

# SAFETY DATA SHEET



## Dichloromethane

### BDH1113

Version 1.5

Revision Date 03/25/2015

Print Date 05/08/2015

#### SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Dichloromethane

MSDS Number : 000000011714

Product Use Description : Solvent

Manufactured for : VWR International LLC  
Radnor Corporate Center  
Building One  
Suite 200  
100 Matsonford Road  
Radnor PA 19087

For more information call : (Monday-Friday, 8:00am-5:00pm)  
1-800-932-5000

In case of emergency call : (24 hours/day, 7 days/week)  
1-800-424-9300 (USA Only)  
**For Transportation Emergencies:**  
1-800-424-9300 (CHEMTREC - Domestic)  
1-613-996-6666 (CANUTEC - Canada)

#### SECTION 2. HAZARDS IDENTIFICATION

##### Emergency Overview

Form : liquid, clear

Color : colourless

Odor : sweet mild

**Dichloromethane****BDH1113**

Version 1.5

Revision Date 03/25/2015

Print Date 05/08/2015

**Classification of the substance or mixture**

Classification of the substance or mixture : Serious eye damage/eye irritation, Category 2B  
Skin irritation, Category 2  
Carcinogenicity, Category 2

**GHS Label elements, including precautionary statements**

Symbol(s)



Signal word

: Warning

Hazard statements

: Causes skin irritation.  
Suspected of causing cancer.

Precautionary statements

**Prevention:**  
Obtain special instructions before use.  
Do not handle until all safety precautions have been read and understood.  
Wash skin thoroughly after handling.  
Wear protective gloves.

**Response:**

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

**Storage:**

Store locked up.

**Disposal:**

Dispose of contents/container in accordance with local, state &amp; federal regulations.

**Carcinogenicity**

# SAFETY DATA SHEET



## Dichloromethane

### BDH1113

Version 1.5

Revision Date 03/25/2015

Print Date 05/08/2015

NTP: Dichloromethane 75-09-2  
Reasonably Anticipated to be a Human Carcinogen.

IARC: Dichloromethane 75-09-2  
Group 2B: Possibly carcinogenic to humans

OSHA: Dichloromethane 75-09-2

ACGIH: Dichloromethane 75-09-2  
A3: Confirmed animal carcinogen

### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Formula :  $\text{CH}_2\text{Cl}_2$

Chemical nature : Substance

| Chemical Name   | CAS-No. | Concentration |
|-----------------|---------|---------------|
| Dichloromethane | 75-09-2 | 100.00 %      |

### SECTION 4. FIRST AID MEASURES

General advice : Take off all contaminated clothing immediately.

Inhalation : Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Use oxygen as required, provided a qualified operator is present. Call a physician.

Skin contact : Wash off immediately with plenty of water for at least 15 minutes. Take off contaminated clothing and shoes immediately. Wash contaminated clothing before re-use. Call a physician.

Eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Call a physician.

Ingestion : Do not induce vomiting without medical advice. Never give

**Dichloromethane****BDH1113**

Version 1.5

Revision Date 03/25/2015

Print Date 05/08/2015

anything by mouth to an unconscious person. Call a physician.

**Notes to physician**

Treatment : Treat symptomatically.

**SECTION 5. FIREFIGHTING MEASURES**

Suitable extinguishing media : Dry chemical  
Carbon dioxide (CO<sub>2</sub>)  
Foam  
Cool closed containers exposed to fire with water spray.

Unsuitable extinguishing media : High volume water jet

Specific hazards during firefighting : This product is not flammable at ambient temperatures and atmospheric pressure.  
Exposure to decomposition products may be a hazard to health.  
In case of fire hazardous decomposition products may be produced such as:  
Phosgene  
Chlorine (Cl<sub>2</sub>)  
Carbon monoxide  
Carbon dioxide (CO<sub>2</sub>)  
Gaseous hydrogen chloride (HCl).

Special protective equipment for firefighters : Wear self-contained breathing apparatus and protective suit.

**SECTION 6. ACCIDENTAL RELEASE MEASURES**

Personal precautions : Wear personal protective equipment.  
Immediately evacuate personnel to safe areas.  
Keep people away from and upwind of spill/leak.  
Isolate the affected area. Confine entry into the affected area to those persons properly protected (see Section 8 of MSDS).

**Dichloromethane****BDH1113**

Version 1.5

Revision Date 03/25/2015

Print Date 05/08/2015

- Ensure adequate ventilation.  
Avoid accumulation of vapours in low areas.  
Remove all sources of ignition.  
Do not swallow.  
Avoid breathing vapours, mist or gas.  
Avoid contact with skin, eyes and clothing.
- Environmental precautions : Prevent further leakage or spillage if safe to do so.  
Do not let product enter drains.  
Discharge into the environment must be avoided.  
Do not flush into surface water or sanitary sewer system.  
Do not allow run-off from fire fighting to enter drains or water courses.
- Methods for cleaning up : Ventilate the area.  
Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).  
Shovel into suitable container for disposal.  
Dispose of absorbed material in accordance with the regulations.

**SECTION 7. HANDLING AND STORAGE****Handling**

- Handling : Wear personal protective equipment.  
Use only in well-ventilated areas.  
Keep container tightly closed.  
Do not smoke.  
Do not swallow.  
Avoid breathing vapours, mist or gas.  
Avoid contact with skin, eyes and clothing.
- Advice on protection against fire and explosion : The product is not flammable.  
Normal measures for preventive fire protection.  
Keep product and empty container away from heat and sources of ignition.  
Fire or intense heat may cause violent rupture of packages.  
Container hazardous when empty.

**Dichloromethane****BDH1113**

Version 1.5

Revision Date 03/25/2015

Print Date 05/08/2015

**Storage**

Requirements for storage areas and containers : Protect from physical damage.  
Keep containers tightly closed in a dry, cool and well-ventilated place.  
Containers which are opened must be carefully resealed and kept upright to prevent leakage.  
Keep away from heat and sources of ignition.  
Keep away from direct sunlight.  
Store away from incompatible substances.  
Container hazardous when empty.

Further information on storage conditions : Keep containers tightly closed in a cool, well-ventilated place.

**SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

Protective measures : Ensure that eyewash stations and safety showers are close to the workstation location.

Engineering measures : Use with local exhaust ventilation.  
Prevent vapour buildup by providing adequate ventilation during and after use.

Eye protection : Do not wear contact lenses.  
Wear as appropriate:  
Safety glasses with side-shields  
If splashes are likely to occur, wear:  
Goggles or face shield, giving complete protection to eyes

Hand protection : Solvent-resistant gloves  
Gloves must be inspected prior to use.  
Replace when worn.

Skin and body protection : Wear as appropriate:  
Solvent-resistant apron  
Solvent-resistant gloves  
If splashes are likely to occur, wear:  
Protective suit

**Dichloromethane****BDH1113**

Version 1.5

Revision Date 03/25/2015

Print Date 05/08/2015

- Respiratory protection : In case of insufficient ventilation, wear suitable respiratory equipment.  
Wear a positive-pressure supplied-air respirator.  
For rescue and maintenance work in storage tanks use self-contained breathing apparatus.  
Use NIOSH approved respiratory protection.
- Hygiene measures : When using, do not eat, drink or smoke.  
Wash hands before breaks and immediately after handling the product.  
Keep working clothes separately.  
Remove and wash contaminated clothing before re-use.  
Do not swallow.  
Avoid breathing vapours, mist or gas.  
Avoid contact with skin, eyes and clothing.  
This material has an established AIHA ERPG exposure limit.  
The current list of ERPG exposure limits can be found at [http://www.aiha.org/insideaiha/GuidelineDevelopment/ERPG/Documents/2011erpgweelhandbook\\_table-only.pdf](http://www.aiha.org/insideaiha/GuidelineDevelopment/ERPG/Documents/2011erpgweelhandbook_table-only.pdf).

**Exposure Guidelines**

| Components      | CAS-No. | Value                                | Control parameters  | Update     | Basis                                                                                   |
|-----------------|---------|--------------------------------------|---------------------|------------|-----------------------------------------------------------------------------------------|
| Dichloromethane | 75-09-2 | TWA :<br>time<br>weighted<br>average | (50 ppm)            | 2008       | ACGIH:US. ACGIH<br>Threshold Limit<br>Values                                            |
| Dichloromethane | 75-09-2 | REF :<br>Reference:                  | 29 CFR<br>1910.1052 | 03<br>2012 | OSHAS:US.<br>OSHA Specifically<br>Regulated<br>Substances (29<br>CFR<br>1910.1001-1050) |

## SAFETY DATA SHEET

**Dichloromethane****BDH1113**

Version 1.5

Revision Date 03/25/2015

Print Date 05/08/2015

|                 |         |                                      |          |            |                                                                                          |
|-----------------|---------|--------------------------------------|----------|------------|------------------------------------------------------------------------------------------|
| Dichloromethane | 75-09-2 | TWA :<br>time<br>weighted<br>average | (25 ppm) | 02<br>2006 | OSHASp:US.<br>OSHA Specifically<br>Regulated<br>Substances (29<br>CFR<br>1910.1001-1050) |
|-----------------|---------|--------------------------------------|----------|------------|------------------------------------------------------------------------------------------|

|                 |         |                                            |            |            |                                                                                          |
|-----------------|---------|--------------------------------------------|------------|------------|------------------------------------------------------------------------------------------|
| Dichloromethane | 75-09-2 | OSHA_A<br>CT :<br>OSHA<br>Action<br>level: | (12.5 ppm) | 02<br>2006 | OSHASp:US.<br>OSHA Specifically<br>Regulated<br>Substances (29<br>CFR<br>1910.1001-1050) |
|-----------------|---------|--------------------------------------------|------------|------------|------------------------------------------------------------------------------------------|

|                 |         |                                              |           |            |                                                                                          |
|-----------------|---------|----------------------------------------------|-----------|------------|------------------------------------------------------------------------------------------|
| Dichloromethane | 75-09-2 | STEL :<br>Short<br>term<br>exposure<br>limit | (125 ppm) | 02<br>2006 | OSHASp:US.<br>OSHA Specifically<br>Regulated<br>Substances (29<br>CFR<br>1910.1001-1050) |
|-----------------|---------|----------------------------------------------|-----------|------------|------------------------------------------------------------------------------------------|

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

|                              |                        |
|------------------------------|------------------------|
| Physical state               | : liquid, clear        |
| Color                        | : colourless           |
| Odor                         | : sweet mild           |
| pH                           | : Note: Not applicable |
| Melting point/freezing point | : -95 °C               |
| Boiling point/boiling range  | : 40 °C                |

**Dichloromethane****BDH1113**

Version 1.5

Revision Date 03/25/2015

Print Date 05/08/2015

|                       |                                                 |
|-----------------------|-------------------------------------------------|
| Flash point           | : Note: does not flash                          |
| Evaporation rate      | : 0.7<br>Method: Compared to Ether (anhydrous). |
| Lower explosion limit | : 12 %(V)                                       |
| Upper explosion limit | : 19 %(V)                                       |
| Vapor pressure        | : 466.63 hPa<br>at 20 °C(68 °F)                 |
| Vapor density         | : 2.9 Note: (Air = 1.0)                         |
| Density               | : 1.33 g/cm3                                    |
| Water solubility      | : 13.2 g/l at 25 °C                             |
| Ignition temperature  | : 556 °C                                        |
| Molecular weight      | : 84.94 g/mol                                   |

**SECTION 10. STABILITY AND REACTIVITY**

|                    |                                                |
|--------------------|------------------------------------------------|
| Chemical stability | : Stable under recommended storage conditions. |
|--------------------|------------------------------------------------|

**Dichloromethane****BDH1113**

Version 1.5

Revision Date 03/25/2015

Print Date 05/08/2015

|                                    |                                                                                                                                                                                                                    |
|------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Possibility of hazardous reactions | : Hazardous polymerisation does not occur.                                                                                                                                                                         |
| Conditions to avoid                | : Heat, flames and sparks.<br>Protect from extreme heat and cold.<br>Keep away from direct sunlight.                                                                                                               |
| Incompatible materials to avoid    | : Oxidizing agents<br>Strong acids and strong bases<br>Metals<br>Aluminium<br>Lithium<br>Magnesium<br>Sodium<br>May attack many plastics, rubbers and coatings.                                                    |
| Hazardous decomposition products   | : In case of fire hazardous decomposition products may be produced such as:<br>Phosgene<br>Chlorine (Cl <sub>2</sub> )<br>Carbon monoxide<br>Carbon dioxide (CO <sub>2</sub> )<br>Gaseous hydrogen chloride (HCl). |

**SECTION 11. TOXICOLOGICAL INFORMATION**

|                           |                                                                                             |
|---------------------------|---------------------------------------------------------------------------------------------|
| Acute oral toxicity       | : LD50: > 2,000 mg/kg<br>Species: Rat<br>Method: OECD Test Guideline 401<br>Note: No deaths |
| Acute inhalation toxicity | : LC50: 14400 ppm<br>Exposure time: 7 h<br>Species: Mouse                                   |
| Acute dermal toxicity     | : LD50: > 2,000 mg/kg<br>Species: Rat                                                       |

**Dichloromethane****BDH1113**

Version 1.5

Revision Date 03/25/2015

Print Date 05/08/2015

|                     |                                                                                                                                                                                                                                                                                 |
|---------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Skin irritation     | : Species: Rabbit<br>Result: Moderate skin irritation                                                                                                                                                                                                                           |
| Eye irritation      | : Species: Rabbit<br>Result: Moderate eye irritation                                                                                                                                                                                                                            |
| Dichloromethane     | : Test Method: Ames test<br>Result: positive<br><br>: Test Method: In vitro gene mutation study in mammalian cells<br>Cell type: Chinese Hamster Ovary Cells<br>Result: positive<br><br>: Test Method: Unscheduled DNA synthesis<br>Result: positive<br>Note: Liver cells Mouse |
| Further information | : Note: Confirmed animal carcinogen with unknown relevance to humans.                                                                                                                                                                                                           |

**SECTION 12. ECOLOGICAL INFORMATION****Ecotoxicity effects**

|                  |                                                                                                                                                                                                                              |
|------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Toxicity to fish | : static test<br>LC50: 310 mg/l<br>Exposure time: 96 h<br>Species: Pimephales promelas (fathead minnow)<br><br>: flow-through test<br>LC50: 193 mg/l<br>Exposure time: 96 h<br>Species: Pimephales promelas (fathead minnow) |
|------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

# SAFETY DATA SHEET



## Dichloromethane

### BDH1113

Version 1.5

Revision Date 03/25/2015

Print Date 05/08/2015

: flow-through test  
LC50: 10.95 mg/l  
Exposure time: 96 h  
Species: Oncorhynchus mykiss (rainbow trout)

: static test  
LC50: 220 mg/l  
Exposure time: 96 h  
Species: Lepomis macrochirus (Bluegill sunfish)

Toxicity to daphnia and other aquatic invertebrates : static test  
EC50: 140 mg/l  
Exposure time: 48 h  
Species: Daphnia magna (Water flea)

Toxicity to bacteria : EC50: 1,000 mg/l  
Exposure time: 15 min  
Species: Photobacterium phosphoreum

#### Further information on ecology

## SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods : Dispose of contents/ container in accordance with local, state, and federal regulations.

## SECTION 14. TRANSPORT INFORMATION

**DOT** UN/ID No. : UN 1593  
Proper shipping name : DICHLOROMETHANE  
Class 6.1  
Packing group III  
Hazard Labels 6.1

**IATA** UN/ID No. : UN 1593

# SAFETY DATA SHEET



## Dichloromethane

### BDH1113

Version 1.5

Revision Date 03/25/2015

Print Date 05/08/2015

|                                          |                   |
|------------------------------------------|-------------------|
| Description of the goods                 | : DICHLOROMETHANE |
| Class                                    | : 6.1             |
| Packaging group                          | : III             |
| Hazard Labels                            | : 6.1             |
| Packing instruction (cargo aircraft)     | : 663             |
| Packing instruction (passenger aircraft) | : 655             |
| Packing instruction (passenger aircraft) | : Y642            |

|             |                          |                   |
|-------------|--------------------------|-------------------|
| <b>IMDG</b> | UN/ID No.                | : UN 1593         |
|             | Description of the goods | : DICHLOROMETHANE |
|             | Class                    | : 6.1             |
|             | Packaging group          | : III             |
|             | Hazard Labels            | : 6.1             |
|             | EmS Number               | : F-A, S-A        |
|             | Marine pollutant         | : no              |

## SECTION 15. REGULATORY INFORMATION

### Inventories

US. Toxic Substances Control Act : On TSCA Inventory

Australia. Industrial Chemical (Notification and Assessment) Act : On the inventory, or in compliance with the inventory

Canada. Canadian Environmental Protection Act (CEPA). Domestic Substances List (DSL) : All components of this product are on the Canadian DSL.

Japan. Kashin-Hou Law List : On the inventory, or in compliance with the inventory

Korea. Toxic Chemical Control Law (TCCL) List : On the inventory, or in compliance with the inventory

Philippines. The Toxic : On the inventory, or in compliance with the inventory

**Dichloromethane****BDH1113**

Version 1.5

Revision Date 03/25/2015

Print Date 05/08/2015

Substances and Hazardous  
and Nuclear Waste Control  
Act

China. Inventory of Existing : On the inventory, or in compliance with the inventory  
Chemical Substances

New Zealand. Inventory of : On the inventory, or in compliance with the inventory  
Chemicals (NZIoC), as  
published by ERMA New  
Zealand

**National regulatory information**

US. EPA CERCLA : The following component(s) of this product is/are subject to  
Hazardous Substances (40 release reporting under 40 CFR 302 when release exceeds the  
CFR 302) Reportable Quantity (RQ):

Reportable quantity: 1000 lbs  
: Dichloromethane 75-09-2

**SARA 302 Components** : No chemicals in this material are subject to the reporting  
requirements of SARA Title III, Section 302.

**SARA 313 Components** : The following components are subject to reporting levels  
established by SARA Title III, Section 313:  
: Dichloromethane 75-09-2

**SARA 311/312 Hazards** : Acute Health Hazard  
Chronic Health Hazard

**CERCLA Reportable  
Quantity** : 1000 lbs

# SAFETY DATA SHEET



## Dichloromethane

### BDH1113

Version 1.5

Revision Date 03/25/2015

Print Date 05/08/2015

**California Prop. 65** : WARNING! This product contains a chemical known to the State of California to cause cancer.  
Dichloromethane 75-09-2

**Massachusetts RTK** : Dichloromethane 75-09-2

**New Jersey RTK** : Dichloromethane 75-09-2

**Pennsylvania RTK** : Dichloromethane 75-09-2

**WHMIS Classification** : D1B: Toxic Material Causing Immediate and Serious Toxic Effects  
D2A: Very Toxic Material Causing Other Toxic Effects  
D2B: Toxic Material Causing Other Toxic Effects  
This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.

## SECTION 16. OTHER INFORMATION

|                 | <b>HMIS III</b> | <b>NFPA</b> |
|-----------------|-----------------|-------------|
| Health hazard   | : 2*            | 2           |
| Flammability    | : 1             | 1           |
| Physical Hazard | : 0             |             |
| Instability     | :               | 0           |

\* - Chronic health hazard

Hazard rating and rating systems (e.g. HMIS® III, NFPA): This information is intended solely for the use of individuals trained in the particular system.

### Further information

**Dichloromethane****BDH1113**

Version 1.5

Revision Date 03/25/2015

Print Date 05/08/2015

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. Final determination of suitability of any material is the sole responsibility of the user. This information should not constitute a guarantee for any specific product properties.

Changes since the last version are highlighted in the margin. This version replaces all previous versions.

Previous Issue Date: 06/20/2012

Prepared by Honeywell Performance Materials and Technologies Product Stewardship Group