

SAFETY DATA SHEET

I. IDENTIFICATION

PRODUCT NAME: Automotive Grade Urea
DISTRIBUTOR: Bridgewell Agribusiness LLC
 12420 SE Carpenter Drive
 Clackamas, OR 97015
 (503) 723-5410
PRODUCT USE: Not to be used as an ingredient for human food. Not approved for human use.

II. HAZARD(S) IDENTIFICATION

CLASSIFICATION: While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of the product.
SIGNAL WORD: Not Applicable
HAZARD STATEMENTS: No known significant effects or critical hazards
PRECAUTIONARY STATEMENT: Read label before use. Keep out of reach of children. If medical advice needed, have product container or label at hand.
DESCRIPTION OF HAZARDS NOT CLASSIFIED: None known
UNKNOWN TOXICITY: None known

III. COMPOSITION/INFORMATION ON INGREDIENTS

SUBSTANCES

CHEMICAL NAME: Automotive Grade Urea

MIXTURES

NAME	CAS#	% (W/W)	INGREDIENT CLASSIFICATION (GHS-US)
Urea	57-13-6	98-99	Not classified
Methylenediurea	68611-64-3	0.3-0.5	Aquatic Chronic 3, H412
Biuret	108-19-0	0.4-0.5	Not Classified

Ingredients, other than those mentioned above, as used in this product are not hazardous as defined under current Department of Labor regulations, or are present in de minimus concentrations (less than 0.1% for carcinogens, less than 1.0% for other hazardous materials).

IV. FIRST-AID MEASURES

INHALATION: Remove to fresh air and keep at rest in a position comfortable for breathing. Obtain medical attention if breathing difficulty persists.
SKIN CONTACT: Remove contaminated clothing. Rinse immediately with plenty of water. Obtain medical attention if irritation develops or persists. Wash contaminated clothing before reuse.
EYE CONTACT: Immediately flush with large amounts of water, including under the eyelids. If pain or irritation persists seek medical attention.
INGESTION: Do not induce vomiting. Get medical attention immediately
IMPORTANT SYMPTOMS OR EFFECTS: General: May cause skin irritation and eye irritation. Inhalation: May cause respiratory irritation. Skin contact: May cause skin irritation. Eye Contact: May cause eye irritation. Ingestion: Do not induce

vomiting. Get medical attention immediately. Chronic Symptoms: None expected under normal conditions of use.

TREATMENT: If exposed and feeling unwell, seek medical advice (show the label where possible).

V. FIRE-FIGHTING MEASURES

FIRE HAZARD: Not considered combustible but may decompose at high temperatures. Product is not explosive. Hazardous reaction will not occur under normal conditions. Ammonia and nitrogen oxides (nitric oxide and nitrogen dioxide).

EXTINGUISHING METHOD: Use extinguishing media appropriate for surrounding fire. Do not use a heavy water stream. Use of heavy stream of water may spread fire.

ADVICE FOR FIREFIGHTERS: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool. Collect contaminated fire-fighting water separately. It must not enter the sewage system. Exercise caution when fighting any chemical fire. Urea will not burn or support combustion but will decompose into noxious, poisonous gas when exposed to the high temperatures of a fire. Firefighters should wear self-contained breathing apparatus and full protective clothing. Do not enter fire area without proper protective equipment, including respiratory protection.

VI. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES

GENERAL MEASURES: Avoid all contact with skin, eyes, or clothing. Avoid breathing dust.

FOR NON-EMERGENCY PERSONNEL

PROTECTIVE EQUIPMENT: Use appropriate personal protection equipment (PPE).

EMERGENCY PROCEDURES: Evacuate unnecessary personnel

FOR EMERGENCY PERSONNEL

PROTECTIVE EQUIPMENT: Equip cleanup crew with proper protection

EMERGENCY PROCEDURES: Ventilate area

EMERGENCY PRECAUTIONS: Prevent entry to sewers and public water.

METHODS AND MATERIAL FOR CONTAINMENT AND CLEANING UP

CONTAINMENT: Contain any spills to prevent migration and entry into sewers or streams.

METHODS FOR CLEANING UP: Clean up spills immediately and dispose of waste safely. Transfer spilled material to a suitable container for disposal. Contact competent authorities as appropriate after a spill.

REFERENCE TO OTHER SECTIONS: See heading 8, Exposure Controls and Personal Protection

VII. HANDLING AND STORAGE

HANDLING: Store in compliance with all Federal, State, and local regulations. Store in a well-ventilated area, away from incompatible materials or sources of heat and ignition. Empty containers may contain residue and can be dangerous if exposed to hot work conditions. Do not pressurize, cut, weld, braze, solder, drill, grind or expose contaminated containers to heat, flames, sparks or other sources of ignition; as they may evolve noxious fumes. Handle in accordance with good industrial hygiene and safety

procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

STORAGE:

Store in a dry, cool and well-ventilated place. Keep container closed when not in use. Keep/Store away from direct sunlight, extremely high or low temperatures and incompatible materials. Incompatible materials are strong acids, strong bases, strong oxidizers, and aldehydes.

VIII. EXPOSURE CONTROLS/PERSONAL PROTECTION

CONTROL PARAMETERS: No Occupational Exposure Limits (OELs) have been established for this product or its chemical components.

EXPOSURE CONTROLS

APPROPRIATE ENGINEERING

CONTROLS: Ensure adequate ventilation, especially in confined areas. Emergency eye wash fountains and safety showers should be available but are not required.

PERSONAL PROTECTIVE

EQUIPMENT: Safety glasses, gloves and general work clothing are recommended. Where ventilation is insufficient, wear respiratory protection. Wearing of appropriate protective clothing and gloves is suggested if epidermal sensitivity develops.

MATERIALS FOR

PROTECTIVE CLOTHING: Not specified

HAND PROTECTION: Wear appropriate protective gloves

SKIN AND BODY

PROTECTION: Wear suitable protective clothing to avoid skin contact.

EYE PROTECTION: Chemical goggles or safety glasses.

RESPIRATORY

PROTECTION: Use a NIOSH – approved respirator or self-contained breathing apparatus whenever exposure may exceed established Occupational Exposure Limits.

ENVIRONMENTAL

EXPOSURE CONTROLS: Shovel spilled material into containers for disposal. Do not flush to surface water. Spilled chemical can be used as fertilizer (46-0-0). Follow applicable Federal, State and local reporting requirements.

CONSUMER EXPOSURE

CONTROLS: Do not eat, drink or smoke during use.

IX. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: White Crystalline Solid

UPPER/LOWER

FLAMMABILITY/EXPLOSIVE

LIMITS: Not available

ODOR: Slight ammonia odor

VAPOR PRESSURE: 0.8 kPa (.06 mm Hg) [room temperature]

ODOR THRESHOLD: Not available

VAPOR DENSITY: Not available

pH: 7.2@ 10% solution

RELATIVE DENSITY: 1.33

MELTING POINT: 133°C (271°F)

FREEZING POINT: Not available

SOLUBILITY(IES): In water: 112.4 g/100ml @ 20°C (68°F)

INITIAL BOILING POINT: Not available

FLASH POINT: Not available

EVAPORATION RATE: Not available

FLAMMABILITY:	Not available
PARTITION COEFFICIENT:	-1.59
AUTO-IGNITION:	Not available
DECOMPOSITION TEMPERATURE:	135 °C (275 °F)
VISCOSITY:	Not available
SPECIFIC GRAVITY:	0.74-0.83 g/cc (46-52 lb/ft ³)
EXPLOSION DATA:	Sensitivity to Mechanical Impact: Not expected to present an explosion hazard due to mechanical impact Sensitivity to Static Discharge: Not expected to present an explosion hazard due to static discharge.

X. STABILITY AND REACTIVITY

REACTIVITY:	Hazardous reaction will not occur under normal conditions
STABILITY:	Stable. Decomposes at about 135 °C, just above its melting point. Can be made explosive when dissolved in Nitric Acid, even without completely drying. Stable under recommended handling and storage conditions (see section 7)
CONDITIONS TO BE AVOIDED:	Avoid exposing containers to heat or flame. Keep separated from incompatible materials. Avoid moisture while in storage as urea will readily absorb moisture. Incompatible materials.
LIST OF INCOMPATIBLE MATERIALS:	Nitric acid, gallium, perchlorate, strong oxidizing agents, caustics and alkalis.
HAZARDOUS DECOMPOSITION:	Ammonia and Nitrogen Oxides (Nitric Oxide and Nitrogen Dioxide)

XI. TOXICOLOGICAL INFORMATION

INFORMATION ON TOXICOLOGICAL EFFECTS – PRODUCT

ACUTE TOXICITY:	Not classified
LD50 AND LC50 DATA:	Not available
SKIN CORROSION/ IRRITATION:	May cause skin irritation
SERIOUS EYE DAMAGE/ IRRITATION:	Causes eye irritation
RESPIRATORY OR SKIN SENSITIZATION:	Not classified
GERM CELL MUTAGENICITY:	Not classified
TERATOGENICITY:	Not classified
CARCINOGENICITY:	Not classified
STOT- REPEATED EXPOSURE:	Not classified
REPRODUCTIVE TOXICITY:	Not classified
STOT – SINGLE EXPOSURE:	Not classified
ASPIRATION HAZARD:	Not classified
SYMPTOMS/ INJURIES AFTER INHALATION:	Excessive inhalation of the dust may cause sore throat, coughing and irritation of mucous membranes and the respiratory tract.

SYMPTOMS/ INJURIES AFTER SKIN CONTACT:	May cause skin irritation
SYMPTOMS/ INJURIES AFTER EYE CONTACT:	Dust and micro particles are likely to cause eye irritation
SYMPTOMS/ INJURIES AFTER INGESTION:	Abdominal pain, nausea, vomiting and gastrointestinal irritation may result. (Urea is a protein to ruminants, animals with the enzyme Urease in their digestive systems, but is moderately toxic to humans when ingested).
CHRONIC SYMPTOMS:	None expected under normal conditions of use.
INFORMATION ON TOXICOLOGICAL EFFECTS – INGREDIENTS	
LD50 AND LC50 DATA	
UREA (57-13-6):	LD50 Oral Rat: 8471 mg/kg
METHYLENEDIUREA (68611-64-3):	LD50 Oral Rat: >2000 mg/kg

XII. ECOLOGICAL INFORMATION

TOXICITY:	Not classified
UREA (57-13-6):	LC50 Fish 1: 16200-18300 mg/l (Exposure time: 96h – species: Poecilia reticulata) EC50 Daphnia 1:3910 mg/l (Exposure time: 48h – Species: Daphnia magna [static])
METHYLENEDIUREA (68611-64-3):	EC Daphnia 1: >150 mg/l (Exposure time: 48h – Species: Daphnia magna [static])
PERSISTENCE AND DEGRADABILITY:	Not available
BIOACCUMULATIVE POTENTIAL	
UREA (57-13-6):	BCF Fish 1: <10 Log Pow: -1.59 (at 25 °C)
MOBILITY IN SOIL:	Not available
OTHER ADVERSE EFFECTS:	NONE

XIII. DISPOSAL CONSIDERATIONS

WASTE DISPOSAL RECOMMENDATIONS:	Dispose of waste material in accordance with all local, regional, national, provincial, territorial and international regulations. Transport in closed containers.
ADDITIONAL INFORMATION:	Spilled chemical can be used as fertilizer

XIV. TRANSPORT INFORMATION

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
14.4 IN ACCORDANCE WITH TDG:	Not regulated for transport

XV. REGULATORY INFORMATION

US FEDERAL REGULATIONS

UREA

SARA SECTION 311/312

HAZARD CLASSES: Immediate (acute) health hazard

UREA (57-13-6): Listed on the United States TSCA (Toxic Substances Control Act) Inventory

BIURET (108-19-0): Listed on the United States TSCA (Toxic Substances Control Act) inventory

EPA TSCA REGULATORY

FLAG: T-T- indicates a substance that is the subject of a Section 4 test rule under TSCA

METHYLENEDIUREA

(68611-64-3): Listed on the United States TSCA (Toxic Substances control Act) Inventory

EPA TSCA REGULATORY

FLAG: T-T- indicates a substance that is the subject of a section 4 test rule under TSCA

US STATE REGULATIONS

UREA (57-13-6): U.S. - Minnesota - hazardous substance list
U.S. - Texas - Effects screening levels - long term
U.S.- Texas - Effects Screening levels - short term

CANADIAN REGULATIONS

UREA (57-13-6): WHMIS Classification: Class D Division 2 Subdivision B - Toxic material causing other toxic effects

UREA (57-13-6): Listed on the Canadian DSL (Domestic Substances List) Inventory.
WHMIS Classification: Class D Division 2 Subdivision B - Toxic material causing other toxic effects

BIURET (108-19-0): Listed on the Canadian DSL (Domestic Substances List) Inventory
WHMIS Classification: Class D Division 2 Subdivision B - Toxic Material causing other toxic effects

METHYLENEDIUREA

(68611-64-3): Listed on Non-Domestic Substances list (NDSL)
WHMIS Classification: Uncontrolled product according to WHMIS classification criteria
This product has been classified in accordance with the hazard criteria of the controlled products regulations (CPR) and the SDS contains all the information required by CPR.

XVI. OTHER INFORMATION

Date Prepared 6/25/15

IMPORTANT:

This information and data herein are believed to be accurate and have been compiled from sources believed to be reliable. Buyer assumes all risk of use, storage and handling of product in compliance with applicable federal, state and local laws and regulations. Bridgewell Agribusiness LLC and its subsidiaries make no warranty of any kind, express or implied, concerning the accuracy or completeness of the information and data herein. **The implied warranties of merchantability and fitness for a particular purpose are specifically excluded.**

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