

SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

FORMULATED BY:

First Turf & Ornamental Corp.
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PRODUCT NAME: First Ph Indicator
CHEMICAL NAME: Dicarbamide dihydrogen sulfate indicator solution
CHEMICAL FAMILY: Organic acid solution

Date of Issue: 3/21/2025

2. HAZARDS IDENTIFICATION SUMMARY

2.1 Classification of the substance or mixture according to 29 CFR 1910.1200

Eye damage:	Category 1
Skin Corrosion / Irritation	Category 2
Acute Toxicity (Oral)	Category 4

2.2 Label Elements

Signal Word: DANGER

Hazard Statements:

Causes serious eye damage
Causes skin irritation
May be harmful if swallowed



Precautionary Statements:

P260-Do not breathe mist/vapors/spray
P264-Wash thoroughly after handling
P271-Use only outdoors in a well-ventilated area
P273-Avoid release to the environment
P280-Wear protective gloves / eye protection / face protection

Precautionary Statements, Storage:

P403+P233-Store in a well-ventilated place. Keep container tightly closed.
P405-Store locked up

2.3 Other Hazards

Potential Health Effects:

Routes of Exposure:	Eye contact, skin contact, inhalation
Eyes:	Causes serious eye damage
Skin:	Causes severe skin burns
Inhalation:	May be harmful if inhaled
Ingestion:	May be harmful if swallowed

Target Organs: Skin, eyes, respiratory tract

Potential Environmental Effects: This product is not classified as environmentally hazardous.

3. COMPOSITION, INFORMATION ON INGREDIENTS

<u>Chemical Ingredients:</u>	<u>Percentage of Weight:</u>	<u>CAS No.</u>
Monocarbamide dihydrogen sulfate & Dicarbamide dihydrogen sulfate	15 – 25%	Proprietary
Alcohol Ethoxylate	5 – 15%	Proprietary
Methyl Red Indicator	0.01 – 0.1%	Proprietary

4. FIRST AID MEASURES

If in eyes:	Flush with clean running water for at least 15 minutes. If irritation persists, get medical attention
If on skin:	Remove contaminated clothing. Wash thoroughly with soap and water. If irritation persists, or if a rash develops, get medical attention.
If swallowed:	If conscious, drink 1 or 2 glasses of water and get medical attention. Do not induce vomiting or give anything by mouth to an unconscious person.
If inhaled:	Remove to fresh air. If irritation persists, get medical attention.

5. FIRE FIGHTING MEASURES

FLASH POINT (°F/Test Method):	Does not flash
FLAMMABLE LIMITS (LFL & UFL):	Not established
EXTINGUISHING MEDIA:	Considered non-combustible. Use foam, CO ₂ , dry chemical, or water
HAZARDOUS COMBUSTION PRODUCTS:	Combustion may yield oxides of carbon, nitrogen, and sulfur. Exposure to heat may liberate CO ₂ and ammonia.

6. ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:

Ventilate area. Stop leak, contain spill and absorb with soil or natural absorbents. Liquid is corrosive. Ensure pumping equipment is 316 stainless steel. Sweep up waste and place in container for disposal. Keep spills and rinsate out of municipal sewers and open bodies of water. Uncontaminated spilled material may be reused.

7. HANDLING AND STORAGE

HANDLING:	Avoid inhalation of mists, vapors/spray, and contact with eyes, skin and clothing. Wear personal protective equipment. Do not use in areas without adequate ventilation. Avoid prolonged exposure. Wash thoroughly after handling. Do not empty into drains. Handle and open container with care. Wash before eating, drinking, or smoking.
STORAGE:	Store in the original labeled container in a cool place away from direct sunlight. Keep separate from food and feed products and out of reach of children and animals. Avoid storage at temperatures of 110F or higher. Corrosive to steel, aluminum, brass. Use with stainless steel or PVC fittings.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Occupational Exposure Limits:

US Workplace Exposure Level TLV's: No data available

US Workplace Exposure Level PEL's: No data available

Biological Limit Values: No listings

Personal Protective Equipment:

Respiratory: In case of insufficient ventilation, wear suitable respiratory equipment. Follow the OSHA respirator guidelines found in 29 CFR 1919.134.

Eye / Face: Wear eye / face protection; chemical splash safety goggles / face shield

Skin / Body: Wear chemical resistant gloves and protective clothing

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: Clear red liquid with organic odor

SOLUBILITY: Soluble

pH: 1.2

BULK DENSITY: 9.35 lbs per gallon

SPECIFIC GRAVITY (Water = 1): 1.121

BOILING POINT: 212°F

VAPOR PRESSURE: Not established

EVAPORATION RATE: Not established

PERCENT VOLATILE (by volume): Not established

Note: These physical data are typical values based on material tested but may vary from sample to sample. Typical values should not be construed as a guaranteed analysis of any specific lot or as specification items.

10. STABILITY AND REACTIVITY

STABILITY: Stable for at least 2 years under normal conditions.

INCOMPATIBILITY: Avoid contact with chlorates, nitrates, hypochlorites, sulfides, or alkaline materials. Avoid storage, piping, or handling systems made of copper, zinc, or their alloys. Corrosive to 304 stainless steel. Slightly corrosive to 316 stainless steel. Incompatible with nylon and nylon beads.

HAZARDOUS DECOMPOSITION PRODUCTS: Combustion may yield oxides of carbon, nitrogen, and sulfur. Exposure to heat may liberate CO₂ and ammonia.

HAZARDOUS POLYMERIZATION: Will not occur.

11. TOXICOLOGICAL INFORMATION

Acute Oral LD₅₀(rat): not established

Acute Dermal LD₅₀(rat): not established

Eye Irritation (rabbit): corrosive

Skin Irritation (rabbit): may be corrosive to skin

Inhalation LC₅₀(rat): not established

Skin Sensitization (guinea pig): not established

Carcinogenic Potential: None listed in OSHA, NTP, IARC, or ACGIH

12. ECOLOGICAL INFORMATION

Ecotoxicology: May be harmful to fish, livestock, and wildlife. Avoid spills or releases to watercourses. The product is not classified as environmentally hazardous; however, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment. This product is not for use in aquatic settings.

13. DISPOSAL CONSIDERATIONS

Do not reuse containers. Rinse container thoroughly, adding rinsate to tank mix. Offer for recycling at an ACRC site or dispose of in a sanitary landfill. Avoid contaminating water by disposal of equipment wash waters or other product wastes.

14. TRANSPORT INFORMATION

Freight Classification: Fertilizing Compounds, NOI, Liquid, NMFC 68140, sub 6, class 70)
STCC#: 2871431 Fertilizing Compounds (Manufactured Fertilizers), n.e.c., liquid or paste, or plant food, liquid or paste.

Transport information

DOT ROAD & RAIL

DOT corrosive to aluminum. Not regulated if transported by road or rail in packaging that will not react dangerously or be degraded by this material [49 CFR Sec.173.154(d)]

Inland Waterway/Maritime/Air

DOT INLAND WATERWAY - MARITIME - AIR

UN number UN1760

UN proper shipping name Corrosive liquids, n.o.s. (Monocarbamide dihydrogen sulfate (MCDS))

Class 8

Transport hazard class(es)

Subsidiary risk -

Label(s) 8

Packaging group III

Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

Special provisions IB3, T7, TP1, TP28

Packaging exceptions 154

Packaging non bulk 203

Packaging bulk 241

Environmental hazards (NDA)

Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

Passenger and cargo Forbidden.

Aircraft

Other information

Cargo aircraft only Forbidden.

IMDG

UN number UN1760

UN proper shipping name Corrosive liquids, n.o.s. (Monocarbamide dihydrogen sulfate (MCDS))

Class 8

Transport hazard class(es)

Subsidiary risk -

Label(s) 8

Packing group III

Marine pollutant No.

Environmental hazards (NDA)

EmS Not available.

Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

15. REGULATORY INFORMATION

NFPA & HMIS Hazard Ratings:

NFPA

3 Health

0 Flammability

0 Instability

0 Least

1 Slight

2 Moderate

3 High

4 Severe

HMIS

3 Health

0 Flammability

0 Reactivity

H PPE

SARA Hazard Notification/Reporting

SARA Title III Hazard Category:

Immediate

Y

Fire

N

Delayed

N

Reactive

N

Sudden Release of Pressure N

Reportable Quantity (RQ) under U.S. CERCLA: Not listed

SARA, Title III, Section 313: Not listed

RCRA Waste Code: Not listed

Safety, health and environmental regulations/legislation specific for the substance or mixture

SARA Hazard Classifications • Acute

Component: Urea Sulfate / MCDS / DCDS

United States

Labor

U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals

- Urea, sulfate (1:1) Not Listed

U.S. - OSHA - Specifically Regulated Chemicals

- Urea, sulfate (1:1) Not Listed

Environment

U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants

- Urea, sulfate (1:1) Not Listed

U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

- Urea, sulfate (1:1) Not Listed

U.S. - CERCLA/SARA - Radionuclides and Their Reportable Quantities

- Urea, sulfate (1:1) Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs

- Urea, sulfate (1:1) Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs

- Urea, sulfate (1:1) Not Listed

U.S. - CERCLA/SARA - Section 313 - Emission Reporting

- Urea, sulfate (1:1) Not Listed

U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing

- Urea, sulfate (1:1) Not Listed

United States - California

Environment

U.S. - California - Proposition 65 - Carcinogens List

- Urea, sulfate (1:1) Not Listed

U.S. - California - Proposition 65 - Developmental Toxicity

- Urea, sulfate (1:1) Not Listed

U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)

- Urea, sulfate (1:1) Not Listed

U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL)

- Urea, sulfate (1:1) Not Listed

Component CAS TSCA

Urea sulfate, also known as monocarbamide dihydrogen sulfate

16. OTHER

Disclaimer and Limitation of Liability: This data sheet was developed from information on the constituent materials identified herein and does not relate to the use of such materials in combination with any other material of process. No warranty is expressed or implied with respect to the completeness or ongoing accuracy of the information contained in this data sheet, and Custom Agronomics LLC disclaims all liability for reliance on such information. This data sheet is not a guarantee of safety. Users are responsible for ensuring that they have all current information necessary to safely use the product described by this data sheet for their specific purpose.