SAFETY DATA SHEET

Honeywell
Burdick & Jackson™

Dichlormethane

494453-1L

Version 1.3 Issuing date 12/21/2016 Revision Date 02/21/2018 Print Date 08/07/2019

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product information

Trade name	:	Dichlormethane
Number	:	000000020387
Recommended use of the chemical and restrictions on use	:	Laboratory chemicals
Manufacturer or supplier's details	:	Honeywell Specialty Chemicals Seelze GmbH Wunstorfer Straße 40 Seelze, 30926
For further information, please contact:	:	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** **In Japan: +(81)-345209637** (24 hours/day, 7 days/week)

2. HAZARDS IDENTIFICATION

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

GHS Label elements, including precautionary statements

Symbol(s) :

Signal word : Warning

Hazard statements : Causes skin irritation.
Causes serious eye irritation.

May cause drowsiness and 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.
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.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Formula : CH_2Cl_2

Chemical nature : Substance

Chemical name	CAS-No.	Concentration
Dichloromethane Dichloromethane	75-09-2	>=99.00 %

4. FIRST AID MEASURES

General advice : First aider needs to protect himself.

Move out of dangerous area.
If unconscious, place in recovery position and seek medical advice.
Take off all contaminated clothing immediately.

Inhalation : If breathed in, move person into fresh air.
If symptoms persist, call a physician.

Skin contact : After contact with skin, wash immediately with plenty of water.
Consult a physician.

Eye contact : Rinse thoroughly with plenty of water, also under the eyelids.
Protect unharmed eye.
Consult a physician.

Ingestion : When swallowed, allow water to be drunk.
Call a physician immediately.

5. FIREFIGHTING MEASURES

Suitable extinguishing media : Foam
Carbon dioxide (CO2)
Water spray
Dry powder

Unsuitable extinguishing media : Do not use a solid water stream as it may scatter and spread fire.

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

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

Further information : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Cool containers/tanks with water spray.
Prevent fire extinguishing water from contaminating surface water or the ground water system.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	:	Ensure adequate ventilation. Evacuate personnel to safe areas. Wear personal protective equipment. Unprotected persons must be kept away. Do not breathe vapours or spray mist.
Environmental precautions	:	Prevent further leakage or spillage if safe to do so. Do not let product enter drains.
Methods and materials for containment and cleaning up	:	Ventilate the area. Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13).

7. HANDLING AND STORAGE

Handling

Precautions for safe handling	:	Wear personal protective equipment. Use only with adequate ventilation. Do not breathe vapours or spray mist.
Advice on protection against fire and explosion	:	Keep away from heat and sources of ignition. Normal measures for preventive fire protection.

Storage

Conditions for safe storage, including any incompatibilities	:	Store in original container. Keep containers tightly closed in a dry, cool and well-ventilated place.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value	Control parameters	Update	Basis
Dichloromethane Dichloromethane	75-09-2	TL : Threshold limits	(50 ppm)	04 2009	ISHL:Industrial Safety and Health Law OEL

		TWA : Time weighted average	170 mg/m3 (50 ppm)	04 2007	Japan Society for Occupational Health:Japan Society for Occupational Health allowable concentration recommendation value

		TLV-C : Ceiling Limit Value	340 mg/m3 (100 ppm)	04 2007	Japan Society for Occupational Health:Japan Society for Occupational Health allowable concentration recommendation value

		SKIN_DES : Skin designation:	Can be absorbed through the skin.	04 2007	Japan Society for Occupational Health:Japan Society for Occupational Health allowable concentration recommendation value

Appropriate engineering controls

Use with local exhaust ventilation.

Individual protection measures, such as personal protective equipment

Respiratory protection : In case of insufficient ventilation wear suitable respiratory equipment.

Hand protection : Impervious gloves
Gloves must be inspected prior to use.
Replace when worn.

Eye protection	:	Safety goggles
Skin and body protection	:	Impervious clothing
Hygiene measures	:	Keep working clothes separately. Take off all contaminated clothing immediately. Avoid contact with skin, eyes and clothing. Wash hands before breaks and at the end of workday.
Protective measures	:	Ensure that eyewash stations and safety showers are close to the workstation location. Legal requirements are to be considered in regard of the selection, use and care of personal protective equipment. Avoid exposure - obtain special instructions before use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	:	liquid
Colour	:	colourless
Odour	:	sweet
Melting point/range	:	-97 °C
Boiling point/boiling range	:	39 - 41 °C at 1,013 hPa
Flash point	:	Note: Not applicable
Lower explosion limit	:	13 %(V)
Upper explosion limit	:	22 %(V)
Vapour pressure	:	453 hPa at 20 °C(68 °F)
Density	:	1.32 - 1.33 g/cm3 at 20 °C
Water solubility	:	20.0 g/l at 20 °C

Solubility in other solvents	:	Note: soluble
Partition coefficient: n-octanol/water	:	log Pow: 1.25
Ignition temperature	:	605 °C
Decomposition temperature	:	> 120 °C Note: Decomposition temperature
Viscosity, dynamic	:	0.44 mPa.s at 20 °C
Molecular weight	:	84.93 g/mol

10. STABILITY AND REACTIVITY

Chemical stability	:	Stable under recommended storage conditions.
Possibility of hazardous reactions	:	Hazardous polymerization does not occur. Vapours may form explosive mixture with air.
Conditions to avoid	:	Heat, flames and sparks. Exposure to sunlight.
Incompatible materials to avoid	:	Alkali metals Amines Bases Alkaline earth metals Powdered metals Strong oxidizing agents Strong acids
Hazardous decomposition products	:	In case of fire hazardous decomposition products may be produced such as: Phosgene Chlorine (Cl2) Carbon monoxide Carbon dioxide (CO2) Gaseous hydrogen chloride (HCl).

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: 86 mg/l Species: Mouse
Acute dermal toxicity	:	LD50: > 2,000 mg/kg Species: Rat Method: OECD Test Guideline 402
Skin irritation	:	Species: Rabbit Result: Irritating to skin. Method: OECD Test Guideline 404
Eye irritation	:	Species: rabbit eye Result: Irritating to eyes.
Sensitisation	:	Species: Mouse Result: non-sensitizing Method: OECD 429
Dichloromethane	:	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
Further information	:	Note: Confirmed animal carcinogen with unknown relevance to humans.

12. ECOLOGICAL INFORMATION

Toxicity

Toxicity to fish	:	LC50: 193 mg/l Exposure time: 96 h Species: Pimephales promelas (fathead minnow)
	:	LC50: 97 mg/l Exposure time: 48 h Species: Fish
	:	NOEC: 142 mg/l Exposure time: 28 d Species: Pimephales promelas (fathead minnow) Note: mortality
Toxicity to daphnia and other aquatic invertebrates	:	LC50: 220 mg/l Exposure time: 48 h Species: Daphnia (water flea)
	:	LC50: 27 mg/l Exposure time: 48 h Species: Daphnia magna (Water flea)
Toxicity to algae	:	Note: no data available
Toxicity to bacteria	:	LC0: 500 mg/l Species: Pseudomonas putida
	:	EC50: 2,590 mg/l Exposure time: 40 min Species: activated sludge Method: OECD 209

Persistence and degradability

Biodegradability	:	Result: Readily biodegradable Value: 68 % Method: OECD 301 D

Bioaccumulative potential

Bioaccumulation	:	Note: No bioaccumulation is to be expected (log Pow <= 4).

13. DISPOSAL CONSIDERATIONS

Disposal methods	:	In accordance with local and national regulations.

14. TRANSPORT INFORMATION

ADR

UN/ID No.	:	UN 1593
Description of the goods	:	DICHLOROMETHANE
Class	:	6.1
Packing group	:	III
Classification Code	:	T1
Hazard Identification Number	:	60
Labels	:	6.1

IATA

UN/ID No.	:	UN 1593
Description of the goods	:	Dichloromethane
Class	:	6.1
Packing group	:	III
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
Packing group	:	III
Labels	:	6.1
EmS Number 1	:	F-A
EmS Number 2	:	S-A

Marine pollutant	:	no

15. REGULATORY INFORMATION

National regulatory information

Chemical Substance Control Law DES (JP)	:	Listed Type II Monitoring Chemical Substance. Reference: (2)-36
Chemical Substance Control Law JP MON3	:	Listed Type III Monitoring Chemical Substance. Reference: (2)-36
Substances Subject to be Notified Names JP MSDSD	:	Threshold Concentration: 0.1 % wt 257
Substances Subject to be Indicated Names JPISHL LR	:	Article 18 Threshold limits: 1 % wt 14.7
Vessel Safety Law JP VSL	:	Toxic and infectious substances (Article 2 and 3 of rules on shipping and storage of dangerous goods and its Attached Table 1)
Aviation Law JP AVL	:	Toxic and infectious substances (Article 194 of The Enforcement Rules of Aviation Law and its Attached Table 1)
Fire Service Law	:	Not relevant
Poisonous and Deleterious Substances Control Law	:	Not relevant
Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof	:	Class I Designated Chemical Substances 186 Dichloromethane 75-09-2

Other international regulations

Notification status

US. Toxic Substances Control Act	:	On TSCA Inventory
Australia. Industrial Chemical	:	On the inventory, or in compliance with the inventory

(Notification and Assessment) Act		
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

16. OTHER INFORMATION

		HMIS III	NFPA
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

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: 10/17/2017
Prepared by Honeywell Performance Materials and Technologies Product Stewardship Group