SAFETY DATA SHEET

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1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY

Product Name: LebanonTurf Country Club MD 14-7-14

Product Identity: Mixed granular fertilizer.

Recommended use

This product is a mixed granular fertilizer for landscape use.

Supplier/Manufacturer

Lebanon Seaboard Corporation 1600 East Cumberland Street Lebanon PA 17042 800-233-0628 (717-273-1685)

Emergency telephone numbers:

Chemtrec (Spill) 1-800-424-9300

Prosar (Health) 888-208-1368

2. HAZARDS IDENTIFICATION

Signal Word: Warning

Hazard Statements and Hazard Category:

H302: Harmful if swallowed. (Category 4)

H315: Causes skin irritation. (Category 2)

H320: Causes eye irritation. (Category 2B)

H335: May cause respiratory irritation.

H333: May be harmful if inhaled repeatedly over prolonged periods. (Category 5)

H351: Suspected of causing cancer by prolonged/repeated inhalation. (Category 2)

Precautionary Statements for handling: See also Section 7.

P233, P403, P405: Keep container tightly closed and in a well-ventilated place.

P261: Avoid breathing dust.

P271: Use only outdoors or in a well-ventilated area.

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

P281: Use appropriate personal protective equipment as required to avoid breathing dust.

P264: Wash hands thoroughly after handling.

P270: Do not eat, drink or smoke when using this product.

P302, P332, 352: IF ON SKIN: Gently wash with plenty of soap and water. Seek medical attention if irritation occurs and persists.

P301, P310, P330: IF SWALLOWED: Rinse mouth. Immediately call a POISON CENTER or doctor/physician.

P305, P337, P351: If in eyes, rinse cautiously with water for several minutes. If eye irritation persists: Seek medical advice.

P340, 341: If inhaled and breathing difficulty occurs, remove victim to fresh air and keep at rest in a position comfortable for breathing.

P362: Take off contaminated clothing and wash before reuse.

Keep out of reach of children.

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

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

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3. COMPOSITION/INFORMATION ON INGREDIENTS

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Chemical Name	CAS No.	Weight %
Methylene ureas	9011-05-6	20 -25
Monoammonium phosphate	7722-76-1	10 - 15
Dolomite*	16389-88-1	5 - 10
Manganese sulfate	7785-87-7	1 - 5
Attapulgite clay*	12174-11-7	1 - 5
Non hazardous fertilizer ingredients	Various	Balance

^{*}Natural mined minerals like dolomite and attapulgite can contain a small amount (1 to 10%) of free respirable crystalline silica sand (quartz) which has been listed as a human carcinogen by NTP (Group 1) and IARC (Reasonably Anticipated to be a Human Carcinogen) and a Suspected Human Carcinogen by ACGIH (category A2). Silica content of this product estimated to be about 0.5 to 1%.

4. FIRST AID MEASURES

Eye Contact Rinse eyes cautiously with water for several minutes. Remove any contact lenses if easy to do, and

continue rinsing. If discomfort or irritation persists contact a physician.

Skin Contact Wash with soap and water. If injury occurs, or if discomfort or irritation persists or rash occurs, 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. Chronic overexposure to manganese can cause "manganism", characterized by fatigue, irritability, headaches and asthenia. Symptoms are reversible when exposure stops. When later changes occur, some permanent brain damage can result resembling Parkinson's disease. High or repeated exposures may damage the kidneys or liver. Such high exposure would likely require significant ingestion of product.

<u>Indication of any immediate medical attention and special treatment needed</u>: Treat Symptoms. Consult physician if discomfort or irritation persists. Get medical advice or attention if you feel unwell.

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-

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up.

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 Read and understand all safety precautions before handling. Ensure adequate ventilation,

especially in confined areas. Use personal protective equipment as required to avoid breathing product 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*
Quartz silica	0.025 mg/m ³ (respirable)	$30 \text{ mg/m}^3) \div (\% \text{SiO}_2 + 2)$	3000 mg/m ³
Manganese sulfate	0.2 mg/m3 TWA (Mn)	1 mg/m ³ TWA (Mn fume) 5 mg/m ³ Ceiling (Mn)	500 mg/m³ (Mn)
Nuisance Dusts	10 mg/m ³ (TWA- Total dust)	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.

<u>Individual protection measures</u>: Use appropriate personal protective equipment as required to avoid breathing dust.

Eye protection Safety glasses, or goggles if eye contact is likely

Skin and Body Protection Gloves and standard work coveralls recommended.

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. Remove and wash contaminated clothing before reuse.

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9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state Solid
Appearance Granules
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 Limit in Air

Upper flammability limit: No information available Lower flammability limit: No information available

Vapor pressure Not applicable
Vapor density Not applicable
Specific Gravity Not applicable

Water solubility Mostly Insoluble in water, although some ingredients may dissolve.

Solubility in other solvents
Partition coefficient
Autoignition temperature
Decomposition temperature
No information available
No information available
No information available

Oxidizing properties Not an oxidizer

10. STABILITY AND REACTIVITY

Reactivity

No data available

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 (NOx), 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. Chronic

overexposure to manganese compounds may result in CNS effects such as weakness, sleepiness, emotional instability and spastic gait. These effects can be permanent. Chronic overexposure to manganese can cause "manganism", characterized by fatigue, irritability, headaches and asthenia. Symptoms are reversible when exposure stops. When later changes occur, some permanent brain damage can result resembling Parkinson's disease. High or repeated exposures may damage the kidneys or liver. Such high exposure would likely require significant ingestion of product.

Sensitization None Germ cell mutagenicity None

Carcinogenicity Potential occupational carcinogen. Naturally mined minerals, like attapulgite, typically contain

sand (silica) in small amounts. Fine silica particulates are considered to be carcinogenic via

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repeated and prolonged inhalation. (NTP, IARC, ACGIH)

Reproductive toxicity None

STOT - single exposure
STOT - repeated exposure
Chronic toxicity
Target Organ Effects
Aspiration hazard

No information available
No information available
Lungs-Nuisance dusts
No information available

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 Not applicable

Bioaccumulation Not expected to bioaccumulate based on composition.

Other adverse effects No information available

13. DISPOSAL CONSIDERATIONS

This material, as supplied is not a hazardous waste according to federal regulations (40 CFR 261).

Disposal of wastes:

This product is a non-hazardous waste material suitable for approved solid waste landfills.

No EPA Waste Numbers are applicable for this product's components.

Dispose of in accordance with Local, State, and Federal regulations.

Contaminated packaging

No US Federal special packaging considerations at the date of this document. Follow local regulations.

14. TRANSPORT INFORMATION

DOT: Not Regulated ADR: Not Regulated Proper Shipping Name: Non Regulated

Hazard Class: Not Applicable ADN: Not Regulated

IATA: Not Regulated RID: Not Regulated

Proper Shipping Name: Non Regulated Hazard Class: Not Applicable

IATA: Not Regulated TDG: Not Regulated

IMDG/IMO Not Regulated
Hazard Class Not Applicable ICAO: Not Regulated

Hazard Class Not Applicable ICAO: Not Regulated Marine Pollutant No

MEX: Not Regulated

IMDG: Not a dangerous good. ICAO/IATA: Not a dangerous good.

15. REGULATORY INFORMATION

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SARA 311/312 Hazard Categories

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

CERCLA: SARA 313 Superfund Amendments: Contains manganese compounds, 313 Category N450.

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).

State Regulations

Component Analysis - State

The following components appear on one or more of the following state hazardous substances lists:

Component	CAS#	CA	IL	MA	MN	NJ	NY	PA	RI
Manganese Sulfate (related to Mn) ¹	10377-66-9	Yes ¹	No	Yes ¹	Yes ¹	Yes ¹	No	Yes ¹	Yes ¹
Crystalline silica (Quartz)	14808-60-7	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes

Other state regulations may apply. Check individual state requirements.

Component Analysis - WHMIS IDL

The following components are identified under the Canadian Hazardous Products Act Ingredient Disclosure List:

Component	CAS#	Minimum Concentration
Manganese Sulfate	7785-87-7	1% (refers to elemental manganese, Mn)

Component Related Regulatory Information:

This product may be regulated, have exposure limits or other information identified as the following: Manganese (7439-96-5), Manganese compounds, n.o.s., Manganese compounds, inorganic, Manganese inorganic salts.

California Proposition 65: This product may contain detectable quantities of a substance (sand mineral: silica) known to the State of California to cause cancer by prolonged, repeated inhalation over a long period of time (months to years).

International Inventories

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:No information is available.

16. OTHER INFORMATION

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Disclaimer

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.