

POLYMERS (DETERGENT LIQUID & POWDER USE)

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SECTION 1: IDENTIFICATION

1.1 GHS Product identifier:

POLYMERS (DETERGENT LIQUID & POWDER USE)
Detergent-grade polymer builder/dispersant (polyacrylate/polycarboxylate-type)
CAS: Proprietary blend (not a single substance – polyacrylate/polycarboxylate-type polymer formulation; exact composition is Available on request)

Other means of identification:

Not relevant

1.2 Recommended use of the chemical and restrictions on use:

Relevant uses: Builder/dispersant/anti-redeposition and scale-inhibiting polymer for liquid and powder detergent formulations, used to enhance cleaning performance and prevent inorganic scale build-up. For industrial user only (detergent/cleaning-product formulator).
Uses advised against: All uses not specified in this section or in section 7.3. Not for direct consumer use in undiluted/unformulated form.

1.3 Supplier's details:

SURAJ CHEMICALS
No 92, Govindappa Naicken Street, Shiva Complex, Chennai – 600001, Tamil Nadu, India
Tel: +91 - 7092722822, +91 - 9840284032 / +91 - 44 - 25393652, 42130281
Email: sales@surajchemicals.com | Website: www.surajchemicals.com
GST No: 33ACEPV8190L1ZZ

1.4 Emergency phone number:

Emergency Contact No: +91 - 7092722822, +91 - 9840284032

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture:

GHS:
Classification of this product has been carried out in accordance with the Globally Harmonized System of Classification and Labelling of Chemicals (GHS), based on class-typical data for polyacrylate/polycarboxylate-type detergent builder polymers. Exact hazard classification for this specific proprietary formulation is Available on request from Suraj Chemicals.

Eye Irrit. 2	Eye irritation, Category 2, H319 (class-typical, concentrate)
Skin Irrit. 2	Skin irritation, Category 2, H315 (class-typical, concentrate)

2.2 GHS label elements, including precautionary statements:

GHS: Warning
Hazard statements:
Skin Irrit. 2: H315 – Causes skin irritation.
Eye Irrit. 2: H319 – Causes serious eye irritation.

Precautionary statements:

P264: Wash hands thoroughly after handling.
P280: Wear protective gloves/protective clothing/eye 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.
P332+P313: If skin irritation occurs, get medical advice/attention.
P501: Dispose of contents/container in accordance with local/regional/national regulations.

2.3 Other hazards which do not result in classification:

Not relevant. Concentrated liquid grades may be slippery when spilled; powder grades may generate nuisance dust during bulk handling.

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

3.1 Substances:

Non-applicable – this is a proprietary mixture/polymer formulation, not a single defined substance.

3.2 Mixtures:

Chemical description: Proprietary blend of water-soluble polymer builder/dispersant components (class-typical: acrylic acid homopolymer/copolymer sodium salts and related polycarboxylate-type detergent-builder polymers), supplied as aqueous solution (liquid grade) or spray-dried powder (powder grade).
In accordance with Annex 4.3.3 of the GHS, the following general information is provided. Exact ingredient identities and concentrations are proprietary and Available on request (subject to a confidentiality/business-need agreement) or in a medical emergency:

Identification	Chemical Name / Classification	Concentration
Proprietary	Polyacrylate/polycarboxylate-type detergent builder polymer – Skin Irrit. 2: H315; Eye Irrit. 2: H319 (class-typical) – Warning	Available on request (liquid grade typically 20–50% active in water; powder grade typically ≥90% active)

To obtain more information on the hazards of the substances, consult sections 11, 12 and 16. Full ingredient disclosure is available on request for regulatory, medical-emergency or downstream-formulator purposes.

SECTION 4: FIRST AID MEASURES

4.1 Description of necessary first-aid measures:

Request medical assistance if symptoms persist, showing the SDS of this product.

By inhalation:

If dust (powder grade) is inhaled, remove the person affected to fresh air. Seek medical attention if respiratory discomfort persists.

By skin contact:

Remove contaminated clothing. Wash skin thoroughly with plenty of water and soap. Seek medical advice if irritation persists.

By eye contact:

Rinse eyes thoroughly with water for at least 15 minutes, holding eyelids apart. Remove contact lenses if present and easy to do. Seek medical attention if irritation persists.

By ingestion/aspiration:

Rinse mouth with water. Do not induce vomiting. Seek medical advice if large quantities are ingested or discomfort occurs.

- 4.2 Most important symptoms/effects, acute and delayed:**
Concentrate may cause irritation of skin, eyes and respiratory tract on direct contact. No significant delayed effects known for this formulation class at recommended formulation-use levels.
- 4.3 Indication of immediate medical attention and special treatment needed, if necessary:**
Treat symptomatically. Not relevant beyond standard first aid.

SECTION 5: FIRE-FIGHTING MEASURES

- 5.1 Suitable extinguishing media:**
Suitable: Water spray/fog, carbon dioxide (CO²), dry chemical powder, foam – select per surrounding fire
Unsuitable: None known
- 5.2 Specific hazards arising from the chemical:**
Liquid grade (aqueous solution) is not flammable. Powder grade is not classified as flammable but may generate combustible dust under conditions of severe mechanical/thermal stress in bulk handling; treat with normal organic-dust fire precautions. Combustion may produce oxides of carbon and sodium.
- 5.3 Special protective actions for fire-fighters:**
No special measures required specific to this product; use standard fire-fighting protective equipment and self-contained breathing apparatus in smoke-filled areas.
- Additional provisions:**
Not relevant

SECTION 6: ACCIDENTAL RELEASE MEASURES

- 6.1 Personal precautions, protective equipment and emergency procedures:**
For non-emergency personnel:
Avoid contact with concentrate. Spilled liquid is slippery – avoid slips and falls. Use personal protective equipment as per section 8. Ensure adequate ventilation.
- For emergency responders:**
Wear appropriate protective equipment. Standard precautions sufficient given the moderate hazard profile of the concentrate.
- 6.2 Environmental precautions:**
Prevent large/undiluted spillages from entering drains or watercourses; the product may exert biological/chemical oxygen demand and contribute to eutrophication in significant uncontrolled quantities.
- 6.3 Methods and materials for containment and cleaning up:**
Contain spillage; absorb liquid with inert absorbent material, or sweep/vacuum up powder (avoid raising dust), and place in suitable containers for reuse or disposal. Wash residual area with water.
- 6.4 Reference to other sections:**
See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

- 7.1 Precautions for safe handling:**
A. General precautions for safe use:
Avoid unnecessary skin/eye contact with the concentrate. Avoid generating dust with powder grades; use local exhaust ventilation during weighing/bagging operations.
- B. Technical recommendations for the prevention of fires and explosions:**
Ground and bond equipment when handling powder grades to control static discharge. Control dust accumulation on surfaces and equipment.
- C. Technical recommendations on general occupational hygiene:**
Wash hands after handling. Avoid eating, drinking or smoking while handling the concentrate.
- D. Technical recommendations to prevent environmental risks:**
Prevent spillage of concentrate from entering drains or watercourses.
- 7.2 Conditions for safe storage, including any incompatibilities:**
A. Specific storage requirements:
- | | |
|---------------|---|
| Minimum Temp. | 5°C (liquid grade – avoid freezing) |
| Maximum Temp. | 35°C |
| Maximum time | 12 Months (in sealed original containers) |
- B. General conditions for storage:**
Store in tightly closed original containers in a cool, dry, well-ventilated place away from direct sunlight, strong oxidising agents and strong acids/bases (see 10.5). Powder grade should be kept dry to avoid caking.
- 7.3 Specific end use(s):**
For use as a raw material in liquid and powder detergent formulation only, dosed per the formulator's recipe. Not for other industrial applications without prior consultation with Suraj Chemicals.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

- 8.1 Control parameters:**
No specific occupational exposure limit has been established for this proprietary formulation under the Factories Act, 1948. Specific component-level OELs are Available on request; treat powder-grade dust under a general nuisance/PNOC dust limit.
- | Identification | Occupational Exposure Limit Type | Value |
|-------------------------------------|---------------------------------------|--|
| Proprietary blend (polymer builder) | No established OEL (product-specific) | Available on request; general PNOC dust limit (~10 mg/m³) applies to powder-grade dust |
- 8.2 Appropriate engineering controls:**
General ventilation is normally sufficient. Use local exhaust ventilation where handling concentrated liquid or powder in enclosed spaces.
- B. Respiratory protection:**
Not normally required for liquid-grade handling with adequate ventilation. Dust mask (P1/P2) recommended for powder-grade handling with inadequate ventilation.
- C. Specific protection for the hands:**
Chemical-resistant gloves (nitrile or PVC) recommended when handling concentrate.
- D. Eye and face protection:**
Safety glasses or chemical splash goggles recommended when handling concentrate.
- E. Bodily protection:**
Normal industrial work clothing; apron recommended for liquid-transfer operations.
- F. Additional emergency measures:**
Eyewash station and washing facilities recommended in the work area.
- Environmental exposure controls:**
Avoid environmental spillage of both the product and its container. See subsection 7.1.D.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

- 9.1 Information on basic physical and chemical properties:**
- | | |
|------------|--|
| Appearance | |
|------------|--|

Physical state at 20°C	Liquid (aqueous solution) or free-flowing powder, grade dependent
Appearance	Clear to slightly hazy viscous liquid, or white/off-white powder
Color	Colorless to pale yellow (liquid grade); white to off-white (powder grade)
Odor	Odorless to faint characteristic odor
Odour threshold	Not established
Volatility	
Boiling point at atmospheric pressure	~100°C (liquid grade, aqueous solution, approximate)
Vapour pressure at 20°C	Approximates that of water (liquid grade)
Evaporation rate at 20°C	Not relevant *
Product Description	
Density / Relative density at 20°C	1.1 – 1.3 g/cm³ (liquid grade, typical); Available on request (powder grade)
Dynamic / Kinematic viscosity	Available on request (grade/dilution dependent)
Concentration	Proprietary blend – Available on request
pH	Typically 6 – 9 (1% aqueous solution, class-typical for neutralised polyacrylate salts)
Vapour density at 20°C	Not relevant *
Partition coefficient n-octanol/water 20°C	Log Pow < 0 (highly hydrophilic polymer salt)
Solubility in water at 20°C	Fully soluble/miscible
Decomposition temperature	Not established
Melting point/freezing point	Not relevant (liquid grade, aqueous solution); Available on request (powder grade)
Flammability	
Flash Point	Non-applicable (aqueous-based liquid grade)
Flammability (solid, gas)	Not flammable (powder grade not readily combustible)
Autoignition temperature	Not relevant *
Lower / Upper flammability limit	Not relevant *
Particle Characteristics	
Median equivalent diameter	Available on request (powder grade)

* Not relevant due to the nature of the product, not providing information on the properties of its hazards.

9.2 Other information:

Explosive properties	Not explosive
Oxidising properties	Not oxidising
Corrosive to metals	Not expected to be corrosive at recommended formulation-use levels
Heat of combustion	Not established
Surface tension at 20°C	Not established
Refraction index	Not established

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:

No hazardous reactivity expected under normal conditions of use and storage.

10.2 Chemical stability:

Chemically stable under the indicated conditions of storage, handling and use. Powder grade is hygroscopic and may cake if exposed to moisture.

10.3 Possibility of hazardous reactions:

Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected. May react with strong acids to precipitate free polyacrylic acid, or with polyvalent cations (e.g. Ca, Mg, Al) to form insoluble complexes/precipitates by design (its intended scale-inhibiting mechanism).

10.4 Conditions to avoid:

Shock/Friction	Contact with Air	Increase in Temperature	Sunlight	Humidity
Not applicable	Not applicable	Avoid prolonged exposure to heat	Avoid prolonged direct exposure	Keep powder grade dry to avoid caking

10.5 Incompatible materials:

Strong Oxidising Agents	Strong Acids	Polyvalent Metal Salts (Ca, Mg, Al, Fe)
Avoid contact	Avoid contact – may cause precipitation of free acid	May form insoluble complexes/precipitates (by design, in use)

10.6 Hazardous decomposition products:

None known under normal conditions of use and storage. Thermal decomposition at high temperature may produce oxides of carbon and sodium.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:

This formulation has not been separately toxicologically tested as a whole; the following is based on class-typical data for polyacrylate/polycarboxylate-type detergent builder polymers. In case of exposure that is repetitive, prolonged, or at concentrations higher than recommended, adverse effects may result depending on the means of exposure:

A. Ingestion (acute effect):

Low acute oral toxicity expected for class-typical formulations; concentrate may cause gastrointestinal discomfort if ingested.

B. Inhalation (acute effect):

Powder-grade dust may cause irritation of the respiratory tract.

C. Contact with skin and eyes (acute effect):

Concentrate may cause skin and eye irritation on direct contact.

D. CMR effects (carcinogenicity, mutagenicity, reproductive toxicity):

Classification criteria for carcinogenicity, mutagenicity and reproductive toxicity are not met based on available class-typical data. IARC: Not listed.

E. Sensitizing effects:

Classification criteria for respiratory or skin sensitisation are not met based on available data.

F. Specific target organ toxicity (STOT) – single exposure:

Classification criteria are not met based on available data.

G. Specific target organ toxicity (STOT) – repeated exposure:

Classification criteria are not met based on available data.

H. Aspiration hazard:

Not relevant.

Product-specific toxicological information:

Identification	Acute Toxicity	Genus
Proprietary blend (polymer builder)	LD50/LC50: Not separately established for this formulation – class-typical for polyacrylate salts: LD50 oral > 2,000 mg/kg – Available on request for exact figures	Rat

SECTION 12: ECOLOGICAL INFORMATION

Not classified as hazardous to the aquatic environment based on class-typical data; good practice should still be followed to avoid uncontrolled discharge.

12.1 Toxicity:

Identification	Acute Toxicity	Species	Genus
Proprietary blend (polymer builder)	Not separately established – class-typical for polyacrylate salts: LC50/EC50 generally > 100 mg/L – Available on request for exact figures	Not specified	Fish / Crustacean

12.2 Persistence and degradability:

Polyacrylate-type polymers generally show low to moderate biodegradability and are not readily biodegradable per standard OECD-type test criteria, consistent with class-typical products of this kind.

12.3 Bioaccumulative potential:

Low potential for bioaccumulation expected based on high molecular weight and water solubility (typical for polymeric builders).

12.4 Mobility in soil:

Koc	Henry	Dry Soil	Moist Soil
Not established	Not relevant	Not established	Not established

12.5 Results of PBT and vPvB assessment:

Not established for this specific formulation; not expected to meet PBT/vPvB criteria based on class-typical data.

12.6 Other adverse effects:

Not described

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Disposal methods:

Dispose of unused product/concentrate via a licensed waste contractor in accordance with local regulations; not classified as hazardous waste based on class-typical data, but avoid uncontrolled discharge to watercourses. Empty containers should be rinsed and disposed of/recycled per local regulations.

Refer to national and local regulations on waste management.

SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land (ADR 2023 / RID 2023):

14.1 UN number	Not assigned
14.2 UN proper shipping name	Non-hazardous for transport
14.3 Transport hazard class(es)	Not classified
14.4 Packing group	N/A
14.5 Environmental hazard	No
14.6 Special precautions for user	Physico-chemical properties: see section 9
14.7 Transport in bulk (Annex II MARPOL 73/78, IBC Code)	Not relevant

Transport of dangerous goods by sea (IMDG 41-22):

14.1 UN number	Not assigned
14.2 UN proper shipping name	Non-hazardous for transport
14.3 Transport hazard class(es)	Not classified
14.4 Packing group	N/A
14.5 Marine pollutant	No
14.6 Special precautions for user	Not applicable
14.7 Transport in bulk (Annex II MARPOL 73/78, IBC Code)	Not relevant

Transport of dangerous goods by air (IATA/ICAO 2024):

14.1 UN number	Not assigned
14.2 UN proper shipping name	Non-hazardous for transport
14.3 Transport hazard class(es)	Not classified
14.4 Packing group	N/A
14.5 Environmental hazard	No
14.6 Special precautions for user	Not applicable
14.7 Transport in bulk (Annex II MARPOL 73/78, IBC Code)	Not relevant

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations specific for the product in question:

It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of local circumstances, in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

Other legislation:

The Factories Act, 1948 (Act No. 63 of 1948), as amended by the Factories (Amendment) Act, 1987 (Act 20 of 1987)

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:

This safety data sheet has been designed in accordance with Annex 4 – Guidance on the preparation of Safety Data Sheets of the Globally Harmonized System of Classification and Labelling of Chemicals (GHS). As this is a proprietary formulation, specific quantitative data noted as "Available on request" can be obtained from Suraj Chemicals for regulatory, medical-emergency or downstream-formulator purposes.

Texts of the legislative phrases mentioned in sections 2 and 3:

- H315: Causes skin irritation.
- H319: Causes serious eye irritation.

The phrases indicated do not refer to the product itself in all respects; they are class-typical for polyacrylate/polycarboxylate-type detergent builder polymers and are presented for informative purposes pending full component-level disclosure, available on request.

Advice related to training:

Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:

Class-typical GHS classification references for polyacrylate/polycarboxylate-type detergent builder polymer formulations. Exact proprietary formulation data available on request from Suraj Chemicals.

Abbreviations and acronyms:

ADR: European agreement concerning the international carriage of dangerous goods by road | IMDG: International maritime dangerous goods code | IATA: International Air Transport Association | ICAO: International Civil Aviation Organisation | LD50: Lethal Dose 50 | LC50: Lethal Concentration 50 | EC50: Effective Concentration 50 | Log-POW: Octanol-water partition coefficient | Koc: Partition coefficient of organic carbon | PNOC: Particulate Not Otherwise Classified | IARC: International Agency for Research on Cancer

The information contained in this safety data sheet is based on sources, technical knowledge and current legislation, without being able to guarantee its accuracy. This information cannot be considered a guarantee of the properties of the product; it is simply a description of the security requirements. The occupational methodology and conditions for users of this product are not within Suraj Chemicals' awareness or control, and it is ultimately the responsibility of the user to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information on this safety data sheet only refers to this product, which should not be used for needs other than those specified.

END OF SAFETY DATA SHEET