

CARBOPOL (CARBOMER, CROSSLINKED POLYACRYLIC ACID)

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SECTION 1: IDENTIFICATION

1.1 GHS Product identifier:

CARBOPOL (CARBOMER, CROSSLINKED POLYACRYLIC ACID)
Carbomer; Crosslinked Acrylic Acid Polymer
CAS: 9003-01-4

Other means of identification:

Not relevant

1.2 Recommended use of the chemical and restrictions on use:

Relevant uses: Rheology modifier/thickener, suspending and gelling agent for pharmaceuticals, cosmetics, personal care formulations, and industrial/household products. For industrial user only.
Uses advised against: All uses not specified in this section or in section 7.3.

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).

Eye Irrit. 2B	Eye irritation, Category 2B, H320 (dust may cause temporary mechanical irritation)
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Per well-established published GHS data, this is a standard low-hazard specialty polymer/pharmaceutical excipient. Not classified for acute toxicity, skin irritation/corrosion, sensitization, carcinogenicity, mutagenicity, reproductive toxicity or aquatic hazard. Fine powder may cause transient mechanical irritation to eyes and respiratory tract, as with any inert powder.

2.2 GHS label elements, including precautionary statements:

GHS: Not classified as hazardous (no signal word required); handled with standard dust precautions

Hazard statements:

None assigned under GHS for the substance as supplied; H320 – Causes eye irritation (precautionary, dust-related, not a formal classification for this substance per most supplier SDS).

Precautionary statements:

P262: Do not get in eyes, on skin, or on clothing.
P271: Use only outdoors or in a well-ventilated area.
P280: Wear protective gloves/eye protection.
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

2.3 Other hazards which do not result in classification:

Fine powder may form combustible dust clouds in air under certain conditions; avoid dust generation and ignition sources. Wetted/slippery surfaces may form on spillage due to gelling with moisture.

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

3.1 Substances:

Chemical description: Crosslinked polyacrylic acid homopolymer/copolymer (Carbomer)
In accordance with Annex 4.3.3 of the GHS, the product contains:

Identification	Chemical Name / Classification	Concentration
CAS: 9003-01-4	Carbomer (Carbopol) — Not classified	≥ 98% (typical commercial grade)

To obtain more information on the hazards of the substances, consult sections 11, 12 and 16.

3.2 Mixtures:

Non-applicable

SECTION 4: FIRST AID MEASURES

4.1 Description of necessary first-aid measures:

Generally regarded as low hazard; request medical assistance if symptoms persist, showing the SDS of this product.

By inhalation:

Remove the person affected from dusty area to fresh air. Seek medical attention if coughing or respiratory discomfort persists.

By skin contact:

Wash skin with soap and water. Not expected to cause irritation under normal handling.

By eye contact:

Rinse eyes thoroughly with lukewarm water for at least 15 minutes, lifting eyelids occasionally. Remove contact lenses if present and easy to do. Seek medical advice if irritation persists.

By ingestion/aspiration:

Rinse mouth with water. Do not induce vomiting. Seek medical advice if feeling unwell.

4.2 Most important symptoms/effects, acute and delayed:

No significant acute symptoms expected under normal handling conditions beyond transient mechanical irritation from dust. See sections 2 and 11.

4.3 Indication of immediate medical attention and special treatment needed, if necessary:

Not relevant; treat symptomatically.

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Suitable extinguishing media:
Suitable: Water spray/fog, foam, dry chemical powder, carbon dioxide
Unsuitable: High-pressure water jet (may disperse dust)

5.2 Specific hazards arising from the chemical:
Combustible organic powder. Fine dust may form explosive dust-air mixtures in the presence of an ignition source. Combustion may release carbon monoxide and carbon dioxide.

5.3 Special protective actions for fire-fighters:
Evacuate non-essential personnel. Wear self-contained breathing apparatus and protective clothing in enclosed areas.

Additional provisions:
Avoid dust formation during fire-fighting/clean-up operations.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:
For non-emergency personnel:
Avoid generating dust. Use PPE described in section 8. Note spilled material becomes very slippery when wet.
For emergency responders:
Wear appropriate protective equipment as per section 8.

6.2 Environmental precautions:
Avoid release to drains and watercourses in large quantities (may increase viscosity/gel local water).

6.3 Methods and materials for containment and cleaning up:
Sweep up dry material (avoid dust generation) and place in a suitable, labelled container. If wetted, material becomes a slippery gel – use absorbent material and clean with care to avoid slip hazards.

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 generating dust. Provide adequate ventilation. Keep away from open flame and ignition sources.
B. Technical recommendations for the prevention of fires and explosions:
Use dust-tight equipment and anti-static earthing where handling in bulk/powder form to control combustible dust hazard.
C. Technical recommendations on general occupational hygiene:
Do not eat, drink or smoke while handling. Wash hands after handling.
D. Technical recommendations to prevent environmental risks:
Prevent release to drains and watercourses. Follow the protective measures given in section 8.

7.2 Conditions for safe storage, including any incompatibilities:

A. Specific storage requirements:

Minimum Temp.	Ambient
Maximum Temp.	30°C
Maximum time	24 Months (unopened, in original packaging, away from moisture)

B. General conditions for storage:
Store in a cool, dry, well-ventilated place in tightly closed containers, protected from moisture (hygroscopic) and direct sunlight.

7.3 Specific end use(s):
Except for the instructions already specified, it is not necessary to provide any special recommendation regarding the uses of this product.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters:
No specific occupational exposure limit is established for Carbomer under Indian regulations. General particulate-not-otherwise-classified guidance values may be applied.

Identification	Occupational Exposure Limit Type	Value
Carbomer (Carbopol) CAS: 9003-01-4	No established OEL (general dust: TWA)	Typical value – refer to current specification sheet

8.2 Appropriate engineering controls:
Use local exhaust ventilation or dust extraction where powder/dust is generated, in addition to PPE as needed.

B. Respiratory protection:
Not normally required with adequate ventilation. Use a particulate (dust) respirator (FFP2/N95) if dust levels are elevated.

C. Specific protection for the hands:
Protective gloves recommended for prolonged or repeated handling.

D. Eye and face protection:
Safety glasses or dust goggles recommended where powder handling may generate dust.

E. Bodily protection:
Standard industrial workwear; antistatic clothing recommended where combustible dust may be present.

F. Additional emergency measures:
Eyewash station and washing facilities should be available 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	Solid (fine, fluffy white powder)
Appearance	Fine white powder
Color	White
Odor	Slight characteristic odour
Odour threshold	Not established

Volatility	
Boiling point at atmospheric pressure	Non-applicable (polymer, decomposes before boiling)
Vapour pressure at 20°C	Negligible
Evaporation rate at 20°C	Not relevant (solid)
Product Description	
Density / Relative density (bulk)	~0.2–0.4 g/cm³ (loose bulk, typical)
Dynamic / Kinematic viscosity (1% aqueous dispersion, neutralized)	Typical value – refer to current specification sheet (grade-dependent, commonly 30,000–60,000 cP)
Concentration	≥98% (typical commercial grade)
pH (1% aqueous dispersion)	~2.5–3.5 (unneutralized)
Vapour density	Not relevant
Partition coefficient n-octanol/water	Not relevant (crosslinked polymer)
Solubility in water at 20°C	Insoluble; swells to form a gel/dispersion
Decomposition temperature	Typical value – refer to current specification sheet
Melting point/freezing point	Non-applicable (decomposes rather than melts)
Flammability	
Flash Point	Non-applicable (solid)
Flammability (solid, gas)	Combustible solid; not readily flammable in bulk form
Autoignition temperature	Typical value – refer to current specification sheet
Lower / Upper flammability limit	Not established
Particle Characteristics	
Median equivalent diameter	Varies by grade – refer to current specification sheet

* Values are typical for the commercial grade; refer to current specification sheet for batch-specific data.

9.2 Other information:

Explosive properties	Not classified; fine dust may be combustible
Oxidising properties	Not relevant – not an oxidiser
Corrosive to metals	Not relevant
Heat of combustion	Not established
Surface tension	Not relevant
Refraction index	Not relevant

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:

Stable under normal conditions of use. Incompatible with strong oxidizing agents and strong bases in concentrated form (exothermic neutralization).

10.2 Chemical stability:

Chemically stable under the indicated conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:

Under the specified conditions, hazardous reactions are not expected. Fine dust clouds may be combustible in the presence of an ignition source.

10.4 Conditions to avoid:

Shock/Friction	Contact with Air	Increase in Temperature	Sunlight	Humidity
Avoid generating dust clouds	Hygroscopic – avoid prolonged exposure	Avoid excessive heat	Avoid prolonged direct exposure	Avoid moisture ingress during storage

10.5 Incompatible materials:

Strong Oxidizers	Strong Bases (concentrated)	Ignition Sources
Avoid contact	Avoid uncontrolled neutralization	Keep away

10.6 Hazardous decomposition products:

Thermal decomposition may release carbon monoxide and carbon dioxide.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:

Per well-established published data for this CAS number, Carbomer is a low-hazard pharmaceutical/cosmetic excipient with an extensive history of safe use:

A. Ingestion (acute effect):

Very low acute oral toxicity. Not expected to cause adverse effects at typical exposure levels.

B. Inhalation (acute effect):

Dust may cause transient mechanical irritation of the respiratory tract; not expected to cause systemic toxicity.

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

Not expected to be irritating to skin. Dust may cause mechanical/transient irritation to eyes.

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

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

E. Sensitizing effects:

Not classified as a skin or respiratory sensitizer 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:

Non-applicable (solid).

Product-specific toxicological information:

Identification	Acute Toxicity	Genus
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Carbomer (Carbopol) CAS: 9003-01-4	LD50 oral: >5000 mg/kg	Rat
	LD50 dermal: >2000 mg/kg	Rabbit

SECTION 12: ECOLOGICAL INFORMATION

Not classified as hazardous to the aquatic environment.

12.1 Toxicity:

Acute Toxicity	Species	Genus
LC50: >100 mg/L (96h)	Non-applicable	Fish
EC50: >100 mg/L (48h)	Non-applicable	Crustacean (Daphnia)

12.2 Persistence and degradability:

Not readily biodegradable (high molecular weight crosslinked polymer); not expected to persist as a toxicological hazard in the environment due to low inherent toxicity.

12.3 Bioaccumulative potential:

Not expected to bioaccumulate due to high molecular weight and insolubility.

12.4 Mobility in soil:

Koc	Henry	Dry Soil	Moist Soil
Not relevant (insoluble polymer)	Not relevant	Low mobility expected	Low mobility expected (gels in place)

12.5 Results of PBT and vPvB assessment:

Not classified as PBT/vPvB.

12.6 Other adverse effects:

Not described

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Disposal methods:

Dispose of in accordance with local, state and national regulations as non-hazardous waste. Landfill or incineration at a licensed facility are suitable disposal routes. Empty containers may retain product residue; dispose of as per label/regulatory guidance.

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 regulated (non-dangerous goods)
14.2 UN proper shipping name	Non-applicable
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	Non-hazardous for transport
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 regulated (non-dangerous goods)
14.2 UN proper shipping name	Non-applicable
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	Non-hazardous for transport
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 regulated (non-dangerous goods)
14.2 UN proper shipping name	Non-applicable
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	Non-hazardous for transport
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. Carbomer grades used in pharmaceutical/cosmetic applications typically comply with applicable pharmacopoeial monographs (USP-NF/Ph.Eur.); refer to current specification sheet for grade-specific compliance status.

Other legislation:

The Factories Act, 1948 (Act No. 63 of 1948), as amended by the Factories (Amendment) Act, 1987 (Act 20 of 1987)
Drugs and Cosmetics Act, 1940 (where applicable to pharmaceutical/cosmetic grade)

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).

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

H320: Causes eye irritation (precautionary, dust-related).

The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3.

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:

Published GHS classification data and standard chemical/pharmaceutical excipient reference sources for CAS 9003-01-4.

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 | Koc: Partition coefficient of organic carbon | 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