Safety Data Sheet

Issue Date: 30-Nov-2015 **Revision Date:** 18-Feb-2016 **Version** 2

1. IDENTIFICATION

Product Identifier

Product Name Nitrain 14-0-22

Other means of identification

SDS # VLS-152
FFN 00845

UN/ID No UN1477

Recommended use of the chemical and restrictions on use

Recommended Use Fertilizer.

Details of the supplier of the safety data sheet

Supplier Address
Planet Turf
6422 E 2nd Ave
Spokane Valley, WA 99212

Emergency Telephone Number 1-800-535-5053 INFOTRAC
Company Phone Number Business Phone: (509) 921-5421
Emergency Telephone (24 hr)

2. HAZARDS IDENTIFICATION

Appearance Small granules or powder **Physical State** Solid **Odor** Fertilizer-like
White crystals

Classification

Oxidizing Solids	Category 3

Hazards Not Otherwise Classified (HNOC)
May be harmful if swallowed

Signal Word
Warning

Hazard Statements

May intensify fire; oxidizer



Precautionary Statements - Prevention
Keep away from heat/sparks/open flames/hot surfaces. — No smoking
Keep/Store away from clothing/incompatible materials/combustible materials
Take any precaution to avoid mixing with combustibles/incompatible materials

Wear protective gloves/protective clothing/eye protection/face protection

Precautionary Statements - Response

IN CASE OF FIRE: Use CO2, dry chemical, or foam for extinction

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight-%
Potassium Nitrate	7757-79-1	50-60
Calcium nitrate tetrahydrate	13477-34-4	50-60
Inorganic Borate	12280-03-4	1-5

If Chemical Name/CAS No is "proprietary" and/or Weight-% is listed as a range, the specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. FIRST-AID MEASURES

First Aid Measures

General Advice Provide this SDS to medical personnel for treatment.

Eye Contact IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If irritation develops, get medical attention.

Skin Contact IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Get medical attention if irritation occurs.

Inhalation Remove exposed individual(s) to fresh air for 20 minutes. Consult a physician / poison center if individual's condition declines or if symptoms persist.

Ingestion IF SWALLOWED: rinse mouth. Do not induce vomiting without medical advice. Drink 1 or 2 glasses of water. Never give anything by mouth to an unconscious person. Get medical attention immediately.

Most important symptoms and effects

Symptoms Symptoms of over inhalation: may cause respiratory tract irritation, nausea, vomiting, weakness, fever, chills and loss of appetite. Chronic exposure may cause pneumonia, liver damage and neurologic damage. Ingestion may result in nausea, vomiting, diarrhea, blood in vomitus and stools, burning pain in the mouth and throat, abdominal pain, lethargy, confusion, edema, leukocytosis, hyperglycemia, acidosis, shock, liver and kidney damage, and other gastrointestinal and neurologic symptoms and damage. Ingestion by a child of more than 60 ml. (2 oz.) or by an adult of more than 150 ml. (5 oz.) may be fatal. Can cause skin irritation. Dermatitis may occur. Can cause eye irritation.

Indication of any immediate medical attention and special treatment needed

Notes to Physician Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable Extinguishing Media Not determined.

Specific Hazards Arising from the Chemical
May intensify fire; oxidizer.

Hazardous Combustion Products Oxides of nitrogen and other toxic gases may be formed in a fire situation, carbon monoxide and other asphyxiates may form as well.

Protective equipment and precautions for firefighters
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Smoke and fumes from fire may contain hazardous components.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions Wear protective clothing as described in Section 8 of this safety data sheet. Avoid inhalation of vapors/spray and contact with skin and eyes.

Environmental Precautions Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information. See Section 12 for additional Ecological Information.

Methods and material for containment and cleaning up

Methods for Containment Prevent further leakage or spillage if safe to do so. Absorb spill with inert material (e.g. vermiculite, sand or earth).

Methods for Clean-Up Sweep up absorbed material and shovel into suitable containers for disposal. For waste disposal, see section 13 of the SDS.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on Safe Handling Keep away from heat/sparks/open flames/hot surfaces. — No smoking. Keep/Store away from clothing/incompatible materials/combustible materials. Take any precaution to avoid mixing with combustibles. Wear protective gloves/protective clothing and eye/face protection.

Conditions for safe storage, including any incompatibilities

Storage Conditions Store away from heat and incompatible materials. Protect from moisture. Keep container tightly closed. Store at room temperature. Store in a well-ventilated place.

Incompatible Materials Strong acids and bases. Strong oxidizing agents. Reducing agents.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Inorganic Borate 12280-03-4	STEL: 6 mg/m^3 inhalable fraction TWA: 2 mg/m^3 inhalable fraction	-	-

Appropriate engineering controls

Engineering Controls Apply technical measures to comply with the occupational exposure limits. Ensure that eyewash stations and safety showers are close to the workstation location. Use general or local exhaust ventilation to meet TLV requirements.

Individual protection measures, such as personal protective equipment

Eye/Face Protection Splash proof chemical safety goggles. Refer to 29 CFR 1910.133 for eye and face protection regulations.

Skin and Body Protection Coveralls, apron, or other equipment should be worn to minimize skin contact. Refer to 29 CFR 1910.138 for appropriate skin and body protection.

Respiratory Protection If exposure levels are exceeded, use a NIOSH/OSHA approved self-contained breathing apparatus. Refer to 29 CFR 1910.134 for respiratory protection requirements.

General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical State	Solid		
Appearance	Small granules or powder White crystals	**Odor**	Fertilizer-like
Color	White	**Odor Threshold**	Not determined

Property	**Values**	**Remarks • Method**
pH	Not determined	
Melting Point/Freezing Point	N/A	
Boiling Point/Boiling Range	Not determined	
Flash Point	Noncombustible	
Evaporation Rate	Not known	
Flammability (Solid, Gas)	Not determined	
Upper Flammability Limits	Noncombustible	
Lower Flammability Limit	Noncombustible	
Vapor Pressure	Not Known	
Vapor Density	Not known	
Specific Gravity	Not determined	
Water Solubility	100%	
Solubility in other solvents	Not determined	
Partition Coefficient	Not determined	
Auto-ignition Temperature	Not determined	
Decomposition Temperature	Not determined	
Kinematic Viscosity	Not determined	
Dynamic Viscosity	Not determined	
Explosive Properties	Not determined	
Oxidizing Properties	Not determined	

10. STABILITY AND REACTIVITY

Reactivity
Not reactive under normal conditions.

Chemical Stability
Stable under recommended storage conditions.

Possibility of Hazardous Reactions
None under normal processing.

Hazardous Polymerization Hazardous polymerization does not occur.

Conditions to Avoid

Keep out of reach of children.

Incompatible Materials
Strong acids and bases. Strong oxidizing agents. Reducing agents.

Hazardous Decomposition Products
Oxides of nitrogen and other toxic gases may be formed in a fire situation, carbon monoxide and other asphyxiates may form as well.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Eye Contact Avoid contact with eyes.

Skin Contact Avoid contact with skin.

Inhalation Do not inhale.

Ingestion May be harmful if swallowed.

Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Calcium nitrate tetrahydrate 13477-34-4	= 3900 mg/kg (Rat)	-	-
Potassium Nitrate 7757-79-1	= 3015 mg/kg (Rat)	-	-
Inorganic Borate 12280-03-4	= 2500 mg/kg (Rat)	-	-

Information on physical, chemical and toxicological effects

Symptoms Please see section 4 of this SDS for symptoms.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Carcinogenicity Nitrate or nitrite ingested under conditions that result in endogenous nitrosation are considered IARC group 2A carcinogens.

Chemical Name	ACGIH	IARC	NTP	OSHA
Calcium nitrate tetrahydrate 13477-34-4		Group 2A		X
Potassium Nitrate 7757-79-1		Group 2A		X

Legend
IARC (International Agency for Research on Cancer)
Group 2A - Probably Carcinogenic to Humans
OSHA (Occupational Safety and Health Administration of the US Department of Labor)
X - Present

Numerical measures of toxicity
Not determined

12. ECOLOGICAL INFORMATION

Ecotoxicity
An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Persistence/Degradability
Not determined.

Bioaccumulation
Not determined.

Mobility
Not determined

Other Adverse Effects
Not determined

13. DISPOSAL CONSIDERATIONS

Waste Treatment Methods

Disposal of Wastes Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated Packaging Disposal should be in accordance with applicable regional, national and local laws and regulations.

California Hazardous Waste Status This product contains one or more substances that are listed with the State of California as a hazardous waste

Chemical Name	California Hazardous Waste Status
Potassium Nitrate 7757-79-1	Ignitable Reactive

14. TRANSPORT INFORMATION

Note Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances.

DOT
UN/ID No UN1477
Proper Shipping Name Nitrates, inorganic, n.o.s.
Hazard Class 5.1
Packing Group III

IATA
UN/ID No UN1477
Proper Shipping Name Nitrates, inorganic, n.o.s.
Hazard Class 5.1
Packing Group III

IMDG
UN/ID No UN1477
Proper Shipping Name Nitrates, inorganic, n.o.s.
Hazard Class 5.1
Packing Group III

15. REGULATORY INFORMATION

International Inventories

Chemical Name	TSCA	DSL	NDSL	EINECS	ELINCS	ENCS	IECSC	KECL	PICCS	AICS
Potassium Nitrate	Present	X		Present		Present	X	Present	X	X
Calcium nitrate tetrahydrate						Present	X		X	X
Inorganic Borate							X		X	

Legend:

TSCA *- United States Toxic Substances Control Act Section 8(b) Inventory*

DSL/NDSL *- Canadian Domestic Substances List/Non-Domestic Substances List*

EINECS/ELINCS *- European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances*

ENCS *- Japan Existing and New Chemical Substances*

IECSC *- China Inventory of Existing Chemical Substances*

KECL *- Korean Existing and Evaluated Chemical Substances*

PICCS *- Philippines Inventory of Chemicals and Chemical Substances*

AICS *- Australian Inventory of Chemical Substances*

US Federal Regulations

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355).

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical Name	CAS No	Weight-%	SARA 313 - Threshold Values %
Calcium nitrate tetrahydrate - 13477-34-4	13477-34-4	49	1.0
Potassium Nitrate - 7757-79-1	7757-79-1	49	1.0

CWA (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)

US State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Calcium nitrate tetrahydrate 13477-34-4	X		
Potassium Nitrate 7757-79-1	X	X	X

16. OTHER INFORMATION

NFPA	**Health Hazards**	**Flammability**	**Instability**	**Special Hazards**
	Not determined	Not determined	Not determined	Not determined
HMIS	**Health Hazards**	**Flammability**	**Physical Hazards**	**Personal Protection**
	Not determined	Not determined	Not determined	Not determined

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Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet