

Safety Data Sheet

SECTION 1: Identification

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| Product Name | Chloroform, ACS | |
| Product Code | C1175500 | |
| Other Identifiers | Trichloromethane; Methyl trichloride | |
| Recommended Uses | General Laboratory Reagent/Chemical. | |
| Uses Advised Against | Not intended for drug, food or household use. | |
| Address | 3825 Parrott Drive Charlotte, NC 28214 USA | 24-Hour Emergency Telephone CHEMTREC (USA) 800-424-9300 CHEMTREC (International) 1 + 730-527-3887 |
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| Telephone | 1-800-732-8484 | |
| Website | www.reagents.com | |

SECTION 2: Hazard(s) Identification

Acute toxicity Inhalation (Category 3)
 Acute toxicity Oral (Category 4)
 Carcinogenicity (Category 2)
 Serious eye damage/eye irritation (Category 2A)
 Reproductive toxicity (Category 2)
 Skin corrosion/irritation (Category 2)
 Specific target organ toxicity, repeated exposure (Category 1)
 Specific target organ toxicity, single exposure (Category 3)

Hazards not otherwise classified or covered by GHS

None identified.

Signal Word

DANGER

Hazard Statements

Harmful if swallowed. Causes skin irritation. Causes serious eye irritation. Toxic if inhaled. May cause drowsiness or dizziness. Suspected of causing cancer. Suspected of damaging fertility or the unborn child. Causes damage to organs through prolonged or repeated exposure.

Precautionary Statements

Obtain, read and follow all safety instructions before use. Do not breathe the mist, vapors or spray. Wash areas of contact/exposure thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Wear protective gloves and clothing and eye protection. IF SWALLOWED: Get medical help. Rinse mouth. IF ON SKIN: Wash with plenty of water. Take off contaminated clothing and wash it before reuse. IF skin irritation occurs: Get medical help. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Get emergency medical help immediately. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing. IF eye irritation persists: Get medical help. IF exposed or concerned, get medical advice. Get medical help if you feel unwell. Store in a well-ventilated place. Keep container tightly closed. Store locked up. Dispose of contents/container in accordance with local, state, federal and international regulations.



SECTION 3: Composition / Information on Ingredients

| Component Name | Component Number CAS | Component Number EC | Component Weight % |
|----------------|----------------------|---------------------|--------------------|
| Chloroform | 67-66-3 | 200-663-8 | 99 - 100 |

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SECTION 4: First-Aid Measures

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| General Advice | Show this SDS to attending physician if medical treatment is needed. |
| Skin Contact | Immediately wash affected area with soap and water while removing contaminated clothing . Seek medical attention if there is any evidence of skin damage or persistent irritation. |
| Eye Contact | Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing. Seek immediate medical attention. |
| Inhalation | Remove person to fresh air and keep comfortable for breathing. Immediately call a poison center or physician. Ensure that the patient/victim has an unobstructed airway. If shortness of breath occurs or breathing is difficult, administer oxygen. If breathing has ceased provide artificial respiration. Always use a barrier or bag-valve-mask device. DO NOT GIVE MOUTH-TO-MOUTH RESPIRATION. |
| Ingestion | Rinse mouth. Seek medical attention if feeling unwell. |
| Symptoms/effects | The most important known symptoms/effects are described in Section 2 of this Safety Data Sheet. |
| Treatment | Treat symptomatically. |

SECTION 5: Fire-Fighting Measures

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| Extinguishing Media | Substance is not flammable, use agent most appropriate to extinguish surrounding fire (water, carbon dioxide, dry chemical, sand/earth, foam). |
| Specific Hazards | Thermal decomposition may produce toxic or irritating fumes. |
| Actions for Firefighters | Wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode. |

SECTION 6: Accidental Release Measures

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| Precautions and Procedures | Ensure adequate ventilation. Use personal protective equipment as required. Evacuate unprotected personnel to safe areas. Keep people away from and upwind of spill/leak. |
| Environmental Precautions | As with any chemical, avoid release to the environment for the responsible stewardship of our planet. |
| Containment and Clean Up | Contain and absorb with inert absorbent material. Wear respiratory protection, gloves, eye protection and protective clothing. Sweep up or vacuum up spillage and collect in suitable lidded container for disposal. |

Section 7: Handling and Storage

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| Handling | Follow good hygiene procedures when handling chemical materials. Avoid contact with skin, eyes and clothing. Do not eat, drink, smoke or use personal items when handling this substance. Wear gloves, protective clothing and eye protection when handling this substance. |
| Storage | Keep containers tightly closed in a cool, dry and well-ventilated place. Protect from freezing and physical damage. Store separately from incompatible materials. Store locked up. |

Section 8: Exposure Controls / Personal Protection

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| Engineering Controls | As part of safe chemical handling, emergency eye wash fountains and safety showers should be available in handling areas. Provide sufficient ventilation measures to keep the airborne concentration below the applicable workplace exposure limits. |
| Exposure Limits | Chloroform PEL-Ceiling 240 mg/m ³ US-OSHA |
| Exposure Limits | Chloroform REL-STEL 2 ppm (60 minute) US-NIOSH |
| Exposure Limits | Chloroform TLV-TWA 10 ppm US-ACGIH |
| Eye Protection | Wear safety glasses with side shields or safety goggles. Wear face shield if there is risk of splashes. |
| Skin Protection | Wear chemical resistant gloves and protective clothing. |
| Respiratory Protection | Where exposure limits are exceeded and cannot be adequately controlled by other engineering means (such as a chemical fume hood), wear respiratory protection. |

Section 9: Physical and Chemical Properties

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| Physical State | Liquid |
| Appearance/Color | Colorless |
| Odor | characteristic, pleasant, sweet |
| Odor Threshold | 85 ppm |
| Melting/Freezing Point | -63.5°C |
| Boiling Point/Range | 60.5 - 61.2°C |
| Flammability | Not flammable |
| Flammable/Explosive Limits | Not applicable |
| Flash Point | Not applicable |
| Auto-Ignition Temperature | Not applicable |
| Decomposition Temperature | Data not available |
| pH | Data not available |
| Viscosity | 0.563 cP at 25°C |

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| Solubility (in water) | 8 g/L at 20°C |
| Partition Coefficient (n-octanol/water) | 1.97 |
| Relative Density | 1.484 |
| Vapor Pressure | 211 hPa at 20°C |
| Vapor Density | 4.36 |
| Evaporation Rate | 11.6 (butyl acetate = 1) |
| Particle Characteristics | Not applicable. |

Section 10: Stability and Reactivity

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| Reactivity | Can react explosively with alkali metals. |
| Chemical Stability | Stable under normal conditions of handling and storage. |
| Hazardous Reactions | Based on available data, no reaction hazards have been identified that would occur during normal handling and storage. |
| Conditions to Avoid | Avoid contact with incompatible materials. |
| Incompatible Materials | Fluorine, dinitrogen tetraoxide, triisopropylphosphine. |
| Hazardous Decomposition | Thermal decomposition can produce carbon oxides, chlorine, hydrogen chloride. |

Section 11: Toxicological Information

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| Acute Toxicity - Oral | LD50 (rat) 695 mg/kg |
| Acute Toxicity - Dermal | LD50 (rabbit) >20000 mg/kg |
| Acute Toxicity - Inhalation | LC50 (rat) 47702 mg/m ³ /4H |
| Skin Corrosion/Irritation | Causes skin irritation. |
| Eye Damage/Irritation | Can cause serious eye irritation. |
| Respiratory Sensitization | Not expected to cause respiratory sensitization. |
| Skin Sensitization | Not expected to cause skin sensitization. |
| Germ Cell Mutagenicity | Based on available data, this substance does not meet the criteria set forth for classification as causing germ cell mutagenicity. |
| Carcinogenicity | This substance contains a chemical classified as potentially carcinogenic to humans (IARC: Group 2B; NTP: Reasonably Anticipated to be Human Carcinogen; OSHA: subpart Z). |
| Reproductive Toxicity | This material may cause harm to breast-fed children. |
| STOT Single Exposure | May cause drowsiness or dizziness. |
| STOT Repeated Exposure | Repeated exposures in animals have caused damage to liver and kidneys. Use as an anesthetic in humans shows delayed liver damage. |
| Aspiration Hazard | This substance is not considered to be an aspiration hazard. |
| Other Information | No additional information available. |

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Section 12: Ecological Information

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|-------------------------------------|---------------------------------------------------------------------------------------|
| Toxicity Values | Does not meet the criteria of ecotoxin. |
| Persistence/Biodegradability | Data is not available for this substance that does not meet the criteria of ecotoxin. |
| Bioaccumulation Potential | Data is not available for this substance that does not meet the criteria of ecotoxin. |
| Mobility in Soil | Data is not available for this substance that does not meet the criteria of ecotoxin. |
| Other Adverse Effects | None known. |

Section 13: Disposal Considerations

Discharge, treatment, or disposal may be subject to national, state, regional or local laws. Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Since emptied containers retain product residue, follow label warnings even after container is emptied. Dispose in accordance with national, state, regional and local regulations.

Section 14: Transport Information

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| UN Number | UN1888 |
| Proper Shipping Name, Hazard Class | CHLOROFORM, 6.1 |
| Packing Group | III |
| Marine Pollutant | Not classified as a marine pollutant. |

Section 15: Regulatory Information

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| USA TSCA | On or in compliance with the inventory. |
| USA SARA 302/304 | Chloroform (EHS), TPQ 227 kg (500 lbs) RQ 4.54 kg (10 lbs) |
| USA SARA 311/312 | Chloroform |
| USA SARA 313 (TRI) | Chloroform |
| Canada DSL/NDSL | On or in compliance with DSL. |
| California Proposition 65 | This product contains a chemical on the list. |

Section 16: Other Information

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| Acronyms | ACGIH | American Conference of Governmental Industrial Hygienists (USA) |
| | ATE | Acute Toxicity Estimate (calculated toxicity value) |
| | BCF | Bioconcentration Factor |
| | CERCLA | Comprehensive Environmental Response, Compensation and Liability Act (USA) |
| | DOT | Department of Transportation (USA) |
| | DSL | Domestic Substances List (Canada) |
| | EHS | Extremely Hazardous Substance |
| | EPA | Environmental Protection Agency (United States) |
| | GHS | Globally Harmonized System |
| | IARC | International Agency for Research on Cancer |
| | IDLH | Immediately Dangerous to Life and Health |
| | NTP | National Toxicology Program (USA) |
| | OSHA | Occupational Safety and Health Administration (USA) |
| | PEL | Permissible Exposure Limit |
| | PNOR | Particulates Not Otherwise Classified |
| | PPE | Personal Protective Equipment |
| | ppb | Parts per billion |
| | ppm | Parts per million |
| | RQ | Reportable Quantity |
| | SARA | Superfund Amendments and Reauthorization Act (USA) |
| | TLV | Threshold Limit Value |
| | TPQ | Threshold Planning Quantity |
| | TRI | Toxic Release Inventory (USA) |
| | TSCA | Toxic Substances Control Act (USA) |
| | TWA | Time Weighted Average |
| | UN | United Nations |

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The information contained herein is believed to be accurate and represents the best data currently available to Reagents but does not purport to be all inclusive. This document is intended only as a guide to the appropriate precautionary handling of the material by properly trained personnel using this product. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose. Reagents makes no representations or warranties, either express or implied, including without limitation any warranties of merchantability, fitness for a particular purpose with respect to the information set forth herein or the product to which the information refers. Accordingly, Reagents will not be responsible for damages resulting from use of or reliance upon this information.