

MATERIAL SAFETY DATA SHEET

METHYL CHLORIDE

Product Name: METHYL CHLORIDE

Chemical Product

Chemical Name: Chloromethane

Common Names/Synonyms: Chloromethane

Company Identification: Chengdu Taiyu Industrial Gases Co.,Ltd

For information in the INDIA, call: (86)28 88455212

INFORMATION ON INGREDIENTS

Ingredient Chloromethane

Formula: CH3Cl

Cas: 74-87-3

% Volume > 99.5

Pel-Osha1 100 Ppm Twa

Tlv-Acgh2 200 Ppm Ceiling ; 50 Ppm Twa ; 100 Ppm Stel

Ld50 Or Lc50 - Lc50 15,200 Mg/M3/30m

Route/Species Skin (Rat)

1. Hazards Identification

EMERGENCY OVERVIEW

Inhalation of high concentrations of this compound may cause dizziness and interfere with normal heart rhythm. Exposure to this material may result in toxicity to the liver and kidneys.

FLAMMABLE - Decomposes into phosgene and other toxic gases under fire conditions.

Route Of Entry:

Skin Contact Yes

Skin Absorption No

Eye Contact Yes

Inhalation Yes

Ingestion No

Exposure Limits Yes

Irritant Yes

Sensitization No

Teratogen No

Reproductive Hazard No

Mutagen No

Synergistic Effects None Reported

Carcinogenicity: Ntp: No, Iarc: No, Osha: No

Eye Effects: None anticipated as product is a gas at room temperature.

Skin Effects: None anticipated as product is a gas at room temperature.

Ingestion Effects: Ingestion unlikely.

Inhalation Effects:

Slight Exposure: Appearance of drunkenness, staggering, dizziness, nausea and

<i>Moderate Exposure:</i>	possible hiccups. These effects May be delayed for several days. Mental confusion and possible temporary loss of consciousness.
Medical Conditions Aggravated By Exposure:	<i>Severe exposure:</i> abdominal pains, vomiting, extreme nervousness or trembling to convulsions and death. Individuals with anemia, diseases of the central nervous system or diseases of the kidney or liver should not be exposed to methyl chloride.

2. First Aid Measures

Eyes	Flush eyes immediately with lukewarm water for at least 15 minutes. A physician should see the patient promptly
Skin	Remove contaminated clothing and flush affected areas with lukewarm water. Do not use hot water!
Ingestion	None required
Inhalation	Prompt medical attention is mandatory in all cases of overexposure. Rescue personnel should be equipped with self-contained breathing apparatus and be cognizant of extreme fire and explosion hazards. Conscious persons should be assisted to an uncontaminated area and inhale fresh air. Quick removal from the contaminated area is most important. Unconscious persons should be moved to an uncontaminated area and given artificial resuscitation and supplemental oxygen. Medical assistance should be sought immediately. The physician should be instructed not to use adrenaline as a stimulant in cases of methyl chloride poisoning. Further treatment should be symptomatic and supportive

3. Fire Fighting Measures

Conditions Of Flammability	FLAMMABLE
Flash Point	0 DEG CEL (OC)
Autoignition Temperature	632 DEG CEL LEL(%): 8.1 UEL(%): 17.2
Hazardous Combustion Products:	PHOSGENE, CARBON MONOXIDE, CHLORIDE
Fire And Explosion Hazards	Reacts with moisture in air or with water to form hydrochloric acid. It also forms explosive mixtures with air. If flame is extinguished and flow of gas continues, increase ventilation to prevent explosive mixture formation in low areas or pockets.
Extinguishing Media	Carbon dioxide or dry chemical
Fire Fighting Instructions	Fire fighters should use self-contained breathing apparatus to protect them from toxic combustion products. If possible, stop the flow of gas and allow fuel to consume itself. Use water spray to cool adjacent areas.

4. Accidental Release Measures

Evacuate all personnel from affected area. Use appropriate protective equipment. If leak is in user's equipment, be certain to purge piping with inert gas prior to attempting repairs. If leak is in container or container valve, contact the appropriate emergency telephone number listed in section 1.

5. Handling and Storage

Most metals corrode with wet methyl chloride. Anhydrous methyl chloride (water content less than a dew point of -40°F (-40°C)) can be handled in carbon or stainless steel, copper and bronze. Gasketing materials should be of teflon® or kelf®.

Use only in well-ventilated areas. Valve protection caps must remain in place unless container is secured with valve outlet piped to use point. Do not drag, slide or roll cylinders. Use a suitable hand truck for cylinder movement. Use a pressure reducing regulator when connecting cylinder to lower pressure (<100 psig) piping or systems. Do not heat cylinder by any means to increase the discharge rate of product from the cylinder. Use a check valve or trap in the discharge line to prevent hazardous back flow into the cylinder.

Protect containers from physical damage. Store in cool, dry, well-ventilated area away from heavily trafficked areas and emergency exits. Do not allow the temperature where containers are stored to exceed 130°F (54°C). Containers should be stored upright and firmly secured to prevent falling or being knocked over. Full and empty containers should be segregated. Use a "first in-first out" inventory system to prevent full containers being stored for excessive periods of time. Post "no smoking or open flames" signs in the storage or use area. There should be no sources of ignition in the storage or use area.

Never carry a compressed gas cylinder or a container of a gas in cryogenic liquid form in an enclosed space such as a car trunk, van or station wagon. A leak can result in a fire, explosion, asphyxiation or a toxic exposure.

6. Exposure Controls, Personal Protection

EXPOSURE LIMITS:

INGREDIENT Chloromethane Formula: CH₃Cl CAS: 74-87-3
% VOLUME >99.5

Refer to individual state of provincial regulations, as applicable, for limits which may be more stringent than those listed here.

2 as stated in 29 cfr 1910, subpart z (revised July 1, 1993)

3 as stated in the acgih 1994-1995 threshold limit values for chemical substances and physical agents.

Engineering Controls: Hood with forced ventilation. Use local exhaust to prevent accumulation above the exposure limit.
Mechanical (gen.): in accordance with electrical codes.
Eye/Face Protection: Safety goggles or glasses

Skin Protection:

Protective Gloves: Neoprene or butyl rubber. Do not use PVC or polyethylene.

Respiratory Protection: Positive pressure air line with full-face mask and escape bottle or self-contained breathing apparatus

Other/General Protection: should be available for emergency use.
Safety Shoes, Safety Shower, Eyewash "Fountain",
Faceshield

7. Physical and Chemical Properties

Physical State	Gas
Vapor Pressure At Stp	73.4 Psia
Vapor Density At Stp (Air = 1)	1.45
Boiling Point	23.8 deg cel
Oil/Water Partition Coefficient	Not Available
Solubility (H2O)	Very Slightly
Odor Threshold	Not Available
Odor And Appearance	Colorless Gas With A Slightly Sweet Odor; Liquid Is Water White.

8. STABILITY AND REACTIVITY

Stability:	Stable At Temperatures Below 750of (399oc). Hydrolyzes Slowly Below 212of
Incompatible Materials:	Reacts With Zinc, Its Alloys And Galvanized Iron. Explodes On Contact With Magnesium. Reacts With Aluminum & Its Alloys To Form Methylated Aluminum Compounds Which Are Flammable In Air. Reacts Explosively With Sodium & Alkali Metals.
Hazardous Decomposition Products:	Hydrogen Chloride, Carbon Monoxide, Phosgene, Chloride And Chlorine.
Hazardous Polymerization:	Will Not Occur.

9. TOXICOLOGICAL INFORMATION

REPRODUCTIVE:	Reproductive toxicity observed in male rats following an inhalation exposure of 2000 ppm for 6 hours. Developmental defects observed following inhalation exposure of pregnant female rats to 1500 ppm for 6 hours.
MUTAGENIC:	Unspecified human mutagenic data is available for this substance.
OTHER:	When inhaled, it enters the body cells where hydrolysis to hydrochloric acid and methyl alcohol occurs. This Results in degenerative changes to the lungs, brain, kidney and liver. Methyl chloride is readily absorbed into the body, but is very slowly given up, resulting in the possibility of latent toxicological effects. In fatal cases, autopsy has shown congestion of the lungs, liver and kidneys.

10. Disposal Considerations

Do not attempt to dispose of residual waste or unused quantities. Return in the shipping container properly labeled, with any valve outlet plugs or caps secured and valve protection cap in place to authorized distributor for proper disposal.

11. Transport Information

Proper Shipping Name:	Methyl Chloride
Hazard Class:	2.1
Identification Number:	UN 1063
Shipping Label:	Flammable Gas

12. Regulatory Information

Chloromethane is listed under the accident prevention provisions of section 112(R) of the clean air act (CAA) with a threshold quantity (TG) of 10,000 pounds. CAS number ingredient name percent by volume 74-87-3 chloromethane > 99.5

13. Other Information

Compressed gas cylinders shall not be refilled without the express written permission of the owner. Shipment of a compressed gas cylinder which has not been filled by the owner or with his/her (written) consent is a violation of transportation regulations.

MSDS Creation Date:	July 22, 2015
Revision #0 Date	

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