

SAFETY DATA SHEET (SDS)

CPS-LiPP80

1. Identification

Item	Information
Product name	CPS-LiPP80
Recommended use and restrictions on use	No data available
Supplier / Manufacturer	CPS Inc.
Address	326, Changbi-ro, Bibong-myeon, Wanju-gun, Jeonbuk State, Republic of Korea (55306)
Emergency telephone	070-8870-6270
Additional manufacturer information	No data available

2. Hazard(s) Identification

Classification	Category
Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2

GHS label elements

- Signal word: Warning
- H315: Causes skin irritation.
- H318: Causes severe eye irritation.
- P264: Wash thoroughly after handling.
- P280: Wear protective gloves/protective clothing/eye protection/face protection.
- P302+P352: IF ON SKIN: Wash with plenty of water.
- P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P321: Specific treatment (see applicable first-aid instructions).
- P332+P313: If skin irritation occurs: Get medical advice/attention.
- P337+P313 : If eye irritation persists: Get medical advice/attention.
- P362+P364: Take off contaminated clothing and wash it before reuse.
- Other hazards not otherwise classified: No data available.

3. Composition / Information on Ingredients

Chemical name	Synonym / Common name	CAS No.	Content (%)
Lithium hydroxide	Lithium hydroxide monohydrate	1310-66-3	2–3
Polyacrylonitrile	Polyacrylonitrile	25014-41-9	4–5
Carbomer 934	Carbomer	9003-01-4	2–3
Water	Water	7732-18-5	89–92

4. First-Aid Measures

Eye contact

- Immediately flush eyes with running water for at least 20 minutes after contact.

- Seek immediate medical attention.

Skin contact

- Remove and isolate contaminated clothing and shoes.
- Seek immediate medical attention.
- For minor skin contact, prevent spreading of contamination.
- If the material is hot, immerse or rinse the affected area with plenty of cold water to remove heat.
- Immediately flush skin and eyes with running water for at least 20 minutes.
- Remove contaminated clothing and shoes and isolate the contaminated area.

Inhalation

- Seek immediate medical attention.
- Move the person to fresh air.
- If not breathing, give artificial respiration.
- Keep warm and at rest.
- If breathing is difficult, administer oxygen.

Ingestion

- Seek immediate medical attention.

Advice to physician

- Ensure medical personnel know the material involved and take appropriate protective measures.

5. Fire-Fighting Measures

Suitable extinguishing media

- For smothering, use dry sand or dry earth.
- Use alcohol-resistant foam, carbon dioxide, or water spray for fires involving this material.

Specific hazards

- Thermal decomposition or combustion may generate irritating and highly toxic gases.
- Some material may burn but does not ignite readily.
- Containers may explode when heated.
- Non-flammable; however, heating may cause decomposition and release corrosive/toxic fumes.

Protective equipment and precautions for firefighters

- Contact may cause burns to skin and eyes.
- Spillage may cause contamination.
- Some material may be transported at elevated temperature.
- Wear appropriate protective equipment.

- Fight fire from a safe distance.
- For large tank fires, use unmanned equipment if possible; otherwise withdraw.
- Cool containers with large quantities of water after the fire is extinguished.
- Dike fire-control water for later disposal and prevent dispersion.
- Material may be transported in molten form; use caution.
- Withdraw immediately if pressure-relief devices emit a rising sound or if the tank discolors.
- Move containers from the fire area if this can be done without risk.
- Stay away from tanks engulfed in fire.
- Fight tank fires from maximum distance or use unmanned monitors.

6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

- Cover with plastic sheeting to prevent spreading.
- Clean up spills immediately and follow precautions in the protective-equipment section.
- Do not touch damaged containers or spilled material without appropriate protective clothing.
- Stop the leak if this can be done without risk.
- Remove all ignition sources.
- Observe incompatible materials and conditions to avoid.

Environmental precautions

- Prevent entry into waterways, sewers, basements, or confined areas.

Containment and cleaning

- Absorb spilled material with inert material such as dry sand or earth and place in a chemical-waste container.
- Absorb liquid and wash the contaminated area with detergent and water.

7. Handling and Storage

Safe handling

- Wash thoroughly after handling.
- Empty containers may retain product residue; follow all SDS/label precautions.
- Avoid prolonged or repeated skin contact.
- Observe incompatible materials and conditions.
- Do not breathe vapors generated from heated material.
- Refer to engineering controls and personal protective equipment.

Safe storage

- Keep container tightly closed.

- Store in a cool, dry place.
- Completely drain empty drums, close properly, and return to a drum reconditioner or dispose of appropriately.

8. Exposure Controls / Personal Protection

Substance	Korean limits	ACGIH limits	Biological limit	Other limits
Lithium hydroxide	TWA: No data / STEL: No data	TWA: No data / STEL: No data	No data	No data
Polyacrylonitrile	TWA: No data / STEL: No data	TWA: No data / STEL: No data	No data	No data
Carbomer 934	TWA: No data / STEL: No data	TWA: No data / STEL: No data	No data	No data
Water	TWA: No data / STEL: No data	TWA: No data / STEL: No data	Not applicable	No data

Engineering controls

- Facilities storing or using this material should be equipped with eyewash stations and safety showers.

Personal protective equipment

- Respiratory protection: Wear suitable KOSHA-certified respiratory protection appropriate for the physicochemical properties of the exposed material.
- Eye protection: Provide eyewash and emergency shower facilities nearby; use chemical safety goggles and face protection.
- Hand protection: Wear suitable chemical-resistant gloves.
- Body protection: Wear suitable chemical-resistant protective clothing.

9. Physical and Chemical Properties

Property	Product
Physical state	Liquid
Color	Light yellow
Odor	No data available
Odor threshold	No data available
pH	6~8
Melting/freezing point	No data available
Initial boiling point/range	No data available
Flash point	No data available
Evaporation rate	No data available
Flammability	No data available
Upper/lower explosive limits	No data available
Vapor pressure	No data available
Solubility	No data available
Vapor density	No data available
Specific gravity	No data available
n-Octanol/water partition coefficient	No data available
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Viscosity	No data available
Molecular weight	No data available

Component-specific properties

Component	Selected properties
Lithium hydroxide	Solid; colorless to white; odorless; pH 14 (1 N solution); melting point 450–471°C; boiling point 920°C; non-flammable; solubility 19.1 g/100 mL (20°C); vapor density 1.4 (air=1); specific gravity 1.51 (water=1); decomposition temperature 924°C; molecular weight 41.96.
Polyacrylonitrile	Solid, white; melting point 317°C; specific gravity 1.14 (1.14–1.17); molecular weight 53.06. Other listed properties: no data available.
Carbomer 934	Solid, white; pungent odor; pH 2.5–3.0 (1% aqueous solution); melting point 106°C; boiling point not applicable; water soluble; soluble in dioxane, dimethylformamide, ethanol and methanol; specific gravity 1.41 (water=1). Other listed properties: no data available or not applicable.

Water	Liquid, colorless (clear), odorless; pH 7; melting point 0°C; boiling point 100°C; vapor pressure 23.8 mmHg (25°C); solubility 100 g/100 mL; specific gravity 1; log Kow -1.38; molecular weight 18.02.
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10. Stability and Reactivity

Chemical stability and possibility of hazardous reactions

- Containers may explode when heated.
- Some material may burn but does not ignite readily.
- Non-flammable; heating may cause decomposition and release corrosive/toxic fumes.

Conditions to avoid

- Heat, sparks, flames and other ignition sources.
- Heat.

Incompatible materials

- Combustible materials and reducing agents.

Hazardous decomposition products

- Irritating and highly toxic gases may be generated by thermal decomposition or combustion.
- Corrosive/toxic fumes.
- Irritating, corrosive and toxic gases.

11. Toxicological Information

Likely routes of exposure

Material	Information
Product	No data available
Lithium hydroxide	May be absorbed by inhalation of aerosol and ingestion.
Polyacrylonitrile	No data available
Carbomer 934	Irritation.
Water	No data available

Health hazard information

Endpoint	Product / Component information
Acute toxicity - Oral	Product: No data; Lithium hydroxide: LD50 210 mg/kg (Rat); Polyacrylonitrile: LD50 >3000 mg/kg (Rat); Carbomer 934: LD50 2500 mg/kg (Rat); Water: LD50 90000 mg/kg (Rat), LD50 >90 mL/kg (Rat).
Acute toxicity - Dermal	Product and listed components: No data available.
Acute toxicity - Inhalation	Product and listed components: No data available.
Skin corrosion/irritation	Product: No data; Lithium hydroxide: corrosive to skin and eyes; Polyacrylonitrile/Carbomer 934: No data; Water: Not applicable.
Serious eye damage/irritation	Product: No data; Lithium hydroxide: corrosive to skin and eyes; Polyacrylonitrile/Carbomer 934: No data; Water: Not applicable.
Respiratory sensitization	Product/Lithium hydroxide/Polyacrylonitrile/Carbomer 934: No data; Water: Not applicable.
Skin sensitization	Product/Lithium hydroxide/Polyacrylonitrile/Carbomer 934: No data; Water: Not applicable.
Carcinogenicity	IARC: Carbomer 934 = Group 3; other listed entries: No data. NTP, OSHA, ACGIH, Korean OSH Act, MOEL Notice and EU CLP: No data available for product and listed components.
Germ cell mutagenicity	Product/Lithium hydroxide/Polyacrylonitrile/Carbomer 934: No data; Water: Not applicable.
Reproductive toxicity	Product/Lithium hydroxide/Polyacrylonitrile/Carbomer 934: No data; Water: Not applicable.
STOT - Single exposure	Product/Lithium hydroxide/Carbomer 934: No data; Polyacrylonitrile: may irritate respiratory tract when inhaled; Water: Not applicable.

STOT - Repeated exposure	Product/Lithium hydroxide/Carbomer 934: No data; Polyacrylonitrile: Rat/oral (45000 mg/kg/26W): liver fatty degeneration; kidney, ureter and bladder tubular changes; endocrine thyroid hypofunction; Water: Not applicable.
Aspiration hazard	Product/Lithium hydroxide/Polyacrylonitrile/Carbomer 934: No data; Water: Not applicable.

12. Ecological Information

Endpoint	Information
Fish	No data available for product and listed components.
Crustaceans	No data available for product and listed components.
Algae	No data available for product and listed components.
Persistence	Product/Lithium hydroxide/Polyacrylonitrile: No data; Carbomer 934: none stated; Water: log Kow -1.38.
Degradability	No data available for product and listed components.
Bioaccumulation	No data available for product and listed components.
Biodegradability	No data available for product and listed components.
Mobility in soil	No data available for product and listed components.
Other adverse effects	No data available for product and listed components.

13. Disposal Considerations

- Dispose of contents and container in accordance with the Waste Control Act where applicable.
- For contaminated containers and packaging, dispose in accordance with applicable Waste Control Act requirements.

14. Transport Information

Item	Information
UN number	No data available
UN proper shipping name	Non-Hazardous
Transport hazard class(es)	No data available
Packing group	No data available
Marine pollutant	Selection / not specified in source
Special precautions - Fire	N/A
Special precautions - Spill	N/A

15. Regulatory Information

Regulation	Status in source
Occupational Safety and Health Act	N/A
Chemical Substances Control Act	N/A
Act on Registration and Evaluation of Chemical Substances	N/A
Dangerous Substances Safety Management Act	N/A
Waste Control Act	General industrial waste
Other Korean regulations	N/A
Foreign regulations	No information stated

16. Other Information

Item	Information
References / source of data	No data available
Initial preparation date	2026-08-26
Revision number	4
Latest revision date	2026-09-03
Other information	No data available