SAFETY DATA SHEET

ZEOLITE (POWDER)

CAS No.: 1344-00-9

This Safety Data Sheet is issued by Suraj Chemicals as the distributor/supplier of record, based on manufacturer and published GHS / regulatory reference data for this substance. Users should also consult the specific manufacturer's SDS where available.

1. IDENTIFICATION

GHS Product identifier

ZEOLITE (POWDER)
Sodium Aluminosilicate; Hydrated Zeolite Sodium A Powder; Molecular Sieve Zeolite 4A
CAS: 1344-00-9

Other means of identification

Not relevant

Recommended use of the chemical and restrictions on use

Relevant uses: Builder/binding agent in detergent formulations; desiccant and drying agent; water softening agent. For industrial user only.
Uses advised against: All uses not specified in this section or in section 7.3. Not for food, drug, or pharmaceutical use.

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:
Not classified as hazardous under the Globally Harmonized System of Classification and Labelling of Chemicals (GHS). Exposure to any kind of dust is potentially harmful and may cause mechanical irritation.

Not classified	Not classified as dangerous for supply/use

GHS label elements, including precautionary statements

GHS: Not applicable – no signal word

Hazard statements

None assigned. Exposure to any kind of dust is potentially harmful.

Precautionary statements

P264: Wash hands thoroughly after handling.
P271: Use only outdoors or in a well-ventilated area.
P280: Wear protective gloves/eye protection.
P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Other hazards which do not result in classification

Not classified as PBT or vPvB. A considerable static electrical charge can build up during mechanical handling, which may become a hazard in atmospheres containing flammable vapours.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Substances

Chemical description: Sodium Aluminosilicate (Zeolite Powder), hydrated

In accordance with Annex 4.3.3 of the GHS, the product contains:

Identification	Chemical Name / Classification	Concentration
CAS: 1344-00-9	Zeolite (Sodium Aluminosilicate) – Not classified	78–82%
CAS: 7732-18-5	Water – Not classified	18–22%

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

Mixtures

Non-applicable

4. FIRST AID MEASURES

Description of necessary first-aid measures

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

By inhalation

Remove patient from exposure, keep warm and at rest. If symptoms develop, obtain medical attention.

By skin contact

Wash affected skin with plenty of water. If symptoms develop, obtain medical attention.

By eye contact

If substance has got into the eyes, immediately wash out with plenty of water. Obtain immediate medical attention.

By ingestion/aspiration

Do not induce vomiting. Wash out mouth with water. If a large amount is swallowed or symptoms develop, obtain medical attention.

Most important symptoms/effects, acute and delayed

Exposure to any kind of dust is potentially harmful. Dust may cause mechanical irritation to eyes, skin and respiratory tract.

Indication of immediate medical attention and special treatment needed, if necessary	Not relevant

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media	**Suitable:** Compatible with all standard fire-fighting techniques – product is inorganic and non-combustible. **Unsuitable:** None known.
Specific hazards arising from the chemical	Not applicable. Inorganic powder/granules. Non-combustible.
Special protective actions for fire-fighters	No specific measures required. Wear self-contained breathing apparatus for fires in enclosed spaces as a general precaution. **Additional provisions** None.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	**For non-emergency personnel** Wear suitable protective clothing and eye/face protection. An approved dust mask should be worn if dust is generated during handling. **For emergency responders** Wear protective equipment as above. See section 8.
Environmental precautions	This product is virtually inert and has no known adverse effect on the environment. Avoid unnecessary generation of dust.
Methods and materials for containment and cleaning up	Contain spillage. Dampening with water can reduce dust. Sweep or preferably vacuum up and collect in suitable containers for recovery or disposal.
Reference to other sections	See section 8.

7. HANDLING AND STORAGE

Precautions for safe handling

A. General precautions for safe use
Avoid generation of dust. Handle in accordance with good industrial hygiene and safety practices.

B. Technical recommendations for the prevention of fires and explosions
A considerable static electrical charge can be built up during mechanical handling, which may become a hazard in atmospheres containing flammable vapours; bond and earth equipment as appropriate.

C. Technical recommendations on general occupational hygiene
Do not eat, drink or smoke at the work place. Wash hands thoroughly after handling.

D. Technical recommendations to prevent environmental risks
Avoid generation and release of dust to the environment.

Conditions for safe storage, including any incompatibilities

A. Specific storage requirements

Storage	Keep container tightly closed and dry
Maximum time	Refer to packaging label / batch documentation

B. General conditions for storage
Store in a cool, dry, well-ventilated place away from moisture. For additional information see subsection 10.5.

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.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters

Identification	Occupational Exposure Limit Type	Value
Sodium aluminosilicate (dust) CAS: 1344-00-9	Total inhalable dust (8h TWA)	10 mg/m³ (UK EH40) / 15 mg/m³ (OSHA PEL, total)
	Respirable dust (8h TWA)	4 mg/m³ (UK EH40) / 5 mg/m³ (OSHA PEL, respirable)

Appropriate engineering controls

Engineering methods to prevent or control exposure are preferred: process/personnel enclosure, mechanical ventilation (dilution and local exhaust). Do not eat, drink or smoke at the work place.

B. Respiratory protection
Avoid inhalation of dust. Wear a dust mask (FFP1, EN 149) if working in confined/poorly ventilated spaces or where exposure limits may be exceeded.

C. Specific protection for the hands
Plastic or rubber gloves (e.g. EN 374-3).

D. Eye and face protection
Safety spectacles/goggles.

E. Bodily protection
Suitable overalls (e.g. EN ISO 13982 for dust).

F. Additional emergency measures
Emergency eyewash stations should be available where dust exposure is likely.

Environmental exposure controls
Avoid generation of dust and environmental release.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	
Physical state at 20°C	Solid (powder)
Appearance	Powder
Color	White
Odor	Odourless
Odour threshold	Not applicable
Volatility	
Boiling point at atmospheric pressure	Not applicable
Melting Point (°C)	> 1000°C
Vapour pressure	Not applicable
Product Description	
Density	No data
pH	10.1–11.4 (5% w/w in water)
Solubility in water at 20°C	Insoluble
Decomposition temperature	Not applicable
Flammability	
Flash Point	Not applicable
Flammability (solid, gas)	Not applicable
Autoignition temperature	Not applicable

Data taken from supplier reference SDS for the equivalent zeolite NaA powder grade (CAS 1318-02-1); properties not tested by Suraj Chemicals.

Other information

Explosive properties	Not applicable
Oxidising properties	Not applicable
Corrosive to metals	Not relevant

10. STABILITY AND REACTIVITY

Reactivity None known.

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

Possibility of hazardous reactions None known.

Conditions to avoid

Shock/Friction	Contact with Air	Increase in Temperature	Sunlight	Humidity
Not applicable	Not applicable	Not applicable	Not applicable	Keep dry / prevent caking

Incompatible materials None known.

Hazardous decomposition products None known.

11. TOXICOLOGICAL INFORMATION

Information on toxicological effects

In case of exposure that is repetitive, prolonged, or at concentrations higher than the recommended occupational exposure limits, adverse health effects may result depending on the means of exposure:

A. Ingestion (acute effect)
Oral LD50 (rat) > 2000 mg/kg bw. Low acute toxicity.

B. Inhalation (acute effect)
Considered a nuisance dust; does not produce significant disease or toxic effect below exposure limits. Existing conditions (asthma, bronchitis) may be aggravated. Inhalation LC50 (rat) > 575 g/m³.

C. Contact with skin and eyes (acute effect)
Non-irritant; dust may have a drying effect on the skin and may cause discomfort/mild irritation to the eyes. Dermal LD50 (rat) > 2000 mg/kg bw.

D. CMR effects (carcinogenicity, mutagenicity, reproductive toxicity)
No evidence of genotoxicity, carcinogenicity or reproductive/developmental toxicity. IARC: similar synthetic zeolite material not classifiable as to carcinogenicity (Group 3).

E. Sensitizing effects
Not sensitising.

F. Specific target organ toxicity (STOT) – single exposure
Not classified.

G. Specific target organ toxicity (STOT) – repeated exposure
Not classified. NOAEL oral (rat) 250–300 mg/kg bw/d.

H. Aspiration hazard
Not classified.

Product-specific toxicological information

Identification	Acute Toxicity	Genus
Sodium aluminosilicate CAS: 1344-00-9	LD50 oral: >2000 mg/kg	Rat
	LD50 dermal: >2000 mg/kg	Rabbit

12. ECOLOGICAL INFORMATION

Virtually inert; no known adverse effect on the environment.

Toxicity

Acute Toxicity	Species	Genus
LC50: >680 mg/l (96h)	Fathead minnow	Fish
EC50: >100 mg/l (48h)	Daphnia magna	Crustacean

Persistence and degradability

Inorganic; not subject to biodegradation.

Bioaccumulative potential

Inorganic; no potential for bioaccumulation.

Mobility in soil

Koc	Henry	Dry Soil	Moist Soil
Not applicable	Not applicable	No	No

Results of PBT and vPvB assessment

Not classified as PBT or vPvB.

Other adverse effects

Sinks in water.

13. DISPOSAL CONSIDERATIONS

Disposal methods

Disposal should be in accordance with local, state or national legislation. Not classified as hazardous waste. May be disposed of by landfill in accordance with local regulations where permitted.

Refer to national and local regulations on waste management.

14. TRANSPORT INFORMATION

Transport of dangerous goods by land (ADR/RID)

14.1 UN number	Not applicable
14.2 UN proper shipping name	Not applicable
14.3 Transport hazard class(es)	Not classified as dangerous for transport
14.4 Packing group	N/A
14.5 Environmental hazard	No
14.6 Special precautions for user	None known
14.7 Transport in bulk (Annex II MARPOL 73/78, IBC Code)	Not applicable

Transport of dangerous goods by sea (IMDG)

14.1 UN number	Not applicable
14.2 UN proper shipping name	Not applicable
14.3 Transport hazard class(es)	Not classified as dangerous for transport
14.4 Packing group	N/A
14.5 Marine pollutant	No
14.6 Special precautions for user	None known
14.7 Transport in bulk (Annex II MARPOL 73/78, IBC Code)	Not applicable

Transport of dangerous goods by air (IATA/ICAO)

14.1 UN number	Not applicable
14.2 UN proper shipping name	Not applicable
14.3 Transport hazard class(es)	Not classified as dangerous for transport
14.4 Packing group	N/A
14.5 Environmental hazard	No
14.6 Special precautions for user	None known
14.7 Transport in bulk (Annex II MARPOL 73/78, IBC Code)	Not applicable

15. REGULATORY INFORMATION

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. Not classified as hazardous so exposure scenarios are not required.

Other legislation

Manufacture, Storage and Import of Hazardous Chemicals Rules 1989
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 classified – no hazard statements assigned to this product.

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

Supplier reference SDS for equivalent hydrated sodium aluminosilicate zeolite powder (Zeolite NaA grade); publicly available GHS classification guidance.

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 | LD50: Lethal Dose 50 | LC50: Lethal Concentration 50 | EC50: Effective Concentration 50 | IARC: International Agency for Research on Cancer | PBT: Persistent, Bioaccumulative and Toxic | vPvB: very Persistent, very Bioaccumulative

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.

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