



MATERIAL SAFETY DATA SHEET

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

PGM

Product Name	PGM 402
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1. Product and Company Identification

- A. Product Name PGM 402
- B. Recommended use of the chemical and restrictions on use
- Recommended use of the chemical Bond Wood, leather, rubber, Metal, plastic etc
 - Restrictions on use of the product Do not use for purposes other than adhesive.
- 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
 - Skin sensitization : Category 1
 - Target Organ Toxicity (Single Exposure) : Category 3(Respiratory tract irritation)

B. Label elements including precautionary statements

- Symbol



- Signal Word Danger
- Hazard·Risk Statement
 - H315 Causes skin irritation
 - H317 May cause an allergic skin reaction
 - H319 Causes serious eye irritation
 - H335 May cause respiratory irritation
- Precautionary Statement
 - Prevention
 - P261 Avoid breathing dust/fume/gas/mist/vapours/spray
 - P264 Wash ... thoroughly after handling
 - P271 Use only outdoors or in a well-ventilated area
 - P280 Wear protective gloves/protective clothing/eye protection/face protection
 - 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
 - P312 Call a POISON CENTER or doctor/physician if you feel unwell
 - P321 Specific treatment
 - 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
 - Storage
 - P403+P233 Store in a well ventilated place. Keep container tightly closed
 - P405 Store locked up

Disposal P501 Dispose of contents/container to ...

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

Health	2
Fire	2
Reactivity	2

3. Composition/Information on ingredients

Chemical Name	Other name	CAS number	Content(%)
Ethyl-2-cyanoacrylate	2-CYANO-2-PROPENOIC ACID, ETHYL ESTER	7085-85-0	90~99

4. First aid measures

- A. Eye contact
Immediately flush eyes with plenty of water for at least 15 minutes.
Get medical aid.
- 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
Immediately induce vomiting by giving two glasses of water
Sticking finger down throat. Get medical aid.
- 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
Water spray, dry chemical, foam, carbon dioxide.
- B. hazards arising from the chemical (e.g. nature of any hazardous combustion products)
Combustion will produce CO₂ , CO, Nox and probably HCN.
- C. Special protective equipment and precautions for fire-fighters
Firefighters should wear proper protective equipment
Evacuate area and fight fire from a safe distance.

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
with water to polymerize. Absorb spill with inert materials, (e.g., dry sand or earth).then place into a suitable disposal container.
- C. Methods and materials for containment and cleaning up
Take up with absorbent materials(sand, kieselguhr, universal binder)
Dispose of absorbed material in accordance 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).
Avoid breathing dust, vapor, mist, or gas. Avoid contact with skin and eyes.
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 No data available
 - ACGIH limit values No data available
 - Biological limit values No data available
- B. Appropriate engineering controls The following exposure control techniques may be used to effectively minimize. Use adequate ventilation to keep airborne concentration low.
- 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 Safety glasses or goggles.
 - Hands protection Use proper chemical resistant gloves.
Nitrile or polyethylene gloves and aprons. Do not use cotton.
 - 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 Liquid
 - Color Translucent or pale yellow
- B. Odour Sharp, irritating
- C. Odour threshold No data available
- D. pH No data available
- E. Melting point/freezing point No data available
- F. Initial boiling point and boiling range 190°C(374°F)
- G. Flashing point 85°C(185°F) (Cleveland open cup)
- H. Evaporation rate No data available (n-Bu Acetate=1)
- I. Flammability(solid, gas) No data available
- J. Upper/lower flammability or explosive limits No data available
- K. Vapor pressure 1Pa/25°C(75°F)
- L. Solubility Polymerized by water.
- M. Vapor density 4.5
- N. Relative density 1.06
- O Partition coefficient:n-octanol/water No data available
- P. Auto-ignition temperature 490°C(914°F)
- Q. Decomposition temperature No data available
- R. Viscosity No data available
- S. Formula mass No data available

10. Stability and reactivity

- A. Chemical stability and possibility of hazardous reactions Stable under normal conditions(in a cool, dry place)
- B. Conditions to avoid Avoid the fire, spark, flame, and other ignition sources
High temperature and humidity
- C. Incompatible materials Polymerized by contact with water, alcohols, amines and alkalis.
- D. Hazardous decomposition products CO, CO₂, nitrogen compounds

11. Toxicological information

A. Information on the likely routes of exposure	Inhalation, skin, ingestion
B. Health hazards information	
– Acute toxic	
Oral	LD50 Rat (male) oral (gavage) 5000 mg/kg
Dermal	LD50 Rabbit (New Zealand white, male) dermal (occlusive) 2000 mg/kg
Inhalation	LC50 Rat (Wistar, male and female) inhalation 21.11 mg/L (1 hr/14days)
– Skin corrosive/irritant	Mild irritation is reported for the skin irritation study on rabbits (CICAD, 2001).
– Serious eye damage/eye irritation	The mild irritation to be recovered in eye of rabbit in three days is reported (CICAD, 2001).
– Respiratory sensitization	No data available
– Skin sensitization	The animal data is not obtained. Two cases of skin sensitization in humans have been reported (CICAD, 2001).
– Carcinogenicity	No data available
– Germ Cell Mutagenicity	No data available
– Reproductive toxicity	No data available
– Specific target organ toxicity (single exposure)	The respiratory irritation by inhalation exposure of a rat (ACGIH, 2001), and the respiratory irritation in humans (CICAD, 2001; ACGIH, 2001).
– Specific target organ toxicity (repeated exposure)	No data available
– Aspiration hazard	No data available

12. Ecological information

A. Aquatic and terrestrial ecotoxicity	
– Fish	No data available
– Shellfish	No data available
– Birds	No data available
B. Persistence and degradability	No data available
C. Bioaccumulative potential	No data available
D. Mobility in soil	No data available
E. Other adverse effects	No data available

13. Disposal considerations

A. Disposal method	Polymerized as indicated in Section 6. Disposed of in a manner consistent with federal, state, and local regulations.
B. Disposal precaution	Destroy the product by incineration

14. Transport information

A. UN number	Not regulated as a hazardous material
B. UN proper shipping name	Not Applicable
C. Transport hazard class:	Not Applicable
D. Packing group (if applicable)	Not Applicable
E. Marine pollution (yes/no)	Not Applicable

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:

Not Applicable

15. Regulatory information

A. Industrial Safety and Health Act	Not Applicable
B. Toxic Chemical Control Act	Not Applicable
C. Dangerous Material Safety Control Act	Not Applicable
D. Wastes Management Act	Not Applicable
E. Other requirements in domestic and other countries	
– Domestic regulation	
Persistent Organic Pollutant Control Act	Not Applicable
– Other countries	
USA(OSHA)	Not Applicable
USA(CERCLA)	Not Applicable
USA(EPCRA 302)	Not Applicable
USA(EPCRA 304)	Not Applicable
USA(EPCRA 313)	Not Applicable
USA (Rotterdam Convention material)	Not Applicable
USA (Stockholm Convention material)	Not Applicable
USA (Substance Montreal Protocol)	Not Applicable
EU (Classification)	Xi: R36/37/38
EU (Risk Phrases)	R36/37/38
EU (Safety Phrases)	S2, S23, S24/25, S26

16. Other information

A. Information source and references

Physical and chemical properties(Reference KROXX INC. MSDS)

Acute toxic oral, dermal, inhalation(HSDB)

Skin corrosive/irritant(CICADs)

Skin sensitization(ACGIH, CICAD)

Specific target organ toxicity (single exposure)(CICAD, 2001; ACGIH, 2001)

B. Issuing date June 30, 2015

C. Revision number and date -

D. others