

SECTION 1: Identification

Product Name	Chloroform, ACS Reagent (Trichloromethane)	
Other Identifiers	Trichloromethane; Methyl trichloride; 84410-14	
Recommended Uses	General Laboratory Reagent/Chemical.	
Uses Advised Against	Not intended for drug, food or household use.	
Address	SPEX CertiPrep, LLC 203 Norcross Ave. Metuchen, NJ 08840 USA	24-Hour Emergency Telephone
Telephone	1.732.549.7144	CHEMTREC (USA) 800-424-9300 CHEMTREC (International) 1 + 730-527-3887
Website	www.spex.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 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

SECTION 4: First-Aid Measures

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

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

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 a suitable lidded container for disposal.

Section 7: Handling and Storage

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

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

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

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

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

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.

Section 12: Ecological Information

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

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

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

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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This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Department issuing SDS: product safety department

Contact: SPEX CertiPrep, LLC. 1-732-549-7144