

CEMSEAL POLYUREA PART B

SECTION 1: IDENTIFICATION OF THE CHEMICAL AND OF THE SUPPLIER

Commercial Product Name : CEMSEAL POLYUREA-H PART B
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SECTION 2: HAZARDS IDENTIFICATION

A. Hazard· Risk Classification

- Health Hazards
 Acute Toxicity (Inhalation: dust/mist): Category 4

B. Label elements including precautionary statements.

- Symbol:



- Signal Word: Danger
- Hazard Risk Statement

H302	Harmful if swallowed
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- Precautionary Statement
 (Prevention)

P264	Wash your handling region thoroughly after handling
P270	Do not eat, drink or smoke when using this product

(Response)

P301+P312 IF SWALLOWED	Call a POISON CENTER or doctor/physician if you feel unwell.
P330	Rinse mouth

(Storage)

P403+P233	Store in a well-ventilated place. Keep container tightly closed.
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(Disposal)

P501	Dispose of contents/container (in accordance with applicable law)
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C. Other Hazard·Risk which are not included in the classification criteria (NFPA classification)

NFPA ratings Chemical Name	Health	Fire	Reactivity
	Diethyl Toluene Diamine	2	1
Polypropylene Glycol	1	1	0

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SECTION 3: COMPOSITION AND INFORMATION OF THE INGREDIENTS

- A. Single product or Mixture: Mixture
 B. Common chemical name of the product: Polyurethane resin (Liquid)

Chemical Name	Other name (Common name)	CAS No.	Content (%)
Diethyl Toluene Diamine	Benzene Diamine	68479-98-1	15-25
Polypropylene Glycol	Polyoxypropylene Glycol	25322-69-4	75-85

SECTION 4: FIRST AID MEASURES

A. Eye contact

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

If eye irritation persists: Get medical advice/attention.

B. Skin contact

If skin irritation or rash occurs: Get medical advice/attention. Take off contaminated clothing and wash before reuse.

Remove contaminated clothing. Wash thoroughly with soap and water

Flush with plenty of water for at least 20 minutes

If you have minor skin contact, prevent the spread of contaminated place.

C. Inhalation

IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.

IF exposed or concerned: Get medical advice/attention.

If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.

D. Ingestion

IF exposed or concerned: Get medical advice/attention.

IF necessary, don't administer artificial respiration by mouth-to-mouth. Use proper respiratory medical apparatus.

IF vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into lungs.

Never give anything by mouth to an unconscious person.

E. Indication of immediate medical attention and notes for physician

IF exposed: Call a POISON CENTER or doctor/physician and take emergency measures.

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SECTION 5: FIRE-FIGHTING MEASURES

- A. Suitable (and unsuitable) extinguishing media
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|--------------------------------|--------------------------------|
| Suitable extinguishing media | Foam, Carbon dioxide, Dry sand |
| Unsuitable extinguishing media | No data available |
- Large fire
- Keep containers cool with water spray.
Move container from fire area if you can do so without risk, use suitable extinguishing agent
- B. Specific hazards arising from the chemical
- | | |
|----------------------------|-------------------------------------|
| Materials from pyrolysis: | May produce toxic fumes if burning |
| Fire and explosion hazards | Containers may explode when heated. |
- C. Special protective equipment and precautions for fire- fighters
- In the event of fire, wear self-contained breathing apparatus.
Stay against the wind so as not to inhale chemicals or material from pyrolysis.
Move container from fire area if you can do so without risk, use suitable extinguishing agent.

SECTION 6: ACCIDENTAL RELEASES MEASURES

- A. Personal precautions, protective equipment and emergency procedures
- Avoid breathing dust/fume/gas/mist/vapors/spray.
Immediately clean leaked material and allows prevention of item 8.
Eliminate all sources of ignition.
Stop leak if you can do so without risk.
Make prevent the spread covered with plastic sheets.
Avoid prohibited conditions & materials.
- B. Environmental precautions and protective procedures
- Prevent spilled material from entering the ground, water and/or air by using appropriate containment methods.
- C. Methods and materials for containment and cleaning up
- Stop leak. Dike and contain spill.
Absorb with suitable material (e.g. dry sand or soil) and clean with water and cleaner.

SECTION 7: HANDLING AND STORAGE

- A. Precaution for safe handling
- Do not handle until all safety precautions have been read and understood.
Avoid breathing dust/fume/gas/mist/vapors/spray.
Contaminated work clothing should not be allowed out of the workplace.
Keep the container closed when not in use.
Avoid contact with skin and eyes.
Wash your handling region thoroughly after handling.
Avoid prohibited condition & materials.
- B. Conditions for safe storage
- Keep away from heat.
Store in a well-ventilated place. Keep container tightly closed.

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SECTION 8: EXPOSURE CONTROLS PERSONAL PROTECTION

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

Division	KOSHA	ACGIH	Biological Exposure Limits
Diethyl Toluene Diamine	No data available	No data available	No data available
Polypropylene Glycol	No data available	No data available	No data available

※Describe exposure standards of single material, as there is no data available for mixtures

B. Appropriate engineering controls

Use local ventilation or engineering controls as needed to maintain personnel exposure below the exposure limits.

C. Personal protective equipment

Respiratory protection: Wear respiratory protection tested and approved under appropriate government standards such as KOSHA

Eye protection : Wear approved chemical safety glasses or goggles

Hand protection : Wear approved chemical resistant glove that may protect hands from direct contact with chemical

Body protection : Wear approved chemical resistant clothes

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

A. Appearance	Transparent or semitransparent liquid
B. Odor	Aromatic odor
C. Odor Threshold	No data available
D. pH	No data available
E. Melting point/Freezing point	No data available
F. Initial boiling point/boiling range	No data available
G. Flash point (°C)	182
H. Evaporation rate	No data available
I. Flammability (solid, gas)	No data available
J. Upper/lower flammability or explosive limits	No data available
K. Vapor pressure	No data available
L. Solubility	Soluble in toluene, xylene, acetic acid
M. Vapor density	No data available
N. Specific gravity	1.01 ~ 1.05
O. Partition coefficient: n-octanol/water	No data available
P. Auto-ignition temperature	No data available
Q. Decomposition temperature	No data available
R. Viscosity[25°C,mPa.s(cps)]	400 ~ 800
S. Molecular weight	No data available

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SECTION 10: STABILITY AND REACTIVITY

- | | |
|---|---|
| A. Chemical stability & Possibility of hazardous reaction | Stable at normal temperature and pressure conditions |
| B. Conditions to avoid | Containers may explode when heated
Avoid all sources (e.g. Heat, flame, spark) of ignition.
Avoid contact with materials prohibited to mix. |
| C. Incompatible material | No data available |
| D. Hazardous decomposition products | May produce irritative, toxic and corrosive gas if burning |

SECTION 11: TOXICOLOGICAL INFORMATION

A. Information on the likely routes of exposure

- | | |
|----------------------------|-------------------|
| Diethyl Toluene Diamine | No data available |
| Poly(oxypropylene) Diamine | No data available |

B. Health hazards information

• Acute toxic

	Oral	Dermal	Inhalation
Diethyl Toluene Diamine	LD50 472 mg/kg Rat	No data available	No data available
Polypropylene Glycol	LD50 >2000 mg/kg Rat	LD50 4890 mg/kg Guinea pig	No data available

• Skin corrosion/irritation

Diethyl Toluene Diamine	No data available
Polypropylene Glycol	No data available

• Serious eye damage/eye irritation

Diethyl Toluene Diamine	No data available
Polypropylene Glycol	50mg Rabbit – Mild irritation

• Respiratory sensitization

Diethyl Toluene Diamine	No data available
Polypropylene Glycol	No data available

• Skin sensitization

Diethyl Toluene Diamine	No data available
Polypropylene Glycol	No skin-sensitized

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- Carcinogenicity:

	KOSHA	IARC	OSHA	ACGIH	NTP	EU CLP
Diethyl Toluene Diamine	N/A	N/A	N/A	N/A	N/A	N/A
Polypropylene Glycol	N/A	N/A	N/A	N/A	N/A	N/A

- Germ Cell Mutagenicity

Diethyl Toluene Diamine	No data available
Polypropylene Glycol	No data available

- Reproductive toxicity

Diethyl Toluene Diamine	No data available
Polypropylene Glycol	No data available

- Specific target organ toxicity (single exposure)

Diethyl Toluene Diamine	No data available
Polypropylene Glycol	Human – Causes central nervous system, cardiac arrhythmia

- Specific target organ toxicity (repeated exposure)

Diethyl Toluene Diamine	No data available
Polypropylene Glycol	No data available

- Aspiration hazard

Diethyl Toluene Diamine	No data available
Polypropylene Glycol	No data available

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SECTION 12: ECOLOGICAL INFORMATION

A. Aquatic and terrestrial ecotoxicity

	Fishes	Crustacea	Algae
Diethyl Toluene Diamine	No data available	No data available	No data available
Polypropylene Glycol	LC50 1700mg/L 96hr Lepomis macrochirus	No data available	No data available

B. Persistence and degradability

	Persistence	Degradability
Diethyl Toluene Diamine	Log Kow 2.23	No data available
Polypropylene Glycol	No data available	No data available

C. Bio accumulative potential

	Accumulation	Biodegradability
Diethyl Toluene Diamine	No data available	No data available
Polypropylene Glycol	No data available	No data available

D. Mobility in soil

Diethyl Toluene Diamine	No data available
Polypropylene Glycol	No data available

E. Other adverse effects

Diethyl Toluene Diamine	No data available
Polypropylene Glycol	Harmful to aquatic organisms

SECTION 13: DISPOSAL CONSIDERATIONS

A. Disposal methods

Dispose of contents and containers in accordance with prescribed manners in the Wastes Management Act.

B. Disposal precaution (including the disposal method of contaminated container and packaging)

Dispose of contents and containers in accordance with prescribed manners in the Wastes Management Act.

SECTION 14: TRANSPORTATION INFORMATION

- A. UN number Not applicable
- B. UN proper shipping name Not applicable
- C. Transport hazard class Not applicable
- D. Packing group Not applicable
- E. Marin pollution No data available
- 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
 - Emergency action(fire): F-A
 - Emergency action(outflow) : Not applicable

