Honeywell
Burdick & Jackson™

300-4 DICHLOROMETHANE

Version 1 | Revision Date 03/20/2009 | Print Date 01/28/2011

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name	:	Methylene Chloride (299, 300)
MSDS Number	:	000000011394
Product Use Description	:	Solvent
Company	:	Honeywell International Inc. 1953 South Harvey Street Muskegon, MI 49442
For more information call	:	1-800-368-0050 (Monday-Friday, 9:00am-5:00pm)
In case of emergency call	:	**Medical: 1-800-498-5701**
	:	**Transportation: 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
Hazard Summary	:	This product is not flammable at ambient temperatures and atmospheric pressure. May be harmful if swallowed. May be harmful if absorbed through skin. May be fatal if inhaled in large quantities. Irritating to eyes, respiratory system and skin. The product may be absorbed through the skin. Repeated exposure may cause skin dryness or cracking. Potential cancer hazard. Confirmed animal carcinogen with unknown relevance to humans.

Potential Health Effects

Skin	:	Irritating to skin. May cause systemic poisoning with symptoms paralleling those of inhalation. May cause burns or external ulcers. Prolonged or repeated skin contact with liquid may cause defatting resulting in drying, redness and possible blistering.

Eyes	:	Irritating to eyes. Causes itching, burning, redness and tearing. May cause corneal injury.
Ingestion	:	May be harmful if swallowed. May cause irritation of the gastrointestinal tract.
Inhalation	:	Causes respiratory tract irritation. Causes headache, drowsiness or other effects to the central nervous system. Vapours may cause drowsiness and dizziness. Inhalation of high vapour concentrations can cause CNS-depression and narcosis. High concentration of vapours may induce unconsciousness. Repeated or prolonged exposure to the substance can produce kidney damage. Exposure to high concentrations can lead to increased carboxyhemoglobin levels in the blood. Carboxyhemoglobin can lead to central nervous system depression, respiratory failure and death by decreasing the oxygen carrying capacity of blood.
Chronic Exposure	:	Repeated or prolonged exposure to the substance can produce kidney damage. Repeated or prolonged exposure to the substance can produce liver damage. Repeated and prolonged exposure to solvents may cause brain and nervous system damage. Chronic exposure may cause headache, confusion, tremors, memory loss, slurred speech and anorexia. Prolonged or repeated skin contact with liquid may cause defatting resulting in drying, redness and possible blistering. Exposure to high concentrations can lead to increased carboxyhemoglobin levels in the blood. Carboxyhemoglobin can lead to central nervous system depression, respiratory failure and death by decreasing the oxygen carrying capacity of blood. Potential cancer hazard. Confirmed animal carcinogen with unknown relevance to humans.
Aggravated Medical Condition	:	Respiratory disorders Eye disorders Blood disorders Kidney disorders Liver disorders Neurological disorders Skin disorders Heart disease

Target Organs : Eyes
Skin
Cardiovascular system
Central nervous system
Heart
Liver
Kidney

Carcinogenicity

NTP:	Dichloromethane	75-09-2
IARC:	Dichloromethane	75-09-2
OSHA:	Dichloromethane	75-09-2
ACGIH:	Dichloromethane	75-09-2

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS-No.	Weight %
Dichloromethane	75-09-2	100.00

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

Treatment : Treat symptomatically.

SECTION 5. FIRE-FIGHTING MEASURES

Flash point	:	does not flash
Ignition temperature	:	556 °C (1,033 °F)
Lower explosion limit	:	12 %(V)
Upper explosion limit	:	19 %(V)
Suitable extinguishing media	:	Dry chemical Carbon dioxide (CO2) Foam Cool closed containers exposed to fire with water spray.
Specific hazards during fire fighting	:	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: Gaseous hydrogen chloride (HCl). Phosgene Chlorine (Cl2) Carbon monoxide Carbon dioxide (CO2)
Special protective equipment for fire-fighters	:	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). Ensure adequate ventilation. Avoid accumulation of vapours in low areas. Remove all sources of ignition. Do not swallow. Avoid breathing vapors, mist or gas. Avoid contact with skin, eyes and clothing.
Environmental precautions	:	Prevent further leakage or spillage if safe to do so. Discharge into the environment must be avoided.

Do not let product enter drains.
Do not flush into surface water or sanitary sewer system.
Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

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 vapors, 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

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.

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 vapor 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
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 vapors, 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/1documents/Committees/ERP-erpglevels.pdf.

Exposure Guidelines

Dichloromethane	75-09-2	ACGIH	TWA	50 ppm
		OSHA	TWA	25 ppm
		OSHA	STEL	125 ppm

OSHA	OSHA_ACT		12.5 ppm
	Skin designation: Can be absorbed through the skin.		
US CA OEL	TWA PEL	25 ppm	87 mg/m3
US CA OEL	STEL	125 ppm	435 mg/m3
US CA OEL	TWA A LV		12.5 ppm

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Form	:	liquid, clear
Color	:	colourless
Odor	:	sweet mild
Molecular Weight	:	84.94 g/mol
pH	:	not applicable
Melting point/range	:	-95 °C (-139 °F)
Boiling point/boiling range	:	40 °C (104 °F)
Vapor pressure	:	466.63 hPa at 20 °C (68 °F)
Relative vapour density	:	2.9 (Air = 1.0)
Density	:	1.33 g/cm3
Water solubility	:	13.2 g/l at 25 °C (77 °F)

SECTION 10. STABILITY AND REACTIVITY

Conditions to avoid	:	Heat, flames and sparks. Protect from extreme heat and cold. Keep away from direct sunlight.
Materials to avoid	:	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
Hydrogen chloride gas
Carbon monoxide
Carbon dioxide (CO2)
Chlorine

Hazardous reactions : Hazardous polymerisation does not occur.
Stable under recommended storage conditions.

SECTION 11. TOXICOLOGICAL INFORMATION

Acute oral toxicity : LD50 rat
Dose: 1,600 mg/kg

Acute dermal toxicity : LD50 rat
Dose: > 2,000 mg/kg

Acute inhalation toxicity : LC50 mouse
Dose: 14400 ppm
Exposure time: 7 h

Skin irritation : rabbit
Moderate skin irritation

Eye irritation : rabbit
Moderate eye irritation

Additional advice : Confirmed animal carcinogen with unknown relevance to humans.

SECTION 12. ECOLOGICAL INFORMATION

Toxicity to fish : static test LC50
Species: Fathead minnow
Dose: 310 mg/l
Exposure time: 96 h

Toxicity to fish	:	flow-through test LC50 Species: Fathead minnow Dose: 193 mg/l Exposure time: 96 h
Toxicity to fish	:	flow-through test LC50 Species: Oncorhynchus mykiss (rainbow trout) Dose: 10.95 mg/l Exposure time: 96 h
Toxicity to fish	:	static test LC50 Species: Lepomis macrochirus (Bluegill sunfish) Dose: 220 mg/l Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates.	:	static test EC50 Species: Daphnia magna (Water flea) Dose: 140 mg/l Exposure time: 48 h
Toxicity to bacteria	:	EC50 Species: Photobacterium phosphoreum Dose: 1,000 mg/l Exposure time: 15 min

SECTION 13. DISPOSAL CONSIDERATIONS

Waste Information: Observe all Federal, State, and Local Environmental regulations.

SECTION 14. TRANSPORT INFORMATION

DOT	UN-Number	:	1593
	Proper shipping name	:	DICHLOROMETHANE
	Class		6.1
	Packing group		III
	Hazard Label		6.1

IATA	UN Number	:	1593
	Description of the goods	:	DICHLOROMETHANE
	Class	:	6.1
	Packaging group	:	III
	Hazard Label	:	6.1
	Packing instruction (cargo aircraft)	:	612
	Packing instruction	:	605

	(passenger aircraft) Packing instruction (passenger aircraft)	:	Y605
IMDG	Substance No.	:	UN 1593
	Description of the goods	:	DICHLOROMETHANE
	Class	:	6.1
	Packaging group	:	III
	Hazard Label	:	6.1
	EmS Number	:	F-A
	Marine pollutant	:	no

SECTION 15. REGULATORY INFORMATION

Inventories

EU. EINECS	:	On the inventory, or in compliance with the inventory
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). (Can. Gaz. Part II, Vol. 133)	:	All components of this product are on the Canadian DSL list.
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 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
CH INV - Switzerland	:	On the inventory, or in compliance with the inventory
NZIOC - New Zealand	:	On the inventory, or in compliance with the inventory

National regulatory information

SARA 313 Components	:	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 contains a chemical known in 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 D2A D2B 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

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

Further information

* - Chronic health hazard