

SAFETY DATA SHEET

Creation Date 27-Jan-2010

Revision Date 16-Dec-2019

Revision Number 3

1. Identification

Product Name Dichloromethane

Cat No. : C3571

Synonyms Methylene chloride

Recommended Use Laboratory chemicals.

Uses advised against No Information available

Details of the supplier of the safety data sheet

Company

Lab Alley LLC
22111 Highway 71 West, Suite 601
Spicewood, Texas 78669
512-668-9918

2. Hazard(s) identification

Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

| | |
|---|------------|
| Skin Corrosion/irritation | Category 2 |
| Serious Eye Damage/Eye Irritation | Category 2 |
| Carcinogenicity | Category 2 |
| Specific target organ toxicity (single exposure) | Category 3 |
| Target Organs - Central nervous system (CNS), Respiratory system. | |

Label Elements

Signal Word

Warning

Hazard Statements

Causes skin irritation
Causes serious eye irritation
May cause drowsiness or dizziness
May cause cancer

**Precautionary Statements****Prevention**

Obtain special instructions before use
 Do not handle until all safety precautions have been read and understood
 Use personal protective equipment as required
 Wash face, hands and any exposed skin thoroughly after handling
 Wear eye/face protection
 Do not breathe dust/fume/gas/mist/vapors/spray
 Use only outdoors or in a well-ventilated area

Response

IF exposed or concerned: Get medical attention/advice

Inhalation

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing

Skin

IF ON SKIN: Wash with plenty of soap and water
 If skin irritation occurs: Get medical advice/attention
 Take off contaminated clothing and wash before reuse

Eyes

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

Storage

Store locked up
 Store in a well-ventilated place. Keep container tightly closed

Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

None identified

WARNING! This product contains a chemical known in the State of California to cause cancer.

3. Composition / information on ingredients

| Component | CAS-No | Weight % |
|--------------------|---------|----------|
| Methylene chloride | 75-09-2 | >95 |

4. First-aid measures

| | |
|--|---|
| General Advice | If symptoms persist, call a physician. |
| Eye Contact | Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Obtain medical attention. |
| Skin Contact | Wash off immediately with plenty of water for at least 15 minutes. Obtain medical attention. |
| Inhalation | Move to fresh air. If breathing is difficult, give oxygen. Obtain medical attention. |
| Ingestion | Clean mouth with water and drink afterwards plenty of water. Obtain medical attention. |
| Most important symptoms/effects | Breathing difficulties. Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting |
| Notes to Physician | Treat symptomatically |

5. Fire-fighting measures

Suitable Extinguishing Media Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Unsuitable Extinguishing Media No information available

Flash Point No information available

Method - No information available

Autoignition Temperature 556 °C / 1032.8 °F

Explosion Limits

Upper 22 vol %

Lower 13 vol %

Sensitivity to Mechanical Impact No information available

Sensitivity to Static Discharge No information available

Specific Hazards Arising from the Chemical

Thermal decomposition can lead to release of irritating gases and vapors. Keep product and empty container away from heat and sources of ignition.

Hazardous Combustion Products

Carbon monoxide (CO) Carbon dioxide (CO₂) Hydrogen chloride gas Phosgene

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

NFPA

Health
2

Flammability
1

Instability
0

Physical hazards
N/A

6. Accidental release measures

Personal Precautions Use personal protective equipment. Ensure adequate ventilation.

Environmental Precautions Should not be released into the environment. See Section 12 for additional ecological information.

Methods for Containment and Clean Up Soak up with inert absorbent material. Keep in suitable, closed containers for disposal.

7. Handling and storage

Handling Wear personal protective equipment. Ensure adequate ventilation. Do not get in eyes, on skin, or on clothing. Avoid ingestion and inhalation.

Storage Keep containers tightly closed in a dry, cool and well-ventilated place.

8. Exposure controls / personal protection

Exposure Guidelines

| Component | ACGIH TLV | OSHA PEL | NIOSH IDLH |
|--------------------|---|---|----------------|
| Methylene chloride | TWA: 50 ppm | (Vacated) TWA: 500 ppm (Vacated) STEL: 2000 ppm (Vacated) Ceiling: 1000 ppm TWA: 25 ppm STEL: 125 ppm | IDLH: 2300 ppm |
| Component | Quebec | Mexico OEL (TWA) | Ontario TWAEV |
| Methylene chloride | TWA: 50 ppm TWA: 174 mg/m ³ | TWA: 100 ppm TWA: 330 mg/m ³ STEL: 500 ppm STEL: 1740 mg/m ³ | TWA: 50 ppm |

Legend

ACGIH - American Conference of Governmental Industrial Hygienists

OSHA - Occupational Safety and Health Administration

NIOSH IDLH: The National Institute for Occupational Safety and Health Immediately Dangerous to Life or Health

Engineering Measures Use only under a chemical fume hood. Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal Protective Equipment

Eye/face Protection Tightly fitting safety goggles. Face-shield.

Skin and body protection Long sleeved clothing.

Respiratory Protection Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Hygiene Measures Handle in accordance with good industrial hygiene and safety practice.

9. Physical and chemical properties

| | |
|---|--|
| Physical State | Liquid |
| Appearance | Colorless |
| Odor | sweet |
| Odor Threshold | 250 ppm |
| pH | Not applicable |
| Melting Point/Range | -97 °C / -142.6 °F |
| Boiling Point/Range | 39 - 40 °C / 102.2 - 104 °F @ 760 mmHg |
| Flash Point | No information available |
| Evaporation Rate | No information available |
| Flammability (solid,gas) | Not applicable |
| Flammability or explosive limits | |
| Upper | 22 vol % |
| Lower | 13 vol % |
| Vapor Pressure | 350 mbar @ 20 °C |
| Vapor Density | 2.93 |
| Specific Gravity | 1.325 |
| Solubility | Soluble in water |
| Partition coefficient; n-octanol/water | No data available |
| Autoignition Temperature | 556 °C / 1032.8 °F |
| Decomposition Temperature | > 120°C |
| Viscosity | 0.43 mPa.s @ 20°C |
| Molecular Formula | C H ₂ Cl ₂ |
| Molecular Weight | 84.93 |

10. Stability and reactivity

Reactive Hazard None known, based on information available

Stability Stable under recommended storage conditions.

Conditions to Avoid Incompatible products. Excess heat.

Incompatible Materials Strong oxidizing agents, Strong acids, Amines, Aluminium

Hazardous Decomposition Products Carbon monoxide (CO), Carbon dioxide (CO₂), Hydrogen chloride gas, Phosgene

Hazardous Polymerization Hazardous polymerization does not occur.

Hazardous Reactions None under normal processing.

11. Toxicological information

Acute Toxicity

Product Information

Component Information

| Component | LD50 Oral | LD50 Dermal | LC50 Inhalation |
|--------------------|----------------------|----------------------|--|
| Methylene chloride | > 2000 mg/kg (Rat) | > 2000 mg/kg (Rat) | 53 mg/L (Rat) 6 h 76000 mg/m ³ (Rat) 4 h |

Toxicologically Synergistic Products No information available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Irritation Irritating to eyes and skin

Sensitization No information available

Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

| Component | CAS-No | IARC | NTP | ACGIH | OSHA | Mexico |
|--------------------|---------|----------|------------------------|-------|------|--------|
| Methylene chloride | 75-09-2 | Group 2A | Reasonably Anticipated | A3 | X | A3 |

IARC: (International Agency for Research on Cancer)

NTP: (National Toxicity Program)

ACGIH: (American Conference of Governmental Industrial Hygienists)

Mexico - Occupational Exposure Limits - Carcinogens

IARC: (International Agency for Research on Cancer)

Group 1 - Carcinogenic to Humans

Group 2A - Probably Carcinogenic to Humans

Group 2B - Possibly Carcinogenic to Humans

NTP: (National Toxicity Program)

Known - Known Carcinogen

Reasonably Anticipated - Reasonably Anticipated to be a Human Carcinogen

A1 - Known Human Carcinogen

A2 - Suspected Human Carcinogen

A3 - Animal Carcinogen

ACGIH: (American Conference of Governmental Industrial Hygienists)

Mexico - Occupational Exposure Limits - Carcinogens

A1 - Confirmed Human Carcinogen

A2 - Suspected Human Carcinogen

A3 - Confirmed Animal Carcinogen

A4 - Not Classifiable as a Human Carcinogen

A5 - Not Suspected as a Human Carcinogen

Mutagenic Effects No information available

Reproductive Effects No information available.

Developmental Effects No information available.

Teratogenicity No information available.

STOT - single exposure Central nervous system (CNS) Respiratory system

STOT - repeated exposure None known

Aspiration hazard No information available

Symptoms / effects, both acute and delayed Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting

Endocrine Disruptor Information No information available

Other Adverse Effects The toxicological properties have not been fully investigated.

12. Ecological information

Ecotoxicity

| Component | Freshwater Algae | Freshwater Fish | Microtox | Water Flea |
|--------------------|--------------------|---|---|--------------------|
| Methylene chloride | EC50:>660 mg/L/96h | Pimephales promelas: LC50:193 mg/L/96h | EC50: 1 mg/L/24 h EC50: 2.88 mg/L/15 min | EC50: 140 mg/L/48h |

Persistence and Degradability Persistence is unlikely based on information available.

Bioaccumulation/ Accumulation No information available.

Mobility Will likely be mobile in the environment due to its volatility.

| Component | log Pow |
|--------------------|---------|
| Methylene chloride | 1.25 |

13. Disposal considerations

Waste Disposal Methods Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

| Component | RCRA - U Series Wastes | RCRA - P Series Wastes |
|------------------------------|------------------------|------------------------|
| Methylene chloride - 75-09-2 | U080 | - |

14. Transport information

DOT

UN-No UN1593
 Proper Shipping Name DICHLOROMETHANE
 Hazard Class 6.1
 Packing Group III

TDG

UN-No UN1593
 Proper Shipping Name DICHLOROMETHANE
 Hazard Class 6.1
 Packing Group III

IATA

UN-No UN1593
 Proper Shipping Name DICHLOROMETHANE
 Hazard Class 6.1
 Packing Group III

IMDG/IMO

UN-No UN1593
 Proper Shipping Name DICHLOROMETHANE
 Hazard Class 6.1
 Packing Group III

15. Regulatory information

All of the components in the product are on the following Inventory lists: X = listed

International Inventories

| Component | TSCA | DSL | NDSL | EINECS | ELINCS | NLP | PICCS | ENCS | AICS | IECSC | KECL |
|--------------------|------|-----|------|-----------|--------|-----|-------|------|------|-------|------|
| Methylene chloride | X | X | - | 200-838-9 | - | | X | X | X | X | X |

Legend:

X - Listed

E - Indicates a substance that is the subject of a Section 5(e) Consent order under TSCA.

F - Indicates a substance that is the subject of a Section 5(f) Rule under TSCA.

N - Indicates a polymeric substance containing no free-radical initiator in its inventory name but is considered to cover the designated polymer made with any free-radical initiator regardless of the amount used.

P - Indicates a commenced PMN substance

R - Indicates a substance that is the subject of a Section 6 risk management rule under TSCA.

S - Indicates a substance that is identified in a proposed or final Significant New Use Rule

T - Indicates a substance that is the subject of a Section 4 test rule under TSCA.

XU - Indicates a substance exempt from reporting under the Inventory Update Rule, i.e. Partial Updating of the TSCA Inventory Data Base Production and Site Reports (40 CFR 710(B)).

Y1 - Indicates an exempt polymer that has a number-average molecular weight of 1,000 or greater.

Y2 - Indicates an exempt polymer that is a polyester and is made only from reactants included in a specified list of low concern reactants that comprises one of the eligibility criteria for the exemption rule.

U.S. Federal Regulations

TSCA 12(b)

SARA 313

| Component | CAS-No | Weight % | SARA 313 - Threshold Values % |
|--------------------|---------|----------|-------------------------------|
| Methylene chloride | 75-09-2 | >95 | 0.1 |

SARA 311/312 Hazard Categories

| | |
|-----------------------------------|-----|
| Acute Health Hazard | Yes |
| Chronic Health Hazard | Yes |
| Fire Hazard | No |
| Sudden Release of Pressure Hazard | No |
| Reactive Hazard | No |

CWA (Clean Water Act)

| Component | CWA - Hazardous Substances | CWA - Reportable Quantities | CWA - Toxic Pollutants | CWA - Priority Pollutants |
|--------------------|----------------------------|-----------------------------|------------------------|---------------------------|
| Methylene chloride | - | - | X | X |

Clean Air Act

| Component | HAPS Data | Class 1 Ozone Depletors | Class 2 Ozone Depletors |
|--------------------|-----------|-------------------------|-------------------------|
| Methylene chloride | X | | - |

OSHA Occupational Safety and Health Administration

Not applicable

| Component | Specifically Regulated Chemicals | Highly Hazardous Chemicals |
|--------------------|---|----------------------------|
| Methylene chloride | 125 ppm STEL 12.5 ppm Action Level 25 ppm TWA | - |

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

| Component | Hazardous Substances RQs | CERCLA EHS RQs |
|--------------------|--------------------------|----------------|
| Methylene chloride | 1000 lb 1 lb | - |

California Proposition 65

This product contains the following proposition 65 chemicals

| Component | CAS-No | California Prop. 65 | Prop 65 NSRL | Category |
|--------------------|---------|---------------------|-------------------------|------------|
| Methylene chloride | 75-09-2 | Carcinogen | 200 µg/day 50 µg/day | Carcinogen |

U.S. State Right-to-Know Regulations

| Component | Massachusetts | New Jersey | Pennsylvania | Illinois | Rhode Island |
|--------------------|---------------|------------|--------------|----------|--------------|
| Methylene chloride | X | X | X | X | X |

U.S. Department of Transportation

Reportable Quantity (RQ): Y

DOT Marine Pollutant N
DOT Severe Marine Pollutant N

U.S. Department of Homeland Security

This product does not contain any DHS chemicals.

Other International Regulations

Mexico - Grade No information available

Canada

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR

WHMIS Hazard Class D1B Toxic materials
D2A Very toxic materials



16. Other information

Prepared By Regulatory Affairs
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Revision Date 16-Dec-2019
Print Date 16-Dec-2019
Revision Summary This document has been updated to comply with the US OSHA HazCom 2012 Standard replacing the current legislation under 29 CFR 1910.1200 to align with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS)

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

End of SDS