

U.S. Transport Summary: Not regulated by the U.S. D.O.T. as a hazardous material.

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT IDENTITY: THRIVE Branded 46-00-00, Urea Nitrogen (Granular)

PRODUCT ID #: BF460050

CAS#: 57-13-6

COMMON NAME: Urea, Carbamide, Carbonyldiamine, Carbonly diamide

PRODUCT SDS #: SDS BF460050

CHEMICAL DESCRIPTION: NH₂CONH₂

ISSUE DATE: May 30, 2015

RECOMMENDED USE: Fertilizer - See product label for recommended uses and use rates.

REVISION DATE: New

PRODUCT RESTRICTIONS: See product label for any restrictions on the use of this product.

VERSION NO. 01

EPA REGISTRATION #: Exempt

MANUFACTURER:

MEARS FERTILIZER, INC.

P.O. Box 1271

629 North Industrial Road

El Dorado, KS 67042

**FOR EMERGENCIES, SPILL, LEAK, FIRE, EXPOSURE,
OR ACCIDENT, CALL:
CHEMTREC 1-800-424-9300 (24 hours)**

NON-EMERGENCY BUSINESS INQUIRIES:

8:00 a.m. - 5:00 p.m. (CST) Monday - Friday

Mears Fertilizer, Inc.: (316) 321-3674 or

Toll Free: (800) 345-9143

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW: Granular product. Causes moderate eye irritation. May cause skin irritation after prolonged exposure.

POTENTIAL HEALTH EFFECTS -

Eyes: Causes moderate but temporary eye irritation.

Skin: May cause mild skin irritation including temporary redness and itching.

Inhalation: May cause irritation of the upper respiratory tract.

Ingestion: May be harmful if swallowed.

Pre-existing Conditions: Pre-existing respiratory conditions may be aggravated by exposure.

Chronic Health Effects: None known.

CARCINOGENICITY: NTP: Not Listed

IARC: Not Listed

OSHA: Not Listed

OSHA DEFINED HAZARDS: Eye Irritation \ Skin Irritation - Category 2A

LABEL ELEMENTS -

Hazard Symbol:



Signal Word: WARNING

Hazard Statement: Causes serious eye irritation.

May cause skin irritation after prolonged exposure.

% OF PRODUCT WITH UNKNOWN TOXICITY: 0.00%

PRECAUTIONARY STATEMENTS -

Prevention: Wash hands thoroughly after handling. Wear eye and face protection. Do not breathe dust.

Response: If in eyes: Rinse cautiously with water for 15 minutes. Remove contact lenses, if present and easy to do. Continue

rinsing. If eye irritation persists: Get medical attention. Get medical attention if you feel unwell.

Storage: See Section 7 for storage information.

Disposal: Dispose of contents/container in accordance with Federal, state and local regulations.

HAZARD(S) NOT OTHERWISE CLASSIFIED: Not classified

SUPPLEMENTAL INFORMATION: Not applicable

3. COMPOSITION / INFORMATION ON INGREDIENTS

MIXTURE\SUBSTANCE

<u>Chemical Name</u>	<u>% Weight</u>	<u>CAS Reg. #</u>
Urea	95.40 - 97.60%	57-13-6
Urea, reaction products with formaldehyde	1.30 - 2.70%	68611-64-3
Imidodicarbonic Diamide (Biuret)	0.85 - 1.50%	108-19-0
Water	0.10 - 0.40%	7732-18-5

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section. Other ingredients not specifically listed are considered non-hazardous and are confidential business information under 29 CFR 1910.1200(I).

See Section 8 for exposure limits.

4. FIRST AID MEASURES

IF IN EYES:	Do not rub eyes. Flush eyes immediately and thoroughly with running water for 15 minutes. Lift eyelids to facilitate irrigation. If present, remove contact lenses after 5 minutes and continue rinsing. If irritation persists, get medical attention.
IF ON SKIN OR CLOTHING:	Remove contaminated clothing and wash before re-using. Wash skin with soap and water. Get medical attention if irritation persists.
IF SWALLOWED:	Call a poison control center or doctor immediately for treatment advice. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.
IF INHALED:	Move person to fresh air and assist breathing as needed. Seek medical attention if irritation occurs.
NOTES TO PHYSICIAN:	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Patient treatment should be based on sound judgment of the physician and the individual reactions of the patient.

5. FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA:	Water fog, water spray, foam, dry chemical, carbon dioxide (CO ₂). Do not use a water jet, as this will spread the fire.
SPECIAL FIRE FIGHTING PROCEDURES:	Wear NIOSHA/MSHA approved self-contained breathing apparatus and full protective gear. Dike area to prevent runoff and contamination of water sources. Dispose of fire control water later. Avoid breathing vapors; keep upwind. Use water spray to cool unopened containers.
HAZARDOUS COMBUSTION PRODUCTS:	Carbon oxides, nitrogen oxides, and ammonia may form under fire conditions.
UNUSUAL FIRE AND EXPLOSION HAZARDS:	None known.

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS:	Keep unnecessary personnel away. Material can be slippery when wet. Wear appropriate protective equipment and clothing during cleanup. For personal protection see Section 8. Avoid inhalation of dust and contact with skin and eyes. Ensure adequate ventilation.
ENVIRONMENTAL PRECAUTIONS:	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
METHODS AND MATERIALS FOR CONTAINMENT AND CLEAN UP -	
Small Spill:	Stop leak if without risk. Move containers from spill area. Sweep up or vacuum spillage and collect in suitable container for disposal. Clean surface thoroughly for residual contamination. For waste disposal

see Section 13.

Large Spill:

Stop leak if without risk. Prevent entry into sewers, water courses, basements or confined areas by diking area with sand or earth. If product is uncontaminated, spilled material may be applied at the rate recommended on the label. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. See Section 13 for additional information.

GENERAL CAUTION:

Spill area may be quite slippery.

7. HANDLING AND STORAGE

HANDLING:

Avoid breathing dust. Use only outdoors or in a well ventilated area. Immediately clean up spills that occur during handling. Keep containers closed when not in use. Practice good hygiene after using this material, especially before eating, drinking, smoking, using the toilet, or applying cosmetics.

STORAGE:

Store in a cool, dry area away from children, feed, and food products. Store away from incompatible materials. Protect packaging from physical damage. Do not re-use empty containers. Protect from exposure to fire conditions. Keep out of reach of children.

MINIMUM STORAGE TEMP: Not applicable.

OTHER PRECAUTIONS: Consult Federal, state and local laws and regulations pertaining to storage.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

DEFINITIONS -

OSHA: Occupational Safety and Health Administration	TLV: Threshold Limit Value
ACGIH: American Conference of Governmental Industrial Hygienists	REL: NIOSH Recommended Exposure Limit
NIOSH: National Institute for Occupational Safety and Health	TWA: Time-Weighted Average
PEL: OSHA Permissible Exposure Limits	

EXPOSURE LIMITS -

COMPONENTS	OSHA PEL	ACGIH TLV	NIOSH REL
Particulates Not Otherwise Regulated	15 mg/m ³ (total dust)	10 mg/m ³ (inhalable)	Not Determined
	5 mg/m ³ (respirable)	3 mg/m ³ (respirable)	

RESPIRATORY PROTECTION:

If dust concentration exceeds permissible levels, wear NIOSH approved air-purifying respirator with cartridges/canisters approved for general particulates.

ENGINEERING CONTROLS:

Provide general or local exhaust ventilation systems to maintain airborne concentrations below OSHA PELs or other specified exposure limits to minimize the risk of inhalation of dust. Local exhaust ventilation is preferred.

PERSONAL PROTECTION EQUIPMENT -

Eye / Face Protection:

Wear goggles or safety glasses and a full face shield. Contact lenses are not eye protective devices. An emergency eyewash or water supply should be readily accessible to the work area.

Skin Protection:

Wear suitable gloves when handling this product over long periods. If skin irritation occurs, wear long-sleeve shirt, long pants, and shoes to prevent skin contact.

Respiratory Protection:

Wear NIOSH approved respiratory approved respirator if there is a risk of exposure to dust at levels exceeding the exposure limits.

General Hygiene Considerations:

Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Never eat, drink, or use tobacco in work areas. Routinely wash work clothing and protective equipment to remove contaminants. Handle in accordance with good industrial hygiene and safety practices.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE -

Physical State: Solid	VAPOR PRESSURE: Not determined
Form: Granules	VAPOR DENSITY: Not determined
Color: White	VISCOSITY: Not applicable
ODOR: Odorless/Slight ammonia odor	SPECIFIC GRAVITY (H₂O=1): Not determined

ODOR THRESHOLD:	Not determined	DENSITY (lbs/ft³):	48.00 - 52.00
pH:	7.2 (10% water solution)	PARTITION COEFFICIENT:	0.026
MELTING POINT/FREEZING POINT:	270.8 °F (132.7 °C)	SOLUBILITY(IES):	119 g at 77 °F (25 °C)
INITIAL BOILING POINT/RANGE:	Not applicable	AUTO-IGNITION TEMP:	Not determined
FLASH POINT:	Non-combustible	DECOMPOSITION TEMP:	270.8 °F (132.7 °C)
EVAPORATION RATE:	Not applicable	EXPLOSIVE PROPERTIES:	Not applicable
FLAMMABILITY (SOLID, GAS):	Non-combustible	OXIDIZING PROPERTIES:	Not determined
FLAMMABILITY / EXPOSURE LIMITS -		OTHER INFORMATION -	
Flammability Limit - Lower:	Not determined	Heat of Combustion:	Not determined
Flammability Limit - Upper:	Not determined		

10. STABILITY AND REACTIVITY

REACTIVITY:	The product is stable and non-reactive under normal conditions of use, storage and transportation.
CHEMICAL STABILITY:	The product is stable under normal conditions of use, storage and transportation.
POSSIBILITY OF HAZARDOUS REACTIONS:	Under normal conditions of storage and use, hazardous reactions will not occur.
CONDITIONS TO AVOID:	Moisture. Excessive heat. Contact with incompatible materials.
INCOMPATIBLE MATERIALS:	Strong acids, strong bases, Nitric acid, sodium nitrite, nitrosyl perchlorate, gallium perchlorate, hypochlorites, phosphorus, pentachloride.
HAZARDOUS DECOMPOSITION PRODUCTS:	Carbon oxides. Nitrogen oxides (NOx). Ammonia. Biuret.

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY -

Eye Effects:	Based on component data, moderate irritation is anticipated.
Skin Effects:	Based on component data, mild irritation is anticipated.
Acute Inhalation Effects:	High concentrations of dust may irritate throat and respiratory system and cause coughing.
Acute Oral Effects:	May cause discomfort if swallowed.
Specific Target Organ Toxicity:	None known

CHRONIC TOXICITY -

Chronic Effects:	Not considered toxic to humans or animals.
Carcinogenicity:	Not considered as a human or animal carcinogenic.
Mutagenicity:	None known
Teratogenicity:	None known
Reproductive Toxicity:	None known

POTENTIAL HEALTH EFFECTS -

Inhalation:	Dust may irritate upper respiratory tract.
Skin:	May cause mild skin irritation including temporary redness and itching.
Eyes:	Causes moderate but temporary eye irritation.
Ingestion:	May be harmful if swallowed.

12. ECOLOGICAL INFORMATION

ECOTOXICITY SUMMARY:	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 intended for use in aquatic settings.
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ECOTOXICITY DATA -

Fish Acute and Prolonged Toxicity:	96 hr LC ₅₀ : >9,100 mg/L	Aquatic Plant Toxicity:	Not determined
Aquatic Invertebrate Acute Toxicity:	24 hr EC ₅₀ : >10,000 mg/L	Honeybee Toxicity:	Not determined
Bird Acute & Prolonged Toxicity:	Not determined		

PERSISTENCE AND DEGRADABILITY:	Not determined
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BIOACCUMULATIVE POTENTIAL: Very low
MOBILITY IN SOIL: This product is water soluble and may spread in water systems.
OTHER ADVERSE EFFECTS: No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. DISPOSAL CONSIDERATIONS

WASTE TREATMENT METHODS

PRODUCT -

Methods of Disposal: Dispose of in accordance with applicable Federal, state, and local laws and regulations. Do not allow this material to drain into sewers, drains, or waterways.

PACKAGING -

Methods of Disposal: Ensure all product has been emptied from the bag/sack. Dispose of emptied container in accordance with applicable Federal, state, and local laws and regulations. Do not re-use empty bag.

RCRA CHARACTERISTICS: It is the responsibility of the individual disposing of this product to determine the RCRA classification and hazard status of the waste.

14. TRANSPORTATION INFORMATION

US DOT: Not regulated by the U.S. Department of Transportation as a hazardous material for ground shipment.
IMDG: Not determined
IATA: Not determined
HAZARD CLASS: None **C.A.S. NUMBER:** 57-16-3
REPORTABLE QUANTITY: None **D.O.T. NUMBER:** None
LABELS REQUIRED: None **HAZARD WASTE NO:** None
PLACARD: None **EPA REGISTRATION NO:** None
U.S. SURFACE FREIGHT CLASSIFICATION: Fertilizing Compounds (Manufactured Fertilizers), NOI, DRY (NMFC 68140, SUB 5; CLASS 50)

15. REGULATORY INFORMATION

US FEDERAL REGULATIONS: This product is not known to be a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA INVENTORY: Listed on the United States TSCA (Toxic Substances Control Act) inventory

NFPA HAZARD RATING:

0	Least
1	Slight
2	Moderate
3	High
4	Severe

1	Health
0	Flammability
0	Reactivity

SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986 (SARA) -

SARS Title III Hazard Categories:

Immediate Hazard	No	Pressure Hazard	No
Delayed Hazard	No	Reactivity Hazard	No
Fire Hazard	No		

SARA 302 EXTREMELY HAZARDOUS SUBSTANCE: No
SARA 311/312 HAZARDOUS CHEMICAL: No
SARA 313 (TRI REPORTING): Not Regulated

US OSHA SPECIFICALLY REGULATED SUBSTANCE (29 CFR 1910.1001-1050): Not Listed

CERCLA HAZARDOUS SUBSTANCE LISTED (40 CFR 302.4): This mixture does not contain chemicals which have a reportable quantity (RQ) under Comprehensive Environmental Response, Compensation, and Liability

Act (CERCLA).

OTHER FEDERAL REGULATIONS -

CLEAN AIR ACT (CAA) SECTION 112 -

Hazardous Air Pollutants (HAPs) List: Not Regulated

Accidental Release Prevention (40 CFR 68.130) List: Not Regulated

SAFE DRINKING WATER ACT (SDWA): Not Regulated

FOOD AND DRUG ADMINISTRATION (FDA): Not Regulated

US STATE REGULATIONS -

US CALIFORNIA PROPOSITION 65: Not listed

CANADIAN DOMESTIC SUBSTANCES LIST -

WHMIS CLASSIFICATION: This product is nClass D Division 2 Subdivision B - Toxic Material causing other toxic effects

16. OTHER INFORMATION

ISSUE DATE: May 30, 2015
REVISION DATE: New
VERSION NO. 01

NOTICE TO READER

DISCLAIMER AND LIMITATIONS OF LIABILITY:

The information presented herein is based on data considered to be accurate as of the date of preparation of this Safety Data Sheet (SDS) and was prepared pursuant to Government regulation(s) that identify specific types of information to be provided. This SDS may not be used as a commercial specification sheet of manufacturer or seller, and no warranty or representation, expressed or implied, is made as to the accuracy or comprehensiveness of the foregoing data and safety information, nor is any authorization given or implied to practice any patented invention without a license.

Additional information may be needed to evaluate other uses of the product, including use of the product in combination with any materials or in any processes other than those specifically referenced. Information provided herein with respect to any hazards that may be associated with the product is not meant to suggest that use of the product in a given application will necessarily result in any exposure or risk to workers or the general public. No responsibility can be assumed by vendor for any damage or injury resulting from abnormal use, from any failure to adhere to recommended practices, or from any hazards inherent in the nature of the product. Purchasers and users assume all risk of use, storage and handling of the product in compliance with applicable federal, state and local laws and regulations. Purchasers and users of the product specifically should advise all of their employees, agents, contractors and customers who will use the product of this SDS.