

# SAFETY DATA SHEET

## AUS 32 Urea Solution

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Printed: 09/15/2015  
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### 1. PRODUCT AND COMPANY IDENTIFICATION

**Product Code:** 114484-RM-GHS  
**Product Name:** AUS 32 Urea Solution  
**Reference #:** 805-114484  
**Company Name:** Excelda Manufacturing  
12785 Emerson Dr.  
Brighton, MI 48116  
**Phone Number:** (248)486-3800  
**Emergency Contact:** MEDICAL EMERGENCY (888)314-4052  
DOT EMERGENCY (800)424-9300  
**Information:** INFORMATION (248)486-3800

### 2. HAZARDS IDENTIFICATION

#### Skin Corrosion/Irritation, Category 3

**GHS Signal Word:** Warning  
**GHS Hazard Phrases:** H316: Causes mild skin irritation.  
**GHS Precaution Phrases:** No phrases apply.  
**GHS Response Phrases:** P332+313: If skin irritation occurs, get medical advice/attention.  
**GHS Storage and Disposal Phrases:** No phrases apply.  
**Potential Health Effects (Acute and Chronic):** May cause slight irritation to eyes and skin. May generate fumes which may irritate respiratory system. If heated, may generate ammonia or other harmful or otherwise toxic fumes which may cause irritation or other harm to lungs.  
**Inhalation:** Inhalation of large amounts of mist may cause mucous membrane irritation.  
**Skin Contact:** Prolonged or excusive contact may cause skin irritation.  
**Eye Contact:** Liquid or mist may cause discomfort in the eye with persistent conjunctivitis, seen as slight excess redness or conjunctiva.  
**Ingestion:** Ingestion of large amounts may cause gastrointestinal irritation.  
**Medical Conditions Generally Aggravated By Exposure:** None known.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

CAS #	Chemical Name	Concentration	RTECS #	Molecular Formula
7732-18-5	Water	66.0 -69.0 %	ZC0110000	H2O
57-13-6	Urea	31.0 -33.5 %	YR6250000	H2NCONH2

**Additional Chemical Information**

## 4. FIRST AID MEASURES

### Emergency and First Aid

#### Procedures:

- In Case of Inhalation:** If irritation develops move patient to fresh air and monitor. If cough or difficulty in breathing develops, evaluate for respiratory tract irritation. If trained to do so, administer supplemental oxygen if needed and seek medical attention.
- In Case of Skin Contact:** Flush exposed area with copious amounts of water followed by washing area thoroughly with soap and water. Seek medical attention if irritation or pain persists.
- In Case of Eye Contact:** Flush eyes with copious amounts of tepid water for at least 15 minutes. Seek medical attention if irritation, pain, swelling, excessive tearing, or light sensitivity persists.
- In Case of Ingestion:** If conscious, give the patient large quantities of water to drink and seek medical attention immediately. Do not give anything by mouth to an unconscious person.

**Signs and Symptoms Of Exposure:** Irritation, redness or other discomfort.

**Note to Physician:** Treat symptoms.

## 5. FIRE FIGHTING MEASURES

- Flash Pt:** > 200.00 F (93.3 C)    Method Used: Pensky-Marten Closed Cup
- Explosive Limits:** LEL: No data.    UEL: No data.
- Autoignition Pt:** No data.
- Suitable Extinguishing Media:** As appropriate for surrounding fire.
- Unsuitable Extinguishing Media:** None known.
- Fire Fighting Instructions:** As for all fires involving chemicals, responders should wear full bunker gear including a positive pressure self-contained breathing apparatus (SCBA). Cool containers with water spray to prevent the generation of harmful/toxic fumes which may generate pressure and cause containers to burst releasing the harmful fumes.
- Flammable Properties and Hazards:** Urea solution is not flammable, however, when heated, urea releases ammonia and when heated to decomposition it emits toxic fumes of nitrogen oxides (NOx), ammonia, and cyanuric acid.
- Reacts with sodium hypochlorite or calcium hypochlorite to form the explosive nitrogen trichloride.

## 6. ACCIDENTAL RELEASE MEASURES

- Protective Precautions, Protective Equipment and Emergency Procedures:** As appropriate for size and nature of spill. See Section 8 for recommended PPE.
- Steps To Be Taken In Case Material Is Released Or Spilled:** Spill or Leak Measures: Spilled urea solution may cause slippery conditions. Keep unnecessary people away and isolate hazard area. Contain spill to prevent run-off. Recover as much liquid as possible, then removing remainder by absorbing with inert material. Place recovered liquid and absorbed liquid in container for proper handling and disposal.

## 7. HANDLING AND STORAGE

**Precautions To Be Taken in Handling:** Avoid eye and skin contact.

**Precautions To Be Taken in Storing:** Store in cool location.

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### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

CAS #	Partial Chemical Name	OSHA TWA	ACGIH TWA	Other Limits
7732-18-5	Water	No data.	No data.	No data.
57-13-6	Urea	No data.	No data.	No data.
<b>Respiratory Equipment (Specify Type):</b>		Under expected use, no respiratory equipment is expected to be required. However, as urea will generate ammonia and carbon dioxide, respiratory equipment may be necessary in enclosed, or otherwise poorly ventilated areas as they can displace oxygen. Always check oxygen levels in any area that is not well ventilated. Use an ammonia filter respirator if ammonia concentrations exceed permissible amounts.		
<b>Eye Protection:</b>		It is recommended that safety glasses or goggles be used and if there is a potential for splashing liquid, a face shield should be used in conjunction with the safety glasses or goggles.		
<b>Protective Gloves:</b>		Impervious gloves such as rubber or neoprene should be worn.		
<b>Other Protective Clothing:</b>		As needed to minimize contact with skin.		
<b>Engineering Controls (Ventilation etc.):</b>		Adequate ventilation should be supplied.		
<b>Work/Hygienic/Maintenance Practices:</b>		When using do not eat, drink or smoke. Avoid contact with skin, eyes and clothing. Wash hands before breaks and at the end of workday. Wash contaminated clothing before re-use.		

### 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical States:</b>	[ ] Gas [ X ] Liquid [ ] Solid		
<b>Appearance and Odor:</b>	Colorless liquid, Slight ammonia odor (pungent)		
<b>Melting Point:</b>	No data.		
<b>Boiling Point:</b>	No data.		
<b>Autoignition Pt:</b>	No data.		
<b>Flash Pt:</b>	> 200.00 F (93.3 C) Method Used: Pensky-Marten Closed Cup		
<b>Explosive Limits:</b>	LEL: No data. UEL: No data.		
<b>Specific Gravity (Water = 1):</b>	1.087 - 1.095 at 20.0 C (68.0 F)		
<b>Vapor Pressure (vs. Air or mm Hg):</b>	No data.		
<b>Vapor Density (vs. Air = 1):</b>	No data.		
<b>Evaporation Rate:</b>	No data.		
<b>Solubility in Water:</b>	100% at 20.0 C (68.0 F)		
<b>pH:</b>	9.0 - 10.25		
<b>Percent Volatile:</b>	No data.		

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### 10. STABILITY AND REACTIVITY

<b>Reactivity:</b>	Urea will form urea nitrate when mixed with nitric acid at low pH. Urea nitrate may become unstable and/or explosive under certain conditions.
<b>Stability:</b>	Unstable [ ]      Stable [ X ]
<b>Conditions To Avoid - Instability:</b>	Avoid high heat/temperatures and contact with incompatible materials.
<b>Incompatibility - Materials To Avoid:</b>	Hypochlorites such as sodium hypochlorite (bleach) or calcium hypochlorite, sodium nitrate, phosphorus pentachloride, nitrosyl or gallium perchlorate and nitric acid.
<b>Hazardous Decomposition or Byproducts:</b>	Urea solution forms ammonia, cyanuric acid, biuret, and/or nitrogen oxides (NOx) upon decomposition.
<b>Possibility of Hazardous Reactions:</b>	Will occur [ ]      Will not occur [ X ]
<b>Conditions To Avoid - Hazardous Reactions:</b>	None known.

### 11. TOXICOLOGICAL INFORMATION

<b>Toxicological Information:</b>	No data available.
<b>Irritation or Corrosion:</b>	Excessive contact may cause irritation.
<b>Sensitization:</b>	Does not contain any known sensitizers at levels that may cause an allergic reaction.
<b>Chronic Toxicological Effects:</b>	None known.
<b>Carcinogenicity/Other Information:</b>	Does not contain any known carcinogens.

CAS #	Chemical Name	NTP	IARC	ACGIH	OSHA
7732-18-5	Water	n.a.	n.a.	n.a.	n.a.
57-13-6	Urea	n.a.	n.a.	n.a.	n.a.

### 12. ECOLOGICAL INFORMATION

<b>General Ecological Information:</b>	Notify local health and wildlife officials and operators of any nearby water intakes of contamination or discharge into or leading to waterways.
<b>Persistence and Degradability:</b>	Urea is rapidly hydrolyzed to ammonia and carbon dioxide in environmental systems by the extracellular enzyme, urease, which originates from microorganisms and plant roots.

### 13. DISPOSAL CONSIDERATIONS

<b>Waste Disposal Method:</b>	Urea solution is not listed by the Federal EPA as a hazardous waste. Consult state/provincial and local environmental agencies for acceptable disposal methods. If permitted and uncontaminated, recover product may be use as a fertilizer.
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### 14. TRANSPORT INFORMATION

#### LAND TRANSPORT (US DOT):

**DOT Proper Shipping Name:** Not regulated  
**DOT Hazard Class:**  
**UN/NA Number:**

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### 15. REGULATORY INFORMATION

#### EPA SARA (Superfund Amendments and Reauthorization Act of 1986) Lists

CAS #	Chemical Name	S. 302 (EHS)	S. 304 RQ	S. 313 (TRI)
7732-18-5	Water	No	No	No
57-13-6	Urea	No	No	No

**This material meets the EPA** ☒ Yes ☐ No Acute (immediate) Health Hazard  
**'Hazard Categories' defined** ☐ Yes ☒ No Chronic (delayed) Health Hazard  
**for SARA Title III Sections** ☐ Yes ☒ No Fire Hazard  
**311/312 as indicated:** ☐ Yes ☒ No Sudden Release of Pressure Hazard  
☐ Yes ☒ No Reactive Hazard

CAS #	Chemical Name	Other US EPA or State Lists
7732-18-5	Water	CAA HAP,ODC: No; CWA NPDES: No; TSCA: Yes - Inventory; CA PROP.65: No
57-13-6	Urea	CAA HAP,ODC: No; CWA NPDES: No; TSCA: Yes - Inventory, 8A CAIR; CA PROP.65: No

**Regulatory Information:** TSCA: All ingredients are listed on the US TSCA Inventory or are otherwise exempt.

SARA Title III: No ingredients are subject to reporting under SARA 313.

CERCLA Hazardous Substances List: No ingredients listed.

PROP 65: This product is not known to contain any chemicals that would require disclosure under California Proposition 65.

**Regulatory Information Statement:** The information contained herein is based on data considered accurate. However, no warranty is expressed or implied regarding the accuracy of this data or the results to be obtained from the use thereof. Vendor assumes no responsibility for injury to vendee or third person proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet. Additionally, vendor assumes no responsibility for injury to vendee or third persons proximately caused by abnormal use of the material even if reasonable safety procedures are followed. Furthermore, vendee assumes all risk in use of the material.

### 16. OTHER INFORMATION

**Revision Date:** 01/15/2015

**Additional Information About** No data available.

**This Product:**

**Company Policy or Disclaimer:** THIS INFORMATION IS FURNISHED WITHOUT WARRANTY, EXPRESSED OR IMPLIED, EXCEPT THAT IS ACCURATE TO THE BEST KNOWLEDGE OF EXCELDA MANUFACTURING. THE DATA ON THIS SHEET RELATES ONLY TO THE SPECIFIC MATERIAL DESIGNATED HEREIN. EXCELDA MANUFACTURING ASSUMES NO LEGAL RESPONSIBILITY FOR USE OR RELIANCE UPON THIS DATA.