SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

Product identifiers

Product Name	FerroSorp SLH
Synonym	Iron hydroxide oxide

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

Recommended Use	Relevant uses: Binding of hydrogen sulfide from gases. Uses advised against: None known.

Details of the supplier of the safety data sheet

Producer	Interra Global, 164 S Prospect Ave, Park Ridge, IL 60068, USA
Telephone	+1 (847)292-8600
Emergency telephone	+1 (847)292-8600

2. HAZARD(S) IDENTIFICATION

Classification of the substance or mixture [REGULATION (GB) CLP]: No classification.

Label elements: The product is required to be labelled in accordance with regulation CLP.
Hazard pictograms: none
Signal word: none
Hazard statements: none
Precautionary statements: none

Other hazards
Human health dangers: Contains no ingredients with endocrine disrupting properties.
Environmental hazards: Does not contain any PBT or vPvB substances.
Other hazards: none

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substances: not applicable
Product-type: The product is a mixture.
Comment on component parts
No dangerous components.
Substances of Very High Concern - SVHC: substances are not contained
or are below 0.1%. Substance(s) exempted from the registration requirement (Title II) according to the REACH-Regulation 1907/2006/EC (e) (Art. 2 paragraph 7 sub-section d, or Art. 2 paragraph 7 sub-section b, as they accord with Appendix V Point 7 or Point 8).

4. FIRST AID MEASURES

Description of first aid measures

General information: Change powdered clothing.

Inhalation: Ensure supply of fresh air. Seek medical attention for any breathing difficulty.

Skin contact: Clean skin with plenty of soap and water. Seek medical attention if irritation develops.

Eye contact: Rinse cautiously with water for several minutes. Remove contact lenses, if present and continue rinsing. If eye irritation persists, seek medical advice/attention.

Ingestion: Seek medical advice immediately. Rinse out mouth and give plenty of water to drink.

Most important symptoms and effects, both acute and delayed: None known.

Indication of any immediate medical attention and special treatment needed: Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media: Product itself is non-combustible. Fire extinguishing method of surrounding areas must be considered.

Extinguishing media that must not be used: none

Special hazards arising from the substance or mixture: none

Advice for firefighters:

Use self-contained breathing apparatus.

Fire residue and contaminated firefighting water must be disposed of in accordance with the local regulations.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment, and emergency procedures: No special measures necessary.

Environmental precautions: Do not discharge into the drains/surface waters/groundwater.

Methods and material for containment and cleaning up:
Take up mechanically.
Avoid dust creation.
Dispose of absorbed material in accordance with the regulations.

Reference to other sections: See Sections 8 & 13

7. HANDLING AND STORAGE

Precautions for safe handling

Avoid the formation and deposition of dust. Provide vacuuming if dust is raised.

The product is not combustible.

Wash hands before breaks and after work.

Use barrier skin cream.

Do not eat, drink, smoke, or take drugs at work.

Conditions for safe storage, including any incompatibilities:

Prevent penetration into the ground.

Do not store together with food and animal food/diet.

Store in a dry place.

Specific end use(s): See product use, Section 1.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters:
Ingredients with occupational exposure limits to be monitored (GB): not applicable

Substance:

Silicon dioxide
CAS: 7631-86-9, EINECS/ELINCS: 231-545-4
Long-term exposure: 6 mg/m³, total inhalable dust

Calcium carbonate
CAS: 471-34-1, EINECS/ELINCS: 207-439-9
Long-term exposure: 10 mg/m³, inhalable dust

Exposure controls

Additional advice on system design: Ensure adequate ventilation at workstation.

Pay attention to dust limit value (ACGIH-2011: 10 mg/m³ particle inhalable; 3 mg/m³ particle respirable).

Measurement methods for taking workplace measurements must meet the performance requirements of DIN EN 482. For example, recommendations are given in the IFA's list of hazardous substances.

Eye protection: Safety glasses (EN 166:2001).

Hand protection: 0.4 mm butyl rubber, > 120 min (EN 374). The details concerned are recommendations. Please contact the glove supplier for further information.

Skin protection: Protective clothing (EN 340).

Other:

Avoid contact with eyes and skin.

Do not inhale dust.

Personal protective equipment should be selected specifically for the workplace, depending on concentration and quantity handled. The resistance of this equipment to chemicals should be ascertained with the respective supplier.

Respiratory protection: In the event of occupational exposure limits being exceeded or of inadequate ventilation: wear appropriate respiratory protection.

Short term: filter apparatus, filter P2 (DIN EN 143).

Thermal hazards: none.

Delimitation and monitoring of the environmental exposition: Protect the environment by applying appropriate control measures to prevent or limit emissions.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state: granules

Color: red-brown

Odor: odorless

Odor threshold: not applicable

pH-value: not applicable

pH-value [1%]: 7-8

Boiling point [°C]: not applicable

Flash point [°C]: not applicable

Flammability (solid, gas) [°C]: not applicable

Lower explosion limit: not applicable

Upper explosion limit: not applicable

Oxidizing properties: no

Vapor pressure/gas pressure [kPa]: not applicable

Density [g/cm³]: not determined

Relative density: not determined

Bulk density [kg/m³]: 550 – 700 (90% TS)

Solubility in water: virtually insoluble

Solubility in other solvents: not applicable

Partition coefficient [n-octanol/water]: not applicable

Kinematic viscosity: not applicable

Relative vapor density: not applicable

Evaporation speed: not applicable

Melting point [°C]: not determined

Autoignition temperature [°C]: not self-igniting

Decomposition temperature [°C]: >180

Particle characteristics: not applicable

10. STABILITY AND REACTIVITY

Reactivity: No dangerous reactions known, if used as directed.

Chemical stability: The product is stable under standard conditions.

Possibility of hazardous reactions: No hazardous reactions known.

Conditions to avoid: See Section 7

Incompatible materials: not applicable

Hazardous decomposition products: No hazardous decomposition products known.

11. TOXICOLOGICAL INFORMATION

Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute oral toxicity: Based on available data, the classification criteria are not met.

ATE-mix, oral, > 2000 mg/kg

Acute dermal toxicity: Based on available date, the classification are not met.

ATE-mix, dermal, > 2000 mg/kg

Acute inhalation toxicity: Based on available date, the classification are not met.

ATE-mix, inhalative (dust), > 5 mg/l 4h

Serious eye damage/irritation: Does not contain a relevant substance that meets the classification criteria. Based on the available information, the classification criteria are not fulfilled. Toxicological data of complete product are not available.

Skin corrosion/irritation: Does not contain a relevant substance that meets the classification criteria. Based on the available information, the classification criteria are not fulfilled. Toxicological data of complete product are not available.

Respiratory or skin sensitization: Does not contain a relevant substance that
meets the classification criteria. Based on the available information, the classification criteria are not fulfilled. Toxicological data of complete product are not available.

Specific target organ toxicity — single exposure: Does not contain a relevant
substance that meets the classification criteria. Based on the available information, the classification criteria are not fulfilled. Toxicological data of complete product are not available.

Specific target organ toxicity — repeated exposure: Does not contain a relevant substance that meets the classification criteria. Based on the available information, the classification criteria are not fulfilled. Toxicological data of complete product are not available.

Mutagenicity: Does not contain a relevant substance that meets the classification criteria. Based on the available information, the classification criteria are not fulfilled. Toxicological data of complete product are not available.

Reproduction toxicity: Does not contain a relevant substance that meets the classification criteria. Based on the available information, the classification criteria are not fulfilled. Toxicological data of complete product are not available.

Carcinogenicity: Does not contain a relevant substance that meets the classification criteria. Based on the available information, the classification criteria are not fulfilled. Toxicological data of complete product are not available.

Aspiration hazard: Does not contain a relevant substance that meets the classification criteria.

General remarks: none

Endocrine disrupting properties: Contains no ingredients with endocrine disrupting properties.

12. ECOLOGICAL INFORMATION

Toxicity

Persistence and degradability

Behavior in environment compartments: not applicable.

Behavior in sewage plant: Iron hydroxide oxide to adsorb nutrient, specially phosphate. (See section 12.2 KC)

Biological degradability: not applicable

Bioaccumulative potential: not applicable

Mobility in soil: not applicable

Results of PBT and vPvB assessment: Based on all available information not to be classified as PBT or vPvB respectively.

Endocrine disrupting properties: Contains no ingredients with endocrine disrupting properties.

Other adverse effects: none known

13. DISPOSAL CONSIDERATIONS

Waste treatment methods: Waste material must be disposed of in accordance with the Directive on waste 2008/98/EC as well as other national and local regulations. It is not possible to determine a waste code for this product in accordance with the European Waste Catalogue (EWC) since it is only possible to classify it according to how it is used by the customer. The waste code is to be determined within the EU in liaison with the waste-disposal operator.

Product: For recycling, consult manufacturer. Products are in plastic sacks; flexible intermediate bulk containers are always made of plastic.

Waste no. (recommended): 060316

Contaminated packaging: Uncontaminated packaging may be taken for recycling.

Waste no. (recommended): 150102

14. TRANSPORT INFORMATION

UN number or ID number

Transport by land according to ADR/RID: not applicable

Inland navigation (ADN): not applicable

Marine transport in accordance with IMDG: not applicable

Air transport in accordance with IATA: not applicable

UN proper shipping name

Transport by land according to ADR/RID: NO DANGEROUS GOODS

Inland navigation (ADN): NO DANGEROUS GOODS

Marine transport in accordance with IMDG: NOT CLASSIFIED AS “DANGEROUS GOODS”

Air transport in accordance with IATA: NOT CLASSIFIED AS “DANGEROUS GOODS”

Transport hazard class(es)

Transport by land according to ADR/RID: not applicable

Inland navigation (ADN): not applicable

Marine transport in accordance with IMDG: not applicable

Air transport in accordance with IATA: not applicable

Packing group

Transport by land according to ADR/RID: not applicable

Inland navigation (ADN): not applicable

Marine transport in accordance with IMDG: not applicable

Air transport in accordance with IATA: not applicable

Environmental hazards

Transport by land according to ADR/RID: no

Inland navigation (ADN): no

Marine transport in accordance with IMDG: no

Air transport in accordance with IATA: no

Special precautions for user: Relevant information under Section 6 to 8

Maritime transport in bulk according to IMO instruments: not applicable

15. REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture

EEC-REGULATIONS: 2008/98/EC 2000/532/EC; 2010/75/EU; 2004/42/EC; (EC) 648/2004; (EC) 1907/2006 (REACH); (EU) 1272/2008; 75/324/EEC ((EC) 2016/2037); (EU) 2020/878; (EU) 2016/131; (EU) 517/2014

TRANSPORT-REGULATIONS: ADR (2021); IMDG-Code (2021, 40. Amdt.); IATA-DGR (2022)

NATIONAL REGULATIONS (GB): EH40/2005 Workplace exposure limits (Second edition, published December 2011); UK REACH; GB CLP.

Observe employment restrictions for people: none

VOC (2010/75/CE): 0%

Chemical safety assessment: not applicable

16. OTHER INFORMATION

Abbreviations and acronyms:

ADR = European Agreement relating to the international transport of dangerous goods by road

RID = Regulations concerning the international carriage of dangerous goods by rail

ADN = European agreement on the international transport of dangerous goods by inland waterway

ATE = acute toxicity estimate

CAS = Chemical Abstracts Service

CLP = Classification, Labelling and Packaging

DMEL = Derived Minimum Effect Level

DNEL = Derived No Effect Level

EC50 = Median effective concentration

ECB = European Chemicals Bureau

EEC = European Economic Community

EINECS = European Inventory of Existing Commercial Chemical Substances

EL50 = Median effective loading

ELINCS = European List of Notified Chemical Substances

EmS = Emergency Schedules

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

IATA = International Air Transport Association

IBC-Code = International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk

IC50 = Inhibition concentration, 50%

IMDG = International Maritime Code for Dangerous Goods

IUCLID = International Uniform Chemical Information Database

IVIS = In vitro irritation score

LC50 = Lethal concentration, 50%

LD50 = Median lethal dose

LC0 = lethal concentration, 0%

LOAEL = lowest-observed-adverse-effect level

LL50 = Median lethal loading

LQ = Limited Quantities

MARPOL = International Convention for the Prevention of Marine Pollution from Ships

NOAEL = No Observed Adverse Effect Level

NOEC = No Observed Effect Concentration

PBT = Persistent, bioaccumulative and Toxic substance

PNEC = Predicted No-Effect Concentration

REACH = Registration, Evaluation, Authorization and Restriction of Chemicals

STP = Sewage Treatment Plant

TLV®/TWA = Threshold limit value – time-weighted average

TLV®STEL = Threshold limit value – short-time exposure limit

VOC = Volatile Organic Compounds

vPvB = very Persistent and very bioaccumulative

Preparation:
Preparation Date: August 18, 2020
Revision Number: 4
Revision Date: September 28, 2023
Revised By: KC
Approved By: CB

16.1. WARRANTY

The information contained herein is based upon data considered true and accurate. However, Interra Global makes no warranties, express or implied, as to the accuracy or adequacy of the information contained herein or the results to be obtained from the use thereof. This information is offered solely for the user's consideration, investigation, and verification. Since the use and conditions of this information and the material described herein are not within the control of Interra Global, it assumes no responsibility for injury to the user or third persons. The material described herein is sold only pursuant to Interra Global's Terms and Conditions of Sale, including those limiting warranties and remedies contained therein. It is the responsibility of the user to determine whether any use of this data and information is in accordance with applicable federal, state, or local laws and regulations.