

Dichloromethane**BC301-200**

Version 2.1

Revision Date 08/16/2018

Print Date 10/17/2019

SECTION 1. IDENTIFICATION

Product name : Dichloromethane

Number : 000000011394

Product Use Description : Solvent

Manufacturer or supplier's details : Honeywell International Inc.
1953 South Harvey Street
Muskegon, MI 49442

For more information call : 1-800-368-0050
+1-231-726-3171

(Monday-Friday, 9:00am-5:00pm)

In case of emergency call : **Medical: 1-800-498-5701 or +1-303-389-1414**
: **Transportation (CHEMTREC): 1-800-424-9300 or**
: **+1-703-527-3887**
:
: (24 hours/day, 7 days/week)

SECTION 2. HAZARDS IDENTIFICATION**Emergency Overview**

Form : liquid, clear

Color : colourless

Odor : sweet mild

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Classification of the substance or mixture

Classification of the substance or mixture : Skin irritation, Category 2
Eye irritation, Category 2A
Carcinogenicity, Category 2
Specific target organ toxicity - single exposure, Category 3,
Central nervous system

GHS Label elements, including precautionary statements

Symbol(s)



Signal word

: Warning

Hazard statements

: Causes skin irritation.
Causes serious eye irritation.
May cause drowsiness or dizziness.
Suspected of causing cancer.

Precautionary statements

: **Prevention:**
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
Wash skin thoroughly after handling.
Use only outdoors or in a well-ventilated area.
Wear protective gloves/protective clothing/eye protection/face protection.

Response:
IF ON SKIN: Wash with plenty of soap and water.
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

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IF exposed or concerned: Get medical advice/ attention.
 If skin irritation occurs: Get medical advice/ attention.
 If eye irritation persists: Get medical advice/ attention.
 Take off contaminated clothing and wash before reuse.

Storage:

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

Disposal:

Dispose of contents/ container to an approved waste disposal plant.

Carcinogenicity

NTP:	Dichloromethane	75-09-2
	Reasonably Anticipated to be a Human Carcinogen.	
IARC:	Dichloromethane	75-09-2
	Group 2A: Probably carcinogenic to humans	
OSHA:	Dichloromethane	75-09-2
ACGIH:	Dichloromethane	75-09-2
	A3: Confirmed animal carcinogen	

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms : Dichloromethane, Methylene Dichloride, DCM, MC

Formula : CH₂Cl₂

Chemical nature : Substance

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

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SECTION 4. FIRST AID MEASURES

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

Notes to physician

- Indication of immediate medical attention and special treatment needed, if necessary : Treat symptomatically.

SECTION 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Dry chemical
Carbon dioxide (CO₂)
Foam
Cool closed containers exposed to fire with water spray.
- 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

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Chlorine (Cl₂)
Carbon monoxide
Carbon dioxide (CO₂)
Gaseous hydrogen chloride (HCl).

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

SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : 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).
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 and materials for containment and 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.

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SECTION 7. HANDLING AND STORAGE**Handling**

Precautions for safe 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.

Storage

Conditions for safe storage, including any incompatibilities : 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.

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

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- 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
- 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.

Exposure Guidelines

Components	CAS-No.	Value	Control parameters	Update	Basis

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Dichloromethane	75-09-2	TWA : Time weighted average	(50 ppm)	2008	ACGIH:US. ACGIH Threshold Limit Values
Dichloromethane	75-09-2	REF : Referenc e:	29 CFR 1910.1052	03 2012	OSHASP:US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)
Dichloromethane	75-09-2	TWA : Time weighted average	(25 ppm)	02 2006	OSHASP:US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)
Dichloromethane	75-09-2	OSHA_A CT : OSHA Action level:	(12.5 ppm)	02 2006	OSHASP:US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)
Dichloromethane	75-09-2	STEL : Short term exposure limit	(125 ppm)	02 2006	OSHASP:US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

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Physical state	: liquid, clear
Color	: colourless
Odor	: sweet mild
Odor threshold	: Note: no data available
pH	: Note: Not applicable
Melting point/range	: -95 °C
Boiling point/boiling range	: 40 °C
Flash point	: Note: does not flash
Evaporation rate	: Note: no data available
Lower explosion limit	: 12 %(V)
Upper explosion limit	: 19 %(V)
Vapor pressure	: 466.63 hPa at 20 °C(68 °F)
Vapor density	: 2.9 Note: (Air = 1.0)
Density	: 1.33 g/cm ³
Water solubility	: 13.2 g/l at 25 °C

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Partition coefficient:
n-octanol/water : Note: no data available

Ignition temperature : 556 °C

Viscosity, dynamic : Note: no data available

Viscosity, kinematic : Note: no data available

Molecular weight : 84.94 g/mol

SECTION 10. STABILITY AND REACTIVITY

Chemical stability : Stable under recommended storage conditions.

Possibility of hazardous
reactions : Hazardous polymerisation does not occur.

Conditions to avoid : Heat, flames and sparks.
Protect from extreme heat and cold.
Keep away from direct sunlight.

Incompatible materials : Oxidizing agents
Strong acids and strong bases
Metals
Aluminium
Lithium
Magnesium
Sodium
May attack many plastics, rubbers and coatings.

Hazardous decomposition
products : In case of fire hazardous decomposition products may be
produced such as:
Phosgene
Chlorine (Cl₂)
Carbon monoxide
Carbon dioxide (CO₂)

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Gaseous hydrogen chloride (HCl).

SECTION 11. TOXICOLOGICAL INFORMATION

- Acute oral toxicity : LD50: > 2,000 mg/kg
Species: Rat
Method: OECD Test Guideline 401
Note: No deaths
- Acute inhalation toxicity : LC50: 14400 ppm
Exposure time: 7 h
Species: Mouse
- Acute dermal toxicity : LD50: > 2,000 mg/kg
Species: Rat
- Skin irritation : Species: Rabbit
Result: Moderate skin irritation
- Eye irritation : Species: Rabbit
Result: Moderate eye irritation
- Genotoxicity in vitro : Test Method: Ames test
Result: positive
- : Test Method: In vitro gene mutation study in mammalian cells
Cell type: Chinese Hamster Ovary Cells
Result: positive
- : Test Method: Unscheduled DNA synthesis
Result: positive
Note: Liver cells Mouse

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Further information : Note: Confirmed animal carcinogen with unknown relevance to humans.

SECTION 12. ECOLOGICAL INFORMATION**Ecotoxicity effects**

Toxicity to fish : static test
LC50: 310 mg/l
Exposure time: 96 h
Species: Pimephales promelas (fathead minnow)

: flow-through test
LC50: 193 mg/l
Exposure time: 96 h
Species: Pimephales promelas (fathead minnow)

: 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

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Species: Photobacterium phosphoreum

Further information on ecology

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods : Observe all Federal, State, and Local Environmental 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
 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

IMDG 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

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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. Existing Chemicals Inventory (KECI) : On the inventory, or in compliance with the inventory

Philippines. The Toxic Substances and Hazardous and Nuclear Waste Control Act : On the inventory, or in compliance with the inventory

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

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

National regulatory information

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


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	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	
California Prop. 65	:  WARNING: This product can expose you to chemicals, listed below, known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov .	
	Dichloromethane	75-09-2
Massachusetts RTK	: Dichloromethane	75-09-2
New Jersey RTK	: Dichloromethane	75-09-2
Pennsylvania RTK	: Dichloromethane	75-09-2

SECTION 16. OTHER INFORMATION

	HMIS III	NFPA
Health hazard	: 2*	2
Flammability	: 1	1
Physical Hazard	: 0	
Instability	:	0

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* - 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

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.

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