion |
|--------------------|-------------------|------------|-------------------|
| | SODIUM BISULPHATE | 7681-38-1 | >92% |

3. HAZARDS IDENTIFICATION

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| | Not classified as a DANGEROUS GOOD (1). Classified as a HAZARDOUS SUBSTANCE (2); IRRITANT R41: Risk of serious eye damage. S1: Keep out of reach of children. S24: Avoid contact with skin. S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical attention. Classified as Schedule 5 Poison[3] |
| Inhalation | Inhalation of dust may cause respiratory tract irritation. Inhalation of high dust concentration may cause coughing and sneezing. |
| Ingestion | Swallowing of product may cause irritation of the digestive system. Ingestion of a large quantity may cause gastrointestinal disturbances. |
| Skin | Skin contact may cause irritation particularly if skin is wet. |
| Eye | If in eyes will cause severe irritation and possibly severe eye damage. |

4. FIRST AID MEASURES

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| First Aid | For advice contact a Poisons Information Centre (Australia 13 1126) or a doctor. |
| Inhalation | Remove affected person(s) from exposure source into fresh air. Seek medical attention if recovery is prolonged. |
| Ingestion | Do NOT induce vomiting. Never give fluids or induce vomiting if the patient is unconscious or having convulsions. Rinse out the mouth with water. Do not swallow rinse water. Give a glass of water to drink. Obtain medical attention. |
| Skin | Remove contaminated clothing, wash affected areas of skin contact or hair with plenty of flowing water. If irritation develops and persists seek medical attention. |
| Eye | If in eyes, hold eyelids apart and flush continuously with running water. Continue flushing until advised to stop by the Poisons Information Centre or a doctor or for at least 15 minutes. Seek medical attention promptly. |
| First Aid Facilities | A safety shower, eye wash unit and drinking quality water should be readily accessible.. |
| Advice to Doctor | Treat symptomatically. Product in contact with water forms sulphuric acid that can cause burns. |

5. FIRE FIGHTING MEASURES

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| Extinguishing Media | Product is not combustible. Use appropriate extinguishing media to control the |
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| | main source of fire. Do NOT use a water spray. |
| Hazardous Combustion Products | Fire or excessive heat may generate sulphur dioxide from decomposition of product. Avoid generation of dust and contact with water as product reacts with water to form an acidic and corrosive solution that reacts with metals releasing hydrogen which is a flammable gas and can form an explosive mixture with air. |
| Decomposition Temp. | Sulphur dioxide is released when product decomposes on heating. |
| Protective Equipment | Firefighters should wear basic firefighting protective clothing and protective equipment including self contained breathing apparatus. |
| Flammability | Not flammable or combustible. |

6. ACCIDENTAL RELEASE MEASURES

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| Spills & Disposal | Wear appropriate protective clothing and equipment. Increase ventilation. Contain to prevent entry into drains sewer or waterways. Sweep up spilled product minimising dust generation with a dust binding material or use an industrial vacuum cleaner fitted with high efficiency particulate filter. Place collected product in a suitable, labelled container for responsible disposal. |
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7. HANDLING AND STORAGE

Observe good work procedures when handling and using product. Avoid generation of dust. Avoid skin and eye contact when handling and using product. Wash thoroughly after handling.
Product is not classified as a dangerous good for storage.
Store in a cool, dry, well-ventilated location. Keep packaging closed when not in use. Store away from incompatible materials (see section 10). Store between 15 and 25°C.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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| National Exposure Standards | A National Exposure Standard [4] has not been established for sodium bisulphate by the ASCC [5]. However for guidance do not exceed an exposure level of 10 milligrams per cubic meter (TWA) for inspirable dust and less than 3 milligrams per cubic meter (TWA) for respirable dusts. |
| Respiratory Protection | Personal respiratory protection is recommended as an added control particularly where workplace atmospheric concentrations of inspirable and respirable dusts may exceed the recommended guideline for dust concentrations (see above). If required select and fit an approved air-purifying respirator according to AS/NZS 1715 [6] and AS/NZS 1716 [7] |
| Eye Protection | Wear approved eye protection complying with AS/NZS 1337 [8] to protect against dusts entering the eye. Guidance to recommended practices for eye protection in the industrial environment is provided in AS1336 [9]. Wash eyes promptly if eye contact occurs. Ensure that an eye wash facility is readily available in the work area. |
| Body Protection | Wear long-sleeved overalls. Use gloves, boots and aprons suitable for the proposed operations. PVC or rubber are suggested protective materials for this equipment. Remove contaminated clothing promptly. Wash skin contact areas promptly. Wash contaminated clothing before re-use. |
| Eng. Controls | Provide general exhaust ventilation and possibly local exhaust ventilation at transfer points where dust may be generated to maintain exposure levels to employees below the guidelines recommended above. |
| Hygiene Measures | It is a good work practice to wash hands, arms and face before eating, drinking or using toilet facilities and at the end of each work period. |

9. PHYSICAL AND CHEMICAL PROPERTIES

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| Appearance | White or pale yellow crystals or powder. No odour. |
| Decomposition Temperature | Sulphur dioxide is released when product decomposes on heating. |
| Boiling Point | Not applicable. |
| Solubility in Water | Readily soluble in water. 108 gm/100 mL. |

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| Specific Gravity (H₂O=1) | 1.4 - 1.5 (water =1) |
| pH Value | 1.3 for a 1% aqueous solution. |
| Vapour Pressure | Not applicable. |
| Vapour Density (Air=1) | Not applicable. |
| Flammability | Not flammable or combustible. |

10. STABILITY AND REACTIVITY

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| Stability | Product is stable under normal conditions of storage, use and temperature. |
| Materials to Avoid | Moisture, hypochlorites, reacts with strong bases, sodium carbonate. |
| Hazardous Decomposition Products | Sulphur dioxide. |
| Hazardous Reaction | Will dissolve in water to form a weak sulphuric acid solution. Reacts with strong bases to evolve heat. Reacts with hypochlorites to form poisonous chlorine gas. |
| Conditions to Avoid | Dust generation, moisture, excess heat, high temperatures.. |

11. TOXICOLOGICAL INFORMATION

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|-------------------------------|--|
| Toxicology Information | Oral LD50 (rat); 2490 mg/kg Irritation test (rabbit), eye: highly irritating Skin (rabbit): non-irritating. |
| Inhalation | Inhalation of dust may cause respiratory tract irritation. Inhalation of high dust concentration may cause coughing and sneezing. |
| Ingestion | Swallowing of product may cause irritation of the digestive system. Ingestion of a large quantity may cause gastrointestinal disturbances. |
| Skin | Skin contact may cause irritation particularly if skin is wet. |
| Eye | If in eyes will cause severe irritation and possibly severe eye damage. |

12. ECOLOGICAL INFORMATION

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|----------------------------|--|
| Environ. Protection | Release into the environment is not expected to have a significant impact. However it is good practice not to allow product to enter waterways, drains or sewers. |
| Mobility | Very mobile in soil. |
| Ecotoxicity | Essentially not acutely toxic to aquatic organisms. However will lower the pH at point of entry into waterways with potential adverse effects on aquatic organisms in vicinity of entry point. |

13. DISPOSAL CONSIDERATIONS

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| Waste Disposal | Dispose of packaging as general waste in accordance with environment protection regulations. Waste product can be neutralised carefully with a 5% solution of sodium carbonate and disposed of in a waste water treatment system or sewer. |
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14. TRANSPORT INFORMATION

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| Storage and Transport | Not classified as dangerous. |
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15. REGULATORY INFORMATION

Not classified as a DANGEROUS GOOD (1).
Classified as a HAZARDOUS SUBSTANCE (2);
IRRITANT
R41: Risk of serious eye damage.
S1: Keep out of reach of children.
S24: Avoid contact with skin.
S26: In case of contact with eyes, rinse immediately with plenty of water and

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seek medical attention.
Classified as Schedule 5 Poison[3]

Poisons Schedule S5

AICS (Australia) The principal ingredient is included in the Australian Inventory of Chemical Substances [10].

16. OTHER INFORMATION

Contact Person/Point BUSINESS HOURS: Product Information Officer, (03) 9335 4400
This MSDS summarises our best knowledge of the health and safety hazard information of this product and how to safely handle and use the product in the workplace. Each user must review this MSDS in the context of how the product will be handled and used in the workplace. If clarification or further information is needed to ensure that an appropriate risk assessment can be made, the user should contact this company. Our responsibility for products sold is subject to our standard terms and conditions, a copy of which is sent to our customers and is also available on request.

References

- [1] Australian Dangerous Goods Code, as amended.
- [2] List of Designated Hazardous Substances section of NOHSC Hazardous Substances Information System (HSIS), August 2005 (www.nohsc.gov.au/applications/hsis) and the Approved Criteria for Classifying a Hazardous Substance, 3rd Edition, October 2004. (www.nohsc.gov.au/pdf/Standards)
- [3] SUSDP = Standard for the Uniform Scheduling of Drugs and Poisons as amended, Australian Government.
- [4] Exposure Standards for Atmospheric Contaminants in the Occupational Environment in Exposure Standards section of HSIS, as amended. (www.nohsc.gov.au/applications/hsis)
- [5] ASCC = Australian Safety and Compensation Commission (ASCC) formerly known as NOHSC = National Occupational Health and Safety Commission.
- [6] AS1716: Respiratory protective devices.
- [7] AS1715: Selection, use and maintenance of respiratory protective devices.
- [8] AS/NZS1337: Eye protectors for the industrial applications.
- [9] AS1336: Recommended practices for eye protection in the industrial environment.
- [10] Australian Inventory of Chemical Substances maintained by National Industrial Chemicals Notification and Assessment Scheme. (www.nicnas.gov.au).
- [11] National Code of Practice for the Preparation of Material Safety Data Sheets, 2nd Edition, [NOHSC: 2011(2003)]

SDS History New MSDS issued 21 May 2008. MSDS prepared in accord with NOHSC Code of Practice for Preparation of a MSDS[11].

Poisons Schedule S5

...End Of MSDS...