



SAFETY DATA SHEET

Urea Solutions

1. Identification

Product identifier Urea Solutions

Other means of identification None.

Product application

GE Analytical Instruments part number	Product name
STD 77600	-

GE Analytical Instruments kit number
STD 99015

Recommended use Reference Standard

Recommended restrictions None known.

Company/undertaking identification

GE Analytical Instruments Inc
6060 Spine Road
Boulder, CO 80301
T 303-444-2009

Emergency telephone

1-800-535-5053 INFOTRAC (North America)

Outside of N.A., call collect: 1-352-323-3500

GE (800) 877-1940

2. Hazard(s) identification

Physical hazards Not classified.

Health hazards Not classified.

OSHA defined hazards Not classified.

Label elements

Hazard symbol None.

Signal word None.

Hazard statement The mixture does not meet the criteria for classification.

Precautionary statement

Prevention Observe good industrial hygiene practices.

Response Wash hands after handling.

Storage Store away from incompatible materials.

Disposal Dispose of waste and residues in accordance with local authority requirements.

Hazard(s) not otherwise classified (HNOC) None known.

Supplemental information None.

3. Composition/information on ingredients

Mixtures

Components	CAS #	Percent
Water	7732-18-5	>99.9
UREA	57-13-6	< 0.1

Composition comments Information for specific product ingredients as required by the U.S. OSHA HAZARD COMMUNICATION STANDARD is listed. Refer to additional sections of this SDS for our assessment of the potential hazards of this formulation.

4. First-aid measures

Inhalation No treatment required.
Skin contact Wash off immediately with plenty of water.
Eye contact Rinse with water.
Ingestion Rinse mouth.
Most important symptoms/effects, acute and delayed Not applicable.

5. Fire-fighting measures

Suitable extinguishing media This product does not represent a fire hazard since it contains a high amount of water. Use extinguishing media appropriate for the surrounding materials.
Unsuitable extinguishing media None.
Specific hazards arising from the chemical None known.
Special protective equipment and precautions for firefighters No special protective equipment required.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up Contain and recover by physical means. Water contaminated with this product may be sent to a sanitary sewer treatment facility, or a permitted waste treatment facility, in accordance with any local agreements.
Environmental precautions No special environmental precautions required.

7. Handling and storage

Precautions for safe handling Handle in accordance with good industrial hygiene and safety procedures.
Conditions for safe storage, including any incompatibilities Reasonable and safe chemical storage.

8. Exposure controls/personal protection

Occupational exposure limits

US. Workplace Environmental Exposure Level (WEEL) Guides

Components	Type	Value	Form
UREA (CAS 57-13-6)	TWA	10 mg/m ³	Total particulate.

Biological limit values No biological exposure limits noted for the ingredient(s).

Appropriate engineering controls Provide adequate ventilation.

Individual protection measures, such as personal protective equipment

Eye/face protection Safety glasses.
Skin protection
Hand protection None required.
Other No special protective equipment required.
Respiratory protection Not required.
Thermal hazards Not available.

9. Physical and chemical properties

Appearance

Color Colorless

Physical state Liquid

Odor None

Odor threshold Not available.

pH (concentrated product) 7

Melting point/freezing point 32 °F (0 °C)

Initial boiling point and boiling range 212 °F (100 °C)

Flash point Not applicable.

Evaporation rate < 1 (Ether = 1)

Flammability (solid, gas) Not available.

Upper/lower flammability or explosive limits

Flammability limit - lower (%) Not available.

Flammability limit - upper (%) Not available.

Explosive limit - lower (%) Not available.

Explosive limit - upper (%) Not available.

Vapor pressure 18 mm Hg

Vapor pressure temp. 70 °F (21 °C)

Vapor density < 1 (Air = 1)

Relative density 1

Relative density temperature 70 °F (21 °C)

Solubility(ies)

Solubility (water) 100 %

Partition coefficient (n-octanol/water) Not available.

Auto-ignition temperature Not available.

Decomposition temperature Not available.

Viscosity Not available.

Viscosity temperature 70 °F (21 °C)

Other information

Explosive properties Not explosive.

Oxidizing properties Not oxidizing.

Specific gravity 1

10. Stability and reactivity

Reactivity The product is stable and non-reactive under normal conditions of use, storage and transport.

Chemical stability Material is stable under normal conditions.

Possibility of hazardous reactions Hazardous polymerization does not occur.

Conditions to avoid None known.

Incompatible materials None known.

Hazardous decomposition products None known.

11. Toxicological information

Information on likely routes of exposure

Inhalation None known.

Skin contact None known.

Eye contact None known.

Ingestion None known.

Symptoms related to the physical, chemical and toxicological characteristics None known.

Information on toxicological effects

Acute toxicity

Product	Species	Test Results
Urea Solutions (CAS Mixture)		
<i>Dermal</i>		
LC50	Rabbit	> 5000 mg/kg, (Calculated according to GHS additivity formula)
<i>Oral</i>		
LC50	Rat	> 5000 mg/kg, (Calculated according to GHS additivity formula)

Components	Species	Test Results
UREA (CAS 57-13-6)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	8200 mg/kg
<i>Oral</i>		
LD50	Rat	8471 mg/kg

Skin corrosion/irritation Not classified.

Serious eye damage/eye irritation Not classified.

Respiratory or skin sensitization

Respiratory sensitization Not classified.

Skin sensitization Not classified.

Germ cell mutagenicity Not classified.

Carcinogenicity Not classified.

IARC Monographs. Overall Evaluation of Carcinogenicity

Not listed.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not regulated.

US. National Toxicology Program (NTP) Report on Carcinogens

Not listed.

Reproductive toxicity Not classified.

Specific target organ toxicity - single exposure Not classified.

Specific target organ toxicity - repeated exposure Not classified.

Aspiration hazard Not classified.

12. Ecological information

Ecotoxicity No ecotoxicity data noted for the ingredient(s).

Bioaccumulative potential

Partition coefficient n-octanol / water (log Kow)

UREA -2.11

Mobility in soil No data available.

Other adverse effects Not available.

Persistence and degradability

13. Disposal considerations

Disposal instructions	Collect and reclaim or dispose in sealed containers at licensed waste disposal site.
Hazardous waste code	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Waste from residues / unused products	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
Contaminated packaging	Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information

DOT	Not regulated as dangerous goods.
IATA	Not regulated as dangerous goods.
IMDG	Not regulated as dangerous goods.

15. Regulatory information

US federal regulations	All components of this product are included on or are in compliance with the U.S. TSCA regulations.	
TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)	Not regulated.	
CERCLA Hazardous Substance List (40 CFR 302.4)	Not listed.	
SARA 304 Emergency release notification	Not regulated.	
OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)	Not regulated.	
Superfund Amendments and Reauthorization Act of 1986 (SARA)		
Hazard categories	Immediate Hazard - No Delayed Hazard - No Fire Hazard - No Pressure Hazard - No Reactivity Hazard - No	
SARA 302 Extremely hazardous substance	Not listed.	
SARA 311/312 Hazardous chemical	No	
SARA 313 (TRI reporting)	Not regulated.	
Other federal regulations		
Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List	Not regulated.	
Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)	Not regulated.	
Safe Drinking Water Act (SDWA)	Not regulated.	
Inventory status		
Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No

Country(s) or region	Inventory name	On inventory (yes/no)*
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)
 A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

US state regulations

US - Massachusetts RTK - Substance List

Not regulated.

US - Pennsylvania RTK - Hazardous Substances

Not regulated.

US - Rhode Island RTK

Not regulated.

US. California Controlled Substances. CA Department of Justice (California Health and Safety Code Section 11100)

Not listed.

US. New Jersey Worker and Community Right-to-Know Act

Not listed.

US. Pennsylvania Worker and Community Right-to-Know Law

Not listed.

US. California Proposition 65

US - California Proposition 65 - CRT: Listed date/Carcinogenic substance

No ingredient listed.

US - California Proposition 65 - CRT: Listed date/Developmental toxin

No ingredient listed.

US - California Proposition 65 - CRT: Listed date/Female reproductive toxin

No ingredient listed.

US - California Proposition 65 - CRT: Listed date/Male reproductive toxin

No ingredient listed.

16. Other information, including date of preparation or last revision

Issue date Dec-22-2016

Revision date Dec-22-2016

Version # 1.0

List of abbreviations

COD: Chemical Oxygen Demand
 IATA: International Air Transport Association
 IMDG: International Maritime Dangerous Goods Code
 CAS: Chemical Abstract Service Registration Number
 TSRN indicates a Trade Secret Registry Number is used in place of the CAS number.
 ACGIH: American Conference of Governmental Industrial Hygienists
 NOEL: No Observed Effect Level
 STEL: Short Term Exposure Limit
 LC50: Lethal Concentration, 50%
 LD50: Lethal Dose, 50%
 TWA: Time Weighted Average
 BOD: Biochemical Oxygen Demand
 TOC: Total Organic Carbon

References: No data available

Disclaimer The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

Revision information Product and Company Identification: Commercial Names
 Composition / Information on Ingredients: Ingredients
 Physical & Chemical Properties: Multiple Properties
 Toxicological Information: Toxicological Data
 GHS: Classification

Prepared by This SDS has been prepared by GE Water & Process Technologies Regulatory Department (1-215-355-3300).