

Safety Data Sheet

Common Name: EarthBox[®] Elevated Standard Garden Kits

Manufacturer: Novelty Manufacturing Co.

SDS Revision Date: 7 July 2023

UPC(s): 026978813008, 026978813015, 026978813053, 026978813077

Manufacturers Model Number(s): 81300, 81301, 81305, 81307

Manufacturers Model Names(s): EarthBox[®] Elevated Standard Garden Kit, EarthBox[®] Elevated Raised Garden Bed Kit

Section 1: Identification

Product Name: EarthBox Standard 7-7-7 Fertilizer and Dolomite Lime

EPA No.: Not Applicable

Product Identity: EarthBox Special Plant Food is a bio granular fertilizer/inoculant also known as Rts Earthbox 7 7 7 and EarthBox All Natural Dolomite is a potting mix conditioner also known as Dried Dolomite. Both items are used in the system designed for growing vegetables in an EarthBox Container Gardening System or an equivalent system.

Manufacturer: Novelty Manufacturing Co, 1330 Loop Road, Lancaster PA 17601 is the manufacturer of the EarthBox Systems.

Telephone: 1-800-442-7336

Emergency Contact: See SDS sheets for Rts Earthbox 7 7 7 and Dried Dolomite that follow. Please follow the details and contact information for each item.

Content to follow:

Rts EarthBox 7 7 7 Safety Data Sheet, Lebanon Seaboard Corporation, Revision Date: 1/30/2018

Dried Dolomite Safety Data Sheet, The National Lime & Stone Company Revision Date: 12/9/2021



1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY

Product Name: Rts Earthbox 7-7-7

EPA No: Not applicable

Product Identity: Bio Granular Fertilizer/Inoculant

Supplier/Manufacturer

Lebanon Seaboard Corporation
1600 East Cumberland Street
Lebanon PA 17042

Tel: 1-800-233-0628 USA

(717-273-1685) INTL

Supplier Email: customerservice@lebsea.com

Emergency telephone numbers:

Chemtrec (Spill) 1-800-424-9300 Prosar (Health) 888-208-1368

2. HAZARDS IDENTIFICATION

OSHA Signal Word: Warning

Hazard Statements:

H315: Causes skin irritation. (Category 2)

H319: Causes serious eye irritation. (Category 2A)

H320: Causes eye irritation. (Category 2B)

H333: May be harmful if inhaled. (Category 5)

H335: May cause respiratory irritation. (Category 3)

H351: Suspected of causing cancer. (Category 2)

HB1: Microbial Product. No Hazard Statement

Pictogram:



Precautionary Statements for handling:

P202: Do not handle until all safety precautions have been read and understood.

P261: Avoid breathing dust/fume/gas/mist/vapours/spray.

P264: Wash hands and exposed skin thoroughly after handling.

P280: Wear protective gloves/protective clothing/eye protection/face protection.

P281: Use personal protective equipment as required.

P305: If in eyes, rinse with water and seek medical attention if symptoms persist.

P362: Take off contaminated clothing and wash before reuse.

P352: IF ON SKIN: Wash with plenty of soap and water.

P312: IF INHALED: Call » POISON CENTER or doctor/physician if you feel unwell.

P351: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P313: If skin irritation occurs: Get medical advice/ attention.

P337: If eye irritation persists: Get medical advice/attention.

P405: Store locked up.

P403: Store in a well-ventilated place.
P233: Keep container tightly closed.
P501: Dispose of contents/container properly as required by law for waste pesticides.
P308: If exposed or concerned, seek medical advice.
Keep out of reach of children

Precautionary Statements for disposal - Dispose in accordance with all federal, state and local regulations.

Hazards not otherwise classified (HNOC):None

Unknown acute toxicity: <1% of the mixture consists of ingredients of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	Weight %
MAGNESIUM OXIDE	1309-48-4	1 - 5
Potassium sulfate	7778-80-5	10 - 15
Dolomite	16389-88-1	5 - 10
Calcium lignosulfonate	8061-52-7	1 - 5
DIAMMONIUM PHOSPHATE	7783-28-0	10 - 15
FEATHERMEAL	68952-07-8	30 - 35
Ferrous Sulfate Monohydrate	17375-41-6	5 - 10
Glucose	50-99-7	1 - 5
MEAT AND BONE MEAL	68920-45-6	10 - 15
Ferric Oxide	1309-37-1	1 - 5
ROCK PHOSPHATE	65996-94-3	5 - 10
non Hazardous Ingredients	Various	Balance

* Note: Various naturally mined minerals like limestone, attapulgite, or others typically contain silica (sand) at amounts ranging from 1 to 6%. Fine silica particulates are considered as a carcinogen via repeated and prolonged inhalation over several years exposure.

4. FIRST AID MEASURES

Eye Contact Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Skin Contact Wash with soap and water. If injury occurs, or if discomfort or irritation persists contact a physician.

Inhalation If inhaled and discomfort occurs, move to fresh air, and keep person at rest in a position comfortable for breathing. If difficulty in breathing occurs and/or persists, administer oxygen and get medical attention. If medical advice is needed, have product container or label on hand.

Ingestion Rinse mouth. Drink Plenty of water. If you feel unwell, call a poison control center or seek medical attention. Do not induce vomiting of an unconscious person.

Self-protection of the first aider: Use any appropriate personal protective equipment as required for nuisance dusts.

Most important symptoms and effects, both acute and delayed: Nuisance dust irritation may occur with nasal discomfort under highly dusty conditions.
Eye irritation on contact with redness, tearing and burning sensation.
Coughing, sneezing, or irritation of nose and throat.
Redness, itching, or burning sensation on skin with prolonged contact.

Indication of any immediate medical attention and special treatment needed: Treat Symptoms. Consult physician if discomfort or irritation persists.

5. FIRE FIGHTING MEASURES

Suitable extinguishing media

Use extinguishing media suitable to local circumstances and the surrounding environment. Options in this case include water, CO₂, ABC Dry Chemical extinguisher, or foam. Avoid stirring up dust extinguisher stream.

Specific hazards arising from the chemical

Thermal decomposition can lead to release of irritating and toxic gases and vapors. In the event of fire, do not breathe fumes.

Explosion data

Sensitivity to mechanical impact: None

Sensitivity to static discharge: None

Note: Excessive amounts of any burnable dusts can produce explosive mixtures if allowed to disperse in the air in confined areas where ignition sources occur. Prevent excessive dust dispersal in areas of use, storage, or production.

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and standard protective (bunker) gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment, and emergency procedures

Personal Precautions	Use dust mask and gloves as needed or other reasonable personal protective equipment as required to prevent contact with eyes or skin. Remove ignition sources prior to clean-up. If in eyes, rinse cautiously with water for several minutes. If eye irritation persists: Seek medical advice. If in eyes, rinse cautiously with water for several minutes. If eye irritation persists: Seek medical advice. If experiencing significant respiratory symptoms: seek medical attention. If experiencing significant respiratory symptoms: seek medical attention.
Environmental precautions	Prevent entry into waterways, sewers, basements or confined areas. Do not flush into surface water or sanitary sewer system. See Section 12 for additional ecological information.
Methods for containment	Prevent further leakage or spillage, if safe to do so.
Methods for clean-up	Use dust mask and/or reasonable personal protective equipment as required to avoid breathing dusts. Moisten or cover powder spill with plastic sheet or tarp to minimize spreading. Take up mechanically, placing in appropriate containers for disposal. Avoid creating dust. Soak up excess with inert absorbent material. Clean contaminated surface thoroughly.

7. HANDLING AND STORAGE

Safe Handling Ensure adequate ventilation, especially in confined areas. Use personal protective equipment as required to avoid breathing dusts or mists, and to prevent eye contact. Wash hands thoroughly after handling.

Storage Conditions Keep containers tightly closed in a cool, well- ventilated place. Keep out of the reach of children.

Incompatible materials Avoid strong acids or alkali, or other reactive substances.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH*
ZINC OXIDE	"STEL: 10 mg/m3 respirable TWA: 2 mg/m3 respirable"	"TWA: 5 mg/m3 fume TWA: 15 mg/m3 total dust TWA: 5 mg/m3 respirable"	"IDLH: 500 mg/m3 Ceiling: 15 mg/m3 dust"
Ferrous Sulfate Monohydrate	1 mg/m3 (Fe) TWA		
Copper oxide	1 mg/m3 (as Cu)	1 mg/m3 (as Cu)	
Quartz Sand Silica	0.025 mg/m3 (respirable)	6 mg/m3 (resp)	
MANGANESE OXIDE	0.02 mg/m3 (Mn) TWA (inh)	"1 mg/m3 TWA (Mn fume) 5 mg/m3 Ceiling (Mn)"	500 mg/m3 (Mn)
Quartz silica	0.025 mg/m3 (respirable)	(30 mg/m3 % (%SiO2 + 2)	3000 mg/m3
Nuisance Dusts (for granulars)	10 mg/m3 (TWA- Total)	15 mg/m3 (TWA total) 50 mppcf (TWA total) 5 mppcf (TWA respirable)	Not Established

*IDLH refers to amounts that are "Immediately Dangerous to Life or Health"

Engineering controls: Use with adequate ventilation and follow safe work practices to prevent dust buildup in air.

Individual protection measures Use personal protective equipment as required to avoid breathing dust/mist, and to prevent eye contact.

Eye protection Provide face and eye protection: face shield and goggles recommended if face or eye contact is likely.

Skin and Body Protection Gloves and standard work coveralls recommended

Respiratory Protection Dust mask recommended for dusty or misty conditions. If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Respiratory protection must be provided in accordance with current local regulations.

General Hygiene When using product, do not eat, drink or smoke. Wash hands thoroughly after handling. Wash contaminated clothing before reuse.

Also see Precautionary Statements in Section 2

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state Granular Solid

Appearance Granular Solid

Color Mixed, various

Odor Slight

Odor Threshold No information available

pH Not applicable

Melting point/freezing point Not applicable

Boiling point / boiling range Not applicable

Flash point	No information available
Evaporation rate	Not applicable
Flammability (solid, gas)	No information available
Flammability Limits in Air	
Upper flammability limit:	No information available
Lower flammability limit:	No information available
Vapor pressure	Not applicable
Vapor density	Not applicable
Water solubility	Mostly insoluble
Solubility in other solvents	No information available
Partition coefficient	No information available
Autoignition temperature	No information available
Decomposition temperature	No information available
Oxidizing properties	Not particularly reactive

10. STABILITY AND REACTIVITY

Reactivity

Not Reactive

Chemical stability

Stable

Possibility of Hazardous Reactions

May release heat and fumes when mixed in solution with incompatible reactive materials.

Hazardous polymerization

Will not occur.

Conditions to avoid

High heat, sparks and open flames, as some ingredients may be burnable.

Incompatible materials

Strong acids or alkali, or other reactive substances.

Hazardous Decomposition Products

May emit toxic fumes under fire conditions, such as Nitrogen oxides (NO_x), Ammonia, Oxides of sulfur, Hydrogen chloride and Carbon monoxide.

11. TOXICOLOGICAL INFORMATION

Routes of exposure: Ingestion, eyes (contact), skin (contact), dust inhalation

Symptoms	May irritate the digestive tract if ingested in quantity, causing nausea, vomiting and diarrhea. Eye irritation on contact with redness, tearing and burning sensation. Coughing, sneezing, or irritation of nose and throat. Redness, itching, or burning sensation on skin with prolonged contact.
Sensitization	No information available.
Germ cell mutagenicity	None known unless noted below in Other
Carcinogenicity	None

Reproductive toxicity	The bacteria in this product are typically harmless strains, and are not associated with disease or infection healthy people (Biosafety Level 1). However, use good hygiene practices. Handle as rich soil or compost. Nonporous gloves recommended. Wash hands thoroughly after handling. Avoid breathing dust. Persons with severely compromised immune systems should consult with their physician before handling microbial products.
STOT - single exposure	No information available.
STOT - repeated exposure	No information available
Chronic toxicity	Yes
Target Organ Effects	Lungs-Nuisance dusts Lungs Silicosis, cancer
Aspiration hazard	No information available
Other	The bacteria in this product are typically harmless strains, and are not associated with disease or infection healthy people (Biosafety Level 1). However, use good hygiene practices. Handle as rich soil or compost. Nonporous gloves recommended. Wash hands thoroughly after handling. Avoid breathing dust. Persons with severely compromised immune systems should consult with their physician before handling microbial products.

12. ECOLOGICAL INFORMATION

Fertilizers may be harmful to aquatic life with short term effects, causing algal bloom and increased BOD, depending on the amount released.

Persistence and degradability	No information available
Bioaccumulation	No information available
Other adverse effects	No information available

13. DISPOSAL CONSIDERATIONS

Disposal of wastes:

Excess product should be used up according to label directions, to avoid disposal issues. Dispose of in accordance with Local, State, and Federal regulations.

Contaminated packaging

Dispose empty container with normal trash, unless prohibited by local regulations.

14. TRANSPORT INFORMATION

NMFC 68140-4 FERTILIZER COMPOUNDS (MANUFACTURED FERTILIZERS) NOI, DRY 20 OR GREATER PCF

DOT:	Not Regulated	ADR:	Not Regulated
Proper Shipping Name:	Not Regulated	ADN	Not Regulated
Hazard Class:	Not Applicable	RID:	Not Regulated
IATA:	Not Regulated	TDG	Not Regulated
Proper Shipping Name:	Not Regulated	ICAO:	Not Regulated
Hazard Class:	Not Applicable	MEX	Not Regulated
IMDG/IMO:	Not Regulated		
Hazard Class:	Not Applicable		
Marine Pollutant:	No		
IMDG:	Not a dangerous good.		
ICAO/IATA:	Not a dangerous good.		

15. REGULATORY INFORMATION

TSCA (USA): Complies.

General Product Information: This product is not federally regulated as a hazardous material.

Clean Air Act: No information is available.

Clean Water Act: This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

SARA 313 Superfund Amendments: Contains manganese compounds, 313 Category N450, 1% de minimis concentration (related to Manganese)

Zinc oxide: Threshold Value: 1%.

SARA 311/312 Hazard Categories:

Acute:	Yes
Chronic:	Yes
Fire:	No
Sudden release of pressure:	No
Reactive:	No

CERCLA: Contains manganese compounds, 313 Category N450

Ferrous sulfate: RQ = 1000 Lbs

Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

State Regulations:

California Proposition 65: This product does not contain detectable quantities of chemicals known to the State of California to cause cancer or birth defects, or other reproductive harm.

Component Analysis - State: Ferrous sulfate: CA, MA, NJ, NY, PA
MA, NJ, PA

Right-to-Know: Manganese compounds-CA, MA, MN, NJ, PA, RI

Zinc compounds: NJ, MA, PA, RI

16. OTHER INFORMATION

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 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.



December 9, 2021

SAFETY DATA SHEET

Dried Dolomite – Industrial Mineral Products

(As prescribed by OSHA, 29 CFR 1910.1200(g) and Appendix D)

(Details of the abbreviations are on pages 5 and 10)

Section 1: Identification

- **Product identifier used on the label and any other common names or synonyms by which the substance is known.**

Dried Dolomite (bulk or packaged in 50-pound or 2,000-pound or 3,000-pound bags). Products designated 6X16, 6X16K, 616SMG, 6X16MG, 6X16RC, 11P, 17, 10, 12, 20, 30, 30A, 40, 60, 80, DMI, CMF, CMA, PDL, Athletic Field Marker, EcopHrst™ Pulverized Dolomitic Limestone, Dolomitic High Magnesium Limestone. (Note: BB with the product codes denotes "packaged in Bulk Bag", and "50" with the product code denotes packaged in 50-pound bag.)

- **Name, address, phone number of the manufacturer, importer, or other responsible party, and emergency phone number.**

National Lime & Stone Co.
Corporate Office: 551 Lake Cascade Parkway, PO Box 120, Findlay, OH 45840
Plant: 370 North Patterson St., Carey, OH 43326
Phone: 419-422-4341 Emergency Phone: 419-396-7671

- **Recommended use of the chemical:** Mineral filler, fluxing agent in steel and glass manufacturing, amendment for increasing pH of acidic soils.
- **Recommended restrictions on use of the chemical:** See sections 7 and 10 of this SDS. Extensive dust control measures required if contemplated for use as abrasive blasting agent.

Section 2: Hazard(s) Identification

Physical Hazards: Not classified.

The hazards below apply to dust generated from handling or processing.

Inhalation: Acute (immediate) - Dusts may irritate the nose, throat and respiratory tract by mechanical abrasion and drying. Coughing, sneezing, shortness of breath may occur.

Inhalation: Chronic - Long term exposure to crystalline silica may cause a chronic lung disease, silicosis. Respirable Crystalline Silica (RCS) may cause cancer. Limestone is a naturally occurring mineral complex that contains varying quantities of quartz (crystalline silica). In its natural bulk state, limestone is not a known health hazard. Limestone may be subjected to various natural or mechanical forces that produce small particles (dust) which may contain RCS (Respirable crystalline silica particles less than 10 micrometers in aerodynamic diameter). Repeated inhalation of RCS (quartz) may cause lung cancer according to IARC and NTP; ACGIH® states that it is a suspected cause of cancer. Other forms of RCS (e.g., tridymite and cristobalite) may also be present or formed under certain industrial processes.

Section 2 Hazard(s) Identification Continued

Eye contact: Acute - Dust particles can scratch the eye causing tearing, redness, a stinging or burning feeling, or swelling of the eyes with blurred vision. Chronic – no known effects.

Skin contact: Acute - Dust particles can scratch and irritate the skin with redness, and itching or burning feeling, swelling of the skin, and / or rash. Chronic – no known effects.

Ingestion: Expected to be practically non-toxic. Acute - Ingestion of large amounts may cause gastrointestinal irritation including nausea, vomiting, diarrhea, and blockage. Chronic – no known effects.

Hazard category (Inhalation) for:

- Carcinogen: Category 1A (see 29 CFR 1910.1200 Appendix A.6)
- Specific Target Organ Toxicity – Repeated Exposure (lungs, respiratory system) – Category 2 (see 29 CFR 1910.1200 Appendix A.9)

▪ **Signal word:** Danger

▪ **Hazard statements:**

May cause cancer. May cause damage to organs (lung) through prolonged or repeated exposure.

NFPA Hazard Class Health: 1 Flammability: 0 Reactivity: 0

HMIS Hazard Class Health: 1 Flammability: 0 Reactivity: 0 Personal Protection: E

Hazards Not Otherwise Classified (HNOC) – None Known

▪ **Pictograms:**



- **Precautionary statements:** Do not handle until all safety precautions have been read and understood.

Respiration protection: NIOSH-MSHA approved dust respirators for conditions where dust levels may exceed exposure limits.

Ventilation: As required to maintain exposures below PEL's, REL's and TLV®'s. Vent dust to collector.

Eye protection: Dust goggles should be worn when visibly dusty conditions exist.

Storage: Restrict or control access to stockpile areas. Engulfment hazard: To prevent burial or suffocation, do not enter a confined space, such as a silo, bulk truck or other storage container or vessel that stores or contains aggregates without an effective procedure for assuring safety.

Disposal: Dispose of contents/container in accordance with any and all applicable federal, state, and local laws, regulations, and practices.

Section 3: Composition/Information on Ingredients

Components	Formula	CAS No.	Weight %
Dolomite or Dolomitic Limestone	CaCO ₃ ·MgCO ₃	16389-88-1	97+
Silicon Dioxide (Quartz)	SiO ₂	14808-60-7	>0.1%
Other Trace Elements	N/A	NA	<3%

Trade Name & Synonyms: Dolomite, Limestone, Ag Lime, Magnesium Limestone
 Chemical Family: Alkaline Earth Carbonate

Section 4: First-Aid Measures

- Necessary first-aid instructions by relevant routes of exposure:**

Inhalation: Remove to fresh air. Dust in throat and nasal passages should clear spontaneously. Contact physician if irritation persists or if breathing is difficult.

Skin: Wash affected areas thoroughly with mild soap and fresh water. Contact physician if irritation persists or later develops.

Eyes: Immediately flush eye(s) with plenty of clean water for at least 15 minutes, while holding the eyelid(s) open. Occasionally lift the eyelid(s) to ensure thorough rinsing. Beyond flushing, do not attempt to remove material from the eye(s). Contact a physician if irritation persists or later develops.

Ingestion: If person is conscious, do not induce vomiting. Give large quantity of water and get medical attention. Never attempt to make an unconscious person drink.

Pre-existing medical conditions that may be aggravated by exposure include disorders of the eye, skin, and lung (including asthma and other breathing disorders). If addicted to tobacco, smoking will impair the ability of the lungs to clear themselves of dust.

See also Section (2) of this SDS - Hazards(s) Identification

Section 5: Fire-Fighting Measures

Suitable Extinguishing Media – Limestone is not flammable. Limestone dust is not a combustible. Use fire-extinguishing media appropriate for surrounding materials.

Unsuitable extinguishing media - None known.

Special protective equipment and precautions for firefighters – Use protective equipment appropriate for combustion products generated by surrounding materials.

Firefighting equipment/instructions - No specific precautions.

Specific hazards that develop from the material during the fire:

Flash point – Non-Flammable; Auto-ignition Temperature – Non-Flammable

Unusual fire and explosion hazards:

Contact with powerful oxidizing agents may cause fire and/or explosions. (See section 10 of this SDS.)

When heated at 1700°F or more for prolonged periods, dolomitic limestone decomposes into dolomitic quicklime (CaOMgO) releasing carbon dioxide (decomposition can begin at 1100°F). Dolomitic quicklime generates heat (and potentially steam) when exposed to water.

Section 6: Accidental Release Measures

▪ **Cleanup procedures :**

Spilled materials, where dust is generated, may overexpose clean-up personnel to respirable dust. Use of respiratory protective equipment may be necessary. Do not dry sweep or use compressed air for clean-up. Dolomitic limestone may be wetted with water to control dusting. Prevent spilled materials from entering streams, drains, or sewers.

Waste disposal method: Pick up and reuse clean materials. Dispose of waste materials in accordance with any and all applicable federal, state, and local laws, regulations, and practices.

Section 7: Handling and Storage

▪ **Precautions for safe handling:**

Do not handle until all safety precautions have been read and understood.

Keep formation of airborne dusts to a minimum. Do not breathe dust.

Provide appropriate exhaust ventilation at places where dust is formed. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.

Bulk density can exceed 120 pounds per cubic foot. Verify storage structures (bins, silos, etc.) have sufficient strength to contain the material. Stack bagged material in a secure manner to prevent falling.

Engulfment hazard. To prevent burial or suffocation, do not enter a confined space, such as a silo, bin, bulk truck, or other storage container or vessel that stores or contains dolomite. Dust can build up or adhere to the walls of a confined space and release, collapse, or fall unexpectedly. Do not stand on or near stockpiles of dolomite; they may be unstable.

▪ **Recommendations on the conditions for safe storage:**

May cause pitting of aluminum. Ignites on contact with fluorine and other strong oxidizing agents and is incompatible with acids, ammonium salts, and magnesium metal.

Section 8: Exposure, Controls, Personal Protection

Exposure limits vary with the % quartz dust. Refer to OSHA, NIOSH, ACGIH® and MSHA for current applicable exposure limits.

Selected Occupational Exposure Limits (August 29, 2019).	All values for mg/m3 for 8 hour TWA (except NIOSH REL is up to 10 hour TWA)				
	REGULATORY			RECOMMENDED	
Substance	OSHA PEL	MSHA PEL	Cal/OSHA PEL	ACGIH® TLV®	NIOSH REL
Limestone (Dolomite) (Ca and Mg Carbonates)	15 (T) 5 (R)	10 (T)	10 (T) 5 (R)	**	10 (T) 5 (R)
Respirable dust containing crystalline silica.	---	10mg/m3 ÷ (% RQ + 2) (See Note Below)	---	**	---
Respirable Crystalline Silica (Including Tridymite, Cristobalite and other forms of respirable silica)	0.05 (PEL) 0.025 (Action Level)	---	0.05	**	0.05
Airborne OEL's for Inert/Nuisance Dust (PNOS)	15 (T) 5 (R)	10 (T)	10 (T) 5 (R)	**	---

NOTE: The MSHA PEL for dust containing respirable silica as tridymite and cristobalite is one-half the MSHA PEL for respirable dust containing silica as quartz.

References: OSHA & Cal-OSHA PEL's, and NIOSH REL's are taken from OSHA Annotated Z-1 and Z-3 (<https://www.osha.gov/dsg/annotated-pels/index.html>) (except OSHA respirable silica PEL is the 2016 updated value (information at https://www.osha.gov/silica/Silica_FAQs_2016-3-22.pdf)).
MSHA data from <https://www.kapa-krmca.org/Resources/Documents/Education/KAPA/LimestoneMSDS.pdf> and <https://www.federalregister.gov/documents/2019/08/29/2019-18478/respirable-silica-quartz>.
** Check for most recent ACGIH® TLVs® and BEIs®.

Abbreviations:

- T = Total Dust
- R = Respirable Fraction
- RQ = Respirable Quartz
- ACGIH® = American Conference of Governmental Industrial Hygienists
- ACGIH® TLV® = Threshold Limit Value
- Cal/OSHA - California Division of Occupational Safety and Health
- mg/m3 = milligrams per cubic meter of air
- NIOSH = National Institute for Occupational Safety and Health
- NIOSH REL = Recommended Exposure Limit
- MSHA = Mine Safety and Health Administration
- OSHA = Occupational Safety and Health Administration
- OSHA PEL = Permissible Exposure Limit
- OEL = Occupational Exposure Limit
- TWA = Time Weighted Average
- PNOS - Particles Not Otherwise Specified (or regulated)

Section 8 Exposure, Controls, Personal Protection Continued

Appropriate engineering controls: Use ventilation and dust collection to control exposure to below applicable limits.

Recommendations for personal protective measures: Respirable dust and quartz levels should be monitored regularly to determine worker exposure levels. Exposure levels in excess of allowable exposure limits should be reduced by all feasible engineering controls, including (but not limited to) wet suppression, ventilation, process enclosure, and enclosed employee workstations.

Any special requirements for PPE:

Eye protection: Safety glasses with side shields should be worn as minimum protection. Dust goggles should be worn when excessively (visibly) dusty conditions are present or anticipated.

Skin protection: Use gloves to provide hand protection from abrasion. In dusty conditions wear long sleeve shirt. Wash work clothes after each use.

Respiratory Protection: All respirators must be NIOSH-approved for the exposure levels present. (See NIOSH Respirator Selection Guide). The need for respiratory protection should be evaluated by a qualified safety and health professional. Activities that generate dust require the use of an appropriate dust respirator where dust levels exceed or are likely to exceed allowable exposure limits. Respirator use must comply with applicable MSHA (42 CFR 84) or OSHA (29 CFR 1910.134) standards, which include provisions for a user training program, respirator inspection, repair and cleaning, respirator fit testing, medical surveillance, and other requirements.

Section 9: Physical and Chemical Properties

(a) Appearance (physical state, color, etc.) - Angular gray, white, and tan solid particles ranging in size from powder to about 5 mesh (square sieve opening of 0.157 inches).

(b) Odor - No Odor

(c) Odor threshold - NA

(d) pH – 9.4 in saturated water solution

(e) Melting point/freezing point - NA

(f) Initial boiling point and boiling range - NA

(g) Flash point – Not Flammable

(h) Evaporation rate – NA

(i) Flammability (solid, gas) - Not flammable

(j) Upper/lower flammability or explosive limits – Not Flammable.

(k) Vapor pressure - NA

(l) Vapor density - NA

(m) Relative density - Ranges between 60 and 125 pounds per cubic foot

(n) Solubility(ies) – Negligible in water.

(o) Partition coefficient: n-octanol/water – NA.

(p) Auto-ignition temperature – Not Flammable.

(q) Decomposition temperature - When heated at 1100 - 1700°F, dolomitic limestone decomposes into dolomitic quicklime releasing carbon dioxide gas.

(r) Viscosity – NA

Section 10: Stability and Reactivity

Reactivity: The product is stable and non-reactive under normal conditions of use, storage, and transport

Chemical Stability: Reacts with acids evolving CO₂ gas. Stable if no acids or strong oxidizing agents are present.

Possibility of Hazardous Reactions: Do not expose to acids or strong oxidizing agents.

Conditions to Avoid: Do not expose to acids or strong oxidizing agents.

Incompatible Materials: Ignites on contact with fluorine and other strong oxidizing agents and is incompatible with acids, ammonium salts, and magnesium metal. May cause pitting of aluminum.

Hazardous polymerization: Will not occur.

Hazardous decomposition products: When heated at 1100 - 1700°F, dolomitic limestone decomposes into dolomitic quicklime releasing carbon dioxide gas.

Section 11: Toxicological Information

Inhalation Repeated inhalation of respirable crystalline silica (quartz) may cause silicosis, a fibrosis (scarring) of the lungs. Silicosis is irreversible and may be fatal. Silicosis increases the risk of contracting pulmonary tuberculosis. Some studies suggest that repeated inhalation of respirable crystalline silica may cause other adverse health effects including lung and kidney cancer.

Skin contact Limestone dust: May cause irritation through mechanical abrasion.

Eye contact Limestone dust: May cause irritation through mechanical abrasion.

Ingestion Not likely, due to the form of the product. However, accidental ingestion of the content may cause discomfort.

Symptoms related to the physical, chemical, and toxicological characteristics: Limestone dust: Discomfort in the chest. Shortness of breath. Coughing.

Information on toxicological effects: (See <https://www.osha.gov/dsg/hazcom/ghsguideoct05.pdf>)

Acute toxicity - Not expected to be acutely toxic.

Skin corrosion/irritation - This product is not expected to be a skin hazard.

Serious eye damage/eye irritation - Direct contact with eyes may cause severe irritation.

Respiratory or skin sensitization:

Respiratory sensitization - No respiratory sensitizing effects known.

Skin sensitization - Not known to be a dermal irritant or sensitizer.

Germ cell mutagenicity - No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity - Respirable crystalline silica has been classified by IARC and NTP as a known human carcinogen and classified by ACGIH® as a suspected human carcinogen.

IARC Monographs. Overall Evaluation of Carcinogenicity

Crystalline Silica(Quartz) (CAS 14808-60-7) 1 Carcinogenic to humans.

Respirable Tridymite and Cristobalite
(other forms of Crystalline) (CAS Mixture) 1 Carcinogenic to humans.

NTP Report on Carcinogens:

Crystalline Silica(Quartz) (CAS 14808-60-7) - Known To Be Human Carcinogen.

Reproductive toxicity - Not expected to be a reproductive hazard.

Specific target organ toxicity – single exposure - Not classified.

Specific target organ toxicity – repeated exposure

Respirable crystalline silica: May cause damage to organs (lung) through repeated exposure prolonged or repeated exposure.

Aspiration hazard - Due to the physical form of the product it is not an aspiration hazard.

Chronic effects Prolonged inhalation of respirable crystalline silica may be harmful. May cause damage to organs (lungs) through prolonged or repeated exposure. There are reports in the literature suggesting that excessive crystalline silica exposure may be associated with autoimmune disorders and other adverse health effects involving the kidney. In particular, the incidence of scleroderma (thickening of the skin caused by swelling and thickening of fibrous tissue) appears to be higher in silicotic individuals. To date, the evidence does not conclusively determine a causal relationship between silica exposure and these adverse health effects.

Section 12: Ecological Information

Ecotoxicity	Not expected to be harmful to aquatic organisms. Discharging limestone dust and fines into waters may increase total suspended particulate (TSP) levels that can be harmful to certain aquatic organisms.
Persistence and degradability	Not applicable.
Bioaccumulative potential	Not applicable.
Mobility in soil	Not applicable.
Other adverse effects	No other adverse environmental effects (e.g., ozone depletion, photochemical ozone creation potential, global warming potential) are expected from this component.

Section 13: Disposal Considerations

Disposal Instructions: Do not allow fine particulate matter to drain into sewers/water supplies. Do not contaminate ponds, waterways, or ditches with fine particulates. Dispose of contents in accordance with any and all applicable federal, state, and local laws, regulations, and practices.

Hazardous waste code: Not Regulated

Waste from Residue / Unused Products: Dispose of residue or unused product in accordance with any and all applicable federal, state, and local laws, regulations, and practices.

Contaminated Packaging: Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty packaging materials should be recycled or disposed of in accordance with any and all applicable federal, state, and local laws, regulations, and practices.

Section 14: Transport Information (Not intended to be all-inclusive)

Dried dolomite is not classified as a hazardous material by US DOT and is not regulated by the Transportation of Dangerous Goods (TDG) when shipped by any mode of transport.

UN number - Not Regulated

UN proper shipping name - Not regulated

DOT Transport hazard class – Not Applicable

DOT Packing group – Not applicable

International Maritime Dangerous Goods Code (IMDG Code) – Not regulated as dangerous goods.

International Air Transport Association (IATA) – Not regulated as dangerous goods

Transport in bulk (according to Annex II of MARPOL 73/78 and the International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk (International Bulk Chemical Code (IBC Code))). Not Applicable

Section 15: Regulatory Information (Not intended to be all-inclusive.)

US Federal Regulations: This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D) – Not Regulated

U.S. TSCA Inventory List. All Chemical ingredients are listed.

RCRA Hazardous Waste Number: Not Listed (40 CFR 261.33)

RCRA Hazardous Waste Classification (40 CFR 261): Not Classified

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)

CERCLA Hazardous Substance List (40 CFR 302.4) Not listed

CERCLA Reportable Quantity (RQ): not listed

Super Fund Amendments and Reauthorization Act of 1986 (SARA) Hazard categories

Immediate hazard – No; Delayed hazard – Yes; Fire hazard – No;

Pressure hazard – No; Reactivity hazard - No

SARA 311/312 Hazardous Chemical: Yes SARA 313 (TRI Reporting) – Not Regulated

SARA Toxic Chemical (40 CFR 372.65): not listed

SARA 302 (Extremely Hazardous Substance): Not Listed

Specifically, Regulated Substance (29 CFR 1910): not listed

Mine Safety Health Administration - not listed

Clean Air Act (CAA) Section 112 – Hazardous Air Pollutants (HAP's) List – Not Regulated

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130) – Not Regulated

Safe Drinking Water Act (SDWA) – Not Regulated

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

Canadian Regulations. Dolomite products containing crystalline silica and calcium carbonate are classified D2A and are subject to WHMIS requirements.

Additional State or Province regulations may be applicable. For Example:

US. Massachusetts RTK - Substance List

Crystalline Silica (Quartz) (CAS 14808-60-7)

Respirable Tridymite and Cristobalite (other forms of crystalline silica) (CAS Mixture)

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

Crystalline Silica(Quartz) (CAS 14808-60-7)

Respirable Tridymite and Cristobalite (other forms of crystalline silica) (CAS Mixture)

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

Crystalline Silica (Quartz) (CAS 14808-60-7)

Respirable Tridymite and Cristobalite (other forms of crystalline silica) (CAS Mixture)

US. California Proposition 65

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

US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance

Crystalline Silica (Quartz) (CAS 14808-60-7)

Section 16: Other Information

Original Issue Date: May 11, 2015; Revision June 28, 2020, December 9, 2021 (Updated ACGIH®)

Abbreviations (See also Section 8 – table of Selected Occupational Exposure Limits)

CAS — Chemical Abstract Service

NTP — National Toxicology Program

CFR — Code of Federal Regulations

RCRA – Resource Conservation and Recovery Act

DOT — Department of Transportation

RQ — Reportable Quantity

GHS — Globally Harmonized System

SDS — Safety Data Sheet

HEPA — High Efficiency Particulate Air

TPQ — Threshold Planning Quantity

IARC — International Agency for Research on Cancer

TSCA — Toxic Substances Control Act

NOEC — No Observed Effect Concentration

UN — United Nations

NA – Not Applicable

The information reported in this SDS 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. Such information is, to the best of National Lime and Stone Company's knowledge and belief, accurate and reliable as of the date indicated. However, no representation, warranty, or guarantee is made as to its accuracy, reliability, or completeness. It is the user's responsibility to satisfy himself as to the suitability and completeness of such information for his own particular use. Also, the suggestions should not be confused with nor followed in violation of applicable laws, regulations, rules, or insurance requirements.

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This Product is NOT intended to be used as a food source, component, or ingredient. It is NOT produced in compliance with state or federal regulations governing products consumed or intended for consumption by humans or animals and should not be used for such purposes.

IN THE EVENT OF BREACH OF ANY WARRANTY OF ANY TYPE, THE SOLE REMEDY OF THE PURCHASER AND/OR USER SHALL BE REPLACEMENT OF THE PRODUCT PURCHASED. UNDER NO CIRCUMSTANCES WILL SELLER BE LIABLE FOR DAMAGES INCLUDING INCIDENTAL OR CONSEQUENTIAL DAMAGES, REGARDLESS OF THE LEGAL THEORY UPON WHICH A CLAIM MAY BE BASED.

End of SDS 4921