

Safety Data Sheet

acc. to OSHA HCS

Printing date 02/12/2018

Reviewed on 02/12/2018

1 Identification

- **Product identifier**

- **Trade name:** Ferro Tuff™ Natural

- **Article number:** 67550

- **Application of the substance / the mixture**

- **Details of the supplier of the safety data sheet**

- **Manufacturer/Supplier:**

Dayton® Superior
4226 Kansas Avenue
Kansas City, KS 66106

Tel.: (866) 329-8724

Emergency Telephone Number: Use only in the event of an emergency involving a spill, leak, fire, exposure, or accident involving chemicals. Within the U.S., Canada, or the U.S. Virgin Islands, call ChemTrec at (800) 424-9300, 24 hours a day. Or, outside these areas, call international number, +1 703 741-5970. Collect calls are accepted.

- **Information department:** Environmental, Health, and Safety department.

- **Emergency telephone number:**

Use only in the event of an emergency involving a spill, leak, fire, exposure, or accident involving chemicals. Within the U.S., Canada, or the U.S. Virgin Islands, call ChemTrec at (800) 424-9300, 24 hours a day. Or, outside these areas, call international number, +1 703 741-5970. Collect calls are accepted.

Australia in-country + (61)-290372994

2 Hazard(s) identification

- **Classification of the substance or mixture**

Skin Corr. 1C H314 Causes severe skin burns and eye damage.

Eye Dam. 1 H318 Causes serious eye damage.

Skin Sens. 1 H317 May cause an allergic skin reaction.

Carc. 1A H350 May cause cancer.

STOT SE 3 H335 May cause respiratory irritation.

- **Label elements**

- **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).

- **Hazard pictograms**



GHS05 GHS07 GHS08

- **Signal word** Danger

- **Hazard-determining components of labeling:**

Cement, portland, chemicals

titanium dioxide

Quartz (SiO₂)

- **Hazard statements**

Causes severe skin burns and eye damage.

May cause an allergic skin reaction.

May cause cancer.

May cause respiratory irritation.

- **Precautionary statements**

Do not breathe dusts or mists.

If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

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If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Immediately call a poison center/doctor.

Store locked up.

Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Classification system:**

· **NFPA ratings (scale 0 - 4)**



Health = 1

Fire = 0

Reactivity = 0

· **HMIS-ratings (scale 0 - 4)**

HEALTH	1	Health = *1
FIRE	0	Fire = 0
PHYSICAL HAZARD	0	Reactivity = 0

· **Other hazards**

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

3 Composition/information on ingredients

· **Chemical characterization: Mixtures**

· **Description:** Mixture of the substances listed below with nonhazardous additions.

· **Dangerous components:**

65997-15-1	Cement, portland, chemicals	≥10-≤50%
13463-67-7	titanium dioxide	≥10-≤15%
1309-37-1	diiron trioxide	≥10-≤15%
61790-53-2	Diatomaceous earth (Silica-Amorphous)	≥0.1-≤2%
14808-60-7	Quartz (SiO ₂)	≥0.1-≤0.5%

· **Additional information:** For the wording of the listed hazard phrases refer to section 16.

4 First-aid measures

· **Description of first aid measures**

· **General information:**

Immediately remove any clothing soiled by the product.

In the event of persistent symptoms receive medical treatment.

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

· **After inhalation:**

Supply fresh air and to be sure call for a doctor.

In case of unconsciousness place patient stably in side position for transportation.

Immediately move exposed person to fresh air. If breathing difficulty persists or develops get prompt medical attention.

· **After skin contact:**

Immediately wash with water and soap and rinse thoroughly.

Immediately rinse with water.

If skin irritation continues, consult a doctor.

· **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.

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- **After swallowing:**
Drink copious amounts of water and provide fresh air. Immediately call a doctor.
Seek medical treatment.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed** No further relevant information available.

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** Use fire fighting measures that suit the environment.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:**
Because fire may produce thermal decomposition products, wear a self-contained breathing apparatus (SCBA) with a full face piece operated in pressure-demand or positive-pressure mode.
Mouth respiratory protective device.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:**
Do not allow product to reach sewage system or any water course.
Inform respective authorities in case of seepage into water course or sewage system.
No special measures required.
- **Methods and material for containment and cleaning up:**
Use neutralizing agent.
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.
- **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.
- **Protective Action Criteria for Chemicals**

- **PAC-1:**

13463-67-7	titanium dioxide	30 mg/m ³
1309-37-1	diiron trioxide	15 mg/m ³
7440-21-3	silicon	45 mg/m ³
14808-60-7	Quartz (SiO ₂)	0.075 mg/m ³

- **PAC-2:**

13463-67-7	titanium dioxide	330 mg/m ³
1309-37-1	diiron trioxide	360 mg/m ³
7440-21-3	silicon	100 mg/m ³
14808-60-7	Quartz (SiO ₂)	33 mg/m ³

- **PAC-3:**

13463-67-7	titanium dioxide	2,000 mg/m ³
1309-37-1	diiron trioxide	2,200 mg/m ³

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7440-21-3	silicon	630 mg/m ³
14808-60-7	Quartz (SiO ₂)	200 mg/m ³

7 Handling and storage

- **Handling:**
- **Precautions for safe handling**
Wear appropriate personal protective clothing to prevent eye and skin contact. Avoid breathing vapors or mists of this product. Use with adequate ventilation. Do not take internally.
- **Information about protection against explosions and fires:** Keep respiratory protective device available.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:** cool and dry
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Keep receptacle tightly sealed.
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Control parameters**

· **Components with limit values that require monitoring at the workplace:**

65997-15-1 Cement, portland, chemicals

PEL Long-term value: 50 mppcf or 15* 5** mg/m³
*total dust **respirable fraction

REL Long-term value: 10* 5** mg/m³
*total dust **respirable fraction

TLV Long-term value: 1* mg/m³
E; *as respirable fraction

13463-67-7 titanium dioxide

PEL Long-term value: 15* mg/m³
*total dust

REL See Pocket Guide App. A

TLV Long-term value: 10 mg/m³
withdrawn from NIC

1309-37-1 diiron trioxide

PEL Long-term value: 10* 15** 5*** mg/m³
*Fume; Rouge: **Total dust, ***respirable

REL Long-term value: 5 mg/m³
Dust & fume, as Fe

TLV Long-term value: 5* mg/m³
*as respirable fraction

61790-53-2 Diatomaceous earth (Silica-Amorphous)

PEL 20mppcf or 80mg/m³ /%SiO₂

REL Long-term value: 6 mg/m³
See Pocket Guide App. C

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TLV	TLV withdrawn
14808-60-7 Quartz (SiO₂)	
PEL	see Quartz listing
REL	Long-term value: 0.05* mg/m ³ *respirable dust; See Pocket Guide App. A
TLV	Long-term value: 0.025* mg/m ³ *as respirable fraction

· **Additional information:** The lists that were valid during the creation were used as basis.

· **Exposure controls**

· **Personal protective equipment:**

· **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Store protective clothing separately.

Avoid contact with the eyes.

Avoid contact with the eyes and skin.

· **Breathing equipment:** Suitable respiratory protective device recommended.

· **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

· **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye protection:** Wear appropriate eye protection to prevent eye contact.

9 Physical and chemical properties

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

Form: Solid

Color: According to product specification

· **Odor:** Characteristic

· **Odor threshold:** Not determined.

· **pH-value:** Not applicable.

· **Change in condition**

Melting point/Melting range: Undetermined.

Boiling point/Boiling range: Undetermined.

· **Flash point:** Not applicable.

· **Flammability (solid, gaseous):** Not determined.

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· Ignition temperature:	
· Decomposition temperature:	Not determined.
· Auto igniting:	Product is not selfigniting.
· Danger of explosion:	Product does not present an explosion hazard.
· Explosion limits:	
Lower:	Not determined.
Upper:	Not determined.
· Vapor pressure:	Not applicable.
· Density at 20 °C (68 °F):	6.7 g/cm ³ (55.9115 lbs/gal)
· Relative density	Not determined.
· Vapor density	Not applicable.
· Evaporation rate	Not applicable.
· Solubility in / Miscibility with Water:	Insoluble.
· Partition coefficient (n-octanol/water):	Not determined.
· Viscosity:	
Dynamic:	Not applicable.
Kinematic:	Not applicable.
· Solvent content:	
Solids content:	100.0 %
· Other information	No further relevant information available.
· Volatile Organic Compounds:	Not determined

10 Stability and reactivity

- **Reactivity** No decomposition if stored and applied as directed.
- **Chemical stability** No decomposition if stored and applied as directed
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** Keep away from heat and sources of ignition.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**
- **Primary irritant effect:**
- **on the skin:** May cause skin irritation.
- **on the eye:**
Strong caustic effect.
Strong irritant with the danger of severe eye injury.
- **Sensitization:** Sensitization possible through skin contact.
- **Additional toxicological information:**
The product shows the following dangers according to internally approved calculation methods for preparations:

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*Harmful**Corrosive**Irritant**Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.**Carcinogenic.*· **Carcinogenic categories**· **IARC (International Agency for Research on Cancer)**

13463-67-7	titanium dioxide	2B
1309-37-1	diiron trioxide	3
61790-53-2	Diatomaceous earth (Silica-Amorphous)	3
14808-60-7	Quartz (SiO ₂)	1

· **NTP (National Toxicology Program)**

14808-60-7	Quartz (SiO ₂)	K
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· **OSHA-Ca (Occupational Safety & Health Administration)***None of the ingredients is listed.*

12 Ecological information

· **Toxicity**· **Aquatic toxicity:** *No further relevant information available.*· **Persistence and degradability** *No further relevant information available.*· **Behavior in environmental systems:**· **Bioaccumulative potential** *No further relevant information available.*· **Mobility in soil** *No further relevant information available.*· **Additional ecological information:**· **General notes:***Water hazard class 1 (Self-assessment): slightly hazardous for water**Must not reach bodies of water or drainage ditch undiluted or unneutralized.*· **Results of PBT and vPvB assessment**· **PBT:** *Not applicable.*· **vPvB:** *Not applicable.*· **Other adverse effects** *No further relevant information available.*

13 Disposal considerations

· **Waste treatment methods**· **Recommendation:***It is the generator's responsibility to determine if the waste meets applicable definitions of hazardous waste. State and local regulations may differ from federal disposal regulations. Dispose of waste material according to local, state, federal, and provincial environmental regulations.*· **Uncleaned packagings:**· **Recommendation:** *Disposal must be made according to Federal, State, and Local regulations.*

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14 Transport information

· UN-Number · DOT, ADR, ADN, IMDG, IATA	Not Regulated
· UN proper shipping name · DOT, ADR, ADN, IMDG, IATA	Not Regulated
· Transport hazard class(es) · DOT, ADR, ADN, IMDG, IATA · Class	Not Regulated
· Packing group · DOT, ADR, IMDG, IATA	III
· Environmental hazards: · Marine pollutant:	No
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· Transport/Additional information:	
· ADR	
· U.S. Domestic Ground Shipments:	Same as listed for Standard Shipments above.
· U.S. Domestic Ground Non-Bulk (119 gal or less per container) Shipments:	Same as listed for Standard Shipments above.
· Emergency Response Guide (ERG) Number:	Not determine
· UN "Model Regulation":	Not Regulated

15 Regulatory information

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

· Section 355 (extremely hazardous substances):

None of the ingredient is listed.

· Section 313 (Specific toxic chemical listings):

This product may contain 1 or more toxic chemicals subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR part 372. If so, the chemicals are listed below.

None of the ingredients is listed.

· TSCA (Toxic Substances Control Act):

All ingredients are listed.

· Proposition 65

· Chemicals known to the State of California (Prop. 65) to cause cancer:

13463-67-7 titanium dioxide

14808-60-7 Quartz (SiO₂)

· Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for males:

None of the ingredients is listed.

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· **Chemicals known to cause developmental toxicity:**

None of the ingredients is listed.

· **Carcinogenity categories**

· **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

· **TLV (Threshold Limit Value established by ACGIH)**

13463-67-7	titanium dioxide	A4
1309-37-1	diiron trioxide	A4
14808-60-7	Quartz (SiO ₂)	A2

· **MAK (German Maximum Workplace Concentration)**

13463-67-7	titanium dioxide	3A
14808-60-7	Quartz (SiO ₂)	I

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

13463-67-7	titanium dioxide	
14808-60-7	Quartz (SiO ₂)	

· **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).

· **Hazard pictograms**



GHS05 GHS07 GHS08

· **Signal word** Danger

· **Hazard-determining components of labeling:**

Cement, portland, chemicals

titanium dioxide

Quartz (SiO₂)

· **Hazard statements**

Causes severe skin burns and eye damage.

May cause an allergic skin reaction.

May cause cancer.

May cause respiratory irritation.

· **Precautionary statements**

Do not breathe dusts or mists.

If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Immediately call a poison center/doctor.

Store locked up.

Dispose of contents/container in accordance with local/regional/national/international regulations.

· **National regulations:**

· **Information about limitation of use:**

Workers are not allowed to be exposed to the hazardous carcinogenic materials contained in this preparation. Exceptions can be made by the authorities in certain cases.

· **Water hazard class:** Water hazard class 1 (Self-assessment): slightly hazardous for water.

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· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Department issuing SDS:** Environmental, Health & Safety Department

· **Contact:** Environmental, Health & Safety Manager

· **Date of preparation / last revision** 02/12/2018 / 35

· **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

Skin Corr. 1C: Skin corrosion/irritation – Category 1C

Eye Dam. 1: Serious eye damage/eye irritation – Category 1

Skin Sens. 1: Skin sensitisation – Category 1

Carc. 1A: Carcinogenicity – Category 1A

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3