

# SAFETY DATA SHEET

## 1. Identification

**Product identifier** UREA, REAGENT (ACS)

### Other means of identification

**Product code** AEB2038

**Synonym(s)** Carbamide

**Recommended use** professional, scientific and technical activities: other professional, scientific and technical activities

**Recommended restrictions** None known.

### Manufacturer/importer/Supplier/distributor information

**Company name** Alpha Resources Inc.

**Address** 3090 Johnson Rd

Stevensville

MI

49127 US

**Telephone** 800-833-3083

**Fax** 465-269-3629

**Website** www.alpharesources.com

**E-mail** sales@alpharesources.com

**Emergency phone number** Emergency Assistance Chemtrec 800-424-9300

## 2. Hazard(s) identification

**Physical hazards** Not classified.

**Health hazards** Not classified.

**OSHA hazard(s)** Not classified.

No hazards resulting from the material as supplied.

### Label elements

**Hazard symbol** No symbol.

**Signal word** Not available.

**Hazard statement** Not available.

### Precautionary statement

**Prevention** Not available.

**Response** Not available.

**Storage** Not available.

**Disposal** Not available.

**Hazard(s) not otherwise classified (HNOC)** Not classified.

## 3. Composition/information on ingredients

### Substances

#### Hazardous components

Chemical name	Common name and synonyms	CAS number	%
UREA	Carbamide	57-13-6	100

\*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

## 4. First-aid measures

**Inhalation** Move to fresh air. Call a physician if symptoms develop or persist.

**Skin contact** Wash off with soap and water. Get medical attention if irritation develops and persists.

**Eye contact** Rinse with water. Get medical attention if irritation develops and persists.

**Ingestion** Get medical attention if symptoms occur.

**Most important symptoms/effects, acute and delayed** Not available.

**Indication of immediate medical attention and special treatment needed** Treat symptomatically.

## 5. Fire-fighting measures

**Suitable extinguishing media** Water.

**Unsuitable extinguishing media** None known.

**Specific hazards arising from the chemical** Not applicable.

**Special protective equipment and precautions for firefighters** Wear suitable protective equipment.

**Fire-fighting equipment/instructions** In the event of fire, cool tanks with water spray.

**Specific methods** Cool containers exposed to flames with water until well after the fire is out.

## 6. Accidental release measures

**Personal precautions, protective equipment and emergency procedures** Not available.

**Methods and materials for containment and cleaning up** Stop the flow of material, if this is without risk. Following product recovery, flush area with water. For waste disposal, see section 13 of the MSDS.

**Environmental precautions** Prevent further leakage or spillage if safe to do so. Do not contaminate water.

## 7. Handling and storage

**Precautions for safe handling** Avoid prolonged exposure. Avoid release to the environment.

**Conditions for safe storage, including any incompatibilities** Store in original tightly closed container. Use care in handling/storage. Store in accordance with local/regional/national/international regulation.

## 8. Exposure controls/personal protection

### Occupational exposure limits

#### US. AIHA Workplace Environmental Exposure Level (WEEL) Guides

Material	Type	Value	Form
UREA (CAS 57-13-6)	TWA	10 mg/m3	Total particulate.

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

**Appropriate engineering controls** Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

### Individual protection measures, such as personal protective equipment

**Eye/face protection** Wear safety glasses with side shields (or goggles).

#### Skin protection

**Hand protection** Wear protective gloves.

**Other** Normal work clothing (long sleeved shirts and long pants) is recommended.

**Respiratory protection** When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

**Thermal hazards** Not available.

**General hygiene considerations** Handle in accordance with good industrial hygiene and safety practice.

## 9. Physical and chemical properties

**Appearance** Crystalline.

**Physical state** Solid.

**Form** Crystalline powder.

**Color** White.

<b>Odor</b>	slight ammoniacal
<b>Odor threshold</b>	Not available.
<b>pH</b>	7.2 10% solution
<b>Melting point/freezing point</b>	270.9 °F (132.7 °C)
<b>Initial boiling point and boiling range</b>	Not available.
<b>Flash point</b>	Not available.
<b>Evaporation rate</b>	Not available.
<b>Flammability (solid, gas)</b>	Not applicable.
<b>Upper/lower flammability or explosive limits</b>	
<b>Flammability limit - lower (%)</b>	Not available.
<b>Flammability limit - upper (%)</b>	Not available.
<b>Explosive limit - lower (%)</b>	Not available.
<b>Explosive limit - upper (%)</b>	Not available.
<b>Vapor pressure</b>	0.000002 kPa at 25 °C
<b>Vapor density</b>	Not available.
<b>Relative density</b>	Not available.
<b>Solubility(ies)</b>	Not available.
<b>Partition coefficient (n-octanol/water)</b>	-2.1
<b>Auto-ignition temperature</b>	Not available.
<b>Decomposition temperature</b>	When heated to decomp, emits toxic fumes of nitrogen oxides.
<b>Viscosity</b>	Not available.
<b>Other information</b>	
<b>Density</b>	1.32 g/cm3 estimated
<b>Dynamic viscosity</b>	1.78 mPa.s 1.9 mPa.s
<b>Dynamic viscosity temperature</b>	278.6 °F (137 °C) 68 °F (20 °C)
<b>Molecular formula</b>	C-H4-N2-O
<b>Molecular weight</b>	60.06 g/mol
<b>Percent volatile</b>	0 %
<b>Specific gravity</b>	1.323 at 20 °C
<b>VOC (Weight %)</b>	0 %

## 10. Stability and reactivity

<b>Reactivity</b>	Not available.
<b>Chemical stability</b>	Material is stable under normal conditions.
<b>Possibility of hazardous reactions</b>	No dangerous reaction known under conditions of normal use.
<b>Conditions to avoid</b>	None under normal conditions.
<b>Incompatible materials</b>	None known.
<b>Hazardous decomposition products</b>	Nitrogen oxides (NOx).

## 11. Toxicological information

### Information on likely routes of exposure

<b>Ingestion</b>	Based on available data, the classification criteria are not met.
<b>Inhalation</b>	Due to lack of data the classification is not possible.
<b>Skin contact</b>	Due to lack of data the classification is not possible.
<b>Eye contact</b>	Due to lack of data the classification is not possible.

**Symptoms related to the physical, chemical and toxicological characteristics** Not available.

**Information on toxicological effects**

**Acute toxicity**

Product	Species	Test Results
UREA (CAS 57-13-6)		
<b>Acute</b>		
<i>Oral</i>		
LD50	Rat	8471 mg/kg
	Sheep	28500 mg/kg
<i>Other</i>		
LD50	Mouse	4600 mg/kg
	Rat	5300 mg/kg

\* Estimates for product may be based on additional component data not shown.

<b>Skin corrosion/irritation</b>	Due to lack of data the classification is not possible.
<b>Serious eye damage/eye irritation</b>	Due to lack of data the classification is not possible.
<b>Respiratory sensitization</b>	Due to lack of data the classification is not possible.
<b>Skin sensitization</b>	Due to lack of data the classification is not possible.
<b>Germ cell mutagenicity</b>	Due to lack of data the classification is not possible.
<b>Carcinogenicity</b>	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.
<b>Reproductive toxicity</b>	Due to lack of data the classification is not possible.
<b>Specific target organ toxicity - single exposure</b>	Due to lack of data the classification is not possible.
<b>Specific target organ toxicity - repeated exposure</b>	Due to lack of data the classification is not possible.
<b>Aspiration hazard</b>	Due to lack of data the classification is not possible.
<b>Chronic effects</b>	Prolonged inhalation may be harmful.
<b>Further information</b>	This product has no known adverse effect on human health.

**12. Ecological information**

**Ecotoxicity** Contains a substance which causes risk of hazardous effects to the environment.

Product	Species	Test Results
UREA (CAS 57-13-6)		
<b>Aquatic</b>		
Crustacea	EC50	Water flea (Ceriodaphnia dubia) 6119 - 7061 mg/l, 48 hours
		Water flea (Daphnia magna) 6390 mg/l, 24 hours 3910 mg/l, 48 hours
	LC50	Rohu (Labeo rohita) 19400 - 19709 mg/l, 24 hours 18291 - 19378 mg/l, 48 hours 18225 - 18403 mg/l, 72 hours 139.4 mg/l, 96 hours 135 - 143.8 mg/l, 96 hours 127.9 mg/l, 96 hours 123.5 - 132.4 mg/l, 96 hours 117.3 mg/l, 96 hours 115.2 - 124.2 mg/l, 96 hours 113.2 - 121.4 mg/l, 96 hours 99.5 mg/l, 96 hours 95.7 - 103.3 mg/l, 96 hours 94.7 - 102.1 mg/l, 96 hours

Product	Species	Test Results
		92.5 mg/l, 96 hours
		88.6 - 96.6 mg/l, 96 hours
		86.3 - 93.9 mg/l, 96 hours
		80 - 86.9 mg/l, 96 hours
		69.3 - 75.9 mg/l, 96 hours
		63.1 - 70.5 mg/l, 96 hours
		61.5 - 70.2 mg/l, 96 hours
		60.3 - 69.2 mg/l, 96 hours
		20.3 - 26.5 mg/l, 96 hours
		13.8 - 19.6 mg/l, 96 hours
Fish	LC50	Water flea ( <i>Daphnia magna</i> ) > 10000 mg/l, 24 hours
		Carp ( <i>Leuciscus idus melanotus</i> ) > 10000 mg/l, 48 hours
		Giant gourami ( <i>Colisa fasciata</i> ) 9 mg/l, 24 hours
		8 mg/l, 48 hours
		6.5 mg/l, 72 hours
		5 mg/l, 96 hours
		Guppy ( <i>Poecilia reticulata</i> ) 27000 - 28200 mg/l, 24 hours
		22295 mg/l, 48 hours
		18728 mg/l, 72 hours
		16200 - 18300 mg/l, 96 hours
		Harlequinfish, red rasbora ( <i>Rasbora heteromorpha</i> ) 21000 mg/l, 24 hours
		15000 mg/l, 48 hours
		12000 mg/l, 96 hours
		Mozambique tilapia ( <i>Tilapia mossambica</i> ) 22500 mg/l, 96 hours
		1240 mg/l, 96 hours
		1230 - 1412 mg/l, 96 hours
		1085 mg/l, 96 hours
		590 - 730 mg/l, 96 hours
		22.5 mg/l, 96 hours
		Snake-head catfish ( <i>Channa punctata</i> ) 25000 mg/l, 24 hours

\* Estimates for product may be based on additional component data not shown.

**Persistence and degradability** No data is available on the degradability of this product.

**Bioaccumulative potential** Not available.

**Partition coefficient n-octanol / water (log Kow)**  
-2.11

**Mobility in soil** Not available.

**Other adverse effects** Not available.

### 13. Disposal considerations

**Disposal instructions** Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow this material to drain into sewers/water supplies. Dispose in accordance with all applicable regulations.

**Local disposal regulations** Not available.

**Hazardous waste code** Not regulated.

**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** Empty containers should be taken to an approved waste handling site for recycling or disposal.

## 14. Transport information

### DOT

Not regulated as a hazardous material by DOT.

### IATA

Not regulated as a dangerous good.

### IMDG

Not regulated as a dangerous good.

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** No information available.

## 15. Regulatory information

**US federal regulations** CERCLA/SARA Hazardous Substances - Not applicable.

All components are on the U.S. EPA TSCA Inventory List.

### TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

### US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not on regulatory list.

### CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

### 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** No

**SARA 311/312 Hazardous chemical** No

### 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.

#### Drug Enforcement Administration (DEA). List 2, Essential Chemicals (21 CFR 1310.02(b) and 1310.04(f)(2) and Chemical Code Number

Not listed.

#### Drug Enforcement Administration (DEA). List 1 & 2 Exempt Chemical Mixtures (21 CFR 1310.12(c))

Not regulated.

#### DEA Exempt Chemical Mixtures Code Number

Not regulated.

**Food and Drug Administration (FDA)** Total food additive  
Direct food additive  
GRAS food additive

**US state regulations** California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

#### US. Massachusetts RTK - Substance List

Not regulated.

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

Not regulated.

#### US. Pennsylvania RTK - Hazardous Substances

Not regulated.

#### US. Rhode Island RTK

Not regulated.

**US. California Proposition 65****US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance**

Not listed.

**International Inventories**

<b>Country(s) or region</b>	<b>Inventory name</b>	<b>On inventory (yes/no)*</b>
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

\*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s)

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

<b>Issue date</b>	May-14-2013
<b>Version #</b>	01
<b>Further information</b>	Not available.
<b>Disclaimer</b>	The information in the sheet was written based on the best knowledge and experience currently available. 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.
<b>Revision Information</b>	Product and Company Identification: Synonyms Physical & Chemical Properties: Multiple Properties