## **SECTION 1: Identification**

#### 1.1. Product Identifier

Trade Name or Designation: Dichloromethane, ACS Reagent Grade

(Methylene Chloride)

Product Number: RDCD0100

Other Identifying Product Numbers: RDCD0100-1C, RDCD0100-4C

#### 1.2. Recommended Use and Restrictions on Use

General Laboratory Reagent

## 1.3. Details of the Supplier of the Safety Data Sheet

Company: Ricca Chemical Company

Address: 448 West Fork Drive

Arlington, TX 76012 USA

Telephone: 888-467-4222

## 1.4. Emergency Telephone Number (24 hr)

CHEMTREC (USA) 800-424-9300 CHEMTREC (International) 1+ 703-527-3887

## **SECTION 2: Hazard(s) Identification**

#### 2.1. Classification of the Substance or Mixture (in accordance with OSHA HCS 29 CFR 1910.1200)

For the full text of the Hazard and Precautionary Statements listed below, see Section 16.

		Hazard	
Hazard Class	Category	Statement	Precautionary Statements
Acute Toxicity - Oral	Category 4	H302	P264, P270, P301+P312, P330, P501
Skin Corrosion / Irritation	Category 2	H315	P264, P280, P302+P352, P321, P332+P313, P362
Eye Damage / Irritation	Category 2A	H319	P264, P280, P305+P351+P338, P337+P313
Carcinogenicity	Category 1	H350	P201, P202, P280, P308+P313, P405, P501
Specific Target Organs/Systemic Toxicity Following Single Exposure	Category 1	H370	P260, P264, P270, P307+P311, P321, P405, P501
Specific Target Organs/Systemic Toxicity Following Repeated Exposure	Category 1	H372	P260, P264, P270, P314, P501
Hazardous to the Aquatic Environment (Acute)	Category 3	H402	P273, P501
Hazardous to the Aquatic Environment (Chronic)	Category 2	H401	P273, P501

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## 2.2. GHS Label Elements

Pictograms:







Signal Word: Danger

#### **Hazard Statements:**

Hazard Number	Hazard Statement
H302	Harmful if swallowed.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H350	May cause cancer.
H370	Causes damage to organs.
H372	Causes damage to organs through prolonged or repeated exposure.
H401	Toxic to aquatic life.
H402	Harmful to aquatic life.

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#### **Precautionary Statements:**

Precautionary Number	Precautionary Statement
P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P260	Do not breathe fumes, mist, vapors, or spray.
P264	Wash arms, hands and face thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P273	Avoid release to the environment.
P280	Wear protective gloves and eye protection.
P301+P312	IF SWALLOWED: Call a POISON CENTER or physician if you feel unwell.
P302+P352	IF ON SKIN: Wash with plenty of soap and water.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy
	to do. Continue rinsing.
P307+P311	IF exposed: Call a POISON CENTER or physician.
P308+P313	IF exposed or concerned: Get medical attention.
P314	Get medical attention if you feel unwell.
P321	Specific treatment (Wash areas of contact with water).
P330	Rinse mouth.
P332+P313	If skin irritation occurs: Get medical attention.
P337+P313	If eye irritation persists: Get medical attention.
P362	Take off contaminated clothing and wash it before reuse.
P405	Store locked up.
P501	Dispose of contents in accordance with local, state, federal and international regulations.

#### 2.3. WHMIS Classification

WHMIS classification is not included based on the recommended option (Option 4) found in the Canada Gazette Part II, Vol. 149, No.3, page 458

## 2.4. Hazards not Otherwise Classified or Covered by GHS

Data not available.

## **SECTION 3: Composition / Information on Ingredients**

## 3.1. Components of Substance or Mixture

Chemical Name	Formula	Molecular Weight	CAS Number	Weight%
Methylene Chloride	CH <sub>2</sub> Cl <sub>2</sub>	84.93 g/mol	75-09-2	100.00%

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## **SECTION 4: First-Aid Measures**

#### 4.1. General First Aid Information

Eye Contact: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue

rinsing. May cause irritation with burning and stinging with possible damage to the cornea and conjunctiva.

**Inhalation:** Not expected to require first aid. If necessary, remove to fresh air.

Skin Contact: IF ON SKIN: Wash with plenty of soap and water. May cause irritation, redness and pain. Frequent or prolonged exposure may

cause hypersensitivity leading to contact dermatitis.

Ingestion: IF SWALLOWED: Call a POISON CENTER or physician if you feel unwell. Do not induce vomiting. Give large quantity of

water. Call a physician immediately.

### 4.2. Most Important Symptoms and Effects, Acute and Delayed

Suspected carcinogen. Harmful if swallowed, inhaled or absorbed through skin. Do not pipet by mouth. If ingested, give large quantity of water. Call a physician. Wash areas of contact with plenty of water for 15 minutes. For eyes, get medical attention. Affects central nervous system, liver, cardiovascular system and blood. Causes irritation to eyes, skin and respiratory tract. EYE CONTACT: May cause irritation with burning and stinging with possible damage to the cornea and conjunctiva. SKIN CONTACT: May cause irritation, redness and pain. Frequent or prolonged exposure may cause hypersensitivity leading to contact dermatitis. CHRONIC EFFECTS / CARCINOGENICITY: Can cause headache, mental confusion, depression, liver effects, kidney effects, bronchitis, loss of appetite, nausea, lack of balance, and visual disturbances. Can cause dermatitis upon prolonged skin contact. Methylene chloride may cause cancer in humans.

### 4.3. Medical Attention or Special Treatment Needed

Specific treatment (Wash areas of contact with water).

## **SECTION 5: Fire-Fighting Measures**

### 5.1. Extinguishing Media

Use extinguishing media appropriate for surrounding fire.

#### 5.2. Specific Hazards Arising from the Substance or Mixture

No flash point in conventional closed tester, but forms flammable vapor-air mixtures in larger volumes and may be an explosion hazard in a confined space. Combustion may produce irritants and toxic gases. Combustion by-products include hydrogen chloride and phosgene.

#### 5.3. Special Protective Equipment for Firefighters

Wear full protective clothing and positive pressure self-contained breathing apparatus. Polyvinyl chloride barrier recommended.

## **SECTION 6: Accidental Release Measures**

#### 6.1. Personal Precautions, Protective Equipment and Emergency Procedures

Wear protective gloves and eye protection.

### 6.2. Cleanup and Containment Methods and Materials

Stop or control the leak, if this can be done without undue risk. Control runoff and isolate discharged material for proper disposal.

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## **SECTION 7: Handling and Storage**

### 7.1. Precautions for Safe Handling and Storage Conditions

Store locked up. As with all chemicals, wash hands thoroughly after handling. Avoid contact with eyes and skin. Protect from physical damage. Keep in tightly closed containers in a cool, dry area.

## **SECTION 8: Exposure Controls / Personal Protection**

#### 8.1. Control Parameters

Chemical Name	Limit Type	Country	Exposure Limit	Information Source
Methylene Chloride (75-09-2)	TWA	USA	25 ppm TWA	U.S OSHA - Final PELs - Time
				Weighted Averages (TWAs)
Methylene Chloride (75-09-2)	TLV-TWA	USA	50 ppm TWA	ACGIH - Threshold Limit Values - Time
				Weighted Averages (TLV-TWA)
Methylene Chloride (75-09-2)	PEL-STEL	USA	125 ppm STEL (see 29 CFR	U.S OSHA - Final PELs - Short Term
			1910.1052)	Exposure Limits
Methylene Chloride (75-09-2)	PEL	USA	12.5 ppm Action Level (See 29 CFR	U.S OSHA - Specifically Regulated
			1910.1052)	Chemicals with PELs
			25 ppm TWA (8 h)	
			125 ppm STEL (15 min)	

#### 8.2. Exposure Controls

Engineering Controls: A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne

Exposure Limit.

Respiratory Protection: If the TLV is exceeded, a full-face chemical cartridge respirator may be worn up to 50 times the TLV or the

maximum use concentration specified by the respirator supplier, whichever is less.

**Skin Protection:** Wear protective gloves and eye protection. Chemical resistant gloves. **Eye Protection:** Wear protective gloves and eye protection. Safety glasses or goggles.

#### 8.3. Personal Protective Equipment

Wear protective gloves and eye protection. If the TLV is exceeded, a full-face chemical cartridge respirator may be worn up to 50 times the TLV or the maximum use concentration specified by the respirator supplier, whichever is less. Chemical resistant gloves. Safety glasses or goggles.

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## **SECTION 9: Physical and Chemical Properties**

## 9.1. Basic Physical and Chemical Properties

Appearance: Colorless liquid

Physical State: Liquid

Odor: Penetrating, ether-like

Odor Threshold: Data not available.

pH: Data not available.

Melting/Freezing Point: -96.7°C

Initial Boiling Point /Range: 39.8°C - 39.8°C

Flash Point: Data not available.

Evaporation Rate: 27.5 (butyl acetate = 1)

Flammability: Data not available.

Flammability/Explosive Limits: Data not available.

Vapor Pressure: 400 mmHg at 24°C

Vapor Density: 2.93
Relative Density: 1.33

Solubility: 200 G/L at 20°C

Partition Coefficient (n-Octanol/Water): 1.25

Auto-Ignition Temperature: Data not available.

Decomposition Temperature: Data not available.

Viscosity: Data not available.

**ExplosiveProperties:** Data not available. **Oxidizing Properties:** Data not available.

## **SECTION 10: Stability and Reactivity**

## 10.1. Reactivity and Chemical Stability

Stable under normal conditions of use and storage.

#### 10.2. Possibility of Hazardous Reactions

Data not available.

#### 10.3. Conditions to Avoid and Incompatible Materials

Strong oxidizers

#### 10.4. Hazardous Decomposition Products

Will not occur.

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## **SECTION 11: Toxicological Information**

### 11.1. Information on Toxicological Effects

#### **Acute Toxicity - Oral Exposure:**

Harmful if swallowed. Wash arms, hands and face thoroughly after handling. Do not eat, drink or smoke when using this product. IF SWALLOWED: Call a POISON CENTER or physician if you feel unwell. Rinse mouth. Dispose of contents in accordance with local, state, federal and international regulations.

## **Acute Toxicity - Dermal Exposure:**

Not applicable.

#### **Acute Toxicity - Inhalation Exposure:**

Not applicable.

#### **Acute Toxicity - Other Information:**

LD50, Oral, Rat: 1600 mg/kg, behavioral effects noted. Dichloromethane is investigated as a tumorigen, mutagen and reproductive effector. Dichloromethane has been linked to spontaneous abortions in humans.

#### **Skin Corrosion and Irritation:**

Causes skin irritation. Wash arms, hands and face thoroughly after handling. Wear protective gloves and eye protection. IF ON SKIN: Wash with plenty of soap and water. Specific treatment (Wash areas of contact with water). If skin irritation occurs: Get medical attention. Take off contaminated clothing and wash it before reuse.

#### **Serious Eye Damage and Irritation:**

Causes serious eye irritation. Wash arms, hands and face thoroughly after handling. Wear protective gloves and eye protection. 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 attention.

#### **Respiratory Sensitization:**

Not applicable.

#### Skin Sensitization:

Not applicable.

#### Germ Cell Mutagenicity:

Not applicable.

#### Carcinogenicity:

May cause cancer. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves and eye protection. IF exposed or concerned: Get medical attention. Store locked up. Dispose of contents in accordance with local, state, federal and international regulations.

#### **Reproductive Toxicity:**

Not applicable.

### **Specific Target Organ Toxicity from Single Exposure:**

Causes damage to organs. Do not breathe fumes, mist, vapors, or spray. Wash arms, hands and face thoroughly after handling. Do not eat, drink or smoke when using this product. IF exposed: Call a POISON CENTER or physician. Specific treatment (Wash areas of contact with water). Store locked up. Dispose of contents in accordance with local, state, federal and international regulations.

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### **Specific Target Organ Toxicity from Repeated Exposure:**

Causes damage to organs through prolonged or repeated exposure. Do not breathe fumes, mist, vapors, or spray. Wash arms, hands and face thoroughly after handling. Do not eat, drink or smoke when using this product. Get medical attention if you feel unwell. Dispose of contents in accordance with local, state, federal and international regulations.

#### **Aspiration Hazard:**

Not applicable.

#### **Additional Toxicology Information:**

Data not available.

## **SECTION 12: Ecological Information**

#### 12.1. Ecotoxicity

Harmful to aquatic life. Avoid release to the environment. Dispose of contents in accordance with local, state, federal and international regulations. Toxic to aquatic life. Avoid release to the environment. Dispose of contents in accordance with local, state, federal and international regulations.

## 12.2. Persistence and Degradability

Data not available.

#### 12.3. Bioaccumulative Potential

Data not available.

### 12.4. Mobility in Soil

Data not available.

### 12.5. Other Adverse Ecological Effects

Data not available.

# **SECTION 13: Disposal Considerations**

#### 13.1. Waste Treatment Methods

Data not available.

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## **SECTION 14: Transportation Information**

14.1. Transportation by Land - Department of Transportation (DOT, United States of America)

**Sizes:** 1 L, 4 L

UN Number: UN1593

Proper Shipping Name: Dichloromethane

Hazard Class: 6.1

Packing Group:

**Hazard Placard Labels:** 



Sizes:

**UN Number:** 

**Proper Shipping Name:** 

**Hazard Class:** 

**Packing Group:** 

**Hazard Placard Labels:** 

14.2. Transportation by Air - International Air Transport Association (IATA)

**Sizes:** 1 L, 4 L

UN Number: UN1593

Proper Shipping Name: Dichloromethane

Hazard Class: 6.1

Packing Group:

**Hazard Placard Labels:** 



# **SECTION 15: Regulatory Information**

15.1. Occupational Safety and Health Administration (OSHA) Hazards

Methylene Chloride (CAS # 75-09-2): 125 ppm STEL (See 29 CFR 1910.1052, 15 min); 12.5 ppm Action Level (See 29 CFR 1910.1052); 25 ppm TWA (See 29 CFR 1910.1052)

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- 15.2. Superfund Amendments and Reauthorization Act (SARA) 302 Extremely Hazardous Substances Not listed.
- 15.3. Superfund Amendments and Reauthorization Act (SARA) 311/312 Hazardous Chemicals

Methylene Chloride (CAS # 75-09-2): 1 lb final RQ; 0.454 kg final RQ Methylene Chloride (CAS # 75-09-2): 1000 lb final RQ; 454 kg final RQ

15.4. Superfund Amendments and Reauthorization Act (SARA) 313 Toxic Release Inventory (TRI)

Methylene Chloride (CAS # 75-09-2): 0.1 % de minimis concentration

## 15.5. Massachusetts Right-to-Know Substance List

Methylene Chloride (CAS # 75-09-2): Carcinogen; Extraordinarily hazardous

## 15.6. Pennsylvania Right-to-Know Hazardous Substances

Methylene Chloride (CAS # 75-09-2): Environmental hazard
Methylene Chloride (CAS # 75-09-2): Environmental hazard; Special hazardous substance
Methylene Chloride (CAS # 75-09-2): Present

## 15.7. New Jersey Worker and Community Right-to-Know Components

Methylene Chloride (CAS # 75-09-2): carcinogen; mutagen Methylene Chloride (CAS # 75-09-2): sn 1255 Methylene Chloride (CAS # 75-09-2): SN 1255 500 lb TPQ

#### 15.8. California Proposition 65

Methylene Chloride (CAS # 75-09-2): 200  $\mu$ g/day NSRL (inhalation); 50  $\mu$ g/day NSRL Methylene Chloride (CAS # 75-09-2): carcinogen, 4/1/1988

15.9. Canada Domestic Substances List / Non-Domestic Substances List (DSL/NDSL)

Methylene Chloride (CAS # 75-09-2): Present (DSL)

#### 15.10. United States of America Toxic Substances Control Act (TSCA) List

Methylene Chloride (CAS # 75-09-2): Present

15.11. European Inventory of Existing Commercial Chemical Substances (EINECS),
European List of Notified Chemical Substances (ELINCS), and No Longer Polymers (NLP)

Not listed.

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## **SECTION 16: Other Information**

### 16.1. Full Text of Hazard Statements and Precautionary Statements

Harmful if swallowed. Causes skin irritation. Causes serious eye irritation. May cause cancer. Causes damage to organs. Causes damage to organs through prolonged or repeated exposure. Toxic to aquatic life. Harmful to aquatic life.

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe fumes, mist, vapors, or spray. Wash arms, hands and face thoroughly after handling. Do not eat, drink or smoke when using this product. Avoid release to the environment. Wear protective gloves and eye protection.

IF SWALLOWED: Call a POISON CENTER or physician if you feel unwell. IF ON SKIN: Wash with plenty of soap and water. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF exposed: Call a POISON CENTER or physician. Get medical attention if you feel unwell. Specific treatment (Wash areas of contact with water). Rinse mouth. If skin irritation occurs: Get medical attention. If eye irritation persists: Get medical attention. Take off contaminated clothing and wash it before reuse.

Store locked up.

Dispose of contents in accordance with local, state, federal and international regulations.

#### 16.2. Miscellaneous Hazard Classes

Canadian Carcinogenicity Hazard Class: Not Applicable.

Physical Hazards Not Otherwise Classified (PHNOC): Not Applicable.

Health Hazards Not Otherwise Classified (HHNOC): Not Applicable.

Not Applicable.

## 16.3. National Fire Protection Association (NFPA) Rating

Health: 2
Flammability: 1
Reactivity: 0
Special Hazard:



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#### 16.4. Document Revision

Last Revision Date: 11/17/2016

## **DISCLAIMER**

When handled properly by qualified personnel, the product described herein does not present a significant health or safety hazard. Alteration of its characteristics by concentration, evaporation, addition of other substances, or other means may present hazards not specifically addressed herein and which must be evaluated by the user. The information furnished herein is believed to be accurate and represents the best data currently available to us. No warranty, expressed or implied, is made and RICCA CHEMICAL COMPANY assumes no legal responsibility or liability whatsoever resulting from its use.

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