



**DE-ICER™ 821**

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Date Prepared: April 1, 2015  
MSDS No.: 3180

**SECTION 1: IDENTIFICATION**

**Product name:** DE-ICER 821

**Recommended use:** Ice and snow melter

**Physical Description:** Granular white pellets with slight ammonia odor

**Generic Ingredients:** Urea

**Manufacturer:**

Penetone Corporation  
700 Gotham Parkway  
Carlstadt, NJ 07072  
800-631-1652 or 201-567-3000

**Business Contact:**

Customer Service  
800-631-1652 x2602 or 2272  
Product Safety  
800-631-1652 x2211 or 2257

**Emergency Phone Numbers:** PENETONE 201-567-3000 CHEMTREC 800-424-9300

**SECTION 2: HAZARDS IDENTIFICATION**

**GHS CLASSIFICATION:**

<b>Health:</b> Skin irritation: 2 Eye irritation: 2A	<b>Physical:</b> not classified
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**WARNING!**

Causes Skin Irritation.  
Causes Severe Eye Irritation.



<b>Precautions</b>	
<p><u>Prevention:</u> Wear protective gloves, clothing, eye protection, and face protection. Wash hands and exposed skin thoroughly after handling.</p> <p><u>Response:</u> <i>If on skin:</i> Wash with plenty of water. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse.</p>	<p><i>If in eyes:</i> Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.</p>

**SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS**

Chemical Name	CAS#	Concentration Wt%
Urea	57-13-6	100

**SECTION 4: FIRST-AID MEASURES**

**General Description of Symptoms & First-Aid Measures**

Most likely work-place exposure routes will be *skin contact and eye contact*. Repeated or prolonged contact may cause reddening, itching and inflammation.

**Eyes**

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists or develops: Get medical advice or attention. Penetone recommends that after any eye exposure a physician be seen immediately.



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**Ingestion**

If swallowed: Rinse mouth. Call a poison center, doctor, physician or other competent medical authority if you feel unwell.

**Inhalation**

If inhaled: Remove person to fresh air and keep comfortable for breathing. Call a poison center, doctor, physician or other competent medical authority if you feel unwell.

**Skin**

If on skin: Wash with plenty of water or a mild soap. Take off contaminated clothing and wash it before reuse. If skin irritation occurs: Get medical advice or attention.

**Special Treatment / Other**

None

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**SECTION 5: FIRE FIGHTING MEASURES**

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**Flammable Properties**

**Classification:** Non-flammable

**Flash Point:** Not applicable

**Autoignition Temperature:** Not applicable

**Lower Flammable Limit:** Not applicable **Upper Flammable Limit:** Not applicable

**Specific Hazards**

Product is a powder and presents no unusual fire hazards.

**Extinguishing Media**

**Suitable:** SMALL FIRE: Use dry chemical, carbon dioxide (CO<sub>2</sub>), water spray or regular foam. LARGE FIRE: water spray, water fog, or foam.

**Unsuitable:** None.

**Protection & Precautions for Firefighters**

**Protective Equipment & Clothing:** Wear positive pressure self-contained breathing apparatus (SCBA). Structural firefighters protective clothing will only provide limited protection.

**Fire Fighting Guidance:** Cool containers with flooding quantities of water until well after fire is out. Move containers from fire area if you can do it safely. Dike fire control water for later disposal; do not scatter material. Containers can expand and explode under fire conditions due to vapor buildup. Always stay away from containers engulfed in fire.

**Hazardous Combustion Products:** Smoke, fumes, and oxides of carbon and nitrogen. Heating above 270°F generates biuret, ammonia, and nitrogen oxides.

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**SECTION 6: ACCIDENTAL RELEASE MEASURES**

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**Land Spill**

Sweep up material. Put all material into proper waste disposal container with lid tightly covered. Rinse area with plenty of water.

**Water Spill**

Urea will completely mix/dissolve in water making recovery difficult. Undissolved pellets should be recovered if possible. Localized high concentration of product may cause fish kills, but no persistent or long term effects are anticipated. Check with local environmental regulatory agencies for reporting requirements

**See SECTION 8 for EXPOSURE CONTROLS and PERSONAL PROTECTION.**



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**SECTION 7: HANDLING & STORAGE**

**Handling**

Avoid contact with eyes, skin and clothing. After handling, always wash hands thoroughly with soap and water. Avoid personal contact with any residue. Do not cut, weld, or reuse empty container.

**Storage**

Keep container tightly closed when not in use. Do not store in direct sunlight. Avoid storing above 120°F (49°C). Do not store near strong acids, bases, or oxidizers. Avoid storing near nitrates. Do not store near sodium or calcium hypochlorite (bleach.)

**SECTION 8: EXPOSURE CONTROLS and PERSONAL PROTECTION**

**Engineering Controls**

Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits.

**Personal Protection**

Inhalation A respiratory protection program that meets OSHA's 29 CFR 1910.134 or ANSI Z88.2 requirements must be followed whenever workplace conditions warrant respirator use. Use of an organic vapor mask or respirator is recommended.

Skin Wear chemical resistant gloves such as: rubber, nitrile, neoprene, or latex when skin contact is possible. Protective clothing including gloves, apron, sleeves, boots, head and face protection should be worn depending on how the product is used. PPE should be cleaned thoroughly after each use.

Eyes Penetone recommends always wearing safety glasses as a minimum in any workplace. Conditions may warrant the use of chemical goggles and possibly a face shield. Consult your standard operating procedure or safety professional for advice. Use protective eye and face devices that comply with ANSI Z87.1-1987.

**Additional Remarks**

Selection of appropriate personal protective equipment should be based on an evaluation of the performance characteristics of the protective equipment relative to the task(s) to be performed, conditions present, duration of use, and the hazards and/or potential hazards that may be encountered during use.

**Occupational Exposure Limits**

Component Name	Source	Value	Type	Notation
Particulate, n.o.s. (respirable)	ACGIH	3 mg/m <sup>3</sup>	TWA	Appendix B see Appendix D
	NIOSH	---		
	OSHA Z1	5 mg/m <sup>3</sup>	TWA	
Particulate, n.o.s. (total)	ACGIH	10 mg/m <sup>3</sup>	TWA	Appendix B see Appendix D
	NIOSH	---		
	OSHA Z1	15 mg/m <sup>3</sup>		

No OELs have been established for any of the components

**SECTION 9: PHYSICAL & CHEMICAL PROPERTIES**

**Appearance:** granular white pellets

**Odor:** slight ammonia

**Odor Threshold:** not determined

**pH:** not applicable

**Melting Point / Freezing:** 271°F

**Boiling Point / Boiling Point Range:** 275°F (decomposes)



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**Flash Point:** not applicable  
**Evaporation Rate:** not applicable  
**Flammability:** not applicable  
**Lower Flammable Limit:** not applicable  
**Upper Flammable Limit:** not applicable  
**Explosive Properties:** not applicable  
**Vapor Pressure:** not applicable  
**Relative Vapor Density:** not applicable  
**Relative Density:** not applicable  
**Solubility (Water):** not applicable  
**Partition Coefficient (K<sub>ow</sub>):** not applicable  
**Auto-ignition temperature:** not applicable  
**Decomposition temperature:** 275°F  
**Viscosity:** not applicable

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**SECTION 10: STABILITY & REACTIVITY**

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**Reactivity**

Stable. Will not undergo hazardous polymerization.

**Chemical Stability**

Stable. Will not undergo hazardous polymerization.

**Hazardous Reactions**

Can react with sodium or calcium hypochlorite (bleach) to form explosive nitrogen trichloride.

**Conditions to Avoid**

Do not store near strong acids, bases, or oxidizers. Avoid storing near nitrates. Do not store near sodium or calcium hypochlorite (bleach).

**Incompatible Materials**

Do not store near strong acids, bases, or oxidizers. Avoid storing near nitrates. Do not store near sodium or calcium hypochlorite (bleach).

**Hazardous Decomposition Products**

Smoke, fumes, and oxides of carbon and nitrogen. Heating above 270°F generates biuret, ammonia, and nitrogen oxides.

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**SECTION 11: TOXICOLOGICAL INFORMATION**

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**Product Summary**

Product is nontoxic.

**Acute Toxicity:**

**Dermal:** no data available

**Inhalation:** no data available

**Oral:** LD50 14,300-15,000 mg/kg rat: LD50 = 11,500-13,000 mg/kg mouse

**Skin Corrosion/Irritation**

10% solution not irritating: mouse



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**Serious Eye Damage/Irritation**

50% solution not irritating: rabbit

**Repeated Dose Toxicity**

Rat 24 weeks dermal NOAEL 40% in ointment

**Sensitization - Respiratory or Skin**

Not a skin sensitizer.

**Germ Cell Mutagenicity**

Bacterial reverse mutation assay - negative. Chromosomal aberration test, Chinese hamster, positive (very high dose; mouse, positive (very high dose). Bone marrow cytogenetic test, mouse, positive (very high dose).

**Carcinogenicity**

Not listed as a carcinogen by ACGIH, IARC, NTP, or OSHA.

**Reproductive / Developmental Toxicity**

No toxic effects on mouse gonads up to 6,750 mg/kg/day. No toxic effects on rat gonads up to 2,250 mg/kg/day. Not teratogenic.

**Specific Target Organ Effects - Single Exposure**

No data available

**Specific Target Organ Effects - Repeated or Prolonged Exposure**

No data available

**Aspiration Hazard**

Not an aspiration hazard

**Other Information**

Despite extensive medical use, no significant side effects on humans have been noted.

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**SECTION 12: ECOLOGICAL INFORMATION**

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**Product Summary**

Product is nontoxic to aquatic organisms.

**Ecotoxicity**

LC50 > 9,100 mg/l *Barillius barna* 96h

EC50 > 10,000 mg/l *Daphnia magna* 24h

TT > 10,000 mg/l *Scenadesmus quadricauda* 196 hr cell multiplication inhibition test

Applications of nitrogenous fertilizers to grassland for long periods may have deleterious effects on earthworms in the absence of liming.

**Persistence and Degradability**

Ultimately biodegradable (OECDTG 302B) 93-98% (SCAS 24 hr)

**Bioaccumulative Potential**

Low

**Mobility in soil**

No data available

**Other Adverse Effects**

Since urea is a fertilizer, it may promote eutrophication in waterways.



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**SECTION 13: DISPOSAL CONSIDERATIONS**

Product is a nonhazardous waste under RCRA definitions. Dispose of contents/container in accordance with all applicable federal, state, and local regulations.

**Note:** Contaminated product, soil, water, container residues and spill cleanup materials may be hazardous wastes. Appropriate hazardous waste designation is the responsibility of the user.

**SECTION 14: TRANSPORT INFORMATION**

**ID No.:** Not applicable, nonhazardous material  
**Proper Shipping Name:** Not applicable  
**Hazard Class:** Not applicable  
**Packing Group:** Not applicable  
**Label:** None  
**Marine Pollutant:** No  
**RQ:** None  
**Special Precautions:** None

**SECTION 15: REGULATORY INFORMATION**

**TSCA**  
The ingredients in this product are listed on the TSCA inventory.

**RCRA HAZARD CLASS**  
Nonhazardous waste

**SARA 311/312 REPORTABLE HAZARD CATEGORIES:** Immediate (Acute) Health

**REPORTING REQUIREMENTS** (all quantities in pounds)

Component	CAS / 313 Code	Section 302 (EHS) TPQ	Section 304 EHS RQ	CERCLA RQ (1)	Section 313	CAA 112(r) TQ	CWA / OPA
No component subject to reporting requirements							

**NEW JERSEY RIGHT-TO-KNOW INFORMATION**  
This product contains urea (CAS# 57-13-6)

**CALIFORNIA PROPOSITION 65 INFORMATION**  
This product does not contain any chemicals recognized by the state of California to cause cancer and/or birth defects or reproductive harm.

**SCAQMD INFORMATION**  
Is there a photochemically reactive material present? No  
 What is the % by volume of photochemically reactive material? 0  
 What is the VOC content? 0  
 What is the vapor pressure of VOC's? Not applicable



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**SECTION 16: OTHER INFORMATION**

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**REVISION SUMMARY**

New GHS format

**SUPERSEDES ISSUE DATE**

February 23, 2004

**HAZARD RATING SYSTEMS:**

	<u>HMIS</u>	<u>NFPA</u>
HEALTH	1	1
FLAMMABILITY	0	0
REACTIVITY	0	0
	B	

**KEY**  
4 = Severe  
3 = Serious  
2 = Moderate  
1 = Slight  
0 = Minimal

FOR ADDITIONAL PRODUCT INFORMATION, CONTACT YOUR SALES ENGINEER  
FOR ADDITIONAL HEALTH/SAFETY INFORMATION, CALL 201-567-3000

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