



Safety Data Sheet (SDS)

Section 1 – Identification

1(a) Product Identifier used on Label: Terr-OR

1(b) Other means of identification: None

1(c) Recommended use of the chemical and restrictions on use: Reagent for water treatment. None known restrictions.

1(d) Name, address, and telephone number:

Terracentric Materials LLC Phone number: (346) 201-7416 (James Kelley)
P.O. Box 331 email at: info@terracentric.com
Valparaiso, IN 46384



1(e) Emergency phone number: (346) 201-7416 (James Kelley)

Section 2 – Hazard(s) Identification

2(a) Classification of the Chemical: Terr-OR is considered a hazardous material according to the criteria specified in REACH [REGULATION (EC) No 1907/2006] and CLP [REGULATION (EC) No 1272/2008] and OSHA 29 CFR 1910.1200 Hazard Communication Standard. The categories of Health Hazards as defined in "GLOBALLY HARMONIZED SYSTEM OF CLASSIFICATION AND LABELLING OF CHEMICALS (GHS), Third revised edition ST/SG/AC.10/30/Rev. 3" United Nations, New York and Geneva, 2009 have been evaluated. Refer to Section 3, 8 and 11 for additional information.

2(b) Signal word, hazard statement(s), symbols and precautionary statement(s):

Hazard Symbol	Hazard Classification	Signal Word	Hazard Statement(s)
	Carcinogenicity - 1A Single Target Organ Toxicity (STOT) Repeat Exposure - 2	DANGER	May cause cancer.
	Eye Irritation - 1		May cause damage to lungs and kidneys through prolonged or repeated inhalation exposure. Causes severe eye irritation.

Precautionary Statement(s):

Prevention	Response	Storage/Disposal
Do not breathe dusts. Wear protective gloves / protective clothing / eye protection / face protection. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood.	If exposed, concerned or feel unwell: Get medical advice/attention. 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 or doctor/physician.	Dispose of contents in accordance with federal, state and local regulations. Store locked up.

2(c) Hazards not Otherwise Classified: None Known

2(d) Unknown Acute Toxicity Statement (Mixture): None Known

Section 3 – Composition/Information on Ingredients

3(a-c) Chemical name, common name (synonyms), CAS number and other identifiers, and concentration:

Chemical Name	CAS Number	EC Number	% weight
Note: This product is a sand/silt sized activating agent that is a complex mixture of amorphous and crystalline compounds, the majority of which are cationic oxides (calcium, iron, silica, and/or magnesium) and cationic silicates (calcium, iron, silica, and/or magnesium):			
Amorphous material	Various	Various	31.1±5
Larnite	NA	NA	20.6±5
Srebrodolskite	NA	NA	10.4±3
Iron Magnesium Oxide	12068-86-9	235-107-3	6.7±3
Brownmillerite	NA	NA	5.8±2
Wuestite	1345-25-1	215-721-8	5.4±2



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Section 3 – Composition/Information on Ingredients (continued)

3(a-c) Chemical name, common name (synonyms), CAS number and other identifiers, and concentration (continued):

Lime	1305-78-8	215-138-9	4.1±2
Portlandite	12177-68-3	NA	6.5±2
Periclase	14452-57-4	238-438-1	3.1±1
Magnetite	1309-38-2	215-169-8	3.0±1
Mayenite	NA	NA	2.7±1
Quartz	14808-60-7	231-878-4	0.5 approx

EC - European Community

CAS - Chemical Abstract Service

Section 4 – First-aid Measures

4(a) Description of necessary measures: If exposed, concerned or feel unwell: Get medical advice/attention

- **Inhalation:** If inhaled: Remove person to fresh air and keep comfortable for breathing.
- **Eye Contact:** If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- **Skin Contact:** If on skin: Rinse skin with water/shower.
- **Ingestion:** If swallowed: Rinse mouth

4(b) Most important symptoms/effects, acute and delayed (chronic):

Acute Effects:

- **Inhalation:** May cause irritation to the respiratory tract.
- **Eye:** May cause irritation, redness, and pain.
- **Skin:** May cause irritation to skin.
- **Ingestion:** May cause irritation to the gastrointestinal tract and/or nausea.

Delayed (chronic) Effects:

Prolonged or repeated exposure may cause damage to lungs and kidneys. Prolonged exposure to skin contact may cause dermatitis or irritation.

4(c) Immediate Medical Attention and Special Treatment: Treat symptomatically.

Section 5 – Fire-fighting Measures

5(a) Suitable (and unsuitable) Extinguishing Media: None as shipped/sold. Use extinguishers appropriate for surrounding materials.

5(b) Specific Hazards arising from the chemical: None as shipped/sold.

5(c) Special protective equipment and precautions for fire-fighters: None as shipped/sold. Self-contained MSHA/NIOSH approved respiratory protection and full protective clothing should be worn when fumes and/or smoke from fire are present. Heat and flames cause emittance of acrid smoke and fumes. Do not release runoff from fire control methods to sewers or waterways. Firefighters should wear full face-piece self-contained breathing apparatus and chemical protective clothing with thermal protection.

Section 6 - Accidental Release Measures

6(a) Personal Precautions, Protective Equipment and Emergency Procedures: Wear appropriate personal protective equipment as specified in Section 8. Do not release into sewers or waterways. Label containers for recovery or disposal in accordance with federal, state, and local regulations.

6(b) Methods and materials for containment and clean up: Collect material in appropriate, labeled containers for recovery or disposal in accordance with federal, state, and local regulations. Follow applicable OSHA regulations (29 CFR 1910.120) and all other pertinent state and federal requirements.

Section 7 - Handling and Storage

7(a) Precautions for safe handling: Avoid direct contact on skin, eyes or on clothing. Handle and use in accordance with federal, state, and local regulations. Observe proper industrial hygiene practices. Emergency safety showers and/or eyewash stations should be present.

7(b) Conditions for safe storage, including any incompatibilities: Isolate from incompatible substances.



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Section 8 - Exposure Controls / Personal Protection

8(a) Occupational Exposure Limits (OELs): The following exposure limits are offered as reference, for an experienced industrial hygienist to review.

Ingredients	OSHA PEL ¹	ACGIH TLV ²	NIOSH REL ³	IDLH ⁴
Larnite	NE	NE	NE	NE
Srebrodolskite	NE	NE	NE	NE
Iron Magnesium Oxide	NE	NE	NE	NE
Brownmillerite	NE	NE	NE	NE
Wuestite	10 mg/m ³ (as iron oxide fume)	5.0 mg/m ³ (as iron oxide dust and fume)	5.0 mg/m ³ (as iron oxide dust and fume)	2,500 mg Fe/m ³
Lime (Calcium Oxide)	5.0 mg/m ³	2.0 mg/m ³	2.0 mg/m ³	25 mg/m ³
Portlandite	NE	NE	NE	NE
Periclase	15 mg/m ³	10 mg/m ³	NE	750 mg/m ³
Magnetite	10 mg/m ³ (as iron oxide fume)	5.0 mg/m ³ (as iron oxide dust and fume)	5.0 mg/m ³ (as iron oxide dust and fume)	2,500 mg Fe/m ³
Mayenite	NE	NE	NE	NE
Quartz	Crystalline Silica (as Quartz)	(30mg/m ³)/(%SiO ₂ +2) (as total dust) (10mg/m ³)/(%SiO ₂ +2) (as respirable fraction)	0.025 mg/m ³	0.05 mg/m ³

NE - None Established

1. OSHA Permissible Exposure Limits (PELs) are 8-hour TWA (time-weighted average) concentrations unless otherwise noted. A (C) designation denotes a ceiling limit, which should not be exceeded during any part of the working exposure unless otherwise noted. A Peak is defined as the acceptable maximum peak for a maximum duration above the ceiling concentration for an eight-hour shift. A skin notation refers to the potential significant contribution to the overall exposure by the cutaneous route, either by contact with vapors or, of probable greater significance, by direct skin contact with the substance. A Short Term Exposure Limit (STEL) is defined as a 15-minute exposure, which should not be exceeded at any time during a workday. An Action level (AL) is used by OSHA and NIOSH to express a health or physical hazard. They indicate the level of a harmful or toxic substance/activity, which requires medical surveillance, increased industrial hygiene monitoring, or biological monitoring. Action Levels are generally set at one half of the PEL but the actual level may vary from standard to standard. The intent is to identify a level at which the vast majority of randomly sampled exposures will be below the PEL.
2. Threshold Limit Values (TLV) established by the American Conference of Governmental Industrial Hygienists (ACGIH) are 8-hour TWA concentrations unless otherwise noted. A Short Term Exposure Limit (STEL) is defined as the maximum concentration to which workers can be exposed for a short period of time (15 minutes) for only four times throughout the day with at least one hour between exposures. A "skin" notation refers to the potential significant contribution to the overall exposure by the cutaneous route, either by contact with vapors or, of probable greater significance, by direct skin contact with the substance. ACGIH-TLVs are only recommended guidelines based upon consensus agreement of the membership of the ACGIH. As such, the ACGIH TLVs are for guideline use purposes and are not legal regulatory standards for compliance purposes. The TLVs are designed for use by individuals trained in the discipline of industrial hygiene relative to the evaluation of exposure to various chemical or biological substances and physical agents that may be found in the workplace.
3. The National Institute for Occupational Safety and Health Recommended Exposure Limits (NIOSH-REL) - Compendium of Policy and Statements. NIOSH, Cincinnati, OH (1992). NIOSH is the federal agency designated to conduct research relative to occupational safety and health. As is the case with ACGIH TLVs, NIOSH RELs are for guideline purposes only and as such are not legal, regulatory limits for compliance purposes.
4. The "immediately dangerous to life or health air concentration values (IDLHs)" are used by NIOSH as part of the respirator selection criteria and were first developed in the mid-1970's by NIOSH. The Documentation for Immediately Dangerous to Life or Health Concentrations (IDLHs) is a compilation of the rationale and sources of information used by NIOSH during the original determination of 387 IDLHs and their subsequent review and revision in 1994.

8(b) Appropriate Engineering Controls: Use controls as appropriate to minimize exposure to dusts during handling operations. Provide general or local exhaust ventilation systems to minimize airborne concentrations. Local exhaust is necessary for use in enclosed or confined spaces. Provide sufficient general/local exhaust ventilation in pattern/volume to control inhalation exposures below current exposure limits.

8(c) Individual Protection Measures:

- **Respiratory Protection:** Seek professional advice prior to respirator selection and use. Follow OSHA respirator regulations (29 CFR 1910.134) and, if necessary, use only a NIOSH-approved respirator. Select respirator based on its suitability to provide adequate worker protection for given working conditions, level of airborne contamination, and presence of sufficient oxygen. Concentration in air of the various contaminants determines the extent of respiratory protection needed. Half-face, negative-pressure, air-purifying respirator equipped with a HEPA cartridge is acceptable for concentrations up to 10 times the exposure limit. Full-face, negative-pressure, air-purifying respirator equipped with a HEPA cartridge is acceptable for concentrations up to 50 times the exposure limit. Protection by air-purifying negative-pressure and powered air respirators is limited. Use a positive-pressure-demand, full-face, supplied air respirator or self-contained breathing apparatus (SCBA) for concentrations above 50 times the exposure limit. If exposure is above the IDLH (immediately dangerous to life or health) for any of the constituents, or there is a possibility of an uncontrolled release or exposure levels are unknown, then use a positive-demand, full-face, supplied air respirator with escape bottle or SCBA.

Warning! Air-purifying respirators both negative-pressure, and powered-air do not protect workers in oxygen-deficient atmospheres.

- **Eyes:** Wear appropriate eye protection to prevent eye contact.
- **Skin:** Persons handling this product should wear appropriate clothing to prevent skin contact. Wear protective gloves.
- **Other protective equipment:** An eyewash fountain and deluge shower should be readily available in the work area.



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Section 9 - Physical and Chemical Properties

9(a) Appearance (physical state, color, etc.): Dark gray sand/silt sized particles	9(j) Upper/lower Flammability or Explosive Limits: ND
9(b) Odor: None	9(k) Vapor Pressure: ND
9(c) Odor Threshold: NA	9(l) Vapor Density (Air = 1): ND
9(d) pH: Alkaline when wet	9(m) Relative Density: NA
9(e) Melting Point/Freezing Point: NA	9(n) Solubility(ies): NA
9(f) Initial Boiling Point and Boiling Range: NA	9(o) Partition Coefficient n-octanol/water: ND
9(g) Flash Point: NA	9(p) Auto-ignition Temperature: ND
9(h) Evaporation Rate: (Water = 1): NA	9(q) Decomposition Temperature: ND
9(i) Flammability (solid, gas): Non-flammable, Non-Combustible	9(r) Viscosity: ND
NA - Not Applicable ND - Not Determined for product as a whole	

Section 10 - Stability and Reactivity

10(a) Reactivity: Not Determined (ND)
10(b) Chemical Stability: Stable under normal storage and handling conditions.
10(c) Possibility of hazardous reaction: None Known
10(d) Conditions to Avoid: Storage or mixing with oxidizing agents.
10(e) Incompatible Materials: May react with strong acids, calcium hypochlorite and oxidizing agents.
10(f) Hazardous Decomposition Products: Thermal decomposition may produce toxic gases/fumes.

Section 11 - Toxicological Information

11 Information on toxicological effects: The following toxicity data has been determined for **Terr-OR** when further processed using the information available for its components applied to the guidance on the preparation of an SDS under the GHS requirements of OSHA and the EU CPL:

Hazard Classification	Hazard Category		Hazard Symbols	Signal Word	Hazard Statement
	EU	OSHA			
Eye Damage/ Irritation (covers Categories 1, 2A and 2B)	1	1 ^c		Danger	Causes serious eye damage.
Carcinogenicity (covers Categories 1A, 1B and 2)	NR	1A ^g		Danger	May cause cancer.
STOT following Repeated Exposure (covers Categories 1 and 2)	2	2 ^j		Danger	May cause damage to lungs and kidneys through prolonged or repeated inhalation exposure.

NR Not Rated - Available data does not meet criteria for classification.

Toxicological data listed below are presented regardless to classification criteria. Individual hazard classification categories where the toxicological information has met or exceeded a classification criteria threshold are listed above.

- No LC₅₀ or LD₅₀ has been established for **Terr-OR**. The following data has been determined for the components:
 - Wuestite and Magnetite:** LD₅₀ = >10,000 mg/kg (Oral/ Rat)
 - Silica:** LD₅₀ = 500 mg/kg (Oral/ Rat)
- No Skin (Dermal) Irritation data available for **Terr-OR** as a mixture. The following Skin (Dermal) Irritation information was found for the components:
 - Wuestite and Magnetite:** Moderately irritating
- No Eye Irritation data available for **Terr-OR** as a mixture. The following Eye Irritation information was found for the components:
 - Wuestite and Magnetite:** Severely irritating; may cause burns. Human Corrosive (IUCID)
 - Lime:** Rabbit Irritating (REACH)
- No Skin (Dermal) Sensitization data available for **Terr-OR** as a mixture or its components.
- No Respiratory Sensitization data available for **Terr-OR** as a mixture or its components.



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Section 11 - Toxicological Information (continued)

11 Information on toxicological effects (continued):

- f. No Germ Cell Mutagenicity data available for **Terr-OR** as a mixture. The following Mutagenicity and Genotoxicity information was found for the components:
- **Wuestite and Magnetite:** Both positive and negative data
- g. Carcinogenicity: IARC, NTP, and OSHA do not list **Terr-OR** as carcinogens. The following Carcinogenicity information was found for the components:
- **Silicon Dioxide:** Repeated exposure to crystalline silica causes lung cancer in exposed humans. IARC-1, NTP-1, TLV-A2, and OSHA
- h. No Toxic Reproduction data available for **Terr-OR** as a mixture or its components.
- i. No Specific Target Organ Toxicity (STOT) following a Single Exposure data available for **Terr-OR** as a mixture. The following STOT following a Single Exposure data was found for the components:
- **Wuestite and Magnetite:** Some pulmonary and lung effects reported from Iron oxide exposure in humans.
 - **Calcium Oxide:** Can cause respiratory tract irritation, skin and eye irritation.
 - **Silicon Dioxide:** Single exposure to very high airborne levels may cause lung irritation in exposed humans.
- j. No Specific Target Organ Toxicity (STOT) following Repeated Exposure data was available for **Terr-OR** as a mixture. The following STOT following Repeated Exposure data was found for the components:
- **Silicon Dioxide:** Repeated exposure to crystalline silica causes silicosis and kidney damage as well as increased incidence of autoimmune disorders in humans.

The above toxicity information was determined from available scientific sources to illustrate the prevailing posture of the scientific community. The scientific resources includes: The American Conference of Governmental Industrial Hygienist (ACGIH) Documentation of the Threshold Limit Values (TLVs) and Biological Exposure indices (BEIs) with Other Worldwide Occupational Exposure Values 2009, The International Agency for Research on Cancer (IARC), The National Toxicology Program (NTP) updated documentation, the World Health Organization (WHO) and other available resources, the International Uniform Chemical Information Database (IUCLID), European Union Risk Assessment Report (EU-RAR), Concise International Chemical Assessment Documents (CICAD), European Union Scientific Committee for Occupational Exposure Limits (EU-SCOEL), Agency for Toxic Substances and Disease Registry (ATSDR), Hazardous Substance Data Bank (HSDB), and International Programme on Chemical Safety (IPCS).

The following health hazard information is provided regardless to classification criteria and is based on the individual component(s) and potential resultant components from further processing:

Acute Effects by component:

- **Larnite:** Not Reported/Not Classified
- **Srebrodolskite:** Not Reported/Not Classified
- **Iron Magnesium Oxide:** Not Reported/Not Classified
- **Brownmillerite:** Not Reported/Not Classified
- **Wuestite and Magnetite:** Contact with iron oxide has been reported to cause skin irritation and serious eye damage. Particles of iron or iron compounds, which become imbedded in the eye, may cause rust stains unless removed fairly promptly.
- **Lime:** Calcium oxide is an eye and skin irritant.
- **Portlandite:** Not Reported/Not Classified
- **Periclase:** Headache, cough, sweating, nausea and fever may be caused by exposure to freshly formed fumes. The symptoms of metal fume fever do not manifest until 4-12 hours after exposure.
- **Mayenite:** Not Reported/Not Classified
- **Silica (Crystalline Quartz):** Causes irritation and inflammation of the respiratory tract. May cause abrasion of the cornea. Inhalation may cause cough. A single exposure to very high airborne levels may cause lung irritation in exposed humans.

Delayed (chronic) Effects by Component:

- **Larnite:** Not Reported/Not Classified
- **Srebrodolskite:** Not Reported/Not Classified
- **Iron Magnesium Oxide:** Not Reported/Not Classified
- **Brownmillerite:** Not Reported/Not Classified
- **Wuestite and Magnetite:** Chronic inhalation of excessive concentrations of iron oxide fumes or dusts may result in the development of a benign pneumoconiosis, called siderosis, which is observable as an X-ray change. No physical impairment of lung function has been associated with siderosis. Inhalation of excessive concentrations of ferric oxide may enhance the risk of lung cancer development in workers exposed to pulmonary carcinogens. Iron oxide is listed as a Group 3 (not classifiable) carcinogen by the International Agency for Research on Cancer (IARC).
- **Lime:** Depending on the concentration and duration of exposure, repeated or prolonged inhalation may cause inflammation of the respiratory passages, ulcers of the mucous membranes, and possible perforation of the nasal septum. Repeated or prolonged skin contact may cause dermatitis.
- **Portlandite:** Not Reported/Not Classified
- **Periclase:** Irritation of eyes, nose, and throat. Symptoms may include dryness of nose and mouth, cough, feeling of weakness, tightness of chest, muscular pain, chills, fever, headache, nausea, and vomiting.
- **Mayenite:** Not Reported/Not Classified
- **Silica (Crystalline Quartz):** Inhalation of quartz is classified by IARC as a probable human carcinogen. Chronic exposure can cause silicosis, a form of lung scarring that can cause shortness of breath, reduced lung function, and in severe cases, death. Repeated exposure may cause kidney damage as well as increased incidence of autoimmune disorder.



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Section 12 - Ecological Information

12(a) Ecotoxicity (aquatic & terrestrial): No Data Available for **Terr-OR**. However, individual components of the product when processed have been found to be toxic to the environment. Metal dusts may migrate into soil and groundwater and be ingested by wildlife as follows:

- **Wuestite and Magnetite:** LC₅₀: >1000 mg/L; Fish 48 h-EC₅₀ > 100 mg/L (Currenta, 2008k); 96 h-LC₀ ≥ 50,000 mg/L
- **Lime:** LC₅₀: 159 mg/L; invertebrates.

12(a) Ecotoxicity (aquatic & terrestrial): No Data Available

12(b) Persistence & Degradability: No Data Available

12(b) Persistence & Degradability: No Data Available

12(c) Bioaccumulative Potential: No Data Available

12(d) Mobility (in soil): No Data Available

12(e) Other adverse effects: None Known

Additional Information:

Hazard Category: No Category

Signal Word: No Signal Word

Hazard Symbol: No Hazard Symbol

Hazard Statement: No Hazard Statement

Section 13 - Disposal Considerations

Disposal: None as shipped/sold. If contaminated, follow applicable federal, state, and local regulations for accumulation or disposal, if required.

Container Cleaning and Disposal: None as shipped/sold. Follow applicable federal, state and local regulations. Observe safe handling precautions.

Please note this information is for Terr-OR in its original form. Any alterations can void this information.

Section 14 - Transport Information

14 (a-g) Transportation Information:

US Department of Transportation (DOT) under 49 CFR 172.101 **does not** regulate **Terr-OR** as a hazardous material. All federal, state, and local laws and regulations that apply to the transport of this type of material must be adhered to.

Shipping Name: Not Applicable (NA) Shipping Symbols: NA Hazard Class: NA UN No.: NA Packing Group: NA DOT/IMO Label: NA Special Provisions (172.102): NA	Packaging Authorizations a) Exceptions: NA b) Group: NA c) Authorization: NA	Quantity Limitations a) Passenger, Aircraft, or Railcar: NA b) Cargo Aircraft Only: NA Vessel Stowage Requirements a) Vessel Stowage: NA b) Other: NA DOT Reportable Quantities: NA
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International Maritime Dangerous Goods (IMDG) and the Regulations Concerning the International Carriage of Dangerous Goods by Rail (RID) classification, packaging and shipping requirements follow the US DOT Hazardous Materials Regulation.

Regulations Concerning the International Carriage of Dangerous Goods by Road (ADR) **does not** regulate **Terr-OR** as a hazardous material.

Shipping Name: Not Applicable (NA) Classification Code: NA UN No.: NA Packing Group: NA ADR Label: NA Special Provisions: NA Limited Quantities: NA	Packaging a) Packing Instructions: NA b) Special Packing Provisions: NA c) Mixed Packing Provisions: NA	Portable Tanks & Bulk Containers a) Instructions: NA b) Special Provisions: NA
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International Air Transport Association (IATA) **does not** regulate **Terr-OR** as a hazardous material.

Shipping Name: Not Applicable (NA) Class/Division: NA Hazard Label (s): NA UN No.: NA Packing Group: NA Excepted Quantities (EQ): NA	Passenger & Cargo Aircraft		Cargo Aircraft Only Pkg Inst: NA Max Net Qty/Pkg: NA	Special Provisions: NA ERG Code: NA
	Limited Quantity (EQ)			
	Pkg Inst: NA	Pkg Inst: NA		
	Max Net Qty/Pkg: NA	Max Net Qty/Pkg: NA		

Pkg Inst – Packing Instructions

Max Net Qty/Pkg – Maximum Net Quantity per Package

ERG – Emergency Response Drill Code



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Section 14 - Transport Information (continued)

Transport Dangerous Goods (TDG) Classification: Terr-OR does not have a TDG classification.

Section 15 - Regulatory Information

Regulatory Information: The following listing of regulations relating to a Terracentric Materials LLC product may not be complete and should not be solely relied upon for all regulatory compliance responsibilities.

This product and/or its constituents are subject to the following regulations:

OSHA Regulations: Air Contaminant (29 CFR 1910.1000, Table Z-1, Z-2, Z-3): The product, **Terr-OR** as a whole is not listed. However, individual components are listed: Refer to Section 8, Exposure Controls and Personal Protection.

EPA Regulations: The product, **Terr-OR** and its components are not listed.

SARA Potential Hazard Categories: Immediate Acute Health Hazard, Delayed Chronic Health Hazard

Section 313 Supplier Notification: This product, **Terr-OR** does not contain toxic chemicals subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR part 372.

State Regulations: The product, **Terr-OR** as a whole is not listed in any state regulations. However, individual components of the product are listed in various state regulations:

Pennsylvania Right to Know: Contains regulated material in the following categories:

- Hazardous Substances: Iron Oxides, Calcium Oxide and Magnesium Compounds
- Environmental Hazards: None

California Prop. 65: Contains elements known to the State of California to cause cancer or reproductive toxicity. This includes Silica Quartz.

New Jersey: Contains regulated material in the following categories:

- Hazardous Substance: Iron Oxides, Calcium Oxide, Silicon Dioxide, Magnesium Compounds and Magnesium Oxide
- Environmental Hazards: None
- Special Hazardous Substance: Calcium Oxide and Silicon Dioxide

Minnesota: Silicon Dioxide and Magnesium Oxide

Massachusetts: Iron Oxides, Calcium Oxide, Silicon Dioxide, and Magnesium Oxide

Other Regulations:

WHMIS Classification (Canadian): The product, **Terr-OR** is not listed as a whole. However individual components are listed.

Ingredients	WHMIS Classification
Calcium Oxide	Skin corrosion/irritation - Category Serious eye damage/eye irritation - Category 1; Health hazards not otherwise classified (corrosion) - Category 1
Quartz	Carcinogenicity – Category 1A; Specific Target Organ Toxicity – repeated exposure – Category 1

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations.

Section 16 - Other Information

Prepared By: AM Health and Safety

Original Issue Date: 04/12/2017

Additional Information:

Hazardous Material Identification System (HMIS) Classification

Health Hazard	1
Fire Hazard	0
Physical Hazard	0

HEALTH= 1, * Denotes possible chronic hazard if airborne dusts or fumes are generated
Irritation or minor reversible injury possible.

FIRE= 0, Materials that will not burn.

PHYSICAL HAZARDS = 0, Materials that are normally stable, even under fire conditions, and will not react with water, polymerize, decompose, condense, or self-react. Non-explosives.

National Fire Protection Association (NFPA)



HEALTH = 1, Exposure could cause irritation but only minor residual injury even if no treatment is given.

FIRE = 0, Materials that will not burn.

INSTABILITY = 0, Normally stable, even under fire exposure conditions, and are not reactive with water.

ABBREVIATIONS/ACRONYMS:

ACGIH	American Conference of Governmental Industrial Hygienists	NIF	No Information Found
BEIs	Biological Exposure Indices	NIOSH	National Institute for Occupational Safety and Health
CAS	Chemical Abstracts Service	NTP	National Toxicology Program



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Section 16 - Other Information (continued)

ABBREVIATIONS/ACRONYMS (continued):

CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act	ORC	Organization Resources Counselors
CFR	Code of Federal Regulations	OSHA	Occupational Safety and Health Administration
CNS	Central Nervous System	PEL	Permissible Exposure Limit
GI, GIT	Gastro-Intestinal, Gastro-Intestinal Tract	PNOR	Particulate Not Otherwise Regulated
HMIS	Hazardous Materials Identification System	PNOC	Particulate Not Otherwise Classified
IARC	International Agency for Research on Cancer	PPE	Personal Protective Equipment
LC50	Median Lethal Concentration	ppm	parts per million
LD50	Median Lethal Dose	RCRA	Resource Conservation and Recovery Act
LD_{Lo}	Lowest Dose to have killed animals or humans	RTECS	Registry of Toxic Effects of Chemical Substances
LEL	Lower Explosive Limit	SARA	Superfund Amendment and Reauthorization Act
LOEL	Lowest Observed Effect Level	SCBA	Self-contained Breathing Apparatus
LOAEC	Lowest Observable Adverse Effect Concentration	SDS	Safety Data Sheet
µg/m³	microgram per cubic meter of air	STEL	Short-term Exposure Limit
mg/m³	milligram per cubic meter of air	TLV	Threshold Limit Value
mppcf	million particles per cubic foot	TWA	Time-weighted Average
MSHA	Mine Safety and Health Administration	UEL	Upper Explosive Limit
NFPA	National Fire Protection Association		

Disclaimer: This information covers **Terracentric Materials LLC** products as delivered from a **Terracentric Materials LLC** facility, but does not include chemicals that may be applied by subsequent handlers and/or distributors of the product. This information is taken from sources or based upon data believed to be reliable. **Terracentric Materials LLC** and **AM Health & Safety, Inc.**, make no warranty as to the absolute correctness, completeness, or sufficiency of any of the foregoing, or any additional or other measures that may or may not be required under particular conditions. **THIS TERRACENTRIC MATERIALS SDS MAKES NO WARRANTIES, EXPRESS OR IMPLIED, INCLUDING THE IMPLIED WARRANTY OF MERCHANTABILITY, OR ANY IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSES, AND ANY IMPLIED WARRANTIES OTHERWISE ARISING FROM COURSE OF DEALING OR TRADE.**