



Section 1. Identification

Product identifier

Product Identity	Barium Sulfate
Other means of identification	BARITE

Relevant identified uses of the substance or mixture and uses advised against

Drilling Fluid Additive

Details of the supplier of the safety data sheet

Company Name	Silver Fern Chemical, Inc. 2226 Queen Anne Avenue North Seattle, WA 98109 USA Customer Service: 1-866-282-3384 / info@silverfernchemical.com Website - www.silverfernchemical.com
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Emergency	
24 hour Emergency Telephone No.	Emergency telephone number Infotrac: 1-800-535-5053; Outside USA & Canada +1-352-323-3500

Section 2. Hazard(s) identification

Classification of the substance or mixture under OSHA's Hazard Communication Standard (1910.1200) revised 2024 (GHS revision 7)

The substance is not classified according to the OSHA Hazcom or WHMIS regulations.

Label elements

The substance is not classified according to the OSHA Hazcom or WHMIS regulations.



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[Prevention]

No GHS prevention statements

[Response]

No GHS response statements

[Storage]

No GHS storage statements

[Disposal]

No GHS disposal statements

Other hazards

This product contains no PBT/vPvB chemicals.

This product contains no endocrine disrupting chemicals.

Section 3. Composition/information on ingredients

This product contains the following substances that present a hazard within the meaning of the OSHA's Hazard Communication Standard (1910.1200) revised 2024 (GHS revision 7).

Ingredient/Chemical Designations	Weight %	GHS Classification	Notes
Barium sulfate CAS Number: 7727-43-7 Synonyms: Sulfuric acid, barium salt (1:1), C.I. Pigment White 21	70-100%	Not Classified	No data available
Kaolin CAS Number: 1332-58-7 Synonyms: Kaolin	3 – 7%	Not Classified	No data available
Crystalline Silica - Quartz (non respirable) CAS Number: 14808-60-7 Synonyms: Quartz, Thạch anh	1-5%	Not Classified	No data available

The actual concentration or concentration range is withheld as a trade secret.

*PBT/vPvB - PBT-substance or vPvB-substance.

The full texts of the phrases are shown in Section 16.



Section 4. First aid measures

Description of first aid measures

- General** In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person.
- Inhalation** Remove to fresh air, keep patient warm and at rest. If breathing is irregular or stopped, give artificial respiration. If unconscious, place in the recovery position and obtain immediate medical attention. Give nothing by mouth.
- Eyes** Rinse with plenty of clean water for at least 15 minutes, holding the eyelids apart and seek medical attention.
- Skin** Remove contaminated clothing. Wash skin thoroughly with soap and water or use a recognized skin cleanser.
- Ingestion** If swallowed obtain immediate medical attention. Keep at rest. Do NOT induce vomiting.

Most important symptoms and effects, both acute and delayed

- Overview** No specific symptom data available.
Treat symptomatically. See section 2 for further details.

Section 5. Fire-fighting measures

Extinguishing media

Recommended extinguishing media; alcohol resistant foam, CO₂, powder, water spray.
Unsuitable extinguishing media: Do not use; water jet.

Special hazards arising from the substance or mixture

Hazardous decomposition: No hazardous decomposition data available.

Advice for fire-fighters

As with all fires, wear positive pressure, self-contained breathing apparatus, (SCBA) with a full face piece and protective clothing. Persons without respiratory protection should leave area. Wear SCBA during clean-up immediately after fire. No smoking.



ERG Guide No. -----

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Put on appropriate personal protective equipment (see section 8).
Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

Environmental precautions

Do not allow spills to enter drains or waterways.

Methods and material for containment and cleaning up

Ventilate the area and avoid breathing vapors. Take the personal protective measures listed in section 8.

Contain and absorb spillage with non-combustible materials e.g. sand, earth, and vermiculite. Place in closed containers outside buildings and dispose of according to the Waste Regulations.

Section 7. Handling and storage

Precautions for safe handling

Handle containers carefully to prevent damage and spillage.
See section 2 for further details. - [Prevention]

Conditions for safe storage, including any incompatibilities

Incompatible materials: No available information
See section 2 for further details. - [Storage]

Specific end use(s)

No available information

Section 8. Exposure controls / personal protection



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Control parameters

Exposure

CAS No.	Ingredient	Source	Value
1332-58-7	Kaolin	OSHA	15 mg/m ³ (total dust), 5 mg/m ³ (respirable fraction)
		ACGIH	2 mg/m ³ (E, R) asbestos and crystalline siliica < 1%, Respirable
		NIOSH	TWA 10 mg/m ³ (total) TWA 5 mg/m ³ (resp)
7727-43-7	Barium sulfate	OSHA	0.5 mg/m ³ (Barium, soluble compounds (as Ba))
		ACGIH	5 mg/m ³ (I, E) Inhalable, asbestos and crystalline siliica < 1%
		NIOSH	TWA 10 mg/m ³ (total) TWA 5 mg/m ³ (resp)
14808-60-7	Crystalline Silica - Quartz (non respirable)	OSHA	250"
		ACGIH	0.025 mg/m ³ (R) Respirable fraction
		NIOSH	0.05 mg/m ³ TWA (respirable)

Exposure controls

Respiratory If workers are exposed to concentrations above the exposure limit they must use the appropriate, certified respirators.

Eyes Protective safety glasses recommended

Skin Avoid skin contact. Protective gloves recommended.

Engineering Controls Provide adequate ventilation. Where reasonably practicable this should be achieved by using local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and any vapor below occupational exposure limits suitable respiratory protection must be worn.

Other Work Practices Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

See section 2 for further details.

Section 9. Physical and chemical properties
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Information on basic physical and chemical properties

Physical State	Powder
Color	Beige-Grey
Odor	Odorless
Melting point / freezing point	2838 °F (1559 °C)
Initial boiling point and boiling range	No available information
Flammability (solid, gas)	No available information
Upper/lower flammability or explosive limits	Lower Explosive Limit: No available information Upper Explosive Limit: No available information
Flash Point	Not available
Auto-ignition temperature	No available information
Decomposition temperature	No available information
pH	7.0 - 9.5
Viscosity (cSt)	No available information
Solubility in Water	Practically insoluble in water.
Partition coefficient n-octanol/water (Log Kow)	No available information
Vapor pressure (Pa)	No available information
Relative Density	4.1 - 4.2
Vapor Density	No available information
Evaporation rate (Ether = 1)	No available information
Oxidising properties	No available information
Explosive properties	No available information
Bulk Density	107 - 135 lb/ft ³ (1714 - 2162 kg/m ³)

Other information

No other relevant information.

Section 10. Stability and reactivity

Reactivity

Hazardous Polymerization will not occur.

Chemical stability

Stable under normal circumstances.

Possibility of hazardous reactions



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No available information

Conditions to avoid

Avoid high temperatures and contact with incompatible material. Water, moisture or humidity.

Incompatible materials

Aluminum in high temperatures can cause explosions. Barium sulfate is also reported to be incompatible with phosphorus and potassium.

Hazardous decomposition products

In case of fire may be liberated: Sulphur oxides (SOx).

Section 11. Toxicological information

Acute toxicity

Note: When no route specific LD50 data is available for an acute toxin, the converted acute toxicity point estimate was used in the calculation of the product's ATE (Acute Toxicity Estimate).

Ingredient	Oral LD50, mg/kg	Skin LD50, mg/kg	Inhalation Vapor LC50, mg/L/4hr	Inhalation Dust/Mist LC50, mg/L/4hr	Inhalation Gas LC50, ppm
Barium sulfate - (7727-43-7)	3,000.00, Mouse - Category: 5	No data available.	No data available.	No data available.	No data available.
Kaolin - (1332-58-7)	No data available.	No data available.	No data available.	No data available.	No data available.
Crystalline Silica - Quartz (non respirable) - (14808-60-7)	No data available.	100,000.00 - Category: NA	No data available.	No data available.	No data available.

Carcinogen Data

CAS No.	Ingredient	Source	Value
	Kaolin	OSHA	Regulated Carcinogen: No;



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CAS No.	Ingredient	Source	Value
1332-58-7		NTP	Known: No; Suspected: No;
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No;
		ACGIH	A4
7727-43-7	Barium sulfate	OSHA	Regulated Carcinogen: No;
		NTP	Known: No; Suspected: No;
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No;
		ACGIH	No Established Limit
14808-60-7	Crystalline Silica - Quartz (non respirable)	OSHA	Regulated Carcinogen: No;
		NTP	Known: Yes; Suspected: No;
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No;
		ACGIH	A2

Classification	Category	Hazard Description
Acute toxicity (oral)	---	Not Applicable
Acute toxicity (dermal)	---	Not Applicable
Acute toxicity (inhalation)	---	Not Applicable
Skin corrosion/irritation	---	Not Applicable
Serious eye damage/irritation	---	Not Applicable
Respiratory sensitization	---	Not Applicable
Skin sensitization	---	Not Applicable
Germ cell mutagenicity	---	Not Applicable
Carcinogenicity	---	Not Applicable
Reproductive toxicity	---	Not Applicable
STOT-single exposure	---	Not Applicable
STOT-repeated exposure	---	Not Applicable
Aspiration hazard	---	Not Applicable

Possible routes of entry:

Symptoms and effects, both acute and delayed:

No specific symptom data available.
Treat symptomatically.

Section 12. Ecological information



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Toxicity

No additional information provided for this product. See Section 3 for chemical specific data.

Aquatic Ecotoxicity

Ingredient	96 hr LC50 fish, mg/L	48 hr EC50 crustacea, mg/L	ErC50 algae, mg/L
Barium sulfate - (7727-43-7)	59,000.00, Poecilia sphenops	32.00, Daphnia magna	No data available.
Kaolin - (1332-58-7)	No data available.	No data available.	No data available.
Crystalline Silica - Quartz (non respirable) - (14808-60-7)	No data available.	No data available.	No data available.

Persistence and degradability

There is no data available on the preparation itself.

Bioaccumulative potential

No available information

Mobility in soil

No available information

Results of PBT and vPvB assessment

This product contains no PBT/vPvB chemicals.

Other adverse effects

No available information

Section 13. Disposal considerations

Waste treatment methods

Observe all federal, provincial and local regulations when disposing of this substance.

Section 14. Transport information



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	DOT (Domestic Surface Transportation)	IMO / IMDG (Ocean Transportation)	ICAO/IATA
UN number	Not Regulated	Not Regulated	Not Regulated
UN proper shipping name	Not Regulated	Not Regulated	Not Regulated
Transport hazard class(es)	DOT Hazard Class: Not Applicable Sub Class: Not Applicable	IMDG: Not Applicable Sub Class: Not Applicable	Air Class: Not Applicable Sub Class: Not Applicable
Packing group	Not Applicable	Not Applicable	Not Applicable

Environmental hazards

Marine Pollutant: No;

Special precautions for user

No available information

Section 15. Regulatory information

Regulatory Overview The regulatory data in Section 15 is not intended to be all-inclusive, only selected regulations are represented.

Classification of the substance or mixture under OSHA's Hazard Communication Standard (1910.1200) revised 2024 (GHS revision 7)

Toxic Substance Control Act (TSCA)

CAS Number	Ingredient	Toxic Substance Control Act (TSCA)	Comments	Status
0007727-43-7	Barium sulfate	Yes		ACTIVE
0014808-60-7	Crystalline Silica - Quartz (non respirable)	Yes		ACTIVE
0001332-58-7	Kaolin	Yes	UVCB	ACTIVE



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The following flags are used:

- Active - indicates commercial status designation of active
- E - indicates a substance that is the subject of a Section 5(e) Consent Order under TSCA.
- F - indicates a substance that is the subject of a Section 5(f) Rule under TSCA.
- N - indicates a polymeric substance containing no free-radical initiator in its Inventory name but is considered to cover the designated polymer made with any free-radical initiator regardless of the amount used.
- P - indicates a commenced Premanufacture Notice (PMN) substance.
- R - indicates a substance that is the subject of a Section 6 risk management rule under TSCA.
- S - indicates a substance that is identified in a final Significant New Uses Rule.
- SP - indicates a substance that is identified in a proposed Significant New Uses Rule.
- T - indicates a substance that is the subject of a final Section 4 test rule under TSCA.
- UVCB Chemical Substances of Unknown or Variable Composition, Complex Reaction Products and Biological Materials
- XU - indicates a substance exempt from reporting under the Chemical Data Reporting Rule, (40 CFR 711).
- Y1 - indicates a polymer that has a number-average molecular weight greater than 1,000 and that was exempt under the 1984 polymer exemption rule.
- Y2 - indicates a polymer that is a polyester and that was exempt under the 1984 polymer exemption rule.

Proposition 65 - Carcinogens (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Developmental Toxins (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Female Repro Toxins (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Male Repro Toxins (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 Label Warning:



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This product contains no chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

Mass RTK Substances (>1%) :

Barium sulfate

Crystalline Silica - Quartz (non respirable)

Kaolin

New Jersey RTK Substances (>1%):

Barium sulfate

Crystalline Silica - Quartz (non respirable)

Kaolin

Pennsylvania RTK Substances (>1%):

Barium sulfate

Crystalline Silica - Quartz (non respirable)

Kaolin

OSHA Process Safety Management Standard Highly Hazardous Chemicals, Toxics and Reactives:

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

US EPA List of Regulated Substances under the Risk Management Plan (RMP) Program:

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

US EPA Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) under the Minimum Risk Exemption:

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.



U.S. - DEA List II or Essential Chemicals:

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

U.S. - DEA - Exempt Chemical Mixtures - List 1 and 2:

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

US DHS Chemical Facility Anti-Terrorism Standards (CFATS):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Section 16. Other information

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DISCLAIMER OF RESPONSIBILITY

The information on this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. Some information presented and conclusions drawn herein are from sources other than direct test data on the substance itself. The conditions or methods of handling, storage, use and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume damage or expense arising out of or in any way responsibility and expressly disclaim liability for loss, connected with handling, storage, use, or disposal of this product. If the product is used as a component in another product, this SDS information may not be applicable.

The full text of the phrases appearing in section 3 is:

Not Applicable

End of Document