

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

- Product Name / Identifier: FerroSorp® SK
- Synonym: Iron hydroxide oxide
- Relevant identified uses of the substance or mixture and uses advised against
 - Relevant uses: Binding of hydrogen sulfide from gases
 - Uses advised against: None known.
- Company: Interra Global, 800 Busse Highway, Suite 101, Park Ridge, IL 60068, USA
- Telephone: +1 (847)292-8600
- **Emergency Telephone Number: +1(847)292-8600**

2. HAZARD(S) IDENTIFICATION

- Classification of the substance or mixture [REGULATION (EC) No 1272/2008]:
No classification.
- Label elements:
 - Hazard pictograms: none
 - Hazard statements: none
- Other hazards
 - Human health dangers: Frequent persistent contact with the skin can cause skin irritation.
 - Environmental hazards: Does not contain any PBT or vPvB substances.
 - Other hazards: Further hazards were not determined with the current level of knowledge.

3. COMPOSITION / INFORMATION ON INGREDIENTS

- 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%. Article (according to REACH Art. 3 paragraph 3).
 - 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. Get medical attention for any breathing difficulty.
 - Skin contact: Clean skin with plenty of soap and water. Remove contaminated clothing and shoes. Thoroughly clean before reuse. Get medical attention if irritation develops.
 - Eye contact: Rinse cautiously with water for several minutes. Remove contact lenses, if possible and continue rinsing. If eye irritation persists, get medical advice/attention.
 - Ingestion: Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, get medical attention immediately. Loosen tight clothing such as a collar, tie, or belt.
- Most important symptoms and effects, both acute and delayed: None known.
- Indication of any immediate medical attention and special treatment needed: Treat symptomatically.

5. FIREFIGHTING 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: Full water jet.
- Special hazards arising from the substance or mixture: Risk of formation of toxic pyrolysis products.
- Advice for firefighters:
 - Use self-contained breathing apparatus.
 - Fire residue and contaminated firefighting water must be disposed of in accordance within the local regulations.

6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures:
 - Ensure adequate ventilation.
 - Avoid dust formation.
 - Use personal protective equipment.
- 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 within 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.
 - Take off contaminated clothing and wash before reuse.
- Conditions for safe storage, including any incompatibilities:
 - Keep only in original container.
 - Provide alkali-resistant floor.
 - Prevent penetration into the ground.
 - Do not store together with food and animal food/diet.
 - Keep container tightly closed.
 - Keep container in a well-ventilated place.
 - Store in a dry place.
 - Do not store outdoors.
- Specific end use(s): See product use, Section 1

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

- Ingredients with occupational exposure limits to be monitored (GB):
 - Substance:
 - Calcium sulfate
 - CAS: 7778-18-9, EINECS/ELINCS: 231-900-3
 - Long-term exposure: 10 mg/m³, inhalable dust
 - Calcium carbonate
 - CAS: 471-34-1, EINECS/ELINCS: 207-439-9
 - Long-term exposure: 10 mg/m³, inhalable dust
 - Silicon dioxide
 - CAS: 7631-86-9, EINECS/ELINCS: 231-545-4
 - Long-term exposure: 6 mg/m³, total inhalable dust
 - Exposure controls
 - Additional advice on system design:
 - Ensure adequate ventilation at workstation.
 - Pay attention to dust limit value (ACGHI-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.
 - Hand protection: 0,4mm butyl rubber, > 120 min (EN 374)
 - The details concerned are recommendations. Please contact the glove supplier for further information.
 - Skin protection: Protective clothing.
 - 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: Respiratory protection in the case of dust formation. Short term: filter apparatus, filter P1.
- 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

- Form: pellets
- Color: red brown
- Odor: odorless
- Odor threshold: not applicable
- pH-value: not applicable
- pH-value [1%]: 8 - 10
- Boiling point [°C]: not determined
- 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/ml]: not determined
- Bulk density [kg/m³]: 500 - 900
- Solubility in water: virtually insoluble
- Partition coefficient [n-octanol/water]: not applicable
- Viscosity: not applicable
- Relative vapor density determined in air: not applicable
- Evaporation speed: not applicable
- Melting point [°C]: not determined
- Autoignition temperature [°C]: not self-igniting

- Decomposition temperature [°C]: not determined

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: Reactions with acids.
- Conditions to avoid: See Section 7
- Incompatible materials: Acids.
- Hazardous decomposition products: No hazardous decomposition products known.

11. TOXICOLOGICAL INFORMATION

- Acute toxicity
- Product
 - ATE-mix, inhalative (dust), > 5 mg/l 4h.
 - ATE-mix, dermal, > 2000 mg/kg.
 - ATE-mix, oral, > 2000 mg/kg.
- 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.
- Mutagenicity: There is no evidence of any mutagenic effects. 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. Based on the available information, the classification criteria are not fulfilled.
- General remarks: none.

12. ECOLOGICAL INFORMATION

- Toxicity
- Persistence and degradability:
 - Behavior in environment compartments: not determined.
 - Behavior in sewage plant: not determined.
 - Biological degradability: not applicable.
- Bio accumulative potential: not applicable
- Mobility in soil: not applicable
- Results of PBT and vPvB assessment: not applicable
- Other adverse effects: None known.

13. DISPOSAL CONSIDERATIONS

- Waste treatment methods: Waste material code - 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: Coordinate disposal with the authorities if necessary. Products are in plastic sacks; flexible intermediate bulk containers are always made of plastic.
- Waste no. (recommended): 060603
- Contaminated packaging: Uncontaminated packaging may be taken for recycling.
- Waste no. (recommended): 150102

14. TRANSPORT INFORMATION

- UN 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
- Transport in bulk according to Annex II of MARPOL and the IBC Code: not applicable

15. REGULATORY INFORMATION

- Safety, health and environmental regulations/legislation specific for the substance or mixture
 - EEC-REGULATIONS: 1991/689 (2001/118); 2010/75; 2004/42; 648/2004; 1907/2006 (REACH); 1272/2008; 75/324/EEC (2016/2037/EC); (EU) 2015/830; (EU) 2016/131; (EU) 517/2014
 - TRANSPORT-REGULATIONS: ADR (2019); IMDG-Code (2019, 39. Amdt.); IATA-DGR (2019)
 - NATIONAL REGULATIONS (GB): EH40/2005 Workplace exposure limits (Second edition, published December 2011).
 - Observe employment restrictions for people: none
 - VOC (2010/75/CE): 0%
- Chemical safety assessment: not applicable

16. OTHER INFORMATION

- Abbreviations and acronyms:
 - ADR = Accord européen relatif au transport international des marchandises Dangereuses par Route
 - RID = Règlement concernant le transport international ferroviaire de marchandises dangereuses
 - ADN = Accord européen relatif au transport international des marchandises dangereuses par voie de navigation intérieure
 - 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 ELINCS = European List of Notified Chemical Substances
- 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
- LC50 = Lethal concentration, 50%
- LD50 = Median lethal dose
- LC0 = lethal concentration, 0%
- LOAEL = lowest-observed-adverse-effect level
- 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, Authorisation 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
- Customs Tariff: 38249097
- Preparation:
 - Revision Date: September 19, 2020
 - Revision Number: 1
 - Revised By: KT
 - Approved By: JS
- 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.