



## Methylene Chloride ACS

### 1. PRODUCT AND COMPANY IDENTIFICATION

**Product Name:** Methylene Chloride

**Synonyms/Generic Names:** Dichloromethane

**Product Number:** 5409

**Product Use:** Industrial, Manufacturing or Laboratory use

**Manufacturer:** Post Apple Scientific, Inc.  
8893 Gulf Rd North  
East, PA 16428

**For More Information Call:** 814-725-3330 (Monday-Friday 8:00-5:00)

**In Case of Emergency Call:** CHEMTREC - 800-424-9300 or 703-527-3887 (24 Hours/Day, 7 Days/Week)

### 2. HAZARDS IDENTIFICATION

**OSHA Hazards:** Carcinogen, Target organ effect, Irritant

**Target Organs:** Liver, Pancreas, Blood, Central nervous system, Heart, Kidney

**Signal Words:** Warning

**Pictograms:**



**GHS Classification:**

Acute toxicity, Oral	Category 5
Acute toxicity, Dermal	Category 5
Skin irritation	Category 2
Eye irritation	Category 2A
Carcinogenicity	Category 2
Specific target organ toxicity-single exposure (respiratory system, central nervous system)	Category 3
Specific target organ toxicity-repeated exposure (oral, liver, blood)	Category 2
Specific target organ toxicity-repeated exposure (inhalation, central nervous system)	Category 2

**GHS Label Elements, including precautionary statements:**

**Hazard Statements:**

H303+H313	May be harmful if swallowed or in contact with skin.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.

H336	May cause drowsiness or dizziness.
H351	Suspected of causing cancer.
H373	May cause damage to organs (Liver, Blood) through prolonged or repeated exposure if swallowed.
H373	May cause damage to organs (Central nervous system) through prolonged or repeated exposure.

**Precautionary Statements:**

P261	Avoid breathing dust/fume/gas/mist/vapors/spray.
P281	Use personal protective equipment as required.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing.

**Potential Health Effects**

<b>Eyes</b>	Causes eye irritation.
<b>Inhalation</b>	May be harmful if inhaled. Causes respiratory tract irritation. Vapors may cause drowsiness and dizziness.
<b>Skin</b>	Harmful if absorbed through skin. Causes skin irritation.
<b>Ingestion</b>	Harmful if swallowed.

**NFPA Ratings**

<b>Health</b>	2
<b>Flammability</b>	1
<b>Reactivity</b>	0
<b>Specific hazard</b>	Not Available

**HMIS Ratings**

<b>Health</b>	2
<b>Fire</b>	1
<b>Reactivity</b>	0
<b>Personal</b>	H

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Component	Weight %	CAS #	EINECS# / ELINCS#	Formula	Molecular Weight
Methylene Chloride	>99	75-09-2	200-838-9	CH <sub>2</sub> Cl <sub>2</sub>	84.93 g/mol

**4. FIRST-AID MEASURES**

<b>Eyes</b>	Rinse with plenty of water for at least 15 minutes and seek medical attention.
<b>Inhalation</b>	Move casualty to fresh air and keep at rest. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention.
<b>Skin</b>	Flush with plenty of water for at least 15 minutes while removing contaminated clothing and wash using soap. Get medical attention.
<b>Ingestion</b>	<b>Do Not Induce Vomiting!</b> Never give anything by mouth to an unconscious person. If conscious, wash out mouth with water. Get medical attention.

**5. FIRE-FIGHTING MEASURES**

<b>Suitable (and unsuitable) extinguishing media</b>	Product may be flammable at high temperatures. Use water spray, alcohol-resistant foam, dry chemicals or carbon dioxide to extinguish fire. Use appropriate media for adjacent fire. Cool containers with water.
<b>Special protective equipment and precautions for firefighters</b>	Wear self-contained, approved breathing apparatus and full protective clothing, including eye protection and boots.
<b>Specific hazards arising from the chemical</b>	Emits toxic fumes (carbon oxides, hydrogen chloride gas) under fire conditions. (See also Stability and Reactivity section).

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## 6. ACCIDENTAL RELEASE MEASURES

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<b>Personal precautions, protective equipment and emergency procedures</b>	See section 8 for recommendations on the use of personal protective equipment.
<b>Environmental precautions</b>	Prevent spillage from entering drains. Any release to the environment may be subject to federal/national or local reporting requirements.
<b>Methods and materials for containment and cleaning up</b>	Neutralize spill with sodium bicarbonate or lime. Absorb spill with noncombustible absorbent material, then place in a suitable container for disposal. Clean surfaces thoroughly with water to remove residual contamination. Dispose of all waste and cleanup materials in accordance with regulations.

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## 7. HANDLING AND STORAGE

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### Precautions for safe handling

See section 8 for recommendations on the use of personal protective equipment. Use with adequate ventilation. Wash thoroughly after using. Keep container closed when not in use. Avoid formation of aerosols.

### Conditions for safe storage, including any incompatibilities

Store in cool, dry well ventilated area. Keep away from incompatible materials (see section 10 for incompatibilities).

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## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

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### Occupational exposure controls:

Component	Exposure Limits	Basis	Entity
Methylene Chloride	50 ppm 174 mg/m <sup>3</sup>	TLV	ACGIH
	25 ppm	PEL	OSHA
	125	STEL	OSHA

TWA: Time Weighted Average over 8 hours of work.

TLV: Threshold Limit Value over 8 hours of work.

REL: Recommended Exposure Limit

PEL: Permissible Exposure Limit

STEL: Short Term Exposure Limit during x minutes.

IDLH: Immediately Dangerous to Life or Health

WEEL: Workplace Environmental Exposure Levels

CEIL: Ceiling

### Personal Protection

<b>Eyes</b>	Wear chemical safety glasses or goggles.
<b>Inhalation</b>	Provide local exhaust, preferably mechanical. If exposure levels are excessive, use an approved respirator.
<b>Skin</b>	Wear nitrile or rubber gloves, apron or lab coat. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
<b>Other</b>	Not Available

### Other Recommendations

Provide eyewash stations, quick-drench showers and washing facilities accessible to areas of use and handling.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance (physical state, color, etc.)	Colorless liquid.
Odor	Not Available
Odor threshold	Not Available
pH	Not Available
Melting point/freezing point	-97°C (-143°F)
Initial boiling point and boiling range	39°C (103°F)
Flash point	Not Available
Evaporation rate	0.71
Flammability (solid, gas)	Flammable
Upper/lower flammability or explosive limit	Upper: 19% (V) Lower:12% (V)
Vapor pressure	470.9 hPa (353.2 mmHg) at 20°C (68°F)
Vapor density	2.93 (air=1)
Density	1.325 (water=1)
Solubility (ies)	Soluble in methanol, diethyl ether, n-octanol, acetone. Partially soluble in water.
Partition coefficient: n-octanol/water	log Pow: 1.25
Auto-ignition temperature	556°C (1,032°F)
Decomposition temperature	Not Available

## 10. STABILITY AND REACTIVITY

<b>Chemical Stability</b>	Stable
<b>Possibility of Hazardous Reactions</b>	Will not occur.
<b>Conditions to Avoid</b>	Heat, flames, sparks, exposure to sunlight.
<b>Incompatible Materials</b>	Alkali metals, aluminum, strong oxidizing agents, bases, amines, magnesium, strong acids, strong bases, vinyl compounds.
<b>Hazardous Decomposition Products</b>	Carbon oxides, hydrogen chloride gas.

## 11. TOXICOLOGICAL INFORMATION

### Acute Toxicity

<b>Skin</b>	Rabbit – 24h – Skin irritation
<b>Eyes</b>	Rabbit – 24h – Mild eye irritation
<b>Respiratory</b>	LC50 – Rat – 52,000 mg/m <sup>3</sup>
<b>Ingestion</b>	LD50 – Rat – 1,600 mg/kg

### Carcinogenicity

<b>IARC</b>	2B-Group 2B: Possibly carcinogenic to humans (Methylene chloride).
<b>ACGIH</b>	A3: Animal carcinogen (Methylene chloride).
<b>NTP</b>	Reasonably anticipated to be a human carcinogen (Methylene chloride).
<b>OSHA</b>	1910.1052 (Methylene chloride).

### Signs & Symptoms of Exposure

<b>Skin</b>	Defatting, dermatitis.
<b>Eyes</b>	Redness, blurred vision, tears.
<b>Respiratory</b>	Difficulty breathing, dizziness, drowsiness, anesthetic effects.
<b>Ingestion</b>	Nausea, vomiting, increased liver enzymes, weakness, abdominal pain.

<b>Chronic Toxicity</b>	Carcinogenicity - rat - Inhalation Tumorigenic: Carcinogenic by RTECS criteria. Endocrine: Tumors.
<b>Teratogenicity</b>	Passes through the placenta, excreted in maternal milk.
<b>Mutagenicity</b>	Genotoxicity in vivo - rat - Oral DNA damage
<b>Embryotoxicity</b>	Not Available
<b>Specific Target Organ Toxicity- Single exposure</b>	May cause respiratory irritation. May cause drowsiness or dizziness.
<b>Specific Target Organ Toxicity- Repeated exposure</b>	Inhalation - May cause damage to organs through prolonged or repeated exposure. - Central nervous system Oral - May cause damage to organs through prolonged or repeated exposure. - Liver, Blood
<b>Reproductive Toxicity</b>	Not Available
<b>Respiratory/Skin Sensitization</b>	Not Available

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## 12. ECOLOGICAL INFORMATION

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### Ecotoxicity

<b>Aquatic Vertebrate</b>	LC50 – Pimephales promelas – 193 mg/L – 96h NOEC – Cyprinodon variegates – 130 mg/L – 96h
<b>Aquatic Invertebrate</b>	EC50 – Daphnia magna – 1,682 mg/L – 48h
<b>Terrestrial</b>	Not Available

<b>Persistence and Degradability</b>	Not Available
<b>Bioaccumulative Potential</b>	Not Available
<b>Mobility in Soil</b>	Not Available
<b>PBT and vPvB Assessment</b>	Not Available
<b>Other Adverse Effects</b>	Not Available

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## 13. DISPOSAL CONSIDERATIONS

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<b>Waste Residues</b>	Users should review their operations in terms of the applicable federal/national or local regulations and consult with appropriate regulatory agencies if necessary before disposing of waste product container.
<b>Product Containers</b>	Users should review their operations in terms of the applicable federal/national or local regulations and consult with appropriate regulatory agencies if necessary before disposing of waste product container.

The information offered in section 13 is for the product as shipped. Use and/or alterations to the product may significantly change the characteristics of the material and alter the waste classification and proper disposal methods.

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## 14. TRANSPORTATION INFORMATION

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US DOT	UN1593, Dichloromethane, 6.1, pg III
TDG	UN1593, DICHLOROMETHANE, 6.1, pg III
IMDG	UN1593, DICHLOROMETHANE, 6.1, pg III
Marine Pollutant	No
IATA/ICAO	UN1593, Dichloromethane, 6.1, pg III

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## 15. REGULATORY INFORMATION

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TSCA Inventory Status	All ingredients are listed on the TSCA inventory.
DSCL (EEC)	All ingredients are listed on the DSCL inventory.
California Proposition 65	Listed: Methylene Chloride
SARA 302	Not Listed
SARA 304	Not Listed
SARA 311	Acute Health Hazard, Chronic Health Hazard
SARA 312	Acute Health Hazard, Chronic Health Hazard
SARA 313	Listed: Methylene Chloride
WHMIS Canada	Class D-1B: Toxic material causing immediate and serious toxic effects. Class D-2A: Very toxic material causing other toxic effects. Class D-2B: Toxic material causing other toxic effects.

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## 16. OTHER INFORMATION

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Revision	Date
Revision 1	07-16-2012
Revision 2	06/05/2015

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