SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

FORMULATED FOR:

Landscape Supply
101 Madison Ave
Roanoke, VA 24016

PRODUCT NAME: Hydra-Push
PURPOSE: Soil acidulant and soil surfactant combination
Date of Issue: 5/1/18

2. HAZARDS INDETIFICATION 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. COMPOSTITION, INFORMATION ON INGREDIENTS

Chemical Ingredients:	Percentage of Weight:	CAS No.
Monocarbamide dihydrogen sulfate & Dicarbamide dihydrogen sulfate	28.6%	21351-39-3
Alcohol Ethoxylate	10%	Proprietary
Ethylene Oxide / Propylene Oxide Co-Polymer	10%	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 liquid with soapy - detergent smell
SOLUBILITY: Soluble
pH: 1 at 10% solution **BULK DENSITY:** 9.03 lbs per gallon
SPECIFIC GRAVITY (Water = 1): 1.083 **BOILING POINT:** Not established
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 DECOMPOSTITION PRODUCTS: Combustion may yield oxides of carbon, nitrogen, and sulfur. Exposure to heat may liberate CO2 and ammonia.
HAZARDOUS POLYMERIZTION: Will not occur.

11. TOXICOLOGICAL INFORMATION

Acute Oral LD_{50}(rat): not established
Acute Dermal LD50(rat): not established
Eye Irritation (rabbit): corrosive **Skin Irritation (rabbit):** may be corrosive to skin
Inhalation LC_{50}(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		HMIS
3 Health	0 Least	3 Health
0 Flammability	1 Slight	0 Flammability
0 Instability	2 Moderate	0 Reactivity
	3 High	H PPE
	4 Severe	

SARA Hazard Notification/Reporting
SARA Title III Hazard Category: Immediate Y Fire N Sudden Release of Pressure N
Delayed N Reactive 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
CAS# 21351-39-3
United States
Labor
U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals
• Urea, sulfate (1:1) 21351-39-3 Not Listed
U.S. - OSHA - Specifically Regulated Chemicals
• Urea, sulfate (1:1) 21351-39-3 Not Listed
Environment
U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants
• Urea, sulfate (1:1) 21351-39-3 Not Listed
U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities
• Urea, sulfate (1:1) 21351-39-3 Not Listed
U.S. - CERCLA/SARA - Radionuclides and Their Reportable Quantities
• Urea, sulfate (1:1) 21351-39-3 Not Listed
U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs
• Urea, sulfate (1:1) 21351-39-3 Not Listed
U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs
• Urea, sulfate (1:1) 21351-39-3 Not Listed
U.S. - CERCLA/SARA - Section 313 - Emission Reporting
• Urea, sulfate (1:1) 21351-39-3 Not Listed
U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing
• Urea, sulfate (1:1) 21351-39-3 Not Listed
United States - California
Environment
U.S. - California - Proposition 65 - Carcinogens List
• Urea, sulfate (1:1) 21351-39-3 Not Listed
U.S. - California - Proposition 65 - Developmental Toxicity
• Urea, sulfate (1:1) 21351-39-3 Not Listed
U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)
• Urea, sulfate (1:1) 21351-39-3 Not Listed
U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL)
• Urea, sulfate (1:1) 21351-39-3 Not Listed
Component CAS TSCA
Urea sulfate, also known as 21351-39-3 / monocarbamide dihydrogen sulfate

16. OTHER

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