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SDS
Safety Data Sheet

Form #: STI-079 Date: revision 003 10/08/2019

Section 1. PRODUCT IDENTIFICATION

Product Identifiers
Product Name: LRA Calcium Silicate.
CAS number: 1344-95-2
Product Part Numbers: LRA
Synonyms: Synthetic calcium silicate hydrate.
Recommended use: Laboratory chemicals.
Uses advised against: Pesticide use or biocidal product use.
Details of the Supplier of the Safety Data Sheet:
Company: Sorbent Technologies
5955 Peachtree Corners East
Norcross, GA 30071 USA
Emergency Telephone Number: 1-866-767-2832

Section 2. HAZARD IDENTIFICATION

United States**:** This chemical is considered hazardous by 2012 OSHA 29 CFR 1910.1200 HCS
GHS Classification of the Substance or Mixture including Precautionary Statements:
Emergency Overview: Fine tan/gray powder..
Potential Health Effects: Medical conditions aggravated by exposure: Pre-exiting upper respiratory and lung disease such as but not limited to bronchitis, emphysema and asthma.

Target Organs:	Lungs, eyes.
Health hazards:	Respiratory irritation, serious eye damage/eye irritation.
Primary entry Routes:	Inhalation, dust contact with eyes.
Acute Health Affects:	Transitory upper respiratory or eye irritation.

Chronic Health Affects: Prolonged and repeated exposures to excessive concentrations of product dust, in excess of the PEL/TLV, can cause chronic pulmonary disease..
Carcinogenic Effects: IARC: Not listed NTP: Not listed OSHA: Not regulated
GHS Label Elements:
Signal Word: Warning

Hazard statement: Causes Serious eye irritation. Causes serious eye irritation. May cause respiratory irritation.
Precautionary Statement:
Prevention: Wash face, hands and any exposed skin thoroughly after handling. Wear eye protection/face protection, gloves/protective clothing. Avoid breathing dust/fume/gas/mist/vapors/spray. Use only outdoors or in a well-ventilated area.
Response:
Inhalation: IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
Skin: IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs, get medial advice/attention. Take off contaminated clothing and wash before reuse.
Eyes: IF IN EYES: Rinse cautiously with water for serval for serval minutes. Remove contact lens, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Storage: Store in a well-ventilated place. Keep container tightly closed.
Disposal: Dispose of contents/container to an approved waste disposal plant.

Other Hazards Not Otherwise Classified (HNOC): None known.

Section 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Characterization:

Components	CAS No.	EC No.	%	PEL and TLV
Synthetic Calcium Silicate	1344-95-2	233-250-6	100	OSHA 5 mg/M3 Respirable Nuisance Dust ACGIH 10 mg/M3 Total Nuisance Dust

Synonyms: Calcium orthosilicate, calcium silicate.
Formula: CaO3Si
Molecular weight: 116.16 g/mol..

Section 4. FIRST AID MEASURES

Description of First Aid Measures
Skin: Wash off immediately with plenty of soap and water for least 15 minutes. Seek medical attention if irritation develops and persists.
Eyes: Rinse immediately with plenty of water, also under the eyelids for 15 minutes. Get medical attention.
Ingestion: Clean mouth with water and drink afterwards plenty of water. Seek medical attention if gastrointestinal symptoms develop.
Inhalation: Remove to fresh air and keep at rest. If not breathing, give artificial respiration. Seek medical attention if cough or respiratory symptoms develop or persists.

Most Important Symptoms and Effects, both acute and delayed
Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling and blurred vision.

Indication of any immediate medical attention and special treatment needed
Notes to Physician: Provide general supportive measures and treat symptomatically.
General Information
If you feel unwell, seek medical advise (show label where possible). Ensure that medical personnel are aware of the materials involved, and take precautions to protect themselves.

Section 5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media: Water fog. Foam. Dry chemicals. Carbon dioxide (CO2)

Unsuitable Extinguishing Media: None known.
Specific Hazards arising from the chemical: During fire, gases hazardous to health may be formed.
Flammability Limits in Air: LFL and UFL Not Applicable.
Auto-ignition temperature: Not available

Protective Equipment and precautions for firefighters:
Fire Fighting Equipment: Fire fighting personnel should wear full protective equipment, including self-contained breathing apparatus (SCBA) for all inside fires and large outdoor fires.
Protection of fire-fighters:
Fire Fighting Instructions: In the event of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply. Wear self-contained breathing apparatus and protective clothing.

General fire hazards: This product is not flammable. Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors.
Specific methods: Use standard firefighting procedures and consider the hazards of other involved materials.

Section 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures:

Avoid dust formation. Avoid breathing vapors, mist or gas.
Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. Surfaces may become slippery after spillage. Wear suitable protective clothing and gloves. For personal protection, see section 8 of the SDS.

Environmental Precautions:

Prevent spilled powder from entering sewers or waterways or onto ground.

Methods for Containment:

Avoid the generation of dusts during clean-up.

Methods for Clean-up:

If a Spill or Leak Occurs: Ventilate the contaminated area. Clean up spills in a manner that does not disperse dust into the air. Handle in accordance with industrial hygiene and safety practices. These practices include avoiding unnecessary exposure, and removal from eyes, skin, and clothing. Prevent product from entering drains.
Disposal Method: Vacuum clean dust with equipment fitted with HEPA filter. Use a dust suppressant such as water if sweeping is necessary. Spent should be disposed of in accordance with State and Federal laws.
Container Disposal: Do not reuse empty bags or drums. Dispose of used bags in facility permitted for wastes.

Section 7. HANDLING AND STORAGE

Precautions for Safe Handling

Handling: Wear personal protective equipment. Ensure adequate ventilated. Do not get in eyes, on skin, or clothing. Avoid ingestion and inhalation. Avoid dust formation. Protect containers from physical damage. Wash hands after handling. Avoid release to the environment.

Conditions for Safe Storage, Including any Incompatibilities

Storage: Store in cool, dry, ventilated area and in tightly closed containers.
Storage Class (TRGS 510): 13: Non-combustible solids.

Section 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters
Occupational Exposure Guidelines: No exposure limits noted for ingredients.

Component	OSHA PEL	ACGIH TLV
Calcium silicate (1344-95-2)	OSHA 5 mg/M3 Respirable Nuisance Dust	ACGIH 10 mg/M3 Total Nuisance Dust

ACGIH is the American Conference of Governmental Industrial Hygienists
OSHA is the Occupational Safety and Health Administration
NIOSH is the National Institute of Occupational Safety and Health
PEL is the Permissible Exposure Limits established by OSHA.
TLV is the Threshold Limit Value a term ACGIH uses to express the maximum airborne concentration of a material to which most workers can be exposed during a normal daily and weekly work schedule without adverse effects.
MSHA is the Mine Safety and Health Administration

Exposure Controls

Engineering Controls: Provide eyewash station. Use local exhaust to control emissions near the source. Ventilation systems should be configured to prevent exceeding the recommended or regulated exposure limits (i.e. OSHA PELs).

Eye Protection: Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU). Safety glasses with side shields are recommended for any type of handling. Where eye contact or dusty conditions may likely, dust tight goggles are recommended. Have eye washing equipment available.

Skin protection: Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Avoid skin contact with this product. Wear appropriate dust resistant clothing. Wash contaminated clothing and clean protective equipment before reuse. Wash skin thoroughly after handling.

Full contact material: Nitrile rubber of minimum layer thickness 0.11 mm and break through time 480 minutes.

Body protection: Choose protection in relation to its type, to the concentration and the amount of any dangerous substances, and to the specific work-place. The type of protective equipment must be selected according to the concentration and of the amount of any dangerous substances at the specific workplace.

Respiratory Protection: Follow the OSHA respiratory regulations found in 29 CFR 1910.134 or European Standard EN149. Keep dust exposure to a minimum with engineering and administrative controls.

Use appropriate NIOSH/MSHA approved particulate respirators if necessary. Observe respirator use limitations specified by NIOSH/MSHA or the manufacturer. Use type N95 (US) or type P1 (EN 143) dust masks for nuisance levels of dust.

Hand Protection: Wear appropriate chemical resistant gloves. Suites can be recommended by the glove supplier

General Industrial Hygiene Considerations

Handle in accordance with good industrial hygiene and safety practice. Wash thoroughly with soap and water after handling and before eating, drinking, or using tobacco. Safety shower and eye wash should be available close to work areas.

Environmental Exposure Controls

No special environmental precautions required. Avoid release to the environment.

Section 9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical Properties:

Appearance:	Powder
Physical State:	Solid.
Color:	Fine tan/ gray powder.
Form:	Fine powder.
Odor:	Odorless.
Odor Threshold:	Not available.
pH:	7.5—9.5
Melting Point/Range:	Not available.
Boiling Point/Range:	Not available.
Flash Point:	Not available.
Evaporation Rate:	Not available.
Flammability (solid, gas);	Not available.
Flammability or Explosive Limits	
Upper:	Not available.
Lower:	Not available.
Vapor Pressure:	Not available.
Vapor Density:	Not available.
Relative Density:	2.3 at 25 deg. C (water =1).
Solubility (water):	Insoluble.
Solubility (solvents):	Insoluble .
Partition Coefficient; n-octanol/water: No data available.	
Auto-ignition Temperature:	Not available.
Decomposition Temperature:	Not available.
Viscosity:	Not available.
Bulk density:	Not available.
Explosive properties:	Not explosive.
Oxidizing properties:	Not oxidizing.
Other safety information:	Not available.

Section 10. STABILITY AND REACTIVITY

Reactivity
The product is stable and non-reactive under normal conditions of use, storage and transport.
Contact or mixture with oxidizing agent such as nitric acid may cause ignition or explosion.
Chemical Stability
This product is stable under normal conditions of storage, shipment and use. Avoid storing at high temperatures or in direct sunlight. Do not store above 24 deg. C.
Possibility of Hazardous Reactions
No dangerous reaction known under conditions of normal use.
Conditions to Avoid
Avoid temperatures exceeding the decomposition temperature. Contact with incompatible materials.
Incompatible Materials
Contact with strong oxidizers and Hydrofluoric acid.
Hazardous Decomposition Products
Irritating and/or toxic fumes and gases may be emitted upon the product's decomposition.
Thermal decomposition can lead to release of irritating gases and vapors such as calcium oxide, silicon oxides.
Hazardous Reactions
None under normal processing.

Section 11. TOXICOLOGICAL INFORMATION

Information on Toxicological Effects
Acute Toxicity

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Calcium silicate (1344-95-2)	N/A	N/A	N/A

Routes of Exposure: Eye contact.
Toxicologically Synergistic Products: Occupational exposure may cause adverse effects.
Delayed and Immediate Effects as well as Chronic Effects from Short and Long Term Exposure
Skin corrosion/irritation: Prolonged skin contact may cause temporary irritation.
Serious eye damage/eye irritation: Eye contact: Contact may cause irritation with redness, tearing, pain, and/or blurred vision.
Respiratory Sensitization: Not classified.
Skin Sensitization: Not classified.
Carcinogenicity: Table below indicates if each agency has listed any ingredient as a Carcinogen.

Component	CAS-No.	IARC	NTP	ACGIH	OSHA	Mexico
Calcium silicate	1344-95-2	Not listed	Not listed	Not listed	Not listed	Not listed

Mutagenic Effects: No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
Reproductive Effects: No information available.
Developmental Effects: No information available.
Teratogenicity: No information available.

Specific Target Organ Toxicity (STOT)-single exposure: Respiratory system.
Specific Target Organ Toxicity (STOT)-repeated exposure: Not classified.
Aspiration: Not an aspiration hazard.
Symptoms / Effects, Both Acute and Delayed: Prolonged inhalation may be harmful.
Endocrine Disruptor Information: No information available.
Symptoms: Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision

Additional Information: RTECS: VV9170000
Other Adverse Effects: No other specific acute or chronic health impact noted. The toxicological properties have not been fully investigated.

Section 12. ECOLOGICAL INFORMATION

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

Environmental effects
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/ Degradability
Insoluble in water. May persist.

Bioaccumulation Potential
No information available.
Aquatic toxicity: Not expected to be harmful to aquatic organisms.

Mobility in Soil
Not likely mobile in the environment due its low water solubility.

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.

Section 13. DISPOSAL CONSIDERATIONS

Waste Treatment Methods
Disposal methods: Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations.
Hazardous Waste Code: Not regulated.

Waste from Residues: 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: Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied. Local regulations may be more stringent than state or federal requirements.

Section 14. TRANSPORTATION INFORMATION

Land:	**DOT (US)**:	Not regulated as dangerous goods.
	ADR/RID (EU):	Not regulated as dangerous goods.
	TDG (Canada):	Not regulated as dangerous goods.
Water:	**IMO/IMDG**:	Not regulated as dangerous goods.
Air:	**IACO/IATA**:	Not regulated as dangerous goods.

Transportation in bulk according to Annex II of MARPOL 73/78 and the IBC Code: Not applicable

Special Precautions for User
No information available

Section 15. REGULATORY INFORMATION

Safety, Health and Environmental Regulations/ Legislation Specific for the Substance or Mixture
International Inventories

Component	TSCA	DSL	NDSL	EINECS	ELINCS	NLP	PICCS	ENCS	AICS	IECSC	KECL
1344-95-2	X	X	-	-	X	X	X	-	X	X	X

X indicates listed

U.S. Federal Regulations

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

TSCA**:** CAS# 1344-95-2 is listed on the TSCA inventory. Not regulated.

CERCLA Hazardous Substances and Corresponding RQs: None of the chemicals in this material have an RQ.

SARA Section 302 Extremely Hazardous Substances: None of the chemicals in this product have a TPQ.

SARA Codes: CAS# 1344-95-2:

SARA 311/312 Hazardous Categorization:

Immediate Health Hazard:	Yes
Delayed Health Hazard:	No
Fire Hazard:	No
Sudden Release of Pressure:	No
Reactive Hazard:	No

SARA Section 313: Not regulated

Clean Air Act:

This material does not contain any hazardous air pollutants, Class 1 Ozone depletors or Class 2 Ozone depletors.

Clean Water Act:

None of the chemicals in this product are listed as Hazardous Substances, Priority Pollutants or Toxic Pollutants under the CWA.

OSHA: Not regulated

CERCLA: Not listed

U.S. Department of Transportation (DOT)

Reportable Quantity (RQ):	No
DOT Marine Pollutant:	No
DOT severe Marine Pollutant:	No

U.S. Department of Homeland Security (DHS)

This product does not contain any DHS chemicals.

States Right-to-Know

This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.

CAS# 69011-20-7

California Prop 65: Not listed. California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

Massachusetts: Not regulated.

New Jersey Right to Know: Listed.

Pennsylvania: Listed.

Florida: No data.

Rhode Island: Not regulated.

Illinois: No data.

Connecticut - Hazardous Air pollutants: No data.

Canadian Classification

WHMIS: Non-controlled.

DSL : Listed.

EEC Council Directives relating to the classification, packaging, and labeling of dangerous substances and preparations.

Risk and Safety Phrases: R36: Irritating to eyes.

Mexico—Grade

No information available.

Section 16. OTHER INFORMATION

HMIS Rating (USA):

Health Hazard: 1
Fire Hazard: 0
Reactivity: 0
Personal Protection: E (safety glasses, gloves, dust respirator)

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SDS REVISION SUMMARY: Revision 003 replaces revision 002 dated 09/30/2014.

This document has been updated to comply with the U.S. OSHA HazCom 2012 Standard replacing the current Legislation under 29 CFR 1910.1200 to align with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS)