SDS-HYFLOWSUPERC 31 Jul 2026

SAFETY DATA SHEET

DIATOMACEOUS EARTH FILTER AID (HYFLOW SUPERCELL)

CAS No.: 68855-54-9

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

DIATOMACEOUS EARTH FILTER AID (HYFLOW SUPERCELL)
Diatomite, Calcined; Calcined Diatomaceous Earth; Kieselguhr (flux-calcined)
CAS: 68855-54-9

Other means of identification

Not relevant

Recommended use of the chemical and restrictions on use

Relevant uses: Filter aid/filtration medium for clarification of beverages, oils, pharmaceuticals, water and industrial process liquids (pre-coat and body-feed filtration). For industrial user only.

Uses advised against: All uses not specified in this section or in section 7.3. Not to be used in a manner that generates or disperses respirable dust without adequate controls (see Section 8).

Supplier's details

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2. HAZARDS IDENTIFICATION

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). Flux-calcined diatomaceous earth contains crystalline silica (predominantly cristobalite), formed during the high-temperature calcination process, which drives the product's classification.

Carc. 1B	Carcinogenicity, Category 1B, H350i (by inhalation) – due to crystalline silica (cristobalite) content
STOT RE 1	Specific target organ toxicity, repeated exposure, Category 1 (lungs), H372 (inhalation) – risk of silicosis with prolonged/repeated inhalation of respirable dust

GHS label elements, including precautionary statements

GHS: Danger

Hazard statements

Carc. 1B: H350i – May cause cancer by inhalation.
STOT RE 1: H372 – Causes damage to lungs through prolonged or repeated exposure by inhalation.

Precautionary statements

P201: Obtain special instructions before use.
P202: Do not handle until all safety precautions have been read and understood.
P260: Do not breathe dust.
P264: Wash hands thoroughly after handling.
P270: Do not eat, drink or smoke when using this product.
P271: Use only outdoors or in a well-ventilated area.
P284: Wear respiratory protection (NIOSH-approved N95/P100 or equivalent) in the absence of adequate ventilation.
P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P308+P313: IF exposed or concerned: Get medical advice/attention.
P314: Get medical advice/attention if you feel unwell.
P405: Store locked up.
P501: Dispose of contents/container in accordance with local regulations on hazardous waste.

Other hazards which do not result in classification

Repeated inhalation of respirable crystalline silica dust over prolonged periods may cause silicosis, an irreversible, progressive lung disease, and is associated with increased risk of chronic obstructive pulmonary disease and kidney disease. Engineering controls and PPE described in Section 8 must be strictly followed.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Substances

Chemical description: Diatomite (diatomaceous earth), flux-calcined

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

Identification	Chemical Name / Classification	Concentration
CAS: 68855-54-9	Diatomite, calcined (amorphous silica matrix with crystalline silica formed during calcination) – Carc. 1B H350i; STOT RE 1 H372	≥95% (whole product)
CAS: 14464-46-1 / 14808-60-7	Crystalline silica (cristobalite / quartz) – Carc. 1B H350i; STOT RE 1 H372	Typically in the order of 40–60% w/w for flux-calcined grades (published literature range for this product class); exact content for this specific batch/grade is available on request via manufacturer's Certificate of Analysis

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 immediately, showing the SDS of this product.

By inhalation

Remove the person affected from the area of exposure, provide fresh air and keep at rest. Seek medical attention for any respiratory symptoms, and inform the physician of possible crystalline silica exposure.

By skin contact

Wash skin thoroughly with plenty of water and soap. Dust may cause mechanical/drying irritation.

By eye contact

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

By ingestion/aspiration

Rinse mouth with water. Do not induce vomiting. Seek medical advice if a significant quantity is swallowed.

Most important symptoms/effects, acute and delayed

Acute: mechanical irritation of eyes, skin and upper respiratory tract from dust. Delayed/chronic: repeated inhalation of respirable dust may cause silicosis and increases lung cancer risk (see sections 2 and 11).

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

Workers with a history of significant occupational exposure should undergo periodic medical/respiratory surveillance as advised by an occupational physician.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Suitable: Product is non-combustible; use extinguishing media appropriate to the surrounding fire (water spray, foam, dry chemical powder, carbon dioxide).
Unsuitable: High-pressure air/water jets that would disperse dust

Specific hazards arising from the chemical

Not flammable, not explosive, not combustible. Avoid actions that raise dust during a fire in the vicinity, to prevent inhalation of respirable silica dust by responders.

Special protective actions for fire-fighters

Wear self-contained breathing apparatus and full protective clothing. Avoid generating dust clouds during fire-fighting/clean-up.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Avoid generating dust. Do not dry sweep. Wear appropriate respiratory protection and PPE (see Section 8). Evacuate/restrict access to unprotected personnel.

For emergency responders

Wear NIOSH-approved respiratory protection and full protective equipment. Ventilate the area.

Environmental precautions

Prevent entry into drains, watercourses and soil in bulk quantity. Avoid generating airborne dust.

Methods and materials for containment and cleaning up

Do NOT dry sweep or use compressed air to clean up spills, as this generates airborne respirable dust. Use wet methods (damp mopping) or a vacuum cleaner fitted with a HEPA filter. Place collected material in a labelled, closed container for disposal or reuse.

Reference to other sections

See sections 8 and 13.

7. HANDLING AND STORAGE

Precautions for safe handling

A. General precautions for safe use

Minimize dust generation during handling, bag opening, transfer and dosing (body-feed/pre-coat operations). Use local exhaust ventilation at dust-generating points. Do not dry sweep – use wet cleaning or HEPA-filtered vacuum.

B. Technical recommendations for the prevention of fires and explosions

Non-combustible – no special fire prevention measures required.

C. Technical recommendations on general occupational hygiene

Do not eat, drink or smoke while handling. Wash hands and face before eating/drinking. Shower and change clothing after work in dusty areas. Provide periodic health/respiratory surveillance for regularly exposed workers.

D. Technical recommendations to prevent environmental risks

Contain dust generation at source using local exhaust ventilation with appropriately rated dust collection filters.

Conditions for safe storage, including any incompatibilities

A. Specific storage requirements

Minimum Temp.	Ambient
Maximum Temp.	40°C
Maximum time (unopened, original packaging)	24 Months

B. General conditions for storage

Store in tightly closed original bags, in a cool, dry, well-ventilated place, away from moisture. Store away from general traffic areas to minimize disturbance/dust generation.

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

Occupational exposure limits for respirable crystalline silica (cristobalite):

Identification	Occupational Exposure Limit Type	Value
Crystalline silica (cristobalite) CAS: 14464-46-1	Respirable fraction, 8-hr TWA (reference: OSHA PEL / ACGIH-type guidance)	0.025 mg/m³
	Total dust (nuisance/particulates not otherwise classified)	10 mg/m³ (8-hr TWA, general guidance)

Appropriate engineering controls

Local exhaust ventilation (LEV) is essential at all dust-generating points (bag opening, transfer, dosing, filter cake handling/disposal). Enclose processes where feasible. Regularly monitor workplace air for respirable crystalline silica.

B. Respiratory protection

NIOSH-approved (or equivalent) N95 particulate respirator as a minimum for routine dusty tasks; use a P100/higher-protection respirator or supplied-air respirator where exposure levels are high or LEV is not available. Follow a formal respiratory protection program.

C. Specific protection for the hands

Standard work gloves for handling dry material.

D. Eye and face protection

Safety glasses or goggles; use a full-face respirator where high dust exposure is expected.

E. Bodily protection

Disposable or washable coveralls; avoid take-home contamination – provide changing/washing facilities and do not launder work clothing with regular household laundry.

F. Additional emergency measures

Eyewash station and washing facilities should be available.

Environmental exposure controls

Use dust collection systems with appropriately rated filters to prevent release of respirable dust to the environment.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	
Physical state at 20°C	Solid (fine powder)
Appearance	Fine, highly porous powder
Color	Off-white to pale pink/buff
Odor	Odorless
Odour threshold	Not relevant *
Volatility	
Boiling point at atmospheric pressure	Non-applicable (solid)
Vapour pressure at 20°C / 50°C	Not relevant *
Evaporation rate at 20°C	Not relevant *
Product Description	
Bulk density	Approx. 0.18–0.35 g/cm³ (highly porous)
Dynamic / Kinematic viscosity	Non-applicable (solid)
Concentration	≥95% diatomite matrix; crystalline silica content per section 3
pH (10% aqueous slurry)	Approx. 7–9.5
Vapour density at 20°C	Not relevant *
Partition coefficient n-octanol/water 20°C	Not relevant (inorganic solid)
Solubility in water at 20°C	Insoluble
Decomposition temperature	Not applicable (thermally stable, already calcined)
Melting point/freezing point	>1400°C
Flammability	
Flash Point	Non-applicable
Flammability (solid, gas)	Non-combustible
Autoignition temperature	Not relevant *
Lower / Upper flammability limit	Not relevant *
Particle Characteristics	
Median equivalent diameter	Available on request (grade dependent; fine filter-aid grade)

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

Other information

Explosive properties	Not explosive
Oxidising properties	Not an oxidizer
Corrosive to metals	Non-corrosive
Heat of combustion	Not relevant *
Surface tension at 20°C	Not relevant *
Refraction index	Not relevant *

10. STABILITY AND REACTIVITY

Reactivity

Not reactive under normal conditions of use. Reacts with hydrofluoric acid and, at elevated temperature, with strong alkalis.

Chemical stability

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

Possibility of hazardous reactions

Under the specified conditions, hazardous reactions are not expected.

Conditions to avoid

Shock/Friction	Contact with Air	Increase in Temperature	Sunlight	Humidity
Not applicable	Avoid actions generating airborne dust	Not applicable	Not applicable	Not applicable

Incompatible materials

Hydrofluoric Acid	Strong Alkalis (molten/hot)
Avoid contact	Avoid contact

Hazardous decomposition products

None under normal conditions of use.

11. TOXICOLOGICAL INFORMATION

Information on toxicological effects

The principal toxicological hazard of this product arises from its crystalline silica (cristobalite) content, formed during flux-calcination. Repeated or prolonged inhalation of respirable dust from this product is the primary route of concern.

A. Ingestion (acute effect)

Low order of acute oral toxicity; not expected to cause harm from incidental ingestion.

B. Inhalation (acute effect)

Dust may cause mechanical irritation of the respiratory tract. Repeated/prolonged inhalation of respirable fraction is the primary chronic hazard (see D and F below).

C. Contact with skin and eyes (acute effect)

May cause mechanical irritation from dust; abrasive/drying effect on skin.

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

Crystalline silica (cristobalite/quartz) inhaled in the form of respirable dust is classified as a Group 1 human carcinogen by IARC (carcinogenic to humans, lung cancer) and Carc. 1B H350i under GHS. This applies specifically to the respirable crystalline silica fraction, not to amorphous silica.

E. Sensitizing effects

Not classified as a sensitizer based on available data.

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

Classification criteria are not met for single/acute exposure.

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

STOT RE 1, H372 (lungs) – prolonged/repeated inhalation of respirable crystalline silica dust causes silicosis, a progressive, irreversible fibrotic lung disease, and is associated with increased risk of chronic obstructive pulmonary disease, tuberculosis susceptibility and kidney disease.

H. Aspiration hazard

Not applicable (solid).

Product-specific toxicological information

Identification	Acute Toxicity	Genus
Diatomite, calcined CAS: 68855-54-9	Oral LD50: >5000 mg/kg (low acute oral toxicity; chronic inhalation hazard predominates – see section 11.1.D/F)	Rat

12. ECOLOGICAL INFORMATION

Not classified as hazardous to the aquatic environment.

Toxicity

Diatomaceous earth is a naturally occurring inorganic mineral with very low aquatic toxicity (class data; LC50/EC50 typically >1000 mg/L for fish/invertebrates).

Persistence and degradability

Inorganic substance; biodegradability testing not applicable. Naturally persistent in the environment as a mineral.

Bioaccumulative potential

Not expected to bioaccumulate.

Mobility in soil

Koc	Henry	Dry Soil	Moist Soil
Not relevant	Not relevant	Low mobility (insoluble solid)	Low mobility

Results of PBT and vPvB assessment

Non-applicable (inorganic substance)

Other adverse effects

Not described

13. DISPOSAL CONSIDERATIONS

Disposal methods

Dispose of spent filter aid/filter cake (which may contain concentrated filtered impurities in addition to the crystalline silica matrix) as per local solid/industrial waste regulations. Wet/damp the material before disposal to minimize dust generation. Avoid dry sweeping.

Refer to national and local regulations on waste management.

14. TRANSPORT INFORMATION

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

14.1 UN number	Not regulated as dangerous goods for transport
14.2 UN proper shipping name	Non-applicable
14.3 Transport hazard class(es)	Non-applicable
14.4 Packing group	Non-applicable
14.5 Environmental hazard	No
14.6 Special precautions for user	Not regulated for transport; occupational (not transport) hazards apply – see sections 2, 8 and 11
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 as dangerous goods for transport
14.2 UN proper shipping name	Non-applicable
14.3 Transport hazard class(es)	Non-applicable
14.4 Packing group	Non-applicable
14.5 Marine pollutant	No
14.6 Special precautions for user	Not regulated
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 as dangerous goods for transport
14.2 UN proper shipping name	Non-applicable
14.3 Transport hazard class(es)	Non-applicable
14.4 Packing group	Non-applicable
14.5 Environmental hazard	No
14.6 Special precautions for user	Not regulated
14.7 Transport in bulk (Annex II MARPOL 73/78, IBC Code)	Not relevant

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.

Other legislation

Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989 (India)
The Factories Act, 1948 (Act No. 63 of 1948), as amended by the Factories (Amendment) Act, 1987 (Act 20 of 1987) – occupational exposure limits for silica dust
IARC Monograph classification of crystalline silica (inhaled in the form of quartz or cristobalite from occupational sources) as Group 1 (carcinogenic to humans)
Public Liability Insurance Act, 1991

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

H350i: May cause cancer by inhalation.
H372: Causes damage to organs through prolonged or repeated exposure.

The phrases indicated refer to the crystalline silica (cristobalite/quartz) content generated by the calcination process of this product, as described in section 3. Silicosis risk is directly related to cumulative respirable dust exposure – strict adherence to Section 7 and 8 controls is essential.

Advice related to training

Workers handling this product must receive specific training on the health hazards of respirable crystalline silica, safe handling practices, correct use of respiratory protective equipment, and the importance of engineering controls (local exhaust ventilation), in addition to general SDS/label comprehension training.

Principal bibliographical sources

The United Nations Economic Commission for Europe (UNECE); IARC Monographs on the Evaluation of Carcinogenic Risks to Humans (Crystalline Silica); publicly available GHS classification and occupational exposure reference data for calcined diatomaceous earth (CAS 68855-54-9) and crystalline silica.

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 | IARC: International Agency for Research on Cancer | LD50: Lethal Dose 50 | LEV: Local Exhaust Ventilation | NIOSH: National Institute for Occupational Safety and Health | OEL: Occupational Exposure Limit | TWA: Time-Weighted Average

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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