



# MATERIAL SAFETY DATA SHEET

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



Product Name	G-5250
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## 1. Product and Company Identification

- A. Product Name G-5250
- 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 Flammable, Irritant, Hazardous material
- 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
  - Serous Eyes Damage/Eye Irritation : Category 2
  - Reproductive Toxicology : Category 1A
  - Target Organ Toxicity (Single Exposure) : Category 1
  - Target Organ Toxicity (Repeated Exposure) : Category 1
  - Aspiration Harzard : 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

H360 May damage fertility or the unborn child

- 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

P241 Use explosion-proof electrical/ventilating/light/.../equipment

Prevention	<p>P242 Use only non-sparking tool</p> <p>P243 Take precautionary measures against static discharge</p> <p>P260 Do not breathe dust/fume/gas/mist/vapours/spray</p> <p>P261 Avoid breathing dust/fume/gas/mist/vapours/spray</p> <p>P264 Wash ... thoroughly after handling</p> <p>P270 Do not eat, drink or smoke when using this product</p> <p>P271 Use only outdoors or in a well-ventilated area</p> <p>P280 Wear protective gloves/protective clothing/eye protection/face protection</p>
Response	<p>P281 Use personal protective equipment as required</p> <p>P301+P310 IF SWALLOWED : Immediately call a POISON CENTER or doctor/physician</p> <p>P302+P352 IF ON SKIN : Wash with soap and water</p> <p>P303+P361+P353 IF ON SKIN (or hair) : Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower</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>P331 Do NOT induce vomiting</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	<p>P403+P233 Store in a well ventilated place. Keep container tightly closed</p> <p>P403+P235 Store in a well ventilated place. Keep cool.</p> <p>P405 Store locked up</p>
Disposal	<p>P501 Dispose of contents/container to ...</p>

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

	TOLUENE	CYCLO-HEXANE	PARA-TERTIARY-BUTYLPHENOL-FORMALDEHYDE...	NEOPRENE
<b>Health</b>	2	1	1	1
<b>Fire</b>	3	3	1	1
<b>Reactivity</b>	0	0	0	0

### 3. Composition/Information on ingredients

Chemical Name	Other name	CAS number	Content(%)
TOLUENE	Methylbenzene	108-88-3	60~70
CYCLO-HEXANE	Hexahydrobenzene	110-82-7	10~20
PARA-TERTIARY-BUTYLPHENOL-FORMALDEHYDE...	PHENOL, P-tert-BUTYL-,	25085-50-1	5~15
NEOPRENE	Synthetic rubber	9010-98-4	10~20
Etc.	Trade secret	-	0~5

### 4. First aid measures

A. Eye contact	<p>IF IN EYES: Wash carefully with water for several minutes. Remove contact lenses, if possible. Easy to do.</p> <p>If eye irritation persists, Consult a physician if irritation persists.</p>
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B. Skin contact	<p>Skin (or hair): Take off immediately all contaminated clothing or remove the Keep. Rinse skin with water / shower.</p> <p>If skin irritation occurs, obtain medical advice Keep</p> <p>Wash skin with soap and water</p>
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	<p>Do not induce vomiting. If swallowed, rinse mouth with water (only if the person is conscious).</p> <p>Seek immediate medical advice.</p>
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.

### 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.

### A. Precautions for safe handling

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.



## 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	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 <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	LD50 14,100 ul/kg skin–Rabbit LD50 636mg/kg Rat LD50 12,705 mg/kg Rat LD50 813 mg/kg Mouse LD50 103 mg/m <sup>3</sup> LC50 49mg/m 4 hr Rat
Inhalation	
Dermal	
TOLUENE	LD50 120,000 mg/kg Rat
CYCLO–HEXANE	LD50 > 2,000 mg/kg Rabbit
– Skin corrosive/irritant	
TOLUENE	moderate skin irritation in rabbit primary skin irritation test.
CYCLO–HEXANE	Skin – rabbit – skin irritation
NEOPRENE	Can cause 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.
CYCLO–HEXANE	No eye irritation
NEOPRENE	Can cause irritation
– Respiratory sensitization	No data available
– Skin sensitization	Negative (Guinea Pigs)
– Carcinogenicity	
IARC	Group 3
ACGIH	A4
– Germ Cell Mutagenicity	
TOLUENE	– Dominant lethal tests: negative – Micronucleus test: positive – Chromosome aberration test: positive
– 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
CYCLO–HEXANE	May cause drowsiness or dizziness.
– 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

CYCLO-HEXANE

May be fatal if swallowed and enters airways.

## 12. Ecological information

### A. Aquatic and terrestrial ecotoxicity

- Fish

TOLUENE

LC50 24 mg/l 96 hr Oncorhynchus mykiss

- Shellfish

TOLUENE

EC50 11.5 mg/l 48 hr Daphnia magna

CYCLO-HEXANE

EC50 0.9 mg/l 48 hr

### B. Persistence and degradability

- Persistence

TOLUENE

log Kow 2.73

### C. Bioaccumulative potential

- Bioaccumulative

CYCLO-HEXANE

BCF 129

- Potential

TOLUENE

86 (%) 20 day

CYCLO-HEXANE

77 (%) 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. 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

CYCLO-HEXANE

The 4th type, the 1st petroleum type 200l

### D. Wastes Management Act

Designated Wastes

### E. Other requirements in domestic and other countries

- Domestic

Not Applicable.

- Other countries

CERCLA

453.599 kg 1000 lb

EU regulations

TOLUENE

F; R11Repr.Cat.3; R63Xn; R48/20-65Xi; R38R67

CYCLO-HEXANE

F; R11Xn; R65Xi; R38R67N; R50-53

EU regulations

TOLUENE R11, R38, R48/20, R63, R65, R67

CYCLO-HEXANE R11, R38, R65, R67, R50/53

EU regulations

TOLUENE S2, S36/37, S46, S62

CYCLO-HEXANE S2, S9, S16, S25, S33, S51, S60, S61, S62

## 16. Other information

### A. Information source and references

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

B. Issuing date November 12, 2014

C. Revision number and date

D. others

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