

MATERIAL SAFETY DATA SHEET**UREA AMMONIUM NITRATE SOLUTION
28-0-0****CHEMICAL PRODUCT AND COMPANY IDENTIFICATION**

Formulator's Name: Two Rivers Terminal, LLC
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EPA National Response Center: (800) 424-8802

PRODUCT NAME: 28-0-0 LIQUID UREA AMMONIUM NITRATE SOLUTION, UAN SOLUTION, URAN SOLUTION
CHEMICAL NAME: Inorganic/Organic Chemical Fertilizer Mixture
CHEMICAL FAMILY: Nitrogen Liquid Blended Fertilizer
EPA REG. NO.: Not applicable

MSDS Number: 3200LIQ-005 **MSDS Revisions:** 08/13/2007 **Date Of Issue:** 10/15/2005

COMPOSITION, INFORMATION ON INGREDIENTS (Note: see product tag or label for specific ingredients)

Chemical Ingredients:	Percentage by Weight:	CAS No.
Total Nitrogen (N)	28.00	Mixture
Available Phosphate (P ₂ O ₅)	0.00	Mixture
Soluble Potash (K ₂ O)	0.00	Mixture
Fertilizer salts and inert ingredients	72.00	

HAZARDS IDENTIFICATION SUMMARY**CAUTION: KEEP OUT OF REACH OF CHILDREN**

This product is a water clear to light off white liquid with fertilizer-like odor. Primary routes of entry are Inhalation, eye contact and skin contact.

FIRST AID MEASURES

Eyes: Flush eyes with large amount of water for at least 15 minutes. Consult a physician if irritation persists.
Skin: Remove all contaminated clothing. Wash skin, hair, and fingernails thoroughly with soap and water. If irritation persists seek medical attention. Wash clothing before reuse.
Ingestion: If swallowed, give 2 glasses of water to drink. Do not induce vomiting or give anything by mouth to an unconscious person. Call a physician to get medical attention
Inhalation: Move subject to fresh air. Give artificial respiration if breathing has stopped. If breathing is difficult, give oxygen, get medical attention immediately.

FIRE FIGHTING MEASURES

FLASH POINT (°F/Test Method): Not Flammable
FLAMMABLE LIMITS (LEL & UEL): Not applicable
EXTINGUISHING MEDIA: Considered non-combustible, use medium appropriate to surrounding fire. Dry chemical, carbon dioxide, foam, water spray or fog.
HAZARDOUS COMBUSTION PRODUCTS: May include but are not limited to oxides of carbon, hydrogen chloride, hydrogen fluoride, oxides of nitrogen, ammonia, oxides of phosphorus, oxides of sulfur, hydrogen sulfide.
SPECIAL FIRE FIGHTING PROCEDURES: Use water spray to cool containers exposed to fire. Remain upwind. Avoid breathing smoke. Wear self-contained breathing apparatus and full protective gear.
UNUSUAL FIRE AND EXPLOSION HAZARDS: Dusts or vapors can travel to a sources of ignition and flash back.

ACCIDENTAL RELEASE MEASURES**STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:**

Avoid breathing vapors. Absorb and sweep up liquid spills immediately and transfer to suitable containers for possible land application according to label use or for disposal. Check local, state and federal regulations for proper disposal.

CAUTION: Keep spills and cleaning runoff out of municipal sewers and open bodies of water.

HANDLING AND STORAGE

HANDLING: Store in a cool dry place away from children, feed and food products, and seed.
OTHER PRECAUTIONS: Toxic to fish and other aquatic organisms. Do not contaminate water supplies by handling and storage of product. Drift or runoff may adversely affect aquatic invertebrates and non-target plants.

EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS: Not normally required.
RESPIRATORY PROTECTION: Not normally required, if vapors or dusts exceed acceptable levels, wear a MSHA/NIOSH approved pesticide respirator.
EYE PROTECTION: Chemical goggles or shielded safety glasses.
SKIN PROTECTION: Wear protective clothing: long-sleeved shirts and pants, hat, rubber boots with socks. Wear rubber or chemical-resistant gloves.

OSHA PEL 8 hr TWA
Not established

ACGIH TLV-TWA
Not Established

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UREA AMMONIUM NITRATE SOLUTION 28-0-0

PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: Water clear liquid with fertilizer-like odor
SPECIFIC GRAVITY (Water= 1): 1.2845 g/ml
VAPOR PRESSURE: Not established
PERCENT VOLATILE (by volume): Not established
SOLUBILITY: Soluble
BULK DENSITY: 10.72 lbs/gallon
BOILING POINT: Not established
EVAPORATION RATE: Not established
pH: 7.0 - 8.0

Note: These physical data are typical values based on material tested but may vary from sample to sample. Typical values should not be construed as a guaranteed analysis of any specific lot or as specification items.

STABILITY AND REACTIVITY

STABILITY: Stable
INCOMPATIBILITY: None known.
CONDITIONS TO AVOID: None known.
Hazardous Decomposition Products: Urea may decompose to release cyanuric acid, ammonia, HCN, NO.
Hazardous Polymerization: Will not occur.

TOXICOLOGICAL INFORMATION

Acute Oral LD50 (rat): >5000 mg/kg
Eye Irritation (rabbit): May cause moderate irritation
Inhalation: May cause respiratory tract irritation.
Carcinogenic Potential: None listed in OSHA, NTP, IARC or ACGIH
Acute Dermal LD 50 (rabbit): >5000 mg/kg
Skin Irritation (rabbit): May cause slight irritation
Ingestion: May cause stomach distress, nausea or vomiting.

ECOLOGICAL INFORMATION

Drift or runoff may adversely affect non-target plants. Do not apply directly to water. Do not contaminate water when disposing of equipment wash water.
Do not apply when weather conditions favor drift from target area.

DISPOSAL CONSIDERATIONS

Do not reuse container. Plastic Jugs: Triple rinse (or equivalent), then offer for recycling at an ACRC site or by reconditioning, or puncture and dispose of in a sanitary landfill or by other procedures approved by local, state and federal regulations.

TRANSPORT INFORMATION

DOT Shipping Description: Not regulated by DOT by highway.
U.S. Surface Freight Classification: Fertilizing Compounds (Manufactured Fertilizers), NOI; Liquid (NMFC 68140, Sub 5; Class 50)

REGULATORY INFORMATION

NFPA & HMIS Hazard Ratings:		NFPA		HMIS
		1 Health	0 Least	1 Health
		0 Flammability	1 Slight	0 Flammability
		0 Instability	2 Moderate	0 Reactivity
			3 High	H PPE
			4 Severe	

SARA Hazard Notification/Reporting
SARA Title III Hazard Category: Immediate Y Fire N Sudden Release of Pressure N
Delayed N Reactive N

Reportable Quantity (RQ) under U.S. CERCLA: Not listed
SARA, Title III, Section 313: Not listed
RCRA Waste Code: Not listed
CA Proposition 65: Not listed

OTHER

MSDS STATUS: Revision made 08/13/2007

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