1. Identification

Product identifier Granusol Iron 50%

Other means of identification None.

Recommended use Not available.

Recommended restrictions Workers (and your customers or users in the case of resale) should be informed of the potential presence of respirable dust and respirable crystalline silica as well as their potential hazards. Appropriate training in the proper use and handling of this material should be provided as required under applicable regulations.

Manufacturer/Importer/Supplier/Distributor information

Manufacturer

Company name Prince Minerals LLC
Address 15311 Vantage Pkwy W
Suite 350
Houston, TX 77032
United States

Emergency phone number CHEMTREC (800) 424-9300

E-mail United States

Website www.princecorp.com

Telephone General Information (713) 955-5398

2. Hazard(s) identification

Physical hazards Not classified.

Health hazards Not classified.

Environmental hazards Not classified.

OSHA defined hazards Not classified.

Label elements

Hazard symbol None.

Signal word None.

Hazard statement The mixture does not meet the criteria for classification.

Precautionary statement

Prevention Observe good industrial hygiene practices.

Response Wash hands after handling.

Storage Store away from incompatible materials.

Disposal Dispose of waste and residues in accordance with local authority requirements.

Hazard(s) not otherwise classified (HNOC) None known.

Supplemental information None.

3. Composition/information on ingredients

Mixtures

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Common name and synonyms</th>
<th>CAS number</th>
<th>%</th>
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</thead>
<tbody>
<tr>
<td>Iron Sucrate- Complex Mixture of Iron and Sugar</td>
<td>N/A</td>
<td>65 - 80</td>
<td></td>
</tr>
<tr>
<td>CALCIUM SULFATE</td>
<td>CALCIUM SULPHATE, NATURAL GYPSUM</td>
<td>7778-18-9</td>
<td>3 - 5</td>
</tr>
<tr>
<td>Other components below reportable levels</td>
<td></td>
<td>20 - 30</td>
<td></td>
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</tbody>
</table>

Impurities

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>SILICA, CRYSTALLINE (QUARTZ)</td>
<td>14808-60-7</td>
<td>1 - 2</td>
</tr>
</tbody>
</table>
Composition comments: Occupational Exposure Limits for constituents are listed in Section 8. Occupational Exposure Limits for impurities are listed in Section 8.

4. First-aid measures

Inhalation: Move to fresh air. Call a physician if symptoms develop or persist.

Skin contact: Wash off with soap and water. Get medical attention if irritation develops and persists.

Eye contact: Do not rub eyes. Rinse with water. Get medical attention if irritation develops and persists.

Ingestion: Rinse mouth. Get medical attention if symptoms occur.

Most important symptoms/effects, acute and delayed: Dusts may irritate the respiratory tract, skin and eyes.

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

General information: Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire-fighting measures


Unsuitable extinguishing media: Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from the chemical: During fire, gases hazardous to health may be formed.

Special protective equipment and precautions for firefighters: Material can be slippery when wet.

Fire fighting equipment/instructions: Use water spray to cool unopened containers.

Specific methods: Use standard firefighting procedures and consider the hazards of other involved materials.

General fire hazards: No unusual fire or explosion hazards noted.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures: Keep unnecessary personnel away. Material can be slippery when wet. Wear appropriate protective equipment and clothing during clean-up. Use a NIOSH/MSHA approved respirator if there is a risk of exposure to dust/fume at levels exceeding the exposure limits. For personal protection, see section 8 of the SDS.

Methods and materials for containment and cleaning up: Stop the flow of material, if this is without risk. Collect dust using a vacuum cleaner equipped with HEPA filter.

Large Spills: Wet down with water and dike for later disposal. Shovel the material into waste container. Avoid the generation of dusts during clean-up. Following product recovery, flush area with water.

Small Spills: Sweep up or vacuum up spillage and collect in suitable container for disposal. For waste disposal, see section 13 of the SDS.

Environmental precautions: Collect and dispose of spillage as indicated in section 13 of the SDS. Do not flush into surface water or sanitary sewer system.

7. Handling and storage

Precautions for safe handling: Minimize dust generation and accumulation. Provide appropriate exhaust ventilation at places where dust is formed. Avoid prolonged exposure. Practice good housekeeping.

Conditions for safe storage, including any incompatibilities: Store in original tightly closed container. Store in a well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

<table>
<thead>
<tr>
<th>US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)</th>
<th>Value</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Components</td>
<td>Type</td>
<td>Value</td>
</tr>
<tr>
<td>CALCIUM SULFATE (CAS 7778-18-9)</td>
<td>PEL</td>
<td>5 mg/m3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>15 mg/m3</td>
</tr>
</tbody>
</table>

Material name: Granusol Iron 50%
US. OSHA Table Z-3 (29 CFR 1910.1000)

<table>
<thead>
<tr>
<th>Impurities</th>
<th>Type</th>
<th>Value</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>SILICA, CRYSTALLINE (QUARTZ)</td>
<td>TWA</td>
<td>0.3 mg/m3</td>
<td>Total dust.</td>
</tr>
<tr>
<td>(CAS 14808-60-7)</td>
<td></td>
<td>0.1 mg/m3</td>
<td>Respirable.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2.4 mppcf</td>
<td>Respirable.</td>
</tr>
</tbody>
</table>

US. ACGIH Threshold Limit Values

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>CALCULIUM SULFATE (CAS 7778-18-9)</td>
<td>TWA</td>
<td>10 mg/m3</td>
<td>Inhalable fraction.</td>
</tr>
<tr>
<td>Impurities</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SILICA, CRYSTALLINE (QUARTZ)</td>
<td>TWA</td>
<td>0.025 mg/m3</td>
<td>Respirable fraction.</td>
</tr>
<tr>
<td>(CAS 14808-60-7)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

US. NIOSH: Pocket Guide to Chemical Hazards

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>CALCULIUM SULFATE (CAS 7778-18-9)</td>
<td>TWA</td>
<td>5 mg/m3</td>
<td>Respirable.</td>
</tr>
<tr>
<td>Impurities</td>
<td></td>
<td>10 mg/m3</td>
<td>Total</td>
</tr>
<tr>
<td>SILICA, CRYSTALLINE (QUARTZ)</td>
<td>TWA</td>
<td>0.05 mg/m3</td>
<td>Respirable dust.</td>
</tr>
<tr>
<td>(CAS 14808-60-7)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Biological limit values

No biological exposure limits noted for the ingredient(s).

Appropriate engineering controls

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. If engineering measures are not sufficient to maintain concentrations of dust particulates below the Occupational Exposure Limit (OEL), suitable respiratory protection must be worn. If material is ground, cut, or used in any operation which may generate dusts, use appropriate local exhaust ventilation to keep exposures below the recommended exposure limits.

Individual protection measures, such as personal protective equipment

Eye/face protection
Wear safety glasses with side shields (or goggles).

Skin protection
Hand protection
For prolonged or repeated skin contact use suitable protective gloves.

Other
Wear suitable protective clothing.

Respiratory protection
Use a NIOSH/MSHA approved respirator if there is a risk of exposure to dust/fume at levels exceeding the exposure limits.

Thermal hazards
Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations
Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance
Granular. Dry flowable granules.

Physical state
Solid.

Form
Powder.

Color
Black.

Odor
None.

Odor threshold
Not available.

pH
Not available.

Melting point/freezing point
> 3002 °F (> 1650 °C)
Initial boiling point and boiling range  Not available.
Flash point  Not available.
Evaporation rate  Not available.
Flammability (solid, gas)  Not available.
Upper/lower flammability or explosive limits
  Flammability limit - lower (%)  Not available.
  Flammability limit - upper (%)  Not available.
  Explosive limit - lower (%)  Not available.
  Explosive limit - upper (%)  Not available.
Vapor pressure  0.00004 hPa estimated
Vapor density  Not available.
Relative density  Not available.
Solubility(ies)
  Solubility (water)  Not available.
Partition coefficient (n-octanol/water)  Not available.
Auto-ignition temperature  Not available.
Decomposition temperature  Not available.
Viscosity  Not available.
Other information
  Density  98.00 lb/ft³ estimated
  Specific gravity  2.96 estimated

10. Stability and reactivity
Reactivity  The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability  Material is stable under normal conditions.
Possibility of hazardous reactions  No dangerous reaction known under conditions of normal use.
Conditions to avoid  Contact with incompatible materials.
Incompatible materials  Strong oxidizing agents.
Hazardous decomposition products  No hazardous decomposition products are known.

11. Toxicological information
Information on likely routes of exposure
  Inhalation  Dust may irritate respiratory system. Prolonged inhalation may be harmful.
  Skin contact  Dust or powder may irritate the skin.
  Eye contact  Dust may irritate the eyes.
  Ingestion  Expected to be a low ingestion hazard.
Symptoms related to the physical, chemical and toxicological characteristics
  Dusts may irritate the respiratory tract, skin and eyes.

Information on toxicological effects
Acute toxicity  Not available.
Skin corrosion/irritation  Prolonged skin contact may cause temporary irritation.
Serious eye damage/eye irritation  Direct contact with eyes may cause temporary irritation.
Respiratory or skin sensitization
  Respiratory sensitization  Not a respiratory sensitizer.
  Skin sensitization  This product is not expected to cause skin sensitization.
Germ cell mutagenicity
No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity
In June 2003, SCOEL (the EU Scientific Committee on Occupational Exposure Limits) concluded that the main effect in humans of the inhalation of respirable crystalline silica dust is silicosis. "There is sufficient information to conclude that the relative risk of lung cancer is increased in persons with silicosis (and, apparently, not in employees without silicosis exposed to silica dust in quarries and in the ceramic industry). Therefore, preventing the onset of silicosis will also reduce the cancer risk..." (SCOEL SUM Doc 94-final, June 2003) According to the current state of the art, worker protection against silicosis can be consistently assured by respecting the existing regulatory occupational exposure limits. Occupational exposure to respirable dust and respirable crystalline silica should be monitored and controlled.

IARC Monographs. Overall Evaluation of Carcinogenicity
SILICA, CRYSTALLINE (QUARTZ) (CAS 14808-60-7) 1 Carcinogenic to humans.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)
Not listed.

US. National Toxicology Program (NTP) Report on Carcinogens
SILICA, CRYSTALLINE (QUARTZ) (CAS 14808-60-7) Known To Be Human Carcinogen.

Reproductive toxicity
This product is not expected to cause reproductive or developmental effects.

Specific target organ toxicity - single exposure
Not classified.

Specific target organ toxicity - repeated exposure
Not classified.

Aspiration hazard
Not an aspiration hazard.

Chronic effects
Prolonged inhalation may be harmful.

12. Ecological information
Ecotoxicity
The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Persistence and degradability
No data is available on the degradability of this product.

Bioaccumulative potential
No data available.

Mobility in soil
No data available.

Other adverse effects
No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations
Disposal instructions
Collect and reclaim or dispose in sealed containers at licensed waste disposal site.

Local disposal regulations
Dispose in accordance with all applicable regulations.

Hazardous waste code
Not regulated.

Waste from residues / unused products
Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging
Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information
DOT
Not regulated as dangerous goods.

IATA
Not regulated as dangerous goods.

IMDG
Not regulated as dangerous goods.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Not applicable.
15. Regulatory information

US federal regulations

One or more components are not listed on TSCA.

This product is not known to be a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories
Immediate Hazard - No
Delayed Hazard - No
Fire Hazard - No
Pressure Hazard - No
Reactivity Hazard - No

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical

No

SARA 313 (TRI reporting)

Not regulated.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA)

Not regulated.

US state regulations

US. California Controlled Substances. CA Department of Justice (California Health and Safety Code Section 11100)

Not listed.

US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))

SILICA, CRYSTALLINE (QUARTZ) (CAS 14808-60-7)

US. Massachusetts RTK - Substance List

CALCIUM SULFATE (CAS 7778-18-9)
SILICA, CRYSTALLINE (QUARTZ) (CAS 14808-60-7)

US. New Jersey Worker and Community Right-to-Know Act

CALCIUM SULFATE (CAS 7778-18-9)
SILICA, CRYSTALLINE (QUARTZ) (CAS 14808-60-7)

US. Pennsylvania Worker and Community Right-to-Know Law

CALCIUM SULFATE (CAS 7778-18-9)
SILICA, CRYSTALLINE (QUARTZ) (CAS 14808-60-7)

US. Rhode Island RTK

Not regulated.

US. California Proposition 65

WARNING: This product contains a chemical known to the State of California to cause cancer.

US - California Proposition 65 - CRT: Listed date/Carcinogenic substance

SILICA, CRYSTALLINE (QUARTZ) (CAS 14808-60-7) Listed: October 1, 1988

International Inventories

<table>
<thead>
<tr>
<th>Country(s) or region</th>
<th>Inventory name</th>
<th>On inventory (yes/no)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>Australian Inventory of Chemical Substances (AICS)</td>
<td>No</td>
</tr>
<tr>
<td>Country(s) or region</td>
<td>Inventory name</td>
<td>On inventory (yes/no)*</td>
</tr>
<tr>
<td>----------------------------</td>
<td>--------------------------------------------------------------------------------</td>
<td>------------------------</td>
</tr>
<tr>
<td>Canada</td>
<td>Domestic Substances List (DSL)</td>
<td>No</td>
</tr>
<tr>
<td>Canada</td>
<td>Non-Domestic Substances List (NDSL)</td>
<td>No</td>
</tr>
<tr>
<td>China</td>
<td>Inventory of Existing Chemical Substances in China (IECSC)</td>
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<tr>
<td>Europe</td>
<td>European Inventory of Existing Commercial Chemical Substances (EINECS)</td>
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<tr>
<td>Europe</td>
<td>European List of Notified Chemical Substances (ELINCS)</td>
<td>No</td>
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<tr>
<td>Japan</td>
<td>Inventory of Existing and New Chemical Substances (ENCS)</td>
<td>No</td>
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<tr>
<td>Korea</td>
<td>Existing Chemicals List (ECL)</td>
<td>No</td>
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<tr>
<td>New Zealand</td>
<td>New Zealand Inventory</td>
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<tr>
<td>Philippines</td>
<td>Philippine Inventory of Chemicals and Chemical Substances (PICCS)</td>
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<tr>
<td>United States &amp; Puerto Rico</td>
<td>Toxic Substances Control Act (TSCA) Inventory</td>
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</tr>
</tbody>
</table>

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s).

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

<table>
<thead>
<tr>
<th>Issue date</th>
<th>12-18-2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revision date</td>
<td>04-30-2015</td>
</tr>
<tr>
<td>Version #</td>
<td>04</td>
</tr>
<tr>
<td>Disclaimer</td>
<td>The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.</td>
</tr>
<tr>
<td>Revision Information</td>
<td>Composition / Information on Ingredients: Disclosure Overrides</td>
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</table>