



SAFETY DATA SHEET (SDS / MSDS)

Polycarboxylate Superplasticizer (PCE)

GREEN AGROCHEM Industrial Chemicals - Concrete Admixture Safety Document

Product Code	GAC-IC-MSDS-PCE	Revision Date	2026-05-02
CAS No.	Mixture / proprietary polymer	Version	MSDS-GAC-IC-2026

SECTION 1: Identification

Product Name	Polycarboxylate Superplasticizer (PCE)
Synonyms	PCE; Polycarboxylate ether superplasticizer; High-range water reducer powder
CAS No.	Mixture / proprietary polymer
Chemical Formula / Type	Modified polycarboxylate ether polymer
Product Code	GAC-IC-MSDS-PCE
Recommended Uses	high-range water reducer, concrete superplasticizer, cementitious system dispersant, precast concrete admixture and construction chemical additive.
Supplier	GREEN AGROCHEM CO., LIMITED
Address	South West Station Road, Fengtai District, Beijing, China
Email	info@greenagrochem.com
Website	www.lignincorp.com
Emergency Contact	Available during normal business hours.

SECTION 2: Hazard(s) Identification

This product is not classified as hazardous under normal industrial handling based on available information.

Potential hazards:

- Dust may cause mild eye irritation.
- Excessive dust inhalation may irritate nose and throat.
- Repeated skin contact may cause dryness or mild irritation in sensitive users.
- Wet or spilled product may create a slip hazard.

Signal Word	None
Precautionary Statements	Avoid contact with eyes. Avoid breathing dust. Use adequate ventilation. Wash hands after handling. Keep workplace clean and dry.

SECTION 3: Composition / Information on Ingredients

Component	CAS No.	Typical Content
Modified polycarboxylate ether copolymer	Not assigned / proprietary	Main component
Sodium sulfate (Na2SO4)	7757-82-6	3% max
Water, defoamer and processing additives	Not applicable	Typical minor constituents

SECTION 4: First-Aid Measures

Inhalation	Move person to fresh air. Obtain medical advice if symptoms persist.
Eye Contact	Flush cautiously with water for at least 15 minutes. Remove contact lenses if present and easy to do.
Skin Contact	Wash thoroughly with soap and water. Remove contaminated clothing if necessary.
Ingestion	Rinse mouth and drink water. Seek medical advice if discomfort occurs.
Most Important Symptoms	Possible mild mechanical irritation to eyes, skin, nose or throat.

SECTION 5: Fire-Fighting Measures

Suitable Extinguishing Media	Water spray, foam, dry chemical powder or CO2.
Specific Hazards	Dry organic polymer powder may burn under strong fire conditions. Avoid dust clouds near ignition sources.
Hazardous Combustion Products	CO, CO2, sulfur oxides, nitrogen oxides and irritating fumes.
Firefighter Protection	Use self-contained breathing apparatus and protective clothing for major fire.

SECTION 6: Accidental Release Measures

- Avoid dust formation and avoid breathing dust.
- Sweep, shovel or vacuum material and collect in suitable containers.
- Prevent release to drains, surface water and soil where practical.
- Wash remaining residues carefully after collection because wet surfaces may be slippery.

SECTION 7: Handling and Storage

Handling	Avoid unnecessary dust generation. Use normal industrial hygiene practice. Avoid contact with eyes. Use mechanical transfer where practical.
Storage	Store in a cool, dry and ventilated warehouse. Protect from moisture. Keep packaging tightly sealed. Do not mix with PNS-based products unless compatibility is confirmed.
Incompatible Materials	Strong oxidizing agents. Avoid excessive heating above normal processing conditions. Confirm formulation compatibility before blending with other admixtures.

SECTION 8: Exposure Controls / Personal Protection

Engineering Controls	Local exhaust ventilation recommended where dust may form. Use enclosed transfer or dust collection for bulk handling.
Eye Protection	Safety glasses or goggles, EN166 equivalent.
Hand Protection	Protective gloves suitable for industrial handling.
Respiratory Protection	Dust mask P2 / N95 or equivalent when dusty.
Body Protection	Work clothing and safety shoes.
Hygiene Measures	Wash hands before eating, drinking or smoking.

SECTION 9: Physical and Chemical Properties

Appearance	White or yellowish powder
Physical State	Solid powder
Odor	Light characteristic odor
pH	7.0 - 10.0 at 23°C
Solubility	Soluble/dispersible in water
Density / Bulk Density	Bulk density 500 - 700 kg/m ³
Typical Solids / Purity	98 +/- 0.5% solid content; water content 3% max
Typical Active Content	Modified PCE polymer main component; water reducing rate 25% min
Thermal Decomposition	No specific data; avoid excessive heating and fire conditions

SECTION 10: Stability and Reactivity

Reactivity	No dangerous reaction expected under normal use.
Chemical Stability	Stable under normal ambient and recommended storage conditions.
Conditions to Avoid	Excessive heating, moisture exposure for powder grades, dust accumulation and incompatible materials.
Incompatible Materials	Strong oxidizing agents; incompatible formulation systems unless tested.
Hazardous Decomposition Products	CO, CO ₂ , sulfur oxides, nitrogen oxides and irritating fumes.

SECTION 11: Toxicological Information

- No known significant acute toxicity based on available information and normal industrial handling.
- Dust may irritate eyes and respiratory tract mechanically.
- Repeated or prolonged skin contact may cause dryness or mild irritation in sensitive users.
- Not listed as carcinogenic by IARC, NTP or OSHA based on available information.
- No unusual chronic effects reported for normal industrial handling.

SECTION 12: Ecological Information

- Product is expected to be water-soluble/dispersible; environmental release should be controlled.
- Avoid uncontrolled discharge to drains, rivers, lakes and soil.
- Large releases to surface water may increase chemical/biological oxygen demand and reduce dissolved oxygen.
- No bioaccumulation is expected for the product under normal industrial use based on available information.

SECTION 13: Disposal Considerations

Dispose of product residues, contaminated absorbents and packaging in accordance with local, regional and national regulations. Recycle uncontaminated product or packaging where practical.

SECTION 14: Transport Information

UN Number	Not regulated
Proper Shipping Name	Not classified as dangerous goods
Transport Hazard Class	Not regulated
Packing Group	Not regulated
Marine Pollutant	No
Transport Note	Not classified as dangerous goods for road, sea or air transport based on available information.

SECTION 15: Regulatory Information

Product is supplied for industrial/professional use unless otherwise confirmed in writing. Users are responsible for compliance with applicable local regulations, workplace exposure rules, use-specific requirements and downstream registration obligations.

SECTION 16: Other Information

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Prepared By	GREEN AGROCHEM CO., LIMITED
Document Type	Safety Data Sheet / Material Safety Data Sheet
Disclaimer	Information is provided for safe handling guidance and believed accurate at issue date. It does not constitute a warranty or final regulatory classification for every jurisdiction or application. The buyer/user should verify suitability and local compliance before use.

ANNEX A: Exposure Scenario

1. Identified Uses	High-range water reducer; Concrete superplasticizer; Cementitious system dispersant; Construction chemical additive.
2. User Sectors	Industrial and professional users; construction chemical producers; ready-mix/precast concrete operations; downstream formulators.
3. Product Form	Powder handled in bags, big bags or closed transfer systems.
4. Operational Conditions	Indoor or covered outdoor use under normal ambient temperature.
5. Duration and Frequency	Typical work shift up to 8 hours; batch or continuous industrial handling.
6. Amount Used / Dilution	Use according to formulation, process requirement and customer technical instruction.
7. Exposure Routes	Inhalation of dust, eye contact and skin contact.
8. Engineering Controls	Use local exhaust ventilation, enclosed transfer or dust collection where dust may form.
9. Respiratory Protection	Use P2/N95 dust mask when dusty.
10. Eye and Skin Protection	Use safety glasses/goggles, gloves, work clothing and safety shoes.
11. Hygiene Measures	Wash hands after handling; do not eat, drink or smoke in work areas.
12. Housekeeping	Clean spills promptly. Avoid accumulation of powder, residues or slippery wet deposits.
13. Environmental Controls	Prevent discharge to drains, rivers, lakes and soil.
14. Waste Controls	Collect residues and contaminated absorbents for disposal according to regulations.
15. Storage Controls	Keep packaging sealed; protect from moisture and contamination.
16. Downstream User Obligations	Evaluate suitability under actual process conditions and conduct workplace risk assessment where required.

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