SECTION 1. IDENTIFICATION OF SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product Identifier:

Product or Trade Name: **SandSEAL®**

Type of Product: Proprietary inorganic colloid

1.2 Relevant Identified Uses of the Substance or Mixture and Uses Advised Against:

Recommended Use(s)*: Drilling Fluid Additive, Filtration Control Aid

Sector of Use: SU19 - Building and construction work

Product Category: PC20 - Products such as pH-regulators, flocculants, precipitants, neutralizing agents, other unspecified

Process Categories: PROC 26 - Handling of solid inorganic substances at ambient temperature

** The "Recommended Use" identified for this product is provided solely to comply with a US Federal requirement and is not part of the seller's published specification. The terms of this Safety Data Sheet (SDS) do not create or infer any warranty, express or implied, including by incorporation into or reference in the seller's sales agreement.*

Use Applications: Professional Use Only

Recommended Restrictions: No restrictions on use known.

1.3 Details of the Supplier of the Substance/Mixture and Safety Data Sheet:

Manufacturer/Supplier: **KB International LLC**
735 Broad Street
Suite 209
Chattanooga, TN 37402
USA

Telephone Number: +1 (423) 266-6964

E-mail: info@kbtech.com

1.4 Emergency Contact and Telephone Number:

Emergency Contact: ChemTel, Inc.

Emergency Telephone No.: +1 (800) 255-3924

1.5 OTHER MEANS OF IDENTIFICATION:

Primary Components: Vitreous fiber made from blast furnace slag and/or basalt (mixture).

SECTION 2. HAZARDS IDENTIFICATION

2.1 CLASSIFICATION OF THE SUBSTANCE OR MIXTURE:

Classification according to Regulation (EC) No 1272/2008:

Physical and Chemical Hazards: Not Classified.

Human Health: STOT RE 2 - H373 May cause damage to respiratory system, lungs, through prolonged or repeated exposure if inhaled.

Environment: Not classified.

Classification according to Directive 67/548/EEC or Directive 1999/45/EC:

Hazard Warnings:

- Xn;R48/20: Harmful: Danger of serious damage to health by prolonged exposure through inhalation.

Human Health:

- This product contains crystalline silica (fine fraction) as an impurity and therefore is classified as STOT RE 2 according to criteria defined in the Regulation EC 1272/2008 and harmful according to criteria defined in Directive 67/548/EEC due to the potential for generation of airborne respirable crystalline silica. Depending on the type of handling and use (e.g. grinding, drying), airborne respirable crystalline silica may be generated. Prolonged and/or massive inhalation of respirable crystalline silica dust may cause lung fibrosis, commonly referred to as silicosis. Principal symptoms of silicosis are cough and breathlessness. Occupational exposure to respirable crystalline silica dust should be monitored and controlled.

Environment:

- The product is not expected to be hazardous to the environment.

Physical and Chemical Hazards:

- This product is an inorganic substance and does not meet the criteria for PBT or vPvB in accordance with Annex XIII of REACH. This product should be handled with care to avoid dust generation.
- The Full Text for all R-Phrases and Hazard Statements is Displayed in Section 16.

According to Regulation 2012 OSHA Hazardous Communication Standard; 29 CFR Part 1910.1200:

- This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the Substance or Mixture:

Carcinogenicity (inhalation): Category 1A

Specific target Organ Toxicity Single Exposure: Category 3
(Respiratory System)

Specific target Organ Toxicity Repeated Exposure: Category 1
(Respiratory System)

2.2 LABEL ELEMENTS:

Hazard Pictograms:

Signal Word: Danger

Hazard Statements:

Health Hazard:

H335 ..... May cause respiratory irritation.
H350i ..... May cause cancer by inhalation.
H372 ..... Causes damage to lungs through prolonged or repeated exposure by inhalation.

Precautionary Statement(s):

General:

P101 ..... If medical advice is needed, have product container or label at hand.
P102 ..... Keep out of reach of children.
P103 ..... Read label before use.

Prevention:

P201 ..... Obtain special instructions before use
P202 ..... Do not handle until all safety precautions have been read and understood
P260 ..... Do not breathe dust/fume/gas/mist/vapors/spray
P264 ..... Wash face, hands and any exposed skin thoroughly after handling
P270 ..... Do not eat, drink or smoke when using this product
P280 ..... Wear protective gloves/protective clothing/eye protection/face protection
P285 ..... In case of inadequate ventilation wear respiratory protection.

Response:

P308 + P313 ..... IF exposed or concerned: Get medical advice/attention
P314 ..... Get medical attention/advice if you feel unwell

Storage:

P402 ..... Store in a dry place
P405 ..... Store locked up

Disposal:

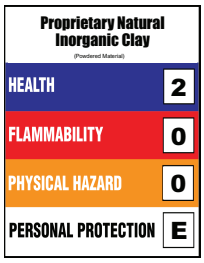
P501 ..... Dispose of contents or container in accordance with local, regional, national, and/or international regulations.

2.3 HAZARD DESCRIPTIONS:

NFPA Ratings *(Scale 0 – 4)*:

Health = 2
Fire = 0
Reactivity = 0

HMIS Ratings *(Scale 0 – 4)*:



Health = 2
Flammability = 0
Physical Hazard = 0
Personal Protection = E

WHMIS 2015 - Symbols: Not hazardous under WHMIS.

Other Hazards: Not hazardous substance or mixture.

2.4 HAZARDS NOT OTHERWISE CLASSIFIED (HNOC) OR NOT COVERED BY GHS:

According to Regulation 1994 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200:

If applicable information is provided in this section on other hazards which do not result in classification but which may contribute to the overall hazards of the substance or mixture.

Emergency Overview:

Caution:

- This type of product has a tendency to create dust if roughly handled. It does not burn readily but as with many organic powders, flammable dust clouds may be formed in air.
- May cause some eye irritation which should cease after removal of the product.
- May cause some irritation to the respiratory system if dust is inhaled.
- Use NIOSH approved respirator as needed to mitigate exposure.
- Wear NIOSH-certified chemical goggles.
- Avoid creating dusty conditions, dust build-up or formation of dust clouds.
- Organic powders may be capable of generating static discharges and creating explosive mixtures in air. Handle with caution.
- Wear protective clothing.

CANADIAN WHMIS LISTING:

- "D2A" Materials causing other toxic effects

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 COMPONENTS OF SUBSTANCE OR MIXTURE:

Substance	CAS No.	Percent (w/w)	GHS Classification US
Kaolin	1332-58-7	> 60	Not applicable
Crystalline Silica	14808-60-7	< 30	Carc. 1A (H350) STOT RE 1 (H372)
Titanium Dioxide	13463-67-7	< 3	Not applicable

Non-hazardous and other components below reportable levels > 0.1

1 – According to Regulation 2015 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

The exact percentage (concentration) of the composition has been withheld as proprietary.

SECTION 4. FIRST-AID MEASURES

4.1 DESCRIPTION OF FIRST AID MEASURES:

After Clothing Contact:

- Wash all soiled clothing before reuse.

Inhalation:

- If inhaled, remove from area to fresh air.
- If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
- If adverse effects occur, get immediate medical attention.

Eye Contact:

- In case of contact, immediately flush eyes, and under the eyelids with plenty of water for at least 15.
- Remove contact lenses, if present and easy to do and continue rinsing.
- Alternatively, rinse immediately with Diphoterine®.
- Get medical attention if irritation persists.

Skin Contact:

- Wash with soap and water.
- Get medical attention if irritation persists.

Ingestion:

- DO NOT induce vomiting.
- Never give anything by mouth unless instructed to do so by medical personnel.
- Seek medical attention immediately.

4.2 MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED:

Symptoms:

- Particulates may cause abrasive eye injury. May dry the skin. Inhalation of dust may cause respiratory tract irritation. Symptoms of exposure may include cough, sore throat, nasal congestion, sneezing, wheezing and shortness of breath. Ingestion may caused delayed gastrointestinal effects.

Hazards:

- This product contains crystalline silica, which has been classified by IARC as (Group I) carcinogenic to humans when inhaled. Inhalation of silica can also cause a chronic lung disorder, silicosis.

4.3 INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED:

- None under normal use.

Note To Physician:

Treatment:

- Treat according to symptoms (decontamination, vital functions), no known specific antidote.

Other Information:

- None under normal use.

SECTION 5. FIRE-FIGHTING MEASURES

5.1 EXTINGUISHING MEDIA:

Suitable Extinguishing Media:

- All standard fire fighting media.
- Use extinguishing agents appropriate for surrounding fire.

Unsuitable Extinguishing Media:

- None known.

Additional Information:

- If water is used, restrict pedestrian and vehicular traffic in areas where slip hazard may exist.

5.2 SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE / CONDITIONS OF FLAMMABILITY:

Hazards During Fire-fighting:

- Not applicable.

Flammability Classification (OSHA 29 CFR 1910.106):

- Not flammable.

Auto Ignition Temp:

- Non-combustible.

5.3 SPECIAL PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIREFIGHTERS:

Protective Equipment for Firefighters:

- No hazard is expected from the normal use of this product.
- Wear protective equipment appropriate for surrounding fire.

Special Fire-Fighting Procedures:

- The degree of risk is governed by the burning substance and the fire conditions.
- Contaminated extinguishing water must be disposed of in accordance with official regulations.

5.4 IMPACT SENSITIVITY:

Assessment:

- Not shock-sensitive.

SECTION 6. ACCIDENTAL RELEASE MEASURES

6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES:

PERSONAL PRECAUTIONS:

- Do not walk through spilled material.
- Avoid airborne dust generation

PROTECTIVE EQUIPMENT:

- Wear personal protective equipment in compliance with national legislation. (see Section 8 Exposure Controls/Personal Protection).

EMERGENCY PROCEDURES:

- Keep people away from spill/leak.

6.2 ENVIRONMENTAL PRECAUTIONS:

- Ensure spilled product does not enter drains, sewers, waterways, or confined spaces.
- Do not discharge into drains, water courses or onto the ground.
- If necessary, dike well ahead of the spill to prevent runoff into drains, sewers, or any natural waterway or drinking supply.

6.3 METHODS AND MATERIAL FOR CONTAINMENT AND CLEANING UP:

For Small Spills:

- Minimize dust generation.
- Move containers from spill area.
- Avoid dust generation.
- Do not dry sweep.
- Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container.
- Dispose of via a licensed waste disposal contractor.

For Large Spills:

- Minimize dust generation.
- Move containers from spill area.
- Approach release from upwind.
- Prevent entry into sewers, water courses, basements or confined areas.
- Avoid dust generation.
- Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container.
- If inadvertently spilled or leaked, reclaim product for intended use.

- Dispose of via a licensed waste disposal contractor.
- Increase ventilation and wear sufficient respiratory protection during sweeping / transportation to appropriate container.
- Send for recovery or disposal in suitable receptacles.
- Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

SECTION 7. HANDLING AND STORAGE

7.1 PRECAUTIONS FOR SAFE HANDLING:

Protective Measures:

Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not ingest. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on General Occupational Hygiene:

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2 CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES:

Storage:

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Recommended Storage:

Store away from direct sunlight in dry conditions. Close container after use.

7.3 SPECIFIC END USE(S):

- Apart from the uses mentioned in section 1.2, no further relevant information available.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 CONTROL PARAMETERS:

Components with Occupational Exposure Limits:

Component	CAS No.	Percent (w/w)	GHS Classification US	Exposure Limits		
				OSHA PEL*	ACGIH TLV	NIOSH REL
Kaolin	1332-58-7	> 60	Not applicable	5 mg/m³ TWA (Respirable) 15 mg/m³ TWA (Total)	2 mg/m³ TWA (Respirable) 10 mg/m³ TWA (Total)	5 mg/m³ TWA (Respirable) 15 mg/m3 TWA (Total)
Crystalline Silica	14808-60-7	< 30	Carc. 1A (H350) STOT RE 1 (H372)	10 mg/m³ % SiO_2 + 2 TWA (Respirable) 30 mg/m³ % SiO_2 + 2 TWA (Total)	0.025 mg/m³ TWA (Respirable)	0.05 mg/m³ TWA (Respirable)
Titanium Dioxide	13463-67-7	< 3	Not applicable	15 mg/m³ (Total)	10 mg/m³	NA

8.2 ENGINEERING CONTROLS:

Appropriate Engineering Controls:

- Use approved industrial ventilation and local exhaust as required to maintain exposures below applicable exposure limits.
- Natural ventilation is adequate in absence of dusting.

8.3 INDIVIDUAL PROTECTION MEASURES, SUCH AS PERSONAL PROTECTIVE EQUIPMENT:

Personal Protective Equipment:

If engineering controls and work practices cannot prevent excessive exposures, the selection and proper use of personal protective equipment should be determined by an industrial hygienist or other qualified professional based on the specific application of this product.

General Protective and Hygienic Measures:

- The usual precautionary measures for handling chemicals should be followed.
- Keep away from foodstuffs, beverages and feed.
- Do not inhale dust.
- Avoid contact with the eyes.
- Avoid long term contact with the skin.
- Ensure that washing facilities are available at the work place.

Respiratory Protection:

- No personal respiratory protective equipment normally required.
- Wear a NIOSH certified, European Standard EN 149, (FFP2/FFP3), AS/NZS 1715, or equivalent respirator when using this product.
- For spills, respiratory protection is advisable.

Body Protection:

- Wear clothing appropriate for the work environment.
- Dusty clothing should be laundered before reuse.
- Use precautionary measures to avoid creating dust when removing or laundering clothing.

Hand Protection:

- *Chemical resistant protective gloves (EN 374).*

Suitable materials also with prolonged, direct contact (Recommended: Protective index 6, corresponding > 480 minutes of permeation time according to EN 374): e.g. nitrile rubber (0.4 mm), chloroprene rubber (0.5 mm), polyvinyl chloride (0.7 mm) and other Supplementary note: The specifications are based on tests, literature data and information of glove manufacturers or are derived from similar substances by analogy. Due to many conditions (e.g. temperature) it must be considered, that the practical usage of a chemical-protective glove in practice may be much shorter than the permeation time determined through testing. Manufacturer's directions for use should be observed because of great diversity of types.

Eye / Face Protection:

- Safety glasses with side-shields (frame goggles) (e.g. EN 166).

Other Protective Equipment:

- An eyewash station and safety shower should be made available in the immediate working area.
- Other equipment may be required depending on workplace standards.

8.3 GENERAL SAFETY AND HYGIENE CONSIDERATIONS:

- Handle in accordance with good industrial hygiene and safety practice. Ensure adequate ventilation.
- Wearing of closed work clothing is recommended.
- No eating, drinking, smoking or tobacco use at the place of work.
- Wash hands and face before breaks and immediately after handling the product.
- Wash hands before breaks and at the end of workday.

Limitation and Supervision of Exposure into the Environment:

- Do not allow uncontrolled discharge of product into the environment.

Risk Management Measures:

- See Section 7 for additional information.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES:

Appearance:

Physical State:	Solid
Form:	Powder to solid lumps
Color:	Brown, cream white or gray.
Odor:	Earth-like especially when containing appreciable moisture content.

Odor Threshold (ppm):	N/Ap
Molecular Formula:	Trade Secret
Molecular Weight:	Trade Secret
Specific Gravity (water = 1):	2.40 – 2.65
Bulk Density:	Approx. 0.240 - 0.256 g/cm^3 (2400 - 2650 kg/m^3) – 150 - 165 lb/ft^3 – 20 - 22 lb/gal
pH (Value):	4.0 - 8.0 @ 25° C
Melting/Freezing Point:	1500° C (2732° F)
Initial Boiling Point:	N/Ap
Flash Point (°C) [Closed cup]:	N/Ap
Evaporation Rate:	The product is a non-volatile solid.
Flammability (solid):	Non-combustible solid
Explosive Properties:	
Lower Explosion Limit:	For solids not relevant for classification and labelling.
Upper Explosion Limit:	For solids not relevant for classification and labelling.
Autoignition:	N/Ap
Oxidizing Properties:	Not fire-propagating.
Vapor Pressure (mm Hg):	N/Ap
Vapor Density (Air=1):	N/Ap
Relative Density (g/cm^3):	2.4 to 2.65 g/cm^3 (apparent)
Solubility (Water):	Insoluble in water.
Solubility (Quantitative):	No data available.
Solubility (Qualitative):	No data available.
Partition Coefficient:	
n-octanol/water:	Study scientifically not justified.
Auto-ignition Point (°C):	Not self-igniting
Decomposition Temperature (°C):	No decomposition if used as directed.
Viscosity (mPa.s):	N/Ap
Volatiles (% by weight):	Not determined.
Volatile Organic Compounds (VOC's):	N/Ap
Absolute Pressure of Container:	N/Ap
Flame Projection Length:	N/Ap
Other Physical/Chemical Comments:	If necessary, information on other physical and chemical parameters is indicated in this section.

SECTION 10. STABILITY AND REACTIVITY

10.1 REACTIVITY:

- Not expected to be reactive. Normally stable.

Corrosion to Metals:

- No corrosive effect on metal.

Oxidizing Properties:

- Not fire-propagating.

Formation of Flammable Gases:

Start Temperature:

- Not Applicable

Specific Decomposition Gas Volume:

- Not Applicable

10.2 CHEMICAL STABILITY:

- The product is stable if stored and handled as prescribed/indicated.

10.3 POSSIBILITY OF HAZARDOUS REACTIONS:

- The product is not a dust explosion risk as supplied; however the build-up of fine dust can lead to a risk of dust explosions.
- Stable under normal conditions.

- No hazardous reactions known.

10.4 CONDITIONS TO AVOID:

- Not Applicable

10.5 INCOMPATIBLE MATERIALS:

Substances to Avoid:

- None Known

10.6 HAZARDOUS DECOMPOSITION PRODUCTS:

Decomposition Products:

Hazardous Decomposition Products:

- No hazardous decomposition products.

Thermal Decomposition:

- No decomposition if used as directed.

SECTION 11. TOXICOLOGICAL INFORMATION

PRIMARY ROUTES OF EXPOSURE:

- Routes of entry for solids and dispersions are ingestion, inhalation, eye and skin contact.

ACUTE HEALTH HAZARDS:

Inhalation: Inhalation from prolonged and continuous exposure to excessive quantities of dust may aggravate existing asthmatic or respiratory conditions. Symptoms of exposure may include cough, sore throat, nasal congestion, sneezing, wheezing and shortness of breath. Ingestion: Ingestion is an unlikely route of exposure. If dust is swallowed, it may irritate

Eye Contact: May cause mechanical irritation to eye.

Skin Contact: May cause mechanical skin irritation. May aggravate existing dermatitis.

Ingestion: No harmful effects expected in amounts likely to be ingested by accident. May cause delayed gastrointestinal discomfort.

Chronic Effects/Carcinogenicity: No data available to indicate product or components present at greater than 1% are chronic health hazards.

Health Warnings: This product contains quartz (respirable) as an impurity and therefore is classified as STOT RE2 according to criteria defined in the Regulation EC 1272/2008.

Prolonged and/or massive exposure to respirable crystalline silica-containing dust may cause silicosis, a nodular pulmonary fibrosis caused by deposition in the lungs of fine respirable particles of crystalline silica.

In 1997, IARC (the International Agency for Research on Cancer) concluded that crystalline silica inhaled from occupational sources can cause lung cancer in humans. However it pointed out that not all industrial circumstances, nor all crystalline silica types, were to be incriminated. (IARC Monographs on the evaluation of the carcinogenic risks of chemicals to humans, Silica, silicates dust and organic fibers, 1997, Vol. 68, IARC, Lyon, France.)

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). So there is a body of evidence supporting the fact that increased cancer risk would be limited to people already suffering from silicosis. Worker protection against silicosis should be assured by respecting the existing regulatory occupational exposure limits and implementing additional risk management measures where required (see section 16 below).

TOXICOLOGICAL DATA FOR THE COMPONENTS:

Substances	CAS No.	LD50 Oral	LD50 Dermal	LD50 Inhalation
Contains no hazardous substances	Mixture	Not data applicable	Not data applicable	No data applicable

CHRONIC TOXICITY EFFECTS:

Repeated Dosage Toxicity:

Assessment of Repeated Dose Toxicity:

Danger of serious damage to health by prolonged exposure from inhalation. Crystalline Silica can cause silicosis or other lung diseases from prolonged exposure. California Proposition 65: Ball clay contains crystalline quartz, some of which is respirable, and trace amounts of 2,3,7,8 TCDD (a dioxin) on a PPT (parts per trillion) basis have been detected.

Component Analysis - LD50/LC50

The components of this material have been reviewed in various sources and the following selected endpoints are published:

Quartz - Crystalline Silica (14808-60-7)

Oral LD50 Rat 500 mg/kg

Titanium dioxide (13463-67-7)

Oral LD50 >10000 mg/kg

Water (7732-18-5)

Oral LD50 Rat >90 mL/kg

Irritation/Corrosivity Data

May cause eye irritation, skin irritation, respiratory tract irritation, and gastrointestinal tract irritation.

Respiratory Sensitizer

No test data available

Dermal Sensitizer

No test data available

Carcinogenicity

Component Carcinogenicity

Kaolin - CAS N° 1332-58-7

ACGIH: A4 - Not Classifiable as a Human Carcinogen

Quartz - Crystalline Silica - CAS N° 14808-60-7

ACGIH: A2 - Suspected Human Carcinogen

IARC: Group 1 - Carcinogenic to humans

Titanium dioxide - CAS N° 13463-67-7

ACGIH: A4 - Not Classifiable as a Human Carcinogen

IARC: Group 2B - Possibly carcinogenic to humans

Mutagenic Data

No information available

Reproductive Effects Data

No information available

Specific Organ Toxicity - Single Exposure

Target organs include ears, skin, respiratory system, and gastrointestinal tract.

Specific Organ Toxicity - Repeated Exposure

Causes damage to eyes, skin, respiratory system, and gastrointestinal tract through prolonged or repeated exposure.

Aspiration Hazard

No data available

Medical Conditions Aggravated by Exposure

Individuals with pre-existing eye disorders, skin disorders, respiratory disorders and/or gastrointestinal disorders may have increased susceptibility to the effects of exposure.

Other Information:

- The product has not been tested.
- The statements on toxicology have been derived from products of a similar structure and composition.

SYSTEMS OF EXPOSURE:

- The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11.
- Further important symptoms and effects are so far not known.

SECTION 12. ECOLOGICAL INFORMATION

12.1 TOXICITY:

Ecotoxicity Effects

Substances	CAS No.	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Dapnia Magna (Water Flea)
Contains no hazardous substances	Mixture	Not information available	Not information available	No information available	No information available

12.2 PERSISTENCE AND DEGRADABILITY:

Assessment Biodegradation and Elimination (H2O):

- The methods for determining biodegradability are not applicable to inorganic substances. (by OECD criteria).

12.3 BIOACCUMULATIVE POTENTIAL:

Assessment Bioaccumulation Potential:

- No information available.

12.4 MOBILITY IN SOIL:

Information On:

- No information available.

Assessment Transport Between Environmental Compartments:

Adsorption to Soil:

- Adsorption to solid soil phase is expected.

12.5 RESULTS OF PBT AND VPVB ASSESSMENT:

According to Annex XIII of Regulation (EC) No.1907/2006 concerning the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH):

- No information available

12.6 OTHER ADVERSE EFFECTS:

- The product does not contain substances that are listed in Annex I of Regulation (EC) 2037/2000 on substances that deplete the ozone layer.

ADDITIONAL INFORMATION:

Endocrine Disruptor Information:

- This product does not contain any known or suspected endocrine disruptors.

SECTION 13. DISPOSAL CONSIDERATIONS

Unused Material and Residue:

Recommendations:

- Must not be disposed together with household garbage. Do not allow product to reach sewage system. Can be burned with household garbage after consulting with the waste disposal facility operator and the pertinent authorities and adhering to the necessary technical regulations.
- The user of this material has the responsibility to dispose of unused material, residues and containers in compliance with all relevant local, state and federal laws and regulations regarding treatment, storage and disposal for hazardous and nonhazardous wastes. Residual materials should be treated as hazardous.

Uncleaned (Contaminated) Packaging Disposal:

Recommendations:

- Rinse empty containers with water and use the rinse-water to prepare the working solution.
- If recycling is not practicable, dispose of in compliance with local regulations.
- Recommend crushing, puncturing or other means to prevent unauthorized use of used containers.
- Disposal must be made according to official regulations.

Recommended Cleansing Agents:

- Water, if necessary together with cleansing agents.

Recycling:

Recommendations:

- Store containers and offer for recycling of material when in accordance with the local regulations.

RCRA:

- Not a hazardous waste under RCRA (40 CFR 261).

SECTION 14. TRANSPORTATION INFPRMATION

14.1 UN Number: (DOT, ADR, ADN, IMDG, IATA)	Not classified as a dangerous good under transport regulations.
14.2 UN Proper Shipping Name: (DOT, ADR, ADN, IMDG, IATA)	Not classified as a dangerous good under transport regulations.
14.3 Transpot Hazard Class(es): (DOT, ADR, ADN, IMDG, IATA)	Not classified as a dangerous good under transport regulations.
14.4 Packing Group: (DOT, ADR, IMDG, IATA)	Not classified as a dangerous good under transport regulations.
14.5 Environmental Hazard(s): Marine Pollutant:	Not classified as a dangerous good under transport regulations.
14.6 Special Precautions for User:	No
14.7 Transport in Bulk According to Annex II of MARPOL73/78 & the IBC Code: UN "Model Regulation":	Not classified as a dangerous good under transport regulations.

Special Precautions for User:

- None reported by the manufacturer.

Environmental Hazards:

- See ECOLOGICAL INFORMATION, Section 12.

SECTION 15. REGULATORY INFORMATION

15.1 SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS/LEGISLATION SPECIFIC FOR THE SUBSTANCE OR MIXTURE UNITED STATES (USA) COMPONENTS LISTED BELOW ARE PRESENT ON THE FOLLOWING U.S. FEDERAL CHEMICAL LISTS:

SARA:

Section 302 (Extremely Hazardous Substances Listings):	None of the chemical substances in this product are subject to reporting.
Section 311/312 (Hazardous Chemical Inventory):	No SARA Hazards
Section 355 (Extremely Hazardous Substances Listing):	None of the chemical substances in this product are listed.
Section 313 (Specific Toxic Chemical Listings):	None of the chemical substances in this product are listed.
TSCA (Toxic Substances Control Act):	All chemical substances in this product are either listed on the TSCA Inventory or in compliance with a TSCA Inventory exemption.

Clean Air Act:

Section 12 (40 CFR 61):	This product does not contain any hazardous air pollutants (HAP)
Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F):	None of the chemical substance(s) in this product are listed.

Clean Water Act:

Section 311, Table 116.4A (List of Hazardous Substances):	This product does not contain any hazardous substance(s) listed.
Section 311, Table 117.3 (Reportable Quantities of Hazardous Substances List):	None of the chemical substance(s) in this product are listed.
Section 307 (Toxic and Priority Pollutants):	This product does not contain any toxic or priority pollutants.

Proposition 65 (California):

Chemicals Known to Cause Cancer:	This product does not contain any hazardous substance(s) listed.
Chemicals Known to Cause Reproductive Toxicity for Females:	None of the chemical substance(s) in this product are listed.
Chemicals Known to Cause Reproductive Toxicity for Males:	None of the chemical substance(s) in this product are listed.
Chemicals Known to Cause Developmental Toxicity:	None of the chemical substance(s) in this product are listed.

State RTKHSL (Right to Know Hazardous Substance List):

State	CAS Number	Chemical Name
Massachusetts	Mixture	Mineral Fiber
New Jersey	Mixture	Mineral Fiber
Pennsylvania	Mixture	Mineral Fiber

Carcinogenic Categories:

EPA (Environmental Protection Agency):	None of the chemical substance(s) in this product are listed.
IARC (International Agency for Research on Cancer):	None of the chemical substance(s) in this product are listed.
TLV (Threshold Limit Value Established by ACGIH):	None of the chemical substance(s) in this product are listed.
NIOSH-CA (National Institute for Occupational Safety and Health):	None of the chemical substance(s) in this product are listed.

Canada:

DSL (Canadian Domestic Substances List):	All of the chemical substance(s) in this product are either listed on the DSL Inventory or in compliance with a DSL exemption.
WHMIS (Workplace Hazardous Materials Information System)	None of the chemical substance(s) in this product are listed.
NPRI (The National Pollutant Release Inventory)	None of the chemical substances in this product are listed.
CEPA (Canadian Environmental Protection Act)	None of the chemical substances in this product are listed.
Canadian Ingredient Disclosure list (limit 0.1%)	None of the ingredients is listed.
Canadian Ingredient Disclosure list (limit 1%)	None of the ingredients is listed.

Other Regulations, Limitations and Prohibitive Regulations:

Substances of Very High Concern (SVHC) According to REACH, Article 57	None of the chemical substances in this product are listed.

Switzerland:

CH INV (New Notified Substances and Declared Preparations):	None of the chemical substances in this product are listed.

Germany:

MAK (German Maximum Workplace Concentration):	None of the chemical substances in this product are listed.

Australia:

AICS (Australia Inventory of Chemical Substance):	None of the chemical substances in this product are listed.

New Zealand:

NZIoC (New Zealand Inventory of Chemical Substances):	None of the chemical substances in this product are listed.

Japan:

ENCS (Existing and New Chemical Substances Inventory):	None of the chemical substances in this product are listed.
ISHL - (Inventory of Chemical):	None of the chemical substances in this product are listed.

Korea:

KECI (Korean Existing Chemicals Inventory:	None of the chemical substances in this product are listed.

Philippines:

PICCS (Philippines Inventory of Chemicals and Chemical Substances):	None of the chemical substances in this product are listed.

China

IECSC (Inventory of Existing Chemical Substances in China):	None of the chemical substances in this product are listed.

For explanation of abbreviation see section 16.

Further Information:

- This product is to be considered as a preparation according to EU-legislation.

15.2 CHEMICAL SAFETY ASSESSMENT:

- A Chemical Safety Assessment has not been carried out.

SECTION 16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

Legend:

ADRADR: Accord Européen sur le Transport des Marchandises Dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
AICS: Australia Inventory of Chemical Substances
CA: California
CAS: Chemical Abstract Services (division of the American Chemical Society)
CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act of 1980
CFR: Code of Federal Regulations
CH INV: Switzerland. New Notified Substances and Declared Preparations
CSA: Canadian Standards Association
DNEL: Derived No-Effect Level (REACH)
DOT: Department of Transportation
DSL: Canadian Domestic Substance List
ECHA: European Chemical Agency
ENCS: Japanese Existing and New Chemical Substances Inventory
EPA: Environmental Protection Agency
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
HMIS: Hazardous Materials Identification System
HSDB: Hazardous Substances Data Bank
IARC: International Agency for Research on Cancer
IATA: International Air Transport Association
ICAO: International Civil Aviation Organisation
IECSC: Inventory of Existing Chemical Substances in China
IMDG: International Maritime Dangerous Goods
Inh: Inhalation
ISHL: Japanese Inventory of Chemical Substances
KECI: Korean Existing Chemicals Inventory
LC: Lethal Concentration
LD: Lethal Dose
MA: Massachusetts
MAK: German Maximum Workplace Concentration
MN: Minnesota
NFPA: National Fire Protection Association
NIOSH: National Institute of Occupational Safety and Health
NJ: New Jersey
NTP: National Toxicology Program
NZIoC: New Zealand Inventory of Chemical Substances
OSHA: Occupational Safety and Health Administration
PA: Pennsylvania
PEL: Permissible Exposure Limit
PICCS: Philippines Inventory of Chemicals and Chemical Substances
PNEC: Predicted No-Effect Concentration (REACH)
RCRA: Resource Conservation and Recovery Act
REACH: EC 1907/2006
RI: Rhode Island
RTECS: Registry of Toxic Effects of Chemical Substances
SARA: Superfund Amendments and Reauthorization Act
STEL: Short Term Exposure Limit
TDG: Canadian Transportation of Dangerous Goods Act & Regulations
TLV: Threshold Limit Values
TSCA: Toxic Substance Control Act
TWA: Time Weighted Average
WHMIS: Workplace Hazardous Materials Identification System

References:

Canadian Centre for Occupational Health and Safety, CCInfoWeb Databases, 2015 (Chempendium, RTECs, HSDB, INCHEM).
European Chemicals Agency, Classification Legislation, 2015
Material Safety Data Sheet from Manufacturer/Distributor.
OECD: Organization for Economic Co-operation and Development, 2015

Version 1.0	For the New GHS SDS Standard	Revision Date: 12/15/2014
Version 1.1	Hazard and Precautionary Statements	Revision Date: 02/04/2015
Version 1.2	Updated Graphics	Revision Date: 03/09/2015
Version 1.3	UN#, ICC GHS Edits	Revision Date: 05/20/2015
Version 1.4	Edits in Section 9	Revision Date: 05/21/2015

Version 1.5	Edits to Section 5	Revision Date: 06/02/2015
Version 1.6	Additions to Section 9	Revision Date: 06/25/2015

Other Special Considerations for Handling:

- Provide adequate information, instruction and training for operators.

Miscellaneous Hazard Classes:

Canadian Carcinogenicity Hazard Class: *Not Applicable.*
Physical Hazards Not Otherwise Classified (PHNOC): *Not Applicable.*
Health Hazards Not Otherwise Classified (HHNOC): *Not Applicable.*

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Magma Fiber Safety Data Sheet	**Supersedes Document Titled: Magma Fiber SDS 04/11/2017ggV5**
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Issue Date: 04/12/2017	**Print Date:** 04/12/2017

DISCLAIMER:

The information in this material safety data sheet should be provided to all who will use, handle, store, transport or otherwise be exposed to this product. The user must determine the appropriate measures that need to be implemented for the use and handling of this product in the context of the user's operations and use of this product. The information contained herein supersedes all previously issued bulletins on the subject matter covered. If the date on this document is more than three years old, call to make certain that this sheet is current. No warranty is made as to the product's merchantability or fitness for any particular purpose, or that any suggested use will not infringe any patent. User must determine for himself, by preliminary tests or otherwise, the suitability of this product for his purposes, including mixing with other products. Nothing contained herein shall be construed as granting or extending any license under any patent.

The information provided in this Material 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.

End of Safety Data Sheet