



# MATERIAL SAFETY DATA SHEET

DAEHEUNG CHEMICAL CO., LTD. [www.dhcbond.com](http://www.dhcbond.com)

PGM

Product Name

D-5750

## 1. Product and Company Identification

- A. Product Name D-5750
- B. Recommended use of the chemical and restrictions on use
- Recommended use of the chemical Bond the Metal, wood, rubber, HPM, plastics etc.
  - Restrictions on use of the product Don't use except for the original purpose.
- 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
- Flammable Liquid : Category 2  
Acute Toxicity (Oral) : Category 4  
Skin Corrosion/Irritation : Category 2  
Serious Eyes Damage/Eye Irritation : Category 2  
Reproductive Toxicology : Category 2  
Target Organ Toxicity (Single Exposure) : Category 1  
Target Organ Toxicity (Repeated Exposure) : Category 1  
Aspiration Hazard : Category 1

### B. Label elements including precautionary statements

- Symbol



- Signal Word

Danger

- Hazard/Risk Statement

H225 Highly flammable liquid and vapour Causes severe skin burns and eye damage  
H304 May be fatal if swallowed and enters airways Suspected of damaging fertility or the unborn child  
H315 Causes skin irritation  
H319 Causes serious eye irritation  
H332 Harmful if inhaled  
H335 May cause respiratory irritation  
H336 May cause drowsiness or dizziness  
H361 Suspected of damaging fertility or the unborn child  
H370 Causes damage to organs  
H372 Causes damage to organs through prolonged or repeated exposure

- Precautionary Statement

#### Prevention

P201 Obtain special instructions before use  
P202 Do not handle until all safety precautions have been read and understood  
P210 Keep away from heat/sparks/open flames/hot surfaces – No smoking  
P233 Keep container tightly closed  
P240 Ground/bond container and receiving equipment

Prevention	P241 Use explosion–proof electrical/ventilating/light/…/equipment
	P242 Use only non–sparking tool
	P243 Take precautionary measures against static discharge
	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
	P280 Wear protective gloves/protective clothing/eye protection/face protection
	P281 Use personal protective equipment as required
Response	P301+P310 IF SWALLOWED : Immediately call a POISON CENTER or doctor/physician
	P302+P352 IF ON SKIN : Wash with soap and water
	P303+P361+P353 IF ON SKIN (or hair) : Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
	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
	P331 Do NOT induce vomiting
Storage	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
	P403+P235 Store in a well ventilated place. Keep cool.
	P405 Store locked up
	P501 Dispose of contents/container to …
Disposal	

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

– Toluene

Health	2
Fire	3
Reactivity	0

– N-Hexane

Health	2
Fire	3
Reactivity	0

– Acetone

Health	1
Fire	3
Reactivity	0

– PARA-TERTIARY-BUTYLPHENOL-FORMALDEHYDE …

Health	1
Fire	1
Reactivity	0

– Neoprene

Health	1
Fire	1
Reactivity	0

– Other additives

Health	1
Fire	1
Reactivity	0

### 3. Composition/Information on ingredients

Chemical Name	Other name	CAS number	Content(%)
TOLUENE	Methylbenzene	108-88-3	45~55
N-HEXANE	Hexane	110-54-3	5~15
ACETONE	2-Propanone	67-64-1	1~10
PARA-TERTIARY-BUTYLPHENOLFORMALDEHYDE...	PHENOL, P-tert-BUTYL-,	25085-50-1	10~20
NEOPRENE	Synthetic rubber	9010-98-4	10~20
OTHER ADDITIVES	–	Trade secret	1~5

### 4. First aid measures

A. Eye contact	IF IN EYES: Wash carefully with water for several minutes. Remove contact lenses, if possible. Easy to do.  If eye irritation persists, Consult a physician if irritation persists.
B. Skin contact	Skin (or hair): Take off immediately all contaminated clothing or remove the Keep. Rinse skin with water / shower.  If skin irritation occurs, obtain medical advice Keep  Wash skin with soap and water
C. Inhalation	Excessive dust, or fumes when exposed to clean air removed by coughing or other symptoms and Seek medical attention if you have.
D. Ingestion	Do not induce vomiting. If swallowed, rinse mouth with water (only if the person is conscious).  Seek immediate medical advice.
E. Indication of immediate medical attention and notes for physician	Medical personnel are aware of the material and to take precautions to protect.

### 5. Fire-Fighting measures

A. Suitable (and unsuitable) extinguishing media	Water spray, foam, dry powder  When to do Fire-Fighting, use dry sand or earth.
B. hazards arising from the chemical (e.g. nature of any hazardous combustion products)	Highly flammable liquid and vapor.  Vapors may form explosive mixtures with air.  The steam explosion hazard at Indoor, outdoor, drain.
C. Special protective equipment and precautions for fire-fighters	In case of fire: Wear self-contained breathing apparatus.  Cool tanks/drums with water spray/remove them into safety.

### 6. Accidental release measures

A. Personal precautions, protective equipment and emergency procedures	Use water spray/stream to protect personnel and to cool endangered containers.  Remove product from area of fire.  Wear suitable protective clothing, gloves and eye/face protection.  Stop leak if safe to do so. Remove all sources of ignition.  In case of fire: Wear selfcontained breathing apparatus.  Evacuate unnecessary personnel. Remove all sources of ignition. Stop leak if safe to do so. Eliminate leaks immediately.
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B. Environmental precautions and protective procedures	Avoid release to the environment  Waterways, sewers, basements, and Prevent entry into confined spaces.
C. Methods and materials for containment and cleaning up	Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents).  Collect in closed containers for disposal.  Dispose of this material and its container to hazardous or special waste collection point.

## 7. Handling and storage

A. Precautions for safe handling	Do not handle until all safety precautions Read and understand all safety precautions.  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.  Be careful to high temperatures.
B. Conditions for safe storage (including any incompatibilities)	Use only outdoors or in a well-ventilated area.  Do not eat, drink or smoke when using this product.  Ideal storage temp. range fore ease of handling is 10 ~ 27°C.  Keep cool. Protect from sunlight  Keep away from heat/sparks/open flames/hot surfaces. – No smoking.

## 8. Exposure controls & personal protection

A. Control parameters (e.g. occupational exposure limit values, biological limit values)	
– Occupational exposure limit values	
TOLUENE	TWA – 50ppm 188mg/m <sup>3</sup> STEL – 150ppm 560mg/m <sup>3</sup>
N-HEXANE	TWA – 50ppm 180mg/m <sup>3</sup>
ACETONE	TWA – 500ppm 1188mg/m <sup>3</sup> STEL – 750ppm 1782mg/m <sup>3</sup>
OTHER ADDITIVES	TWA – 10g/m <sup>3</sup>
– ACGIH limit values	
TOLUENE	TWA 20 ppm 75 mg/m <sup>3</sup>
N-HEXANE	TWA 50 ppm
ACETONE	TWA 500 ppm STEL 750 ppm
OTHER ADDITIVES	TWA – 10g/m <sup>3</sup>
– Biological limit values	No data available
TOLUENE	0.02mg/L, 0.03mg/L
B. Appropriate engineering controls	Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Provide adequate ventilation.
C. Personal protective equipment	
– Respiratory protection	The filter class must be suitable for the maximum contaminant concentration(gas/vapour/aerosol/particulates) that may arise when handling the product.
– Eye protection	Wear eye protection/face protection.
– Hands protection	Wear proper chemical resistant gloves.
– Body protection	Wear proper Protective clothing.

## 9. Physical and chemical properties

A. Appearance	
Physical state	viscous liquid
Color	Yellowish
B. Odour	Solvent
C. Odour threshold	No data available
D. pH	Not Applicable
E. Melting point/freezing point	Not Applicable
F. Initial boiling point and boiling range	95.5 °C (56~111 °C)
G. Flashing point	-6.39 °C (-20~4 °C)
H. Evaporation rate	No data available
I. Flammability(solid, gas)	No data available
J. Upper/lower flammability or explosive limits	7.99 % (7.1~13 %) / 1.26 % (1.2~2.5 %)
K. Vapor pressure	No data available
L. Solubility	Not soluble in water
M. Vapor density	Above 2
N. Relative density	0.91±0.05
O Partition coefficient:n-octanol/water	No data available
P. Auto-ignition temperature	390.59 °C (245~480 °C)
Q. Decomposition temperature	No data available
R. Viscosity	6,500±500cps
S. Formula mass	No data available

## 10. Stability and reactivity

A. Chemical stability and possibility of hazardous reactions	Stable under normal conditions Highly flammable liquid and vapor
B. Conditions to avoid	away from heat/sparks/open flames/hot surfaces – No smoking
C. Incompatible materials	flammable material, Reducing substance.
D. Hazardous decomposition products	CO, CO <sub>2</sub> , nitrogen compounds

## 11. Toxicological information

A. Information on the likely routes of exposure	No data available
B. Health hazards information	
– Acute toxic	
Oral	
TOLUENE	LD50 2600 mg/kg Rat
N-HEXANE	LD50 25000 mg/kg Rat
ACETONE	LD50 5280 mg/kg Rat (EHC(1990), SIDS(1997))
NEOPRENE	LD50 40000 mg/kg Rat
Inhalation	
TOLUENE	LC50 12.5 mg/ℓ 4 hr Rat
N-HEXANE	LC50 77000 ppm 1 hr
ACETONE	LC50 32000 ppm Rat
Dermal	
TOLUENE	LD50 120000 mg/kg Rat
ACETONE	LD50 12870 mg/kg Rabbit (EHC(1990), PATTY(1994), SIDS(1997))

– Skin corrosive/irritant	
TOLUENE	moderate skin irritation in rabbit primary skin irritation test.
N-HEXANE	Skin – skin irritation
ACETONE	Skin – rabbit – No skin irritation
OTHER ADDITIVES	Can cause weak irritation
NEOPRENE	Can cause weak irritation
– Serious eye damage/eye irritation	
TOLUENE	caused mild eye irritation and the subjects recovered from the damage within 7 days in rabbit eye irritation test.
N-HEXANE	Eyes – No eye irritation
ACETONE	Eyes – Eye irritation – 24 h
OTHER ADDITIVES	Can cause weak irritation
NEOPRENE	Can cause weak irritation
– Respiratory sensitization	
No data available	
– Skin sensitization	
TOLUENE	Negative (Guinea Pigs)
ACETONE	Negative (Guinea Pigs, Mouse)
– Carcinogenicity	
IARC	Group 3 ; Not classifiable as to carcinogenicity to humans
ACGIH	A4 ; Not Classifiable as a Human Carcinogen
– Germ Cell Mutagenicity	
TOLUENE	Dominant lethal tests: negative Micronucleus test: positive Chromosome aberration test: positive
N-HEXANE	Dominant lethal tests: negative Micronucleus test: negative Chromosome aberration test: negative
ACETONE	Micronucleus test: negative
– Reproductive toxicity	
TOLUENE	Increased incidence of natural abortion in human; abnormal development and malformation of newborns caused by prenatal toluene abuse:
– Specific target organ toxicity (single exposure):	
TOLUENE	Causes fatigue, sleepiness, dizziness and mild respiratory irritation
– Specific target organ toxicity (repeated exposure)	
TOLUENE	Causes chronic central nervous system damage including restricted vision, headache associated with nystagmus and hearing loss, tremor, ataxia and amnesia.
– Aspiration hazard	
N-HEXANE	Hydrocarbons, kinematic viscosity 20.5 mm <sup>2</sup> /s or less (40 °C)
ACETONE	Kinematic viscosity 0.426 mm <sup>2</sup> /s

## 12. Ecological information

### A. Aquatic and terrestrial ecotoxicity

#### – Fish

TOLUENE	LC50 24 mg/ℓ 96 hr Oncorhynchus mykiss
ACETONE	LC50 > 100 mg/ℓ 96 hr
OTHER ADDITIVES	LC50 102.601 mg/ℓ 96 hr

#### – Shellfish

TOLUENE	EC50 11.5 mg/ℓ 48 hr Daphnia magna
N-HEXANE	LC50 3.88 mg/ℓ 4 hr
OTHER ADDITIVES	LC50 105.69 mg/ℓ 48 hr

– Bird	
OTHER ADDITIVES	LC50 63.944 mg/l 96 hr
B. Persistence and degradability	
– Persistence	
TOLUENE	log Kow 2.73
N-HEXANE	log Kow 3.9
OTHER ADDITIVES	log Kow 1.43
C. Bioaccumulative potential	
– Bioaccumulative	No data available
– Potential	
TOLUENE	86 (%) 20 day
N-HEXANE	100 (%)
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. Marine 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	
TOLUENE	The 4th type, the 1st petroleum type 200l
N-HEXANE	The 4th type, the 1st petroleum type 200l
ACETONE	The 4th type, the 1st petroleum type 400l
D. Wastes Management Act	Designated Wastes
E. Other requirements in domestic and other countries	
– Domestic	Not Applicable.
– Other countries	
CERCLA	
TOLUENE	453.599 kg 1000 lb
N-HEXANE	2267.995 kg 5000 lb
ACETONE	2267.995 kg 5000 lb
EPCRA 313	correspond
EU regulations	
TOLUENE	F; R11Repr.Cat.3; R63Xn; R48/20-65Xi; R38R67
N-HEXANE	F; R11 Repr. Cat. 3; R62 Xn; R48/20-65 Xi; R38 R67 N; R51-53
ACETONE	F; R11Xi; R36R66R67

EU regulations

TOLUENE	R11, R38, R48/20, R63, R65, R67
N-HEXANE	R11, R38, R48/20, R62, R65, R67, R51/53
ACETONE	R11, R36, R66, R67

EU regulations

TOLUENE	S2, S36/37, S46, S62
N-HEXANE	S2, S9, S16, S29, S33, S36/37, S61, S62
ACETONE	S2, S9, S16, S26, S46

## 16. Other information

A. Information source and references

Source of data : Korea Occupational Safety and Health Agency (KOSHA)>

B. Issuing date September 15, 2014

C. Revision number and date

D. Others

☐ Source of data : Korea Occupational Safety and Health Agency (KOSHA)>