SAFETY DATA SHEET

SECTION 1) CHEMICAL PRODUCT AND SUPPLIER'S IDENTIFICATION

CAS Number:	75-09-2		
Product Name:	Methylene chloride		
Revision Date:	Jan 29, 2018	**Date Printed:**	Jan 29, 2018
Version:	1.1	**Supersedes Date:**	Oct 19, 2017
Manufacturer's Name:	Thames River Chemical Corp.		
Address:	5230 Harvester Road Burlington, ON, CA, L7L 4X4		
Emergency Phone:	CHEMTREC (800) 424-9300		
Information Phone Number:	905-681-5353		
Fax:	905-681-5377		

Product/Recommended Uses: For laboratory or industrial use only.

SECTION 2) HAZARDS IDENTIFICATION

Classification

Acute toxicity Oral - Category 4

Carcinogenicity - Category 2

Eye Irritation - Category 2A

Reproductive Toxicity - Category 2

Skin Irritation - Category 2

Specific Target Organ Toxicity - Repeated Exposure - Category 2

Specific Target Organ Toxicity -Single Exposure (Narcotic Effects) - Category 3

Pictograms

Signal Word

Warning

Hazard Statements - Health

Harmful if swallowed

Suspected of causing cancer.

Causes serious eye irritation

Suspected of damaging fertility or the unborn child.

Causes skin irritation

May cause damage to organs through prolonged or repeated exposure.

May cause drowsiness or dizziness

Precautionary Statements - General

If medical advice is needed, have product container or label at hand.

Keep out of reach of children.

Read label before use.

Precautionary Statements - Prevention

Wash thoroughly/Wash hands thoroughly after handling.

Do not eat, drink or smoke when using this product.

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

Wear protective gloves/protective clothing/eye protection/face protection.

Do not breathe dust/fume/gas/mist/vapors/spray.

Avoid breathing dust/fume/gas/mist/vapors/spray.

Use only outdoors or in a well-ventilated area.

Keep container tightly closed.

Precautionary Statements - Response

IF SWALLOWED: Call a POISON CENTER or doctor, if you feel unwell.

Rinse mouth.

IF exposed or concerned: Get medical advice/attention.

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 advice/attention.

IF ON SKIN: Wash with plenty of water and soap.

Specific treatment (see first-aid on the SDS).

If skin irritation occurs: Get medical advice/attention.

Take off contaminated clothing. And wash it before reuse.

Get Medical advice/attention if you feel unwell.

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

Call a POISON CENTER or doctor, if you feel unwell.

Precautionary Statements - Storage

Store locked up.

Store in a well-ventilated place. Store locked up.

Precautionary Statements - Disposal

Dispose of contents/container in accordance with local/national/international regulation. Waste management should be in full compliance with national, regional and local laws.

Physical Hazards Not Otherwise Classified

No Data Available

Health Hazards Not Otherwise Classified

No Data Available

SECTION 3) COMPOSITION/INFORMATION ON INGREDIENTS

CAS	Chemical Name	% By Weight
0000075-09-2	METHYLENE CHLORIDE	100%

SECTION 4) FIRST-AID MEASURES

Inhalation

Remove source of exposure or move person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor.

Eye Contact

Rinse eyes cautiously with lukewarm, gently flowing water for several minutes, while holding the eyelids open. Remove contact lenses, if present and easy to do. Continue rinsing for a duration of 15-20 minutes or until medical aid is available. If irritation occurs, cautiously rinse eyes with lukewarm, gently flowing water for 5 minutes, while holding the eyelids open.

Skin Contact

Take off contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Rinse/wash with lukewarm, gently flowing water and mild soap for 5 minutes or until product is removed. If skin irritation occurs or you feel unwell: Get medical advice/attention. Wash contaminated clothing before re-use or discard.

Ingestion

Do NOT induce vomiting. If vomiting occurs naturally, lie on your side, in the recovery position. Get medical advice/attention.

Most Important Symptoms and Effects, Both Acute and Delayed

No Data Available

Indication of Any Immediate Medical Attention and Special Treatment Needed

No Data Available

SECTION 5) FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Small Fire : Dry chemical, foam, carbon dioxide, water-spray or alcohol-resistant foam. Carbon dioxide can displace oxygen. Use caution when applying carbon dioxide in confined spaces. Large Fire: Water spray, fog or alcohol-resistant foam.

Unsuitable Extinguishing Media

Do not use straight stream of water.

Specific Hazards in Case of Fire

Fire will produce irritating gases.

Fire-fighting Procedures

Isolate immediate hazard area and keep unauthorized personnel out. Move undamaged containers from immediate hazard area if it can be done safely.

Special Protective Actions

Wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear.

SECTION 6) ACCIDENTAL RELEASE MEASURES

Emergency Procedure

Isolate hazard area and keep unauthorized personnel away. Stay uphill and/or upstream. Do not touch damaged containers or spilled materials unless wearing appropriate protective clothing. Ventilate closed spaces before entering.

Recommended Equipment

Wear chemical protective clothing.

Personal Precautions

Avoid breathing vapor or mist. Avoid contact with skin, eye or clothing.

Environmental Precautions

Stop spill/release if it can be done safely. Prevent spilled material from entering sewers, storm drains, other unauthorized drainage systems and natural waterways by using sand, earth, or other appropriate barriers. Dike far ahead of liquid spill for later disposal.

Methods and Materials for Containment and Cleaning up

Absorb Liquids in vermiculite, dry sand, earth, or similar inert material and deposit in sealed containers for disposal.

SECTION 7) HANDLING AND STORAGE

General

Wash hands after use. Do not get in eyes, on skin or on clothing. Do not breathe vapors or mists. Use good personal hygiene practices. Eating, drinking and smoking in work areas is prohibited. Remove contaminated clothing and protective equipment before entering eating areas. Eyewash stations and showers should be available in areas where this material is used and stored All containers must be properly labelled.

Ventilation Requirements

Use only with adequate ventilation to control air contaminants to their exposure limits.

Storage Room Requirements

Store in dry, cool areas, out of direct sunlight and away from other sources of heat. Empty container retain residue and may be dangerous.

SECTION 8) EXPOSURE CONTROLS/PERSONAL PROTECTION

Eye protection

Wear indirect-vent, impact and splash resistant goggles when working with liquids

Skin Protection

Use of gloves approved to relevant standards made from the following materials may provide suitable chemical protection: PVC, neoprene or nitrile rubber gloves. Suitability and durability of a glove is dependent on usage, e.g. frequency and duration of contact, chemical resistance of glove material, glove thickness, dexterity. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory Protection

If engineering controls do not maintain airborne concentrations to a level which is adequate to protect worker, a respiratory protection program that meets or is equivalent to OSHA 29 CFR 1910.134 should be followed. Check with respiratory protective equipment suppliers.

Appropriate Engineering Controls

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value.

Chemical Name	CANsmg	CANsppm	CANtmg	CANtppm	OSHA STEL (mg/m3)	OSHA STEL (ppm)	OSHA TWA (mg/m3)	OSHA TWA (ppm)	OSHA Carcinogen	OSHA Tables (Z1, Z2, Z3)	OSHA Skin designation	ACGIH STEL (mg/m3)
METHYLENE CHLORIDE	754	200	173	50		125 /15 minutes		25 (a)	1	1,2		

Chemical Name	ACGIH STEL (ppm)	ACGIH TWA (mg/m3)	ACGIH TWA (ppm)	ACGIH TLV Basis	ACGIH Carcinogen	ACGIH Notations
METHYLENE CHLORIDE		174	50	COHb-emia; CNS impair	A3	A3; BEI

(C) - Ceiling limit, A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans, BEI - Substances for which there is a Biological Exposure Index or Indices, CNS - Central nervous system, COHb-emia - Carboxyhemoglobinemia, impair - Impairment

SECTION 9) PHYSICAL AND CHEMICAL PROPERTIES

Physical and Chemical Properties

Density	11.09 lb/gal
Specific Gravity	1.33
Appearance	clear, colourless liquid
Odor Description	sweet, pleasant odour
Odor Threshold	N/A
pH	5.0 - 7.0
Melting Point	-97 °C
Low Boiling Point	40 °C
High Boiling Point	N/A
Flash Point	not measurable by standard methods
Vapor Pressure	403 mmHg
Vapor Density	2.93 (air = 1)

Evaporation Rate	0.35 (n-butyl acetate = 1)
Upper Explosion Level	N/A
Lower Explosion Level	not explosive
Water Solubility	13 g/L
Coefficient Water/Oil	Log P(oct) = 1.25
Viscosity	0.43 centipoises (20°C)

SECTION 10) STABILITY AND REACTIVITY

Reactivity

May hydrolyze very slowly in the presence of water to form acids.

Stability

Stable under normal storage and handling conditions.

Conditions to Avoid

Avoid heat, sparks, flame, high temperature, freezing and contact with incompatible materials.

Hazardous Reactions/Polymerization

Hazardous polymerization will not occur.

Incompatible Materials

Strong bases, acids, oxidizing and reducing agents. Amines and Reactive metals

Hazardous Decomposition Products

Hydrochloric acid.

SECTION 11) TOXICOLOGICAL INFORMATION

Likely Route of Exposure

Inhalation, ingestion, skin absorption

Acute Toxicity

Harmful if swallowed

Aspiration Hazard

No Data Available

Carcinogenicity

Suspected of causing cancer.

Germ Cell Mutagenicity

No Data Available

Reproductive Toxicity

Suspected of damaging fertility or the unborn child.

Respiratory/Skin Sensitization

No Data Available

Serious Eye Damage/Irritation

Causes serious eye irritation

Skin Corrosion/Irritation

Causes skin irritation

Specific Target Organ Toxicity - Repeated Exposure

May cause damage to organs through prolonged or repeated exposure.

Specific Target Organ Toxicity - Single Exposure

May cause drowsiness or dizziness

Acute Exposure

0000075-09-2 METHYLENE CHLORIDE

The substance is irritating to the eyes, skin and respiratory tract. It can cause effects on the CNS, blood, liver, heart and lungs. Exposure could cause carbon monoxide poisoning resulting in impaired functions. Exposure at high concentrations could cause lowering of consciousness and death. Methylene Chloride is a potent irritant of mucous membranes. If swallowed, the substance may cause vomiting and could result in aspiration pneumonitis.

Chronic Exposure

0000075-09-2 METHYLENE CHLORIDE

Inhalation exposure may result in neurological symptoms, including paraesthesiae, respiratory irritation and gastrointestinal disturbances. Long term exposure causes damage to the CNS and to the liver. Repeated or prolonged contact with skin may cause dermatitis.

Potential Health Effects - Miscellaneous

0000075-09-2 METHYLENE CHLORIDE

Is an IARC, NTP or OSHA Carcinogen. There is limited evidence that this substance causes spontaneous abortions. Contact can severely irritate and burn the skin and eyes with possible eye damage. Skin contact may cause inflammation and burns. Inhalation of high concentrations can have narcotic effects; Carbon monoxide produced as a metabolite in the body.

0000075-09-2 METHYLENE CHLORIDE

LC50 (guinea pig): 11600 ppm (6-hour exposure) (7)
LC50 (rat): 57000 ppm (15-minute exposure) (8)
LC50 (mouse): 16186 ppm (8-hour exposure) (9)

LD50 (oral, rat): 2100 to 3000 mg/kg (1)

SECTION 12) ECOLOGICAL INFORMATION

Toxicity

Toxicity to fish - LC50/96h/Fathead minnows = 193 mg/L
NOEC Fish - 83 mg/L/28 days
Toxicity to daphnia - EC50/48h/daphnia = 27 mg/L
NOEC Daphnia - 6.2 - 13.3 mg/L (estimated)
Toxicity to algae - EC50/96h/green algae = 662 mg/L
NOEC Green algae - 56mg/L/96hr

Mobility in Soil

No Data Available

Bio-accumulative Potential

The log Kow value for Methylene chloride is 1.24, and its Bioconcentration factor (BCF) is 6.4 - 40.

Persistence and Degradability

Methylene chloride is not considered to be readily biodegradable.

Other Adverse Effects

No Data Available

SECTION 13) DISPOSAL CONSIDERATIONS

Waste Disposal

Empty Containers retain product residue which may exhibit hazards of material, therefore do not pressurize, cut, glaze, weld or use for any other purposes. It is the responsibility of the user of the product to determine at the time of disposal whether the product meets local criteria for hazardous waste. Waste management should be in full compliance with national, provincial and local laws.

SECTION 14) TRANSPORT INFORMATION

Transport Canada Information

UN number: UN1593

Proper shipping name: Dichloromethane

Hazard class: 6.1

Packaging group: III

U.S. DOT Information

UN number: UN1593

Proper shipping name: Dichloromethane

Hazard class: 6.1

Packaging group: III

SECTION 15) REGULATORY INFORMATION

CAS	Chemical Name	% By Weight	Regulation List
0000075-09-2	METHYLENE CHLORIDE	100%	DSL,TSCA,CA_Prop65 - California Proposition 65,EU_EC_Inventory - EC Inventory

SECTION 16) OTHER INFORMATION

Glossary

ACGIH- American Conference of Governmental Industrial Hygienists; ANSI- American National Standards Institute; Canadian TDG- Canadian Transportation of Dangerous Goods; CANsmg or CANsppm - Canadian Short Term Exposure Level in mg/L or in ppm; CANtmg or CANtppm - Canadian Time Weighted Average in mg/L or in ppm; CAS- Chemical Abstract Service; Chemtrec- Chemical Transportation Emergency Center(US); CHIP- Chemical Hazard Information and Packaging; DSL- Domestic Substances List; EC- Equivalent Concentration; EH40 (UK)- HSE Guidance Note EH40 Occupational Exposure Limits; EPCRA- Emergency Planning and Community Right-To-Know Act; ESL Effects screening levels; HMIS- Hazardous Material Information Service; LC- Lethal Concentration; LD- Lethal Dose; NFPA- National Fire Protection Association; OEL- Occupational Exposure Limits; OSHA- Occupational Safety and Health Administration, US Department of Labor; PEL- Permissible Exposure Limit; SARA (Title III)- Superfund Amendments and Reauthorization Act; SARA 313- Superfund Amendments and Reauthorization Act, Section 313; SCBA- Self Contained Breathing Apparatus; STEL-Short Term Exposure Limit; TCEQ Texas Commission on Environmental Quality; TLV- Threshold Limit Value; TSCA- Toxic Substances Control Act Public Law 94-469; TWA Time Weighted Value; US DOT- US Department of Transportation; WHMIS- Workplace Hazardous Materials Information System.

Version 1.1:

Revision Date: Jan 29, 2018

DISCLAIMER