



0-0-22

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations

Date of Issue: 11/14/2022

Version: 1.0

SECTION 1: IDENTIFICATION

1.1. Product Identifier

Product Form: Mixture

Product Name: 0-0-22

1.2. Intended Use of the Product

Use of the Substance/Mixture: Turf Fertilization

1.3. Name, Address, and Telephone of the Responsible Party

Trigon Turf Sciences LLC

16051 Collins Ave., # 1502

33160 Sunny Isles Beach - US

T 757-220-4466

1.4. Emergency Telephone Number

Emergency Number : (800)255-3924
VelocityEHS
(800)255-3924 (North America)
+1 (813)248-0585 (International)

SECTION 2: HAZARDS IDENTIFICATION



2.1. Classification of the Substance or Mixture

GHS-US Classification

Skin corrosion/irritation Category 2	H315
Serious eye damage/eye irritation Category 1	H318
Reproductive toxicity Category 1B	H360
Specific target organ toxicity (repeated exposure) Category 2	H373
Hazardous to the aquatic environment - Chronic Hazard Category 3	H412
Combustible Dust	

2.2. Label Elements

GHS-US Labeling

Hazard Pictograms (GHS-US) :  

Signal Word (GHS-US) : Danger

Hazard Statements (GHS-US) : May form combustible dust concentrations in air.
H315 - Causes skin irritation.
H318 - Causes serious eye damage.
H360 - May damage fertility or the unborn child.
H373 - May cause damage to organs (brain) through prolonged or repeated exposure (Inhalation).
H412 - Harmful to aquatic life with long lasting effects.

Precautionary Statements (GHS-US) : P201 - Obtain special instructions before use.
P202 - Do not handle until all safety precautions have been read and understood.
P260 - Do not breathe dust.
P264 - Wash hands, forearms, and other exposed areas thoroughly after handling.
P273 - Avoid release to the environment.
P280 - Wear protective gloves, protective clothing, and eye protection.
P302+P352 - If on skin: Wash with plenty of water.
P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313 - If exposed or concerned: Get medical advice/attention.
P310 - Immediately call a poison center or doctor.
P314 - Get medical advice/attention if you feel unwell.
P321 - Specific treatment (see section 4 on this SDS).
P332+P313 - If skin irritation occurs: Get medical advice/attention.
P362+P364 - Take off contaminated clothing and wash it before reuse.
P405 - Store locked up.

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Supplemental Information

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

: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Proper grounding procedures to avoid static electricity should be followed. Prevent dust accumulation (to minimize explosion hazard). Avoid generating dust.

2.3. Other Hazards

Exposure may aggravate pre-existing eye, skin, or respiratory conditions.

2.4. Unknown Acute Toxicity (GHS-US)

No data available

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substance

Not applicable

3.2. Mixture

Name	Synonyms	Product Identifier	%	GHS US classification
Potassium magnesium sulfate (Mg ₂ K ₂ (SO ₄) ₃)	Potassium magnesium sulfate	(CAS-No.) 14977-37-8	36.75	Not classified
Sulfuric acid, dipotassium salt	Sulfuric acid dipotassium salt / Potassium sulfate / Potassium sulfate (2:1) / Dipotassium sulfate / Potassium sulphate / Dipotassium sulphate / Sulfuric acid potassium salt (1:2) / POTASSIUM SULFATE / potassium sulfate	(CAS-No.) 7778-80-5	25.5	Not classified
Limestone	Calcium carbonate / Marble / Natural calcium carbonate / Acetate, 4-methyl-2-propyl-2H-tetrahydropyran-4-yl / Limestone (A noncombustible solid characteristic of sedimentary rock. It consists primarily of calcium carbonate.) / Ground limestone / Chalk / Limestone (sedimentary rock) / Calcite / Limestone ground	(CAS-No.) 1317-65-3	10	Not classified
Manganese(II) sulfate	Manganese sulfate / Manganese sulphate / Manganese(II) sulfate (1:1) / Sulfuric acid, manganese(2+) salt (1:1) / Manganese(II) sulphate / Manganese monosulfate / Manganous sulfate / MANGANESE SULFATE / Manganese [II] sulphate / Sulfuric acid, manganese salt / manganese sulfate anhydrous	(CAS-No.) 7785-87-7	9.5	Acute Tox. 4 (Oral), H302 Eye Dam. 1, H318 STOT RE 2, H373 Aquatic Acute 3, H402 Aquatic Chronic 2, H411
Humic acids	Humic acid / Humic acids (The brown polymeric product from the decomposition of organic matter, particularly dead plants. This combination of polymers may contain aromatic and heterocyclic structures, carboxy groups, and nitrogen.) / HUMIC ACIDS	(CAS-No.) 1415-93-6	3	Comb. Dust Skin Irrit. 2, H315 Eye Irrit. 2A, H319 STOT SE 3, H335
Soybean meal	Soybean meal (Meal resulting from solvent extraction of oil from soybeans.) / Soybean flour	(CAS-No.) 68308-36-1	2	Comb. Dust

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Potassium silicate	Silicic acid, potassium salt / POTASSIUM SILICATE / Potassium polysilicate	(CAS-No.) 1312-76-1	2	Met. Corr. 1, H290 Acute Tox. 4 (Inhalation:dust,mist), H332 Skin Corr. 1B, H314 Eye Dam. 1, H318 STOT SE 3, H335
Sulfuric acid, iron(2+) salt (1:1), monohydrate	Iron(2+) sulfate monohydrate / Iron(II) sulfate, monohydrate / Ferrous sulfate monohydrate / Iron(II) sulfate monohydrate / Iron sulfate monohydrate	(CAS-No.) 17375-41-6	1.75	Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Irrit. 2B, H320
Molasses	Beet molasses / Molasses (The thick liquid remaining after the crystallization and removal of sugar from the mother liquor formed during sugar manufacture.) / Molasses, beet / Sugarcane molasses / MOLASSES	(CAS-No.) 68476-78-8	1.75	Not classified
Disodium octaborate, tetrahydrate	Boric acid, disodium salt, tetrahydrate / Boron sodium oxide, tetrahydrate / Boron sodium oxide (B8Na2O13), tetrahydrate / Disodium octaborate tetrahydrate / Boron sodium oxide tetrahydrate	(CAS-No.) 12280-03-4	0.25	Acute Tox. 4 (Inhalation:dust,mist), H332 Repr. 1B, H360

Full text of H-phrases: see section 16

SECTION 4: FIRST AID MEASURES

4.1. Description of First-aid Measures

First-aid Measures General: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

First-aid Measures After Inhalation: Using proper respiratory protection, move the exposed person to fresh air at once. Encourage exposed person to cough, spit out, and blow nose to remove dust. Immediately call a poison center, physician, or emergency medical service.

First-aid Measures After Skin Contact: Remove contaminated clothing. Immediately drench affected area with water for at least 15 minutes. If exposed or concerned: Get medical advice/attention.

First-aid Measures After Eye Contact: Immediately rinse with water for at least 30 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get immediate medical advice/attention.

First-aid Measures After Ingestion: Rinse mouth. Do NOT induce vomiting. Obtain medical attention.

4.2. Most Important Symptoms and Effects Both Acute and Delayed

Symptoms/Injuries: May cause damage to organs (brain) through prolonged or repeated exposure (Inhalation). Causes skin irritation. May damage fertility. May damage the unborn child. Causes serious eye damage.

Symptoms/Injuries After Inhalation: Dust may be harmful or cause irritation.

Symptoms/Injuries After Skin Contact: Redness, pain, swelling, itching, burning, dryness, and dermatitis.

Symptoms/Injuries After Eye Contact: Causes permanent damage to the cornea, iris, or conjunctiva.

Symptoms/Injuries After Ingestion: Ingestion may cause adverse effects.

Chronic Symptoms: May cause damage to organs (brain) through prolonged or repeated exposure (Inhalation). May damage fertility or the unborn child.

4.3. Indication of Any Immediate Medical Attention and Special Treatment Needed

If exposed or concerned, get medical advice and attention. If medical advice is needed, have product container or label at hand.

SECTION 5: FIRE-FIGHTING MEASURES

5.1. Extinguishing Media

Suitable Extinguishing Media: Water fog, alcohol-resistant foam, or dry chemical.

Unsuitable Extinguishing Media: Do not use a heavy water stream. Use of heavy stream of water may spread fire.

5.2. Special Hazards Arising From the Substance or Mixture

Fire Hazard: Combustible Dust.

Explosion Hazard: Dust explosion hazard in air.

Reactivity: Hazardous reactions will not occur under normal conditions.

5.3. Advice for Firefighters

Precautionary Measures Fire: Exercise caution when fighting any chemical fire.

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Firefighting Instructions: Use water spray or fog for cooling exposed containers.

Protection During Firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.

Hazardous Combustion Products: Carbon oxides (CO, CO₂). Oxides of manganese. Oxides of magnesium. Oxides of iron. Oxides of calcium. Sulfur oxides. Potassium oxides. Silica compounds. Sodium oxides.

Other Information: Do not allow run-off from fire fighting to enter drains or water courses. Risk of dust explosion.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal Precautions, Protective Equipment and Emergency Procedures

General Measures: Remove ignition sources. Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources. No smoking. Do not get in eyes, on skin, or on clothing. Do not breathe dust. Avoid generating dust.

6.1.1. For Non-Emergency Personnel

Protective Equipment: Use appropriate personal protective equipment (PPE).

Emergency Procedures: Evacuate unnecessary personnel.

6.1.2. For Emergency Personnel

Protective Equipment: Equip cleanup crew with proper protection.

Emergency Procedures: Eliminate ignition sources first, then ventilate the area. Upon arrival at the scene, a first responder is expected to recognize the presence of dangerous goods, protect oneself and the public, secure the area, and call for the assistance of trained personnel as soon as conditions permit.

6.2. Environmental Precautions

Prevent entry to sewers and public waters. Avoid release to the environment.

6.3. Methods and Materials for Containment and Cleaning Up

For Containment: Contain solid spills with appropriate barriers and prevent migration and entry into sewers or streams. Avoid generation of dust during clean-up of spills.

Methods for Cleaning Up: Clean up spills immediately and dispose of waste safely. Use explosion proof vacuum during cleanup, with appropriate filter. Do not mix with other materials. Vacuum clean-up is preferred. If sweeping is required use a dust suppressant. Use only non-sparking tools. Contact competent authorities after a spill.

6.4. Reference to Other Sections

See Section 8 for exposure controls and personal protection and Section 13 for disposal considerations.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for Safe Handling

Additional Hazards When Processed: Accumulation and dispersion of dust with an ignition source can cause a combustible dust explosion. Keep dust levels to a minimum and follow applicable regulations.

Precautions for Safe Handling: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat, sparks, open flames, and hot surfaces. No smoking. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Do not breathe dust. Do not get in eyes, on skin, or on clothing. Avoid creating or spreading dust.

Hygiene Measures: Handle in accordance with good industrial hygiene and safety procedures.

7.2. Conditions for Safe Storage, Including Any Incompatibilities

Technical Measures: Comply with applicable regulations. Avoid creating or spreading dust. Use explosion-proof electrical, ventilating, lighting equipment. Proper grounding procedures to avoid static electricity should be followed.

Storage Conditions: Keep container closed when not in use. Store in a dry, cool place. Keep/Store away from direct sunlight, extremely high or low temperatures and incompatible materials. Store locked up/in a secure area.

Incompatible Materials: Strong acids, strong bases, strong oxidizers.

7.3. Specific End Use(s)

Turf Fertilization

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control Parameters

For substances listed in section 3 that are not listed here, there are no established exposure limits from the manufacturer, supplier, importer, or the appropriate advisory agency including: ACGIH (TLV), AIHA (WEEL), NIOSH (REL), or OSHA (PEL).

Limestone (1317-65-3)		
USA NIOSH	NIOSH REL (TWA)	10 mg/m ³ (total dust) 5 mg/m ³ (respirable dust)
USA OSHA	OSHA PEL (TWA) [1]	15 mg/m ³ (total dust) 5 mg/m ³ (respirable fraction)

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8.2. Exposure Controls

Appropriate Engineering Controls

: Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure adequate ventilation, especially in confined areas. Ensure all national/local regulations are observed. Proper grounding procedures to avoid static electricity should be followed. Use explosion-proof equipment. Use local exhaust or general dilution ventilation or other suppression methods to maintain dust levels below exposure limits. Power equipment should be equipped with proper dust collection devices. It is recommended that all dust control equipment such as local exhaust ventilation and material transport systems involved in handling of this product contain explosion relief vents or an explosion suppression system or an oxygen-deficient environment.

Personal Protective Equipment

: Gloves. Protective clothing. Protective goggles. Insufficient ventilation: wear respiratory protection.



Materials for Protective Clothing

Hand Protection

Eye and Face Protection

Skin and Body Protection

Respiratory Protection

: Chemically resistant materials and fabrics.

: Wear protective gloves.

: Chemical safety goggles.

: Wear suitable protective clothing.

: If exposure limits are exceeded or irritation is experienced, approved respiratory protection should be worn. In case of inadequate ventilation, oxygen deficient atmosphere, or where exposure levels are not known wear approved respiratory protection.

Other Information

: When using, do not eat, drink or smoke.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on Basic Physical and Chemical Properties

Physical State	: Solid
Appearance	: Gray granular particle
Odor	: No data available
Odor Threshold	: No data available
pH	: No data available
Evaporation Rate	: No data available
Melting Point	: No data available
Freezing Point	: No data available
Boiling Point	: No data available
Flash Point	: No data available
Auto-ignition Temperature	: No data available
Decomposition Temperature	: No data available
Flammability (solid, gas)	: No data available
Vapor Pressure	: No data available
Relative Vapor Density at 20°C	: No data available
Relative Density	: No data available
Solubility	: No data available
Partition Coefficient: N-Octanol/Water	: No data available
Viscosity	: No data available

9.2. Other Information

No additional information available

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

Hazardous reactions will not occur under normal conditions.

10.2. Chemical Stability

Stable under recommended handling and storage conditions (see section 7).

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10.3. Possibility of Hazardous Reactions

Hazardous polymerization will not occur.

10.4. Conditions to Avoid

Direct sunlight, extremely high or low temperatures, and incompatible materials. Sparks, heat, open flame and other sources of ignition. Dust accumulation (to minimize explosion hazard).

10.5. Incompatible Materials

Strong acids, strong bases, strong oxidizers.

10.6. Hazardous Decomposition Products

Thermal decomposition may produce: Carbon oxides (CO, CO₂). Oxides of magnesium. Oxides of manganese. Oxides of iron. Oxides of calcium. Potassium oxides. Sulfur oxides. Silica compounds. Sodium oxides.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on Toxicological Effects

Acute Toxicity (Oral): Not classified

Acute Toxicity (Dermal): Not classified

Acute Toxicity (Inhalation): Not classified

Sulfuric acid, dipotassium salt (7778-80-5)	
LD50 Oral Rat	6600 mg/kg
LD50 Dermal Rat	> 2000 mg/kg
Manganese(II) sulfate (7785-87-7)	
LD50 Oral Rat	782 mg/kg
LC50 Inhalation Rat	> 4.45 mg/L/4h
Potassium silicate (1312-76-1)	
LD50 Oral Rat	> 5000 mg/kg
LD50 Dermal Rat	> 5000 mg/kg
LC50 Inhalation Rat	> 2.06 mg/L/4h
Disodium octaborate, tetrahydrate (12280-03-4)	
LD50 Oral Rat	2500 mg/kg
LD50 Dermal Rabbit	> 2000 mg/kg
LC50 Inhalation Rat	> 2.01 mg/L/4h
ATE (Dust/Mist)	1.50 mg/L/4h
Sulfuric acid, iron(2+) salt (1:1), monohydrate (17375-41-6)	
ATE (Oral)	500.00 mg/kg body weight

Skin Corrosion/Irritation: Causes skin irritation.

Serious Eye Damage/Irritation: Causes serious eye damage.

Respiratory or Skin Sensitization: Not classified

Germ Cell Mutagenicity: Not classified

Carcinogenicity: Not classified

Reproductive Toxicity: May damage fertility or the unborn child.

Specific Target Organ Toxicity (Single Exposure): Not classified

Specific Target Organ Toxicity (Repeated Exposure): May cause damage to organs (brain) through prolonged or repeated exposure (Inhalation).

Aspiration Hazard: Not classified

Symptoms/Injuries After Inhalation: Dust may be harmful or cause irritation.

Symptoms/Injuries After Skin Contact: Redness, pain, swelling, itching, burning, dryness, and dermatitis.

Symptoms/Injuries After Eye Contact: Causes permanent damage to the cornea, iris, or conjunctiva.

Symptoms/Injuries After Ingestion: Ingestion may cause adverse effects.

Chronic Symptoms: May cause damage to organs (brain) through prolonged or repeated exposure (Inhalation). May damage fertility or the unborn child.

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Ecology - General : Harmful to aquatic life with long lasting effects.

Sulfuric acid, dipotassium salt (7778-80-5)	
LC50 Fish 1	653 mg/L (Exposure time: 96 h - Species: Lepomis macrochirus)
EC50 - Crustacea [1]	890 mg/L (Exposure time: 48 h - Species: Daphnia magna)

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LC50 Fish 2	3550 mg/L (Exposure time: 96 h - Species: Lepomis macrochirus [static])
Manganese(II) sulfate (7785-87-7)	
EC50 - Crustacea [1]	22.8 mg/L
ErC50 (Algae)	70.6 mg/L
Potassium silicate (1312-76-1)	
LC50 Fish 1	301 – 478 mg/L (Exposure time: 96 h - Species: Lepomis macrochirus)
LC50 Fish 2	3185 mg/L (Exposure time: 96 h - Species: Brachydanio rerio [semi-static])

12.2. Persistence and Degradability

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Persistence and Degradability	May cause long-term adverse effects in the environment.

12.3. Bioaccumulative Potential

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Bioaccumulative Potential	Not established.
Potassium silicate (1312-76-1)	
BCF Fish 1	(no bioaccumulation expected)

12.4. Mobility in Soil

No additional information available

12.5. Other Adverse Effects

Other Information : Avoid unintended release to the environment.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste Treatment Methods

Waste Disposal Recommendations: Dispose of contents/container in accordance with local, regional, national, and international regulations.

Additional Information: Container may remain hazardous when empty. Continue to observe all precautions.

Ecology - Waste Materials: Avoid unnecessary release into the environment. This material is hazardous to the aquatic environment. Keep out of sewers and waterways.

SECTION 14: TRANSPORT INFORMATION

The shipping description(s) stated herein were prepared in accordance with certain assumptions at the time the SDS was authored, and can vary based on a number of variables that may or may not have been known at the time the SDS was issued.

14.1. In Accordance with DOT

Not regulated for transport

14.2. In Accordance with IMDG

Not regulated for transport

14.3. In Accordance with IATA

Not regulated for transport

SECTION 15: REGULATORY INFORMATION

15.1. US Federal Regulations

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SARA Section 311/312 Hazard Classes	Health hazard - Specific target organ toxicity (single or repeated exposure) Health hazard - Skin corrosion or Irritation Health hazard - Reproductive toxicity Health hazard - Serious eye damage or eye irritation Physical hazard - Combustible dust
Sulfuric acid, dipotassium salt (7778-80-5)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active	
Limestone (1317-65-3)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active	
Manganese(II) sulfate (7785-87-7)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active	
Humic acids (1415-93-6)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active	
Soybean meal (68308-36-1)	

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Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active

Potassium silicate (1312-76-1)

Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active

Molasses (68476-78-8)

Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active

15.2. US State Regulations

Limestone (1317-65-3)

U.S. - New Jersey - Right to Know Hazardous Substance List

U.S. - Pennsylvania - RTK (Right to Know) List

U.S. - Massachusetts - Right To Know List

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

Date of Preparation or Latest Revision : 11/14/2022

Other Information : This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200

GHS Full Text Phrases:

H290	May be corrosive to metals
H302	Harmful if swallowed
H314	Causes severe skin burns and eye damage
H315	Causes skin irritation
H318	Causes serious eye damage
H319	Causes serious eye irritation
H320	Causes eye irritation
H332	Harmful if inhaled
H335	May cause respiratory irritation
H360	May damage fertility or the unborn child
H373	May cause damage to organs through prolonged or repeated exposure
H402	Harmful to aquatic life
H411	Toxic to aquatic life with long lasting effects
H412	Harmful to aquatic life with long lasting effects

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

SDS US (GHS HazCom)