

Safety Data Sheet

Chloroform

Section 1: Identification of the Material and Supplier

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| Product name: | Chloroform |
| Other names: | Trichloromethane; Formyl trichloride; Methane trichloride; Methenyl trichloride |
| Product Codes/Trade Names: | CM2.5 |
| Recommended use: | Laboratory reagent |
| Applicable in: | Australia |
| Supplier: | Labtech Service & Supplies |
| Address: | PO Box 453, Windsor NSW 2756 |
| Telephone: | 02 8064 2333 |
| Email address: | info@labtech.net.au |
| Web site: | www.labtech.com.au |
| Facsimile: | 02 8064 7813 |
| Emergency phone number: | 000 Fire Brigade and Police (available in Australia only) 1800 774 557 Transpacific Emergency Response (available in Australia only) |
| Poisons Information Centre: | 13 11 26 (available in Australia only) |

This Safety Data Sheet (SDS) is issued by the Supplier in accordance with National Standards and Guidelines from Safe Work Australia (SWA – formerly ASCC/NOHSC). The information in it must not be altered, deleted or added to. The Supplier will not accept any responsibility for any changes made to its SDS by any other person or organization. The Supplier will issue a new SDS when there is a change in product specifications and/or Standards, Codes, Guidelines, or Regulations.

Section 2: Hazard Identification

Statement of hazardous nature: Classified as **Hazardous** according to the Approved Criteria For Classifying Hazardous Substances [NOHSC:1008] 3rd Edition.

Classified as **Non Dangerous Goods** according to the Australian Code for the Transport of Dangerous Goods by Road and Rail.

| Risk Phrases | Safety Phrases |
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| R20/21/22 – Harmful by inhalation and contact with the skin and if ingested R36/37/38 – Irritating to the eyes, respiratory system and skin R43 – May cause sensation by the skin R49 – May cause cancer by inhalation | S1/2 –Keep locked up and out of reach of children. S24/25 - Avoid contact with skin and eyes S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S36/37 – Wear suitable protective clothing and gloves S51 – Use only in a well ventilated area |

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Section 3: Composition / Information on ingredients

| Chemical Name: | Proportion: | CAS Number: |
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| Chloroform | >99% | 67-66-3 |
| Ethyl Alcohol (Preservative) | <1% | 64-17-5 |
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Section 4: First aid measures

If poisoning occurs contact a doctor or Poisons Information Centre.

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| Swallowed: | If a minor amount has been accidentally swallowed, then, if conscious, rinse mouth with water and then dilute stomach contents by giving large amounts of water. Seek medical attention. Do not attempt to induce vomiting or give anything by mouth to an unconscious person. If person vomits place person on their side in recovery position. |
| Eyes: | Flush eye with flowing water for a minimum of 15 minutes. Seek medical attention promptly if irritation persists or any loss of vision occurs. |
| Skin: | Remove contaminated clothing. Wash contaminated skin with water. Seek medical attention if irritation persists. Launder contaminated clothing before re-use. |
| Inhaled: | Remove promptly to fresh air. If there are signs of drunkenness (intoxication or inebriation) or respiratory irritation, dizziness, nausea or headache occurs, seek immediate medical attention. Treat unconsciousness by placing the person in the coma position. Apply artificial respiration if breathing stops. |
| First Aid Facilities: | Safety showers, eye wash stations and First Aid kits. |
| Advice to Doctor: | Treat symptomatically and as for a narcotic substance. |

Section 5: Fire fighting measures

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| Flammability: | Non flammable product |
| Suitable extinguishing media: | Alcohol-resistant foam is the preferred fire fighting medium but, if it is not available, fine water spray can be used. Water fog, dry chemical or carbon dioxide may also be used. |
| Hazards from combustion products: | Toxic gases may evolve |
| Special protective precautions and equipment for fire fighters: | Breathing apparatus is required. Spills and leaks may be washed away with copious volumes of water, fog or spray |
| HAZCHEM Code: | |

Section 6: Accidental release measures

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| Emergency Procedure: | Wear suitable protective clothing and breathing apparatus in the event of vapours being produced. |
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| Containment Procedure: | Stop and contain the spill for salvage or absorb in inert absorbent material (e.g. Soil, sand, vermiculite) for disposal by an approved method. Prevent run-off into drains and waterways. If contamination of sewers or waterways has occurred, advise the local emergency services. |
| Clean Up Procedure: | Wash the cleaned-up area with copious volumes of water to remove any trace amounts of product. Use water spray to reduce vapours. |

Section 7: Handling and storage

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| Handling: | Avoid contact with eyes and skin. Avoid breathing vapours. Use in a well ventilated area. Wash hands after use. |
| Storage: | Store in tightly closed containers in cool, dry, isolated and well-ventilated area. Do not eat, drink or smoke in areas of use or storage. Observe State Regulations concerning the storage and handling of Dangerous Goods. |

Section 8: Exposure controls / Personal protection

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| Exposure Standards: | National Occupational Exposure Standard (NES), Safe Work Australia (formerly ASCC/NOHSC). Chloroform TWA - 10 ppm (240 mg/m ³) STEL - 2 ppm (2.5 mg/m ³) |
| Notes: | All occupational exposures to atmospheric contaminants should be kept to as low a level as is workable (practicable) and in all cases to below the National Standard. These exposure standards are guides to be used in the control of occupational health hazards. These exposure standards should not be used as fine dividing lines between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity. TWA (Time Weighted Average): the time-weighted average airborne concentration over an eight-hour working day, for a five-day working week over an entire working life. According to current knowledge this concentration should neither impair the health of, nor cause undue discomfort to, nearly all workers. STEL (Short-Term Exposure Limit): the average airborne concentration over a 15-minute period which should not be exceeded at any time during a normal eight-hour work day. |
| Biological Limit Values: | No biological limit allocated. |
| ENGINEERING CONTROLS | |
| <input type="checkbox"/> Ventilation: | Local exhaust ventilation and/or mechanical (general) exhaust is recommended where vapours are likely to be generated. All such equipment must be intrinsically safe. |
| PERSONAL PROTECTION | |
| <input type="checkbox"/> Personal Hygiene | Protective clothing (gloves, coveralls, boots, etc.) should be worn to prevent skin contact. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storing or re-using. |

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| <input type="checkbox"/> Skin Protection: | Avoid skin contact by the use of approved chemical resistant gloves and aprons - PVC or Neoprene (AS 2161). |
| <input type="checkbox"/> Eye Protection: | Avoid eye contact by wearing chemical goggles with side-shields or face-shield (AS/NZS 1336) whenever exposed to vapour or mist or if there is a risk of splashing liquid in the eyes. Safety showers with eye-wash should be provided in all areas where product is handled. |
| <input type="checkbox"/> Respiratory Protection: | None should be needed if engineering, storage and handling controls are adequate to ensure that atmospheric contamination is kept below the National Standard. Where vapour concentrations are likely to approach or exceed the National Standard, an approved organic vapour respirator (AS/NZS 1715 and 1716) must be worn. In high vapour concentrations, or in suspected oxygen-deficient atmospheres such as empty vessels or confined spaces, use air-supplied hood. |
| <input type="checkbox"/> Thermal Protection: | None should be needed under normal circumstances. |
| <input type="checkbox"/> Smoking & Other Dusts | Smoking must be prohibited in all areas where this product is used. See safety information on flammability above. |

Section 9: Physical and chemical properties

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| Appearance: | Clear colourless liquid |
| Odour: | Sweet fruity odour. Pleasant |
| PH | Not available |
| Vapour Pressure: | 160mm Hg @ 20C |
| Vapour Density: | 4.12 (Air=1) |
| Boiling Point/range (°C): | 60.5-61.5C |
| Freezing/Melting Point (°C): | -63C |
| Solubility: | Slightly soluble |
| Specific Gravity (H₂O = 1): | 1.492 (Water = 1) |
| Flammable materials | Non Flammable |

Section 10: Stability and reactivity

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| Chemical Stability: | Stable |
| Incompatible Materials: | Strong bases, alkali metals, fluorine |
| Conditions to avoid: | Heat, Light loss of inhibitor |
| Hazardous Decomposition Products: | Hydrogen chloride, chlorine, phosgene gas |
| Hazardous Reactions: | Hazardous polymerisation will not occur. |

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Section 11: Toxicological information

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| Effects: Acute | |
| Swallowed: | Accidental swallowing is unlikely in the industrial setting |
| Eyes: | Vapours may irritate the eyes. Liquid and mists may severely irritate or damage the eyes. |
| Skin: | Contact with skin may result in slight irritation and redness. |
| Inhaled: | Vapour is moderately irritating to mucous membranes and respiratory tract. Inhalation of the vapour may result in headache, nausea, incoordination, narcosis (sleepiness) and vomiting.. |

Effects: Chronic

Long term exposure by swallowing or repeated inhalation may cause degenerative changes in the liver, kidneys, gastrointestinal tract and heart muscle.

Prolonged or repeated contact and heavy skin contamination may cause skin drying and cracking and/or dermatitis with redness, itching, and swelling. This may lead to secondary infection.

Ongoing or repeated exposures at high concentrations may cause central nervous system symptoms similar to "Acute: Swallowed" above. Deliberate inhalation of the vapour is a known occupational risk.

Section 12: Ecological information

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| Eco-toxicity: | Fish LC75 ppm,96 hour |
| Persistence and Degradability: | Chloroform will not be expected to bio accumulate |
| Mobility: | No data available |

Section 13: Disposal considerations

Disposal must be in accordance with local waste authority requirements.

Section 14: Transport information

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| Proper Shipping Name: | Chloroform |
| UN number: | 1888 |
| DG Class: | 2 |
| Subsidiary Risk 1: | 6.1 |
| Packaging Group: | III |
| HAZCHEM code: | |
| Marine Pollutant: | None allocated |

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| Special Precautions for User: | Refer to incompatibilities in Section 7 and stability and reactivity information in Section 10. |
| ADDITIONAL TRANSPORT REQUIREMENTS: | |
| Nil | |

Section 15: Regulatory information

Section 16: Other information

Other References:

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| NOHSC:2011 (2003) | National Code of Practice for the Preparation of Material Safety Data Sheets 2nd Edition, April 2003, National Occupational Health and Safety Commission. |
| NOHSC; 2012 (1994) | National Code of Practice for the Labelling of Workplace Substances, March 1994, Australian Government Publishing Service, Canberra. |
| NES | National Occupational Exposure Standards for Workplace Atmospheric Contaminants (NES), Safe Work Australia (formerly ASCC/NOHSC) 1995 as amended. |
| ADG Code | Australian Dangerous Goods Code 7th Edition. |

Authorisation

Authorised by: Quality & Technical Manager
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