

# SAFETY DATA SHEET

in accordance with Globally Harmonized System of Classification of Chemicals

No.U-0230GHS-01

Identity (As Used on Label and List)

Revised Date:

Prepared Date: February 25, 2010

## METHYLENE CHLORIDE

### 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

#### 1.1 Identification of the substance or preparation

Product name: METHYLENE CHLORIDE

Chemical name: Dichloromethane

#### 1.2 Use of the substance/preparation

Intermediate

#### 1.3 Company/undertaking identification

Manufacturer's Name

ASAHI GLASS Co., Ltd.

Emergency Telephone Number

+81-3-3218-5700

Address

12-1 Yurakucho 1-Chome

Chiyoda-ku, Tokyo 100-8405, JAPAN

Chemicals Company

Telephone Number for Information

+81-3-3218-5482

Facsimile Number for Information

+81-3-3218-7845

### 2. HAZARDS IDENTIFICATION

Application of the classification rules in GHS

#### PHYSICAL HAZARDS

Flammable liquid	not classified
Pyrophoric liquid	not classified

#### HEALTH HAZARDS

Acute toxicity(oral)	Category 4
Acute toxicity(Inhalation)	not classified
Skin corrosion and irritation	Category 2
Eye damage and irritation	Category 2A
Germ cell mutagenicity	not classified
Carcinogenicity	Category 2

Specific target organ systemic toxicity after single exposure	Category 1 and 2 and 3
Specific target organ systemic toxicity after repeated exposure	Category 1
Aspiration toxicity	Classification not possible

#### HAZARDOUS TO THE AQUEOUS ENVIRONMENT

Acute	Category 2
Chronic	Category 2



**Signal word :** Danger

#### Hazard statement

- H302 Harmful if swallowed.
- H315 Causes skin irritation.
- H319 Causes serious eye irritation.
- H351 Suspected of causing cancer.
- H370 Causes damage to organs.(central nerve system and respiratory)
- H371 May causes damage to organs.(respiratory)
- H336 May cause drowsiness or dizziness.
- H372 Causes damage to organs(central nerve system and liver) through prolonged or repeated exposure.
- H401 Toxic to aquatic life.
- H411 Toxic to aquatic life with long lasting effects.

### 3. COMPOSITION / INFORMATION ON INGREDIENTS

#### Components

CAS-No	Name	% Weight
75-09-2	Methylene Chloride	>99.0

### 4. FIRST-AID MEASURES

- **Inhalation:**  
In case of inhalation, remove to fresh air. If breathing has stopped, administer artificial respiration and seek medical attention.
- **Skin Contact:**  
Flush contaminated skin with plenty of water.  
If irritation persists, seek medical attention.
- **Eye Contact:**  
Flush eyes with large amounts of running water for at least 15 minutes. Hold eyelids apart to ensure rinsing of the entire surface of the eye and lids with water  
And refer for medical attention.
- **Ingestion:**

If ingest, do not vomiting : lung aspiration hazard. Consult a physician.

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## 5. FIRE-FIGHTING MEASURES

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- **Suitable extinguishing media:** Water spray, foam, dry chemical powder or carbon dioxide.
- **Unsuitable extinguish media/methods:** none
- **Hazardous combustion product or gases:** Hydrogen chloride gas, phosgene
- **Special protective equipment for fire fighters:** Wear positive pressure self-contained breathing apparatus.
- **Additional Information:** Apply water from a safe distance to cool and protect surrounding area.

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## 6. ACCIDENTAL RELEASE MEASURES

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### Steps to be taken in Case Material is Released or Spilled

Evacuate the spill area. Wear NIOSH/MSHA approved respirator (self-contained breathing apparatus preferred) and appropriate protective equipment. Ventilate area. Follow confined space entry procedures.

**Small leaks:** mop up, or soak up immediately.

**Large spills:** evacuate area. Contain liquid ; transfer to closed metal containers. Keep out of water supplies. Avoid ground and water contamination.

### Additional information:

Information for safe handling looks up chapter 7.

Information for disposal looks up chapter 13.

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## 7. HANDLING AND STORAGE

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### Handling

Exercise reasonable care and caution.

Avoid breathing vapors. Concentrated vapors of this product are suspected unless special breathing apparatus is used and an observer is present for assistance.

The use of air for unloading product out of vessels or transport containers is not recommended.

Manual operations involving the potential for skin contact, such as some cold cleaning operations or cleaning operations involving large surfaces, should be approached with special caution, due to the volatility of methylene chloride. Increased ventilation or respiratory protection may be required to reduce the potential for overexposure to vapors.

Gloves or other equipment should be worn if skin contact likely.

### Storage

Store in a cool dry place.

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## 8. EXPOSURE CONTROL / PERSONAL PROTECTION

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### Ingredients with occupational exposure limits to be monitored

**Ingredient name:** Dichloromethane

**MAK-Values(2006):** Carcinogenic Substance. The database is insufficient for the establishment of a MAK.

ACGIH (2007) TLV-TWA: TLV-TWA: 50ppm, STEL: not established

#### Exposure controls

##### occupational exposure controls

##### Engineering Controls:

Control airborne concentration below the exposure guideline. General and local exhaust ventilation as recommended by good manufacturing practices should be sufficient for normal operations. Lethal concentration may exist in areas with poor ventilation.

##### Personal protection:

- **Respiratory Protection:** Atmospheric levels should be maintained below the exposure guideline. When respiratory protection is required for certain operations, use an NIOSH approved air-purifying respirator. For emergency and other conditions where the exposure guideline may be greatly exceeded, use an approved positive pressure self-contained breathing apparatus. In confined or poorly ventilated areas, use an approved positive pressure self-contained breathing apparatus.
- **Eye Protection:** Chemical safety goggles
- **Skin protection:** Chemical resistant gloves. Wear impervious protective clothing. For operation where contact can occur, use a face shield, impervious body covering, and boots.
- **Additional Information:** Eye bath and safety shower.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

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- **Appearance and Odor:** Liquid; Irritating odor at high concentrations; Ether-like; Penetrating
- **Boiling Point:** 40.2deg.C (104deg.F)
- **Flash Point (Method Used):** None (T.O.C)
- **Flammable Limits:** (in oxygen); LEL: 15.5 vol %; UEL: 66 vol %
- **Specific Gravity (H<sub>2</sub>O = 1):** 1.326g/ml (25deg.C)
- **Vapor Pressure :** 46500Pa (20deg.C)
- **Melting Point:** -95.14 deg.C(-139deg.F)
- **Solubility in Water:** 2.0 g/100g at 25deg.C (77deg.F)

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## 10. STABILITY AND REACTIVITY

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Conditions to avoid: N/D

Stability: Stable

**Materials to avoid (Incompatibilities):** Amines. Sodium. Potassium. Magnesium powder. Zinc. Aluminum

**Hazardous decomposition products:** Hydrogen chloride gas. Phosgene

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## 11. TOXICOLOGICAL INFORMATION

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#### Health Hazardous (Acute and Chronic):

##### Irritation

- **Skin:** Rabbit: 810mg/24h= Severe; 100mg/24h= Moderate
- **Eye(s):** Rabbit 162mg= Moderate; 10mg= Mild; 500mg/24h= Mild

##### Toxic

- **Oral:** Rat LD50; 1600mg/kg

- **Inhalation:** Rat LC50; 88gm/m3/30min; mouse: LC50; 14,400ppm/7h

**Carcinogenicity**

- NTP: R
- IARC Monographs: 2B
- OSHA Regulated: N/E
- ACGIH : A3

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## 12. ECOLOGICAL INFORMATION

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**Biodegradability:** BOD 5-26%

**Bioaccumulation:** Bio concentration factor: <13/6weeks>

**Fish Toxicity:**

guppy LC50(14days) 294ppm,  
fathead minnow LC50(96h) 193mg/l (running water)  
fathead minnow LC50(96h) 310mg/l (standing water)  
fathead minnow LC50(48h) 265mg/l (running water)  
fathead minnow EC50(48h) 209mg/l  
killifish LC50(48h) 331mg/l

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## 13. DISPOSAL CONSIDERATIONS

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**Waste Disposal Method**

Do not dump into sewers, on the ground, or into any body of water. Do not cut or weld container due to explosion hazard. Do not landfill. In accordance with municipal, provincial and federal regulations.

Do not dump this product into sewers, on the ground or into any body of water.

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## 14. TRANSPORT INFORMATION

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**Land transport (ADR/RID):**

UN: 1593

**Proper Shipping Name:** DICHLOROMETHANE

**Class:** 6.1

**Packing Group:** III

**Sea transport (IMDG):**

UN: 1593

**Proper Shipping Name:** DICHLOROMETHANE

**Class:** 6.1

**Packing Group:** III

**Marine Pollutant:** NO

**Air transport (ICAO/IATA):**

UN: 1593

**Proper Shipping Name:** DICHLOROMETHANE

**Class:** 6.1

**Packing Group:** III

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## 15. REGULATORY INFORMATION

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Ensure this material in compliance with federal requirements and ensure conformity to local regulation.

### Other information

#### Classification

- **EEC Classification:** Carc. Cat. 3;R40
- **Hazard symbol:** Xn (Harmful)
- **Risk phrases:** R40 (Limited evidence of a carcinogenic effect.)
- **Safety phrases:** S2 (Keep out of the reach of children.)  
S23 (Do not breathe gas/fumes/vapour/spray (appropriate wording to be specified by the manufacturer).)  
S24/25(Avoid contact with skin and eyes.)  
S36/37(Wear suitable protective clothing and gloves.)

#### Regulations

**Council Directive 92/32/EEC Status:** EC No.200-838-9

#### TSCA Status:

This product is listed on the TSCA Inventory

**SECTION 302(40 CER 355):** Not Applicable

**SECTION 311/312(40 CFR 370):** Chronic Health Hazard, Acute Health Hazard

**SECTION 313(40 CFR 372):** Methylene Chloride

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## 16. OTHER INFORMATION

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**N/D:** no data

**N/A:** not applicable

**N/E:** not established

**MAK:** maximum workplace concentration

**ACGIH:** American Conference of Governmental Industrial Hygienists

Changes were made in sections:

The product is not designed for special applications such as pharmaceutical, medical use.

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