



MATERIAL SAFETY DATA SHEET

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

PGM

Product Name

D-9800HD

1. Product and Company Identification

- A. Product Name D-9800HD
- 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 ... 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	<p>P302+P352 IF ON SKIN : Wash with soap and water</p> <p>P304+P340 IF INHALED : Remove victim to fresh air and keep at rest in a position comfortable for breathing</p> <p>P305+P351+P338 IF IN EYES : Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing</p> <p>P307+P311 IF exposed : Call a POISON CENTER or doctor/physician</p> <p>P308+P313 IF exposed or concerned : Get medical advice/attention</p> <p>P312 Call a POISON CENTER or doctor/physician if you feel unwell</p> <p>P314 Get Medical advice/attention if you feel unwell</p> <p>P332+P313 If skin irritation occurs : Get medical advice/attention</p> <p>P337+P313 If eye irritation persists get medical advice/attention</p> <p>P362 Take off contaminated clothing and wash before reuse</p>
Storage	P403+P233 Store in a well ventilated place. Keep container tightly closed
Disposal	P405 Store locked up P501 Dispose of contents/container to ...

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			
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

A. Eye contact	<p>Flush with water, lifting upper and lower lids occasionally.</p> <p>Consult a physician if irritation persists.</p>
B. Skin contact	Wash with soap and water. Consult a physician if irritation persists.
C. Inhalation	<p>If affected, remove individual to fresh air. Use only in well ventilated areas.</p> <p>Consult a physician if irritation persists.</p>
D. Ingestion	Consult a physician if irritation persists.
E. Indication of immediate medical attention and notes for physician	Consult a physician if irritation persists.

5. Fire-Fighting measures

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)	<p>When it is exposed to the flame of heat, there is a danger.</p> <p>The fume is heavier air and moves more distance, it could backfire by ignition sources.</p>

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.

B. Conditions for safe storage (including any incompatibilities)

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 ~ 27°C

8. Exposure controls & personal protection

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

– Occupational exposure limit values

DICHLOROMETHANE

TWA – 50ppm 175mg/m³

TRICHLOROETHYLENE

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

– ACGIH limit values

TRICHLOROETHYLENE

TWA 10 ppm

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

– Respiratory protection

A respirator that is recommended or approved for use may be necessary for 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	
Physical state	Viscous liquid
Color	White
B. Odour	Solvent odour
C. Odour threshold	No data available
D. pH	Not Applicable
E. Melting point/freezing point	Not Applicable
F. Initial boiling point and boiling range	68.7 °C (40~74 °C)
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 limits	15~23 % / 7.5~13 %
K. Vapor pressure	139.9(100~400)
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	556 °C
Q. Decomposition temperature	No data available
R. Viscosity	4,900~5,100 (20 °C)
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, CO ₂ , nitrogen compounds

11. Toxicological information

A. Information on the likely routes of exposure	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
– Serious eye damage/eye irritation	Can cause weak irritation
– Respiratory sensitization	No data available
– Skin sensitization	No data available
– Carcinogenicity	
IARC	Group 3 : Not classifiable as to carcinogenicity to humans
ACGIH	A4
NTR	R
– Germ Cell Mutagenicity	No data available
– 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 reinhardtii(algae))
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B. Persistence and degradability

– Persistence

TRICHLOROETHYLENE	log Kow 2.61
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C. Bioaccumulative potential

– Bioaccumulative

DICHLOROMETHANE	BCF 40
TRICHLOROETHYLENE	BCF 17

– Potential

DICHLOROMETHANE	13 (%)
TRICHLOROETHYLENE	4 (%) 28 day

D. Mobility in soil

No data available

E. Other adverse effects

No data available

13. Disposal considerations

A. Disposal method	Destroy the product by incineration
B. Disposal precaution	Destroy 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) Yes

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	Not Applicable
C. Dangerous Material Safety Control Act	No data available
D. Wastes Management Act	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	S53, S45, S61

16. Other information

- A. Information source and references
- DICHLOROMETHANE
- NLM, CERI-NITE No.15 (2004), EHC 164 (1996)
- TRICHLOROETHYLENE
- ECHA(OECD TG301D), HSD, IUCLID, IUCLID
- PARA-TERTIARY-BUTYLPHENOL-FORMALDEHYDE ...
- NEOPRENE
- Corporate Solution From Thomson Micromedex(<http://csi.micromedex.com>)(
- B. Issuing date May 19, 2015
- C. Revision number and date -
- D. others