

SAFETY DATA SHEET

SUNFLOC POLYELECTROLYTE CATIONIC MQ (POLYACRYLAMIDE)

CAS No.: 9003-05-8

This Safety Data Sheet is issued by Suraj Chemicals, the manufacturer of the SunFloc range of polyelectrolytes, based on product data and published GHS / regulatory reference data for polyacrylamide flocculants.

1. IDENTIFICATION

GHS Product identifier	SUNFLOC POLYELECTROLYTE CATIONIC MQ (POLYACRYLAMIDE) Cationic polyacrylamide-based flocculant CAS: 9003-05-8
Other means of identification	Not relevant
Recommended use of the chemical and restrictions on use	Relevant uses: Flocculant/coagulant aid for mineral processing, municipal and industrial water & wastewater treatment, sludge dewatering, paper and textile processing. For industrial user only. Uses advised against: All uses not specified in this section or in section 7.3. Not for use in direct contact with food/potable water unless the specific grade supplied is certified for that purpose.
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
Emergency phone number	Emergency Contact No: +91 - 7092722822, +91 - 9840284032

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture	GHS: Based on available data, this product does not meet the GHS classification criteria for physical, health, or environmental hazard classes.
GHS label elements, including precautionary statements	No hazard pictograms or signal word are required. General precautionary statement: in case of contact with eyes, rinse immediately with plenty of water and seek medical advice; wear suitable protective clothing.
Other hazards which do not result in classification	Dust or mist may be irritating to eyes, respiratory system and skin on prolonged/repeated contact (non-classifying effect; see section 11).

3. COMPOSITION / INFORMATION ON INGREDIENTS

Substances	Non-applicable – this product is a polymer formulation (see 3.2).								
Mixtures	<table><tr><th>Identification</th><th>Chemical Name / Classification</th><th>Concentration</th></tr><tr><td>CAS: 9003-05-8 (reference)</td><td>Cationic acrylamide-based copolymer – Not classified</td><td>Available on request (proprietary formulation)</td></tr></table>			Identification	Chemical Name / Classification	Concentration	CAS: 9003-05-8 (reference)	Cationic acrylamide-based copolymer – Not classified	Available on request (proprietary formulation)
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Exact monomer ratio and formulation are proprietary to the manufacturer. To obtain more information on the hazards of the components, consult sections 11, 12 and 16.

4. FIRST AID MEASURES

Description of necessary first-aid measures	By skin contact Immediately wash skin with soap and copious amounts of water. If irritation persists, call a physician. By eye contact Flush with copious amounts of water for at least 15 minutes, separating the eyelids with fingers to assure adequate flushing. If irritation persists, call a physician. By inhalation Remove to fresh air. If necessary, get medical attention. By ingestion If swallowed and the person is conscious, immediately wash out mouth with water. Call a physician.
Most important symptoms/effects, acute and delayed	May be irritating to eyes, respiratory system and skin.
Indication of immediate medical attention and special treatment needed, if necessary	Not relevant

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media	Suitable: Water spray, dry chemical, carbon dioxide or appropriate foam. Unsuitable: None known.
Specific hazards arising from the chemical	Emits toxic fumes (carbon monoxide, carbon dioxide, nitrogen oxides) under fire conditions.
Special protective actions for fire-fighters	Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	Exercise appropriate precautions to minimize direct contact with skin and eyes.
Environmental precautions	Avoid discharge to water bodies where practicable; contain spillage. Powder forms slippery surfaces when wetted – treat as a slip hazard.
Methods and materials for containment and cleaning up	Sweep up with a spade and transfer to a dry, clean, lidded container for disposal. Avoid raising dust. Ventilate the area and wash the spill site after material pickup is complete.
Reference to other sections	See sections 8 and 13.

7. HANDLING AND STORAGE

Precautions for safe handling	Wear appropriate clothing and gloves. Avoid breathing dust. Avoid contact with eyes, skin and clothing. Avoid prolonged or repeated exposure. Mechanical exhaust ventilation is recommended. Keep away from ignition sources, heat and flame. Incompatible with strong oxidizing agents and food. No smoking at the working site.
Conditions for safe storage, including any incompatibilities	Store in a cool, well-ventilated area away from ignition sources, heat and flame, in a tightly closed container. Incompatible with strong oxidizing agents and food.
Specific end use(s)	No special requirement beyond the uses specified in section 1.2.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters	No specific occupational exposure limit is established for this formulation; general nuisance dust limits apply for the powder grade.
Appropriate engineering controls	Use ventilation equipment where available. Safety shower and eye bath should be accessible. B. Respiratory protection Government-approved respirator if necessary (dusty conditions, powder grade). C. Specific protection for the hands Compatible chemical-resistant protective gloves. D. Eye and face protection Chemical safety goggles. E. Bodily protection Appropriate protective clothing. No smoking, drinking or eating at the working site; wash thoroughly after handling.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties (Powder grade)	Item	Result
	Physical state	Solid, granular/powder (water-soluble organic polymer)
	Solid content	≥ 90%
	Bulk density	0.72 – 0.78 g/cm ³
	pH working range	4 – 9
	Soluble matter	> 99.2%
	Insoluble matter	< 0.8%
	Moisture and impurities	< 10%
<i>Liquid/emulsion grade: physical properties are grade-dependent and available on request from Suraj Chemicals.</i>		
Other information (heavy metal content, powder grade, typical)	Item	Result
	Cadmium	≤ 1 mg/kg
	Lead	≤ 5.02 mg/kg
	Mercury	≤ 0.48 mg/kg

10. STABILITY AND REACTIVITY

Reactivity	No specific reactivity hazard identified under normal conditions.
Chemical stability	Stable under normal temperatures and pressures.
Possibility of hazardous reactions	Hazardous polymerization will not occur.

Conditions to avoid	Ignition Sources	Heat/Flame	Strong Oxidizers
	Avoid	Avoid	Avoid contact
Incompatible materials	Strong oxidizing agents; food.		
Hazardous decomposition products	Carbon monoxide, carbon dioxide, nitrogen oxides.		

11. TOXICOLOGICAL INFORMATION

Information on toxicological effects Irritation data: may be irritating to eyes, respiratory system and skin.

Product-specific toxicological information

Test	Species/Route	Value
Oral LD50	Rat	> 1000 mg/kg
Oral LD50	Rat	12,990 mg/kg
Intraperitoneal LD50	Rat	3,670 mg/kg
Oral LD50	Rabbit	11,520 mg/kg

Values as reported by the reference polymer manufacturer for polyacrylamide-based material; low acute toxicity overall.

12. ECOLOGICAL INFORMATION

Toxicity	Not established for this specific formulation. Polymerized cationic polyacrylamide flocculants are generally of low aquatic toxicity in their polymerized form; however, residual unreacted monomer (acrylamide) is toxic to aquatic organisms and neurotoxic. Avoid direct discharge to water bodies.
Persistence and degradability	No data available.
Bioaccumulative potential	No data available.
Mobility in soil	Soluble/dispersible in water.
Results of PBT and vPvB assessment	Not established.
Other adverse effects	No data available.

13. DISPOSAL CONSIDERATIONS

Disposal methods	Spent or discarded material is not normally classified as hazardous waste. Dispose of via a licensed waste disposal contractor, or dissolve and dispose of in accordance with local, state and national environmental regulations.
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14. TRANSPORT INFORMATION

Transport of dangerous goods by land (ADR/RID)

14.1 UN number	None – non-hazardous for transport
14.2 UN proper shipping name	Non-applicable
14.3 Transport hazard class(es)	None
14.4 Packing group	Non-applicable
14.5 Environmental hazard	No
14.6 Special precautions for user	None
14.7 Transport in bulk	Not relevant

Transport of dangerous goods by sea (IMDG/IMO)

14.1 UN number	None – non-hazardous for sea transport
14.2 UN proper shipping name	Non-applicable
14.3 Transport hazard class(es)	None
14.4 Packing group	Non-applicable
14.5 Marine pollutant	No
14.6 Special precautions for user	None
14.7 Transport in bulk	Not relevant

Transport of dangerous goods by air (IATA)

14.1 UN number	None – non-hazardous for air transport
14.2 UN proper shipping name	Non-applicable
14.3 Transport hazard class(es)	None
14.4 Packing group	Non-applicable
14.5 Environmental hazard	No
14.6 Special precautions for user	None
14.7 Transport in bulk	Not relevant

15. REGULATORY INFORMATION

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

Handle in accordance with general workplace chemical safety norms under the Factories Act, 1948 (as amended, 1987). Not classified as hazardous chemical under the Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989.

Other legislation

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

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).

Texts of the legislative phrases mentioned in sections 2 and 3

Not applicable – this product is not classified as hazardous under GHS.

Advice related to training

Minimal training is recommended to prevent industrial risks for staff using this product, to facilitate comprehension of this safety data sheet and the product label.

Principal bibliographical sources

Manufacturer's Material Safety Data Sheet for the polyacrylamide-based reference polymer (ISO 11014-1:1994 format); general public reference data on cationic polyacrylamide flocculants.

Abbreviations and acronyms

LD50: Lethal Dose 50 | PPE: Personal Protective Equipment

Disclaimer: 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.

(This document is computer generated and therefore does not require any signature.)

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