



Issuing Date 21-Apr-2009

Revision Date 06-Sep-2012

Revision Number 2

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND THE COMPANY/UNDERTAKING

Product Name Urea 8M Solution
Product Code(s) E720
Recommended Use For Further Manufacturing Use Only
Not for Human or Animal Drug Use

Company
AMRESKO, LLC
6681 Cochran Road
Solon, Ohio 44139

Emergency Telephone Number Chemtrec 1-800-424-9300

Company Phone Number 1-800-448-4442
E-mail Address info@amresco-inc.com

2. HAZARDS IDENTIFICATION

GHS - Classification

Classification Skin Irritant 2 Eye Irritant 2

Signal Word Warning



Hazard Statements H315 - Causes skin irritation H319 - Causes serious eye irritation H335 - May cause respiratory irritation

Precautionary Statements P280 - Wear protective gloves/protective clothing/eye protection/face protection
P302+ P352 - IF ON SKIN: Wash with plenty of soap and water P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	EC No.	REACH Reg. No.	CAS-No	Weight %	Classification
Urea	EEC No. 200-315-5	Not available	57-13-6	45-55	-

### 4. FIRST AID MEASURES

<b>Eye Contact</b>	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
<b>Skin Contact</b>	Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes.
<b>Inhalation</b>	Move to fresh air. If breathing becomes difficult, give oxygen.
<b>Ingestion</b>	Clean mouth with water and afterwards drink plenty of water.
<b>Notes to Physician</b>	Treat symptomatically.

### 5. FIRE-FIGHTING MEASURES

<b>Flammable Properties</b>	Not flammable.
<b>Flash Point</b>	Not determined
<b>Suitable Extinguishing Media</b>	Dry chemical, CO <sub>2</sub> , water spray or regular foam.
<b>Hazardous Combustion Products</b>	Carbon oxides, Nitrogen oxides (NO <sub>x</sub> ).
<b>Explosion Data</b>	
<b>Sensitivity to Mechanical Impact</b>	Not sensitive.
<b>Sensitivity to Static Discharge</b>	Not sensitive.
<b>Protective Equipment and Precautions for Firefighters</b>	As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

### 6. ACCIDENTAL RELEASE MEASURES

<b>Personal Precautions</b>	Avoid contact with skin, eyes and clothing. Use personal protective equipment. Ensure adequate ventilation.
<b>Methods for Containment</b>	Prevent further leakage or spillage if safe to do so.
<b>Methods for Cleaning Up</b>	Absorb on sand or vermiculite and place in closed containers for disposal. Wash spill site with soap solution and flush area with copious amounts of water.

### 7. HANDLING AND STORAGE

<b>Handling</b>	Handle in accordance with good industrial hygiene and safety practice.
<b>Storage</b>	Keep containers tightly closed in a dry, cool and well-ventilated place.

**Incompatible Products** Strong oxidizing agents.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**Engineering Measures** Showers  
Eyewash stations  
Ventilation systems.

### Personal Protective Equipment

**Eye/Face Protection** Safety glasses with side-shields.  
**Skin and Body Protection** Wear protective gloves/clothing.  
**Respiratory Protection** If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

**Hygiene Measures** Handle in accordance with good industrial hygiene and safety practice.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance</b>	Clear, colorless
<b>Odor</b>	No information available
<b>Odor Threshold</b>	No information available
<b>Decomposition Temperature °C</b>	No information available
<b>Freezing Point</b>	No information available
<b>Initial Boiling Point</b>	No information available
<b>Physical State</b>	Liquid
<b>pH</b>	No data available
<b>Flash Point</b>	Not determined
<b>Autoignition Temperature</b>	No data available
<b>Boiling Point/Range</b>	No data available
<b>Melting Point/Range</b>	No data available
<b>Flammability Limits in Air</b>	<b>Upper</b> No data available <b>Lower</b> No data available
<b>Explosive Properties</b>	No information available
<b>Oxidizing Properties</b>	No information available
<b>Evaporation Rate</b>	No data available
<b>MMHG @ 37.8 C</b>	No data available
<b>Vapor Density</b>	No data available
<b>Specific Gravity</b>	No data available
<b>Solubility</b>	No information available
<b>Partition Coefficient (n-octanol/water)</b>	No data available
<b>Viscosity</b>	No information available

## 10. STABILITY AND REACTIVITY

**Stability** Stable under recommended storage conditions.

**Incompatible Products** Strong oxidizing agents.

**Conditions to Avoid** None known based on information supplied.

**Hazardous Decomposition Products** Carbon oxides. Nitrogen oxides (NOx).

**Hazardous Polymerization** Hazardous polymerization does not occur.

## 11. TOXICOLOGICAL INFORMATION

### Acute Toxicity

**Product Information** Irritating to eye, skin and respiratory system.

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Urea	8471 mg/kg ( Rat )		

### Chronic Toxicity

**Chronic Toxicity** No known effect based on information supplied.

**Target Organ Effects** Eyes, Skin, Respiratory system.

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

Chemical Name	Toxicity to Algae	Toxicity to Fish	Microtox	Daphnia Magna (Water Flea)
Urea		LC50 16200-18300 mg/L Poecilia reticulata 96 h		EC50 > 10000 mg/L 24 h
<b>Chemical Name</b>		<b>Log Pow</b>		
Urea		= -1.59 25 °C		

## 13. DISPOSAL CONSIDERATIONS

**Waste Disposal Method** Dispose of material in accordance with all federal, state, and local regulations.

**Contaminated Packaging** Dispose of in accordance with all federal, state and local regulations.

## 14. TRANSPORT INFORMATION

**IATA** Not regulated

**DOT** Not regulated

## 15. REGULATORY INFORMATION

**REACH Title VII Restrictions** No information available.

Chemical Name	Dangerous Substances	Organic Solvents	Harmful Substances Whose Names Are to be Indicated on the Label	Pollution Release and Transfer Registry (Class II):	Pollution Release and Transfer Registry (Class I):	Poison and Deleterious Substances Control Law:
Urea	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
Component	ISHA - Harmful Substances Prohibited for Manufacturing, Importing, Transferring, or Supplying	ISHA - Harmful Substances Requiring Permission	Toxic Chemical Classification Listing (TCCL) - Toxic Chemicals	Toxic Release Inventory (TRI) - Group I	Toxic Release Inventory (TRI) - Group II	
Urea 57-13-6 ( 45-55 )	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable

**International Inventories**

TSCA	Complies
EINECS/ELINCS	Complies
ENCS	Complies
IECSC	Complies
KECL	Does not Comply
PICCS	Complies
AICS	Complies

**U.S. Federal Regulations**

**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

**SARA 311/312 Hazard Categories**

Acute Health Hazard	Yes
Chronic Health Hazard	No
Fire Hazard	No
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

**Clean Water Act**

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

**Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)**

This product does not contain any substances regulated as hazardous air pollutants (HAPS) under Section 112 of the Clean Air Act Amendments of 1990.

**CERCLA**

**U.S. State Regulations**

**California Proposition 65**

This product does not contain any Proposition 65 chemicals.

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**International Regulations**

**Mexico - Grade** No information available.

**Canada**

**WHMIS Hazard Class**  
D2B Toxic materials



**16. OTHER INFORMATION**

**Issuing Date** 21-Apr-2009

**Revision Date** 06-Sep-2012

**Revision Note**  
No information available

**Recommended Restrictions** No information available

**Disclaimer**

The information provided on this MSDS 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 guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as 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 material or in any process, unless specified in the text.

**End of MSDS**