

MATERIAL SAFETY DATA SHEET

DEAHEUNG CHEMICAL CO., LTD. www.dhcbond.com



Product Name D-9800HD(G)

1. Product and Company Identification

A. Product Name D-9800HD(G)

B. Recommended use of the chemical Bond the Metal, wood, rubber, HPM, plastics etc.

C. Manufacturer/Supplier/Distributor Information

- Name DAEHEUNG CHEMICAL CO., LTD.

- Address 68, Sandan-ro 64beon-gil, Pyeongtaek-si, Gyeonggi-do, Korea

- Emergency phone number 82-31-668-1424

2. Hazards identification

A. Hazard·Risk Classification Skin Corrosion/Irritation: Category 2

Serous Eyes Damage/Eye Irritation: Category 2
Carcinogenicity, categories: Category 1B
Germ cell mutagenicity, categories: Category 2
Target Organ Toxicity (Single Exposure): Category 1
Target Organ Toxicity (Single Exposure): Category 3
Target Organ Toxicity (Repeated Exposure): Category 1

Hazardous to the aquatic environment, acute toxicity: Category 3

B. Label elements including precautionary statements

- Symbol



- Signal Word Danger

- Hazard·Risk Statement H315 Causes skin irritation

H319 Causes serious eye irritation
H335 May cause respiratory irritation
H336 May cause drowsiness or dizziness
H341 Suspected of causing genetic defects

H350 May cause cancer

H412 Harmful to aquatic life with long lasting effects

- Precautionary Statement

Prevention P201 Obtain special instructions before use

P202 Do not handle until all safety precautions have been read and understood

P260 Do not breathe dust/fume/gas/mist/vapours/spray
P261 Avoid breathing dust/fume/gas/mist/vapours/spray

P264 Wash \cdots thoroughly after handling

P270 Do not eat, drink or smoke when using this product P271 Use only outdoors or in a well-ventilated area

P273 Avoid release to the environment

P280 Wear protective gloves/protective clothing/eye protection/face protection

P281 Use personal protective equipment as required

Response P302+P352 IF ON SKIN: Wash with soap and water

P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a

position comfortable for breathing

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes.

Remove contact lenses if present and easy to do - continue rinsing

P307+P311 IF exposed : Call a POISON CENTER or doctor/physician P308+P313 IF exposed or concerned : Get medical advice/attention P312 Call a POISON CENTER or doctor/physician if you feel unwell

P314 Get Medical advice/attention if you feel unwell

P332+P313 If skin irritation occurs: Get medical advice/attention
P337+P313 If eye irritation persists get medical advice/attention
P362 Take off contaminated clothing and wash before reuse

P403+P233 Store in a well ventilated place. Keep container tightly closed

P405 Store locked up

Disposal P501 Dispose of contents/container to \cdots

C. Other Hazard Risk which are not included in the classification criteria (e.g. dust explosion hazard)

	Dichloromethane	Trichloroethylene	Para-Tertiary- Buthylphenol- Formaldehyde…	Neoprene
Health	2	2	1	1
Fire	1	1	1	1
Reactivity	0	0	0	0

3. Composition/Information on ingredients

Chemical Name	Other name	CAS number	Content(%)
DICHLOROMETHANE	Methylene Chloride	75-09-2	10~20
TRICHLOROETHYLENE	TCE	79-01-6	40~60
	Acetylene trichloride	79 01 0	
PARA-TERTIARY- BUTYLPHENOLFORMALDEHYDE…	PHENOL, POLYMER WITH FORMALDEHYDE	25085-50-1	5~15
NEOPRENE	Synthetic rubber	9010-98-4	15~25
Etc.	-	-	1~5

4. First aid measures

Storage

A. Eye contact	Flush with water, lifting upper and lower lids occasionally.
	Consult a physician if irritation persists.
B. Skin contact	Wash with soap and water. Consult a physician if irritation persists.
C. Inhalation	If affected, remove individual to fresh air. Use only in well ventilated areas.
	Consult a physician if irritation persists.

D. Ingestion Consult a physician if irritation persists.E. Indication of immediate medical attention Consult a physician if irritation persists.

5. Fire-Fighting measures

and notes for physician

A. Suitable (and unsuitable) extinguishing media

Dry chemical, Carbon dioxide, Foam, Water spray for large fires.

B. hazards arising from the chemical (e.g. nature of any hazardous combustion products)

When it is exposed to the flame of heat, there is a danger.

The fume is heavier air and moves more distance, it could backfire by ignition sources.

C. Special protective equipment and precautions for fire-fighters

Shut off fuel if possible to do without hazard

Evacuate area and fight fire from a safe distance.

To the case where the formation fire occurs from the store area, it uses the unmanned hose carrier or the other atals, it must throw away

When the tank, the freight car and the tank truck are enveloped in fire, it will have

to quarantine over half-mile(approximately 800m)

Apply water from a safe distance to cool and protect surrounding area.

Firefighters should wear proper protective equipment

6. Accidental release measures

A. Personal precautions, protective equipment and emergency procedures

Use personal protective equipment.

Do not inhale the volatilized solvent directly.

In order to prevent the dangerous the approach other than the interested

party.

B. Environmental precautions and protective procedures

Do not allow to enter drains or waterways.

Do not discharge into the subsoil/soil

Absorb spills with waste or dry sand or earth, then place in a chemical

waste container

For large spills, prevent them from entering into sewers, watercourse or low

area by mounding soil, then recover to a chemical waste container.

C. Methods and materials for containment and cleaning up

Take up with absorbent materials(sand, kieselguhr, universal binder)

Dispose of absorbed material in accodance with the regulations.

7. Handling and storage

A. Precautions for safe handling

Wear suitable chemical resistant gloves, safety goggles, dust mask and other

protective clothing.

Use in the well-ventilated areas. Prevent build-up electrostatic charge(by

grounding).

Shower and eye bath. Keep away from acidic material.

incompatibilities)

B. Conditions for safe storage (including any Store in its original container in a cool environment, keep away from heat, spark, and open flame. Ground containers during storage and transfer operations to

avoid static spark.

Ideal storage temp. range fore ease of handling is $10 \sim 27 \,^{\circ}$ C

8. Exposure controls & personal protection

A. Control parameters (e.g. occupational exposure limit values, biological limit values)

- Occupational exposure limit values

TWA - 50ppm 175mg/m3 DICHLOROMETHANE

TRICHLOROETHYLENE

TWA - 50ppm 270mg/m3 STEL - 200ppm 1080mg/m3

- ACGIH limit values

TWA 10 ppm TRICHLOROETHYLENE STEL 25 ppm

- Biological limit values No data available

B. Appropriate engineering controls The following exposure control techniques may be used to effectively minimize.

C. Personal protective equipment

A respirator that is recommended or approved for use may be necessary for - Respiratory protection

spray application or other situations such as high temperature use which may

produce inhalation exposures.

- Eye protection Liquid chemical goggles. Vapor resistant goggles should be worn when contact

lenses are in use. In a splash hazard environment chemical goggles should be

used in combination with a full face-shield.

- Hands protection Use proper chemical resistant gloves.

- Body protection Permeation resistant gloves(butyl rubber, nitrile rubber). Cover as much of the

exposed skin area as possible with appropriate clothing(long sleeve shirts, trousers, etc.) If skin cream are used, keep the area protected only the cream to

minimum.

9. Physical and chemical properties

A. Appearance

Viscous liquid Physical state

Color Gray B. Odour Solvent

C. Odour threshold No data available D. pH Not Applicable E. Melting point/freezing point Not Applicable 68.7 ℃ (40~74 ℃) F. Initial boiling point and boiling range G. Flashing point No data available H. Evaporation rate No data available I. Flammability(solid, gas) No data available J. Upper/lower flammability or explosive 15~23 % / 7.5~13 %

limits

139.9(100~400) K. Vapor pressure L. Solubility Not soluble in water

M. Vapor density Above 2 N. Relative density 1.30 ± 0.05

O Partition coefficient:n-octanol/water No data available

P. Auto-ignition temperature

Q. Decomposition temperature No data available 6,400~6,600cps (20 °C) R. Viscosity S. Formula mass No data available

10. Stability and reactivity

A.Chemical stability and possibility of

hazardous reactions

Stable under normal conditions

B Conditions to avoid Avoid the fire, spark, flame, and other ignition sources

The fume has an explosive characteristic.

Avoid the overheating of container.

C. Incompatible materials flammable material

D. Hazardous decomposition products CO, CO₂, nitrogen compounds

11. Toxicological information

A. Information on the likely routes of

No data available

B. Health hazards information

- Acute toxic

Oral LD50 15800 mg/kg Skin-Rabbit

> LD50 9600mg/kg Oral-Rat LD50 2.2gm/kg Oral-Rat LD50 437mg/kg Mouse

Inhalation

TRICHLOROETHYLENE LD50 29000 mg/kg Rabbit

Dermal

DICHLOROMETHANE LC50 53 mg/l 6 hr
- Skin corrosive/irritant Irritation to skin

Respiratory sensitizationSkin sensitizationNo data available

- Carcinogenicity

IARC Group 3; Not classifiable as to carcinogenicity to humans

ACGIH A4

Germ Cell Mutagenicity
 Reproductive toxicity
 No data available

- Specific target organ toxicity (repeated exposure)

No data available

- Aspiration hazard No data available

12. Ecological information

A. Aquatic and terrestrial ecotoxicity

- Fish

DICHLOROMETHANE LC50 5.2 mg/ ℓ 72 hr

TRICHLOROETHYLENE LC50 21.9 mg/ ℓ 96 hr Pimephales promelas

- Shellfish

DICHLOROMETHANE EC50 1682 mg/ ℓ 48 hr

TRICHLOROETHYLENE EC50 2.2 mg/ ℓ 48 hr Daphnia magna

- Birds

TRICHLOROETHYLENE EC50 36.5 mg/ ℓ 72 hr (Chlamydomonas reinhardii(algae))

No data available

B. Persistence and degradability

- Persistence

TRICHLOROETHYLENE log Kow 2.61

C. Bioaccumulative potential

- Bioaccumulative

DICHLOROMETHANE BCF 40
TRICHLOROETHYLENE BCF 17

- Potential

DICHLOROMETHANE 13 (%)
TRICHLOROETHYLENE 4 (%) 28 day
D. Mobility in soil No data available

13. Disposal considerations

E. Other adverse effects

A. Disposal methodB. Disposal precautionDestroy the product by incineration

14. Transport information

A. UN number 1133

B. UN proper shipping name ADHESIVES containing flammable liquid

C. Transport hazard class: 3

D. Packing group (if applicable) II

E. Marin pollution (yes/no)

F. Special precaution which a user to be aware of or needs to comply with in connection with transport or conveyance either within or outside their premises:

F-E, S-D

15. Regulatory information

A. Industrial Safety and Health Act Article 39 (Management, etc. of Harmful Agents)

Article 41 (Preparation, Keeping, etc. of Material Safety Data Sheet)

B. Toxic Chemical Control Act
 C. Dangerous Material Safety Control Act
 D. Wastes Management Act
 No data available
 Designated Wastes

E. Other requirements in domestic and other countries

- Domestic Not Applicable

- Other countries

CERCLA

DICHLOROMETHANE 453.599 kg 1000 lb TRICHLOROETHYLENE 45.3599 kg 100 lb

EPCRA 313 Applicable

EU regulations

DICHLOROMETHANE Carc. Cat. 3; R40

TRICHLOROETHYLENE Carc. Cat. 2; R45Muta. Cat. 3; R68R67Xi; R36/38R52-53

EU regulations

DICHLOROMETHANE R40

TRICHLOROETHYLENE R45, R36/38, R52/53, R67

EU regulations

DICHLOROMETHANE S2, S23, S24/25, S36/37

TRICHLOROETHYLENE \$53, \$45, \$61

16. Other information

A. Information source and references

DICHLOROMETHANE

NLM, CERI·NITE No.15 (2004), EHC 164 (1996)

TRICHLOROETHYLENE

ECHA(OECD TG301D), HSBD, IUCLID, IUCLID

PARA-TERTIARY-BUTYLPHENOL-FORMALDEHYDE ···

NEOPRENE

Corporate Solution From Thomson Micromedex(http://csi.micromedex.com)(

B. Issuing date March 27, 2015C. Revision number and date 1, May-19-2015

D. others