SAFETY DATA SHEET

SECTION 1 : IDENTIFICATION

Product identifier used on the label:

Product Name: **Westco Urea**

Other means of identification:

Product Description: Lowers decomposition point of azodicarbonamide blowing agents; reacts with azodicarbonamide's amine byproducts to reduce amine odor.

Synonyms: Urea

Recommended use of the chemical and restrictions on use:

Product Use/Restriction: UREA is an activator for nitrogen-type blowing agents.

Chemical distributor, or other responsible party Name, address, and telephone number:

Distributor Name: Western Reserve Chemical Corporation

Address: 4837 Darrow Road
Stow, OH 44224
USA

General Phone Number: 330 650 2244

General Fax Number: 330 650 2255

Emergency phone number::

Emergency Phone Number: Chemtrec 1 800 424 9300 USA

Website: www.wrchem.com

SECTION 2 : HAZARD(S) IDENTIFICATION

Classification of the chemical in accordance with CFR 1910.1200(d)(f):

GHS Class: GHS CLASSIFICATION:
Not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
GHS LABEL ELEMENTS:
Pictogram: No pictogram.
Signal Word: No signal word.
Hazard Statements: No hazard statements.
Precautionary Statements: No precautionary statements.
Hazards not otherwise classified (HNOC): When combined with water, product may cause surfaces to become slippery.

Hazards not otherwise classified that have been identified during the classification process:

Route of Exposure: Eyes. Skin. Inhalation. Ingestion.

Eye: Nonirritant, but avoid eye contact. Prolonged eye contact with dust may irritate eye tissues and cause symptoms such as itching, reddening, tearing, and burning.

Skin: Although infrequent skin contact is not expected to cause damage to skin, repeated or prolonged contact with skin may cause reddening, itching, and inflammation

Inhalation: Single exposure to dust is not expected to cause irritation. No incidents of dust inhalation health effects have been reported. Repeated or prolonged exposure to dust may cause respiratory tract irritation in some individuals. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Ingestion: Nontoxic. No harmful effects expected in amounts likely to be ingested by accident. However, accidental ingestion of material may cause discomfort. Ingestion of large amounts is unlikely but may cause mild gastrointestinal irritation with nausea, diarrhea, and vomiting. A single dose of 100 grams has reportedly caused mild symptoms of drowsiness and slow reflexes.

Chronic Health Effects: POTENTIAL CHRONIC HEALTH EFFECTS: Dust may irritate throat and respiratory system and cause coughing. Frequent inhalation of dust over a long period of time increases the risk of developing lung diseases.

Carcinogenicity: None of the components in this product are listed by IARC, NTP, OSHA or ACGIH as carcinogens.

SECTION 3 : COMPOSITION/INFORMATION ON INGREDIENTS

Mixtures:

Chemical Name	CAS#	Ingredient Percent	EC Num.

Urea	57-13-6	100% by weight

SECTION 4 : FIRST AID MEASURES

Description of necessary measures:

Eye Contact:	Irrigate eyes with water for 15 minutes. Remove any contact lenses to ensure thorough flushing. Seek medical attention if irritation persists.
Skin Contact:	Wash affected areas with soap and running water. If irritation develops, seek medical attention.
Inhalation:	Remove affected individual to fresh air; if not breathing, provide artificial respiration. Seek medical attention.
Ingestion:	Rinse mouth thoroughly with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Never give anything by mouth to an unconscious person. Never induce vomiting unless directed to do so by medical personnel. Seek medical attention if discomfort persists or severe adverse health effects arise.

Indication of immediate medical attention and special treatment needed:

Note to Physicians:	Treat symptomatically.
Notes :	INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED: Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

SECTION 5 : FIRE FIGHTING MEASURES

Suitable and unsuitable extinguishing media:

Suitable Extinguishing Media:	Use water spray, alcohol-resistant foam, dry chemical, or carbon dioxide to extinguish fires.
Fire Fighting Instructions:	Protective Equipment and Precautions for Firefighters: Firefighters should wear appropriate protective equipment, including a selfcontained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode, when combating fires. Avoid breathing dusts, vapors, or fumes from burning materials. In case of inhalation of decomposition products in a fire, symptoms may be delayed. Affected persons may need to be kept under medical surveillance for 48 hours.
Notes :	Specific Hazards: Dust clouds may ignite violently upon exposure to sparks or sources of ignition. In a fire, material may produce irritating, corrosive, and/or toxic gases (carbon oxides, nitrogen oxides (NOx)).

SECTION 6 : ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:

Personnel Precautions:	Personal Precautions, Protective Equipment, and Emergency Procedures: Do not touch or walk through spilled material. Avoid dust formation. Avoid breathing vapors, mist, or gas. Ensure adequate ventilation. Wash hands before eating or drinking. Contaminated clothing should be laundered before reuse. For personal protection equipment, see Section VIII.

Environmental precautions:

Environmental Precautions:	Avoid allowing product to enter sewage or groundwater via contact with soil or through waterways, drains, and/or sewers. If product is released into the environment, inform relevant authorities.

Methods and materials for containment and cleaning up:

Methods for containment:	Avoid contact with product. Move containers from spill area. If material is not contaminated, scoop into clean container(s) for use. If contaminated, take up spilled product by mechanical means, avoiding dust formation, and place into sealed waste containers for disposal. Dispose of waste materials, including empty product bags or drums, in accordance with local, state, and federal regulation.
Methods for cleanup:	Avoid contact with product. Move containers from spill area. If material is not contaminated, scoop into clean container(s) for use. If contaminated, take up spilled product by mechanical means, avoiding dust formation, and place into sealed waste containers for disposal. Dispose of waste materials, including empty product bags or drums, in accordance with local, state, and federal regulation.

SECTION 7 : HANDLING and STORAGE

Precautions for safe handling:

Handling:	Precautions for Safe Handling: Use oldest material first. Maintain good housekeeping to prevent dust accumulation. Avoid breathing dust. Take precautionary measures against static discharges. Avoid ignition sources such as sparks and flame. Observe appropriate industrial hygiene practices. After handling this product, wash hands and face before eating, drinking, and/or smoking. See Section VIII for personal protection equipment. Remove contaminated clothing and/or protection equipment before entering eating areas.
Hygiene Practices:	Wash thoroughly after handling. Avoid contact with eyes and skin. Avoid inhaling vapor or mist.

Conditions for safe storage, including any incompatibilities:

Storage:	Safe Storage Conditions, Including Any Incompatibilities: Store in cool (<35°C), dry (<50% relative humidity), and well-ventilated conditions, away from food or drink. Keep container tightly closed. Containers that have been opened must be carefully resealed and stored upright to prevent leakage. Incompatible with strong oxidizing agents. Reacts with calcium hypochlorite or sodium hypochlorite to

form the explosive nitrogen trichloride. Dust clouds may ignite violently upon exposure to sparks or sources of ignition.

Specific end use(s):

Work Practices: Safety showers and eye wash stations should be available.

SECTION 8: EXPOSURE CONTROLS, PERSONAL PROTECTION

EXPOSURE GUIDELINES:

Guideline Info: Occupational Exposure Limits : Urea - Value: TWA, Limits: 10.000000 mg/m³ USA Workplace Environmental Exposure Levels (WEEL)

Appropriate engineering controls:

Engineering Controls: APPROPRIATE ENGINEERING CONTROLS: Local exhaust recommended when generating excessive levels of airborne particles. Discharge from the ventilation system should comply with applicable air pollution control regulations. Use sufficient ventilation to keep exposure below recommended limits.

Individual protection measures:

Eye/Face Protection: Use safety glasses with side shields

Skin Protection Description: Wear impervious gloves to avoid skin contact with this product. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact. Wash hands after handling product. Wear coveralls to prevent skin contact with product

Hand Protection Description: Wear impervious gloves to avoid skin contact with this product. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact. Wash hands after handling product. Wear coveralls to prevent skin contact with product

Respiratory Protection: If dust is generated, wear a properly fitted, NIOSH-approved dust respirator or dust mask. If vapors/dust are generated above exposure limits, use NIOSH approved full-face organic cartridge filter respirator, air supplied respirator, or SCBA. Respirators should be selected and used in accordance with OSHA, Subpart I (29 CFR 1910.134).

PPE Pictograms:

SECTION 9 : PHYSICAL and CHEMICAL PROPERTIES

PHYSICAL AND CHEMICAL PROPERTIES:

Physical State:	Appearance: White crystalline powder
Odor:	Slight, characteristic ammonia odor
Odor Threshold:	No data available
Boiling Point:	Initial Boiling Point and Boiling Point Range: Decomposes before boiling at 135°C (275°F)
Melting Point:	Melting point: 132.7- 135°C (270-275°F).
Density:	(Relative Density) 1.335 Bulk Density: 760 – 800 kg/m3
Specific Gravity:	(Relative Density) 1.335
Solubility:	In water: 624 g/l @ 20°C (68°F)
Vapor Density:	2.07 [Air = 1]
Vapor Pressure:	0.000016 hPa
Evaporation Rate:	No data available
pH:	7-10 (10% solution at 20°C (68°F))
Molecular Weight:	60.07
Coefficient of Water/Oil Distribution:	Partition coefficient: noctanol/water: Log POW = -1.49 at 20- 25°C experimental
Flash Point:	72.7 ± 22.5°C (72.5°F)
Lower Flammable/Explosive Limit:	No data available
Upper Flammable/Explosive Limit:	No data available
Auto Ignition Temperature:	No data available

SECTION 10 : STABILITY and REACTIVITY

Reactivity:

Reactivity: No data available.
Possibility of Hazardous Reactions: Under normal conditions, hazardous reactions will not occur.

Chemical Stability:

Chemical Stability: Stable under recommended storage conditions.

Conditions To Avoid:

Conditions to Avoid: No data available

Incompatible Materials:

Incompatible Materials:	Decomposes on heating above melting point, producing toxic gases (ammonia, biuret, cyanuric acid). Incompatible with strong oxidizing agents. Reacts with calcium hypochlorite or sodium hypochlorite to form the explosive nitrogen trichloride. Avoid contact with nitrates. May slowly hydrolize to ammonium carbamate after a long period of time; ammonium carbamate decomposes to ammonia and carbon dioxide

Hazardous Decomposition Products:

Special Decomposition Products:	No data available

SECTION 11 : TOXICOLOGICAL INFORMATION

TOXICOLOGICAL INFORMATION:

ACGIH:	Not listed as carcinogenic to humans.
OSHA:	Not listed as carcinogenic to humans.
IARC:	Not listed as carcinogenic to humans.
NTP:	Not listed as carcinogenic to humans.
Skin:	Dermal: No data available
Inhalation:	Inhalation: No data available
Ingestion:	Oral: LD50 Oral – Rat – 8,471 mg/kg
Sensitization:	RESPIRATORY OR SKIN SENSITIZATION: No data available.
Mutagenicity:	GERM CELL MUTAGENICITY: Mouse – lymphocyte – DNA damage Mouse – cytogenetic analysis

SECTION 12 : ECOLOGICAL INFORMATION

Persistence and degradability:

Biodegradation:	Ultimately biodegradable

Bioaccumulative potential:

Bioaccumulation:	Unlikely to undergo bioaccumulation.

Mobility in soil:

Mobility In Environmental Media:	MOBILITY IN SOIL: This product may move with surface or groundwater flows because its water solubility is high.

Other adverse effects:

Effect of Material On Aquatic Life:	Fish: LC50 – Poecilia reticulata (guppy) – 17,500 mg/l – 96 h LC50 – Labeo boga – 6,810 mg/l fresh water – 96 h Aquatic Invertebrate: Daphnia magna (water flea) – 3,910 mg/l – 48 h Aquatic Plants: Heterosigma akashiwo - EC50 – 10,000 mg/l fresh water – 24 h

SECTION 13 : DISPOSAL CONSIDERATIONS

Description of waste:

Waste Disposal:	Product: Offer surplus and non-recyclable materials to a licensed disposal company. Any disposal practice must be in accordance with local, state, and federal laws and regulations
Contaminated Packaging:	Dispose of as unused product.

SECTION 14 : TRANSPORT INFORMATION

DOT Hazard Class:	Non regulated.
DOT Pictograms:	
IATA Hazard Class:	Non regulated.
IATA Pictograms:	

SECTION 15 : REGULATORY INFORMATION

Safety, health and environmental regulations specific for the product:

TSCA Inventory Status:	This product is listed on the Toxic Substances Control Act Inventory.
SARA:	SARA Section 302 –Extremely Hazardous Substance Not Regulated SARA Section 311 & 312 – Hazardous Categories No SARA Hazards. SARA Section 313 – Toxic Chemicals Not Regulated

California PROP 65:	This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.
Safety Phrase:	* S24 - Avoid contact with skin. * S25 - Avoid contact with eyes. * S37 - Wear suitable gloves.

SECTION 16 : ADDITIONAL INFORMATION

HMIS Ratings:

HMIS Health Hazard:	1
HMIS Fire Hazard:	0
HMIS Reactivity:	0
HMIS Personal Protection:	E

Health Hazard	**1**
Fire Hazard	**0**
Reactivity	**0**
Personal Protection	**E**

SDS Revision Date:	June 23, 2015
MSDS Revision Notes:	Reason for revision: Update to new SDS format per 29 CFR 1910.1200.
Notes :	Important Note: This information relates to the specific product described herein and may not be valid for this material when used in combination with other raw materials. The information provided is without warranty regarding its accuracy or completeness. The information may not be valid under all conditions. The user has the final responsibility for determining the suitability of the product in a given application.