



# Urea

## Safety Data Sheet

According to Regulation (EC) 1272/2008

### SECTION 1 - Chemical Product and Company Identification

#### 1.1 Product Identifiers

Product Name : Urea  
 CAS # : 57-13-6  
 EC# : 200-315-5  
 RTECS# : YR6250000  
 REACH# : 01-2119463277-33-0197

#### 1.2 Recommended Use of the Chemical and Restrictions of Use

Chemical manufacturing

#### 1.3 Supplier Details

Supplier : BioSpectra Inc.  
 100 Majestic Way  
 Bangor, PA 18013  
 T: 610.599.3400  
 ehs@biospectra.us

#### 1.4 Emergency Numbers

Emergency Numbers : US & Canada: 1-800-424-9300  
 : Outside the US & Canada: +1 703-527-3887

### SECTION 2 – Hazard Identification

#### 2.1 Classification of the Substance or Mixture

##### GHS Classification in accordance with 29 CFR 1910 and Regulation (EC) No 1272/2008 (EU-GHS/CLP)

Not Classified as a Hazardous Substance.

#### 2.2 GHS Label Element Including Precautionary Statements

Not Classified as a Hazardous Substance.

#### 2.3 Hazards not Classified or not Covered by the GHS

Not Applicable

### SECTION 3 - Composition, Information on Ingredients

#### 3.1 Substances

Synonyms : Carbamide, Carbonyl Diamide  
 Formula :  $\text{NH}_2\text{CONH}_2$   
 Molecular Weight : 60.06 g/mol.

| Component | Classification                          | Concentration |
|-----------|-----------------------------------------|---------------|
| Urea      | Not Classified as a Hazardous Substance | ≤100%         |

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## SECTION 4 - First Aid Measures

### 4.1 Description of Necessary First Aid Measures

|            |                                                                                                                                                                                                          |
|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Eyes       | : Immediately flush eyes with tepid water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention if irritation persists.                                           |
| Skin       | : Immediately flush exposed area with tepid water for at least 15 minutes.                                                                                                                               |
| Ingestion  | : Do not induce vomiting unless instructed to do so by medical personnel. Never give anything by mouth to an unconscious person. If victim is conscious wash out mouth with water. Get medical attention |
| Inhalation | : Remove from exposure to fresh air immediately. If not breathing provide artificial respiration. If breathing is difficult supply oxygen. Get immediate medical attention.                              |

### 4.2 Most Important Symptoms/Effects, Acute and Delayed

Not Applicable.

### 4.3 Indication of Immediate Medical Attention and Special Treatment

Not Applicable.

## SECTION 5 - Firefighting Measures

### 5.1 Extinguishing Media

Substance is not flammable, use media most appropriate to extinguish surrounding fire.

### 5.2 Specific Hazards Associated with this Chemical

Carbon oxides, Nitrogen oxides (NOx), Ammonia, Nitrous gases.

### 5.3 Special Equipment/Precautions for Firefighters

May be combustible at high temperatures. As with most organic solids, fire is possible at elevated temperatures or by contact with an ignition source. In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full face piece operated in the pressure demand or other positive pressure mode.

### 5.4 Other Information

Not Applicable.

## SECTION 6 - Accidental Release Measures

### 6.1 Personal Precautions, Protective Equipment and Emergency Procedures

Ensure adequate ventilation. Use proper personal protective equipment as indicated in Section 8. Avoid formation of dust.

### 6.2 Environmental Precautions

Do not allow to enter drains. Do not discharge to the environment.

### 6.3 Methods and Materials for Containment and Cleaning Up

Vacuum or sweep up material and place into a suitable disposal container. Clean up spills immediately, observing precautions in the Protective Equipment section. Avoid generating dusty conditions. Provide ventilation.

### 6.4 Other Information

See Section 13 for disposal considerations.

## SECTION 7 - Handling and Storage

### 7.1 Precautions for Safe Handling

Use with adequate ventilation. Avoid dust formation.

### 7.2 Conditions for Storage Including any Incompatibilities

Preserve in well-closed containers. Store at 25°C, excursions permitted between 15°C and 30°C. Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances.

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**7.3 Other Information**

Not Applicable.

**SECTION 8 - Exposure Controls, Personal Protection****8.1 Control Parameters**

This product does not contain any hazardous materials with occupational exposure limits established by the region-specific regulatory bodies.

**8.2 Engineering Controls**

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

**8.3 Personal Protective Measures**

|                                                                                                                                                                                                        |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Eyes</b>                                                                                                                                                                                            |
| Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.                            |
| <b>Skin</b>                                                                                                                                                                                            |
| Wear appropriate gloves to prevent skin exposure. Wear impervious gloves: Nitrile rubber with layer thickness 0.11mm.                                                                                  |
| <b>Clothing</b>                                                                                                                                                                                        |
| Wear appropriate impervious protective clothing to minimize contact with skin.                                                                                                                         |
| <b>Respirators</b>                                                                                                                                                                                     |
| Follow the OSHA respirator regulations found in 29CFR 1910.134 or European Standard EN 149. Where protection from nuisance levels of dust are desired use type N95 (US) or type P1 (EN143) dust masks. |

**SECTION 9 - Physical and Chemical Properties****9.1 Physical and Chemical Property Information****Physical and Chemical Property Information**

|                                              |                             |
|----------------------------------------------|-----------------------------|
| Appearance                                   | : White Powder              |
| Odor                                         | : Ammonia-like              |
| Odor threshold                               | : Not Applicable            |
| pH                                           | : 7.5-9.5 (10% aq solution) |
| Melting Point/Freezing Point                 | : 131-135 °C (267.8-275 °F) |
| Initial Boiling Point and Boiling Range      | : No Data Available         |
| Flash Point                                  | : No Data Available         |
| Evaporation Rate                             | : No Data Available         |
| Flammability                                 | : No Data Available         |
| Upper/lower Flammability or Explosive limits | : No Data Available         |
| Vapor Pressure                               | : 0.002 Pa @ 25 °C          |
| Vapor Density                                | : No Data Available         |
| Relative Density                             | : 1.323 @ 20°C              |
| Water Solubility                             | : 264 g/L @ 20°C            |
| Partition Coefficient: n-octanol/water       | : No Data Available         |
| Auto Ignition Temperature                    | : No Data Available         |
| Decomposition Temperature                    | : > 132 °C                  |
| Viscosity                                    | : No Data Available         |

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Explosive Properties : No Data Available  
 Oxidizing Properties : No Data Available

## SECTION 10 - Stability and Reactivity

### 10.1 Chemical Stability

Stable under normal conditions of use and storage.

### 10.2 Conditions to Avoid

Excess heat, incompatibles, dust formation.

### 10.3 Incompatibilities with Other Materials

Strong oxidizers, strong bases.

### 10.4 Hazardous Decomposition Products: Occurs Under Fire Conditions

No Data Available

## SECTION 11 - Toxicological Information

### 11.1 Toxicological Effects

|                                                 |                                                   |
|-------------------------------------------------|---------------------------------------------------|
| LD50/LC50                                       | : LD50: Oral - rat – 8,471 mg/kg.                 |
| Carcinogenicity                                 | : Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA. |
| Epidemiology                                    | : No Data Available.                              |
| Teratogenicity                                  | : No Data Available.                              |
| Reproductive Effects                            | : No Data Available.                              |
| Neurotoxicity                                   | : No Data Available.                              |
| Mutagenicity                                    | : No Data Available.                              |
| Specific target organ toxicity -single exposure | : Inhalation -May cause respiratory irritation.   |
| Other Studies                                   | : Not Applicable.                                 |

### 11.2 Additional Information

RTECS : YR6250000

To the best of our knowledge the associated physical, chemical and toxicological properties of this chemical have not undergone thorough investigation, all known information is contained in this SDS.

## SECTION 12 - Ecological Information

### 12.1 Ecotoxicity

Avoid release to the environment. Runoff from fire control or dilution water may cause pollution.

### 12.2 Persistence and Degradability

No Data Available

### 12.3 Bioaccumulative Potential

No Data Available

### 12.4 Mobility in Soil

No Data Available

### 12.5 Result of PBT and vPvB Assessment

PBT/vPvB Assessment not available, chemical safety assessment not required/conducted.

### 12.6 Other Adverse Effects

Not Applicable.

**SECTION 13 - Disposal Considerations****13.1 Disposal Methods**

Dispose of in a manner consistent with Federal, State, and Local Regulations. Do not discharge to drains, sewage systems, or the environment.

**SECTION 14 - Transport Information**

| Regulations   | US DOT              | IATA                | IMDG                | ADR                 |
|---------------|---------------------|---------------------|---------------------|---------------------|
| Shipping Name | Not Dangerous Goods | Not Dangerous Goods | Not Dangerous Goods | Not Dangerous Goods |
| Hazard Class  |                     |                     |                     |                     |
| UN Number     |                     |                     |                     |                     |
| Packing Group |                     |                     |                     |                     |

**Section 15 - Regulatory Information****15.1 Safety, Health and Environmental Regulations/Legislation Specific for the Substance or Mixture**

TSCA : CAS# 1132-61-2 is listed on the TSCA inventory.

**SARA:**

SARA 302 : Not subject to reporting requirements of SARA Title III, Section 302.

SARA 313 : Not Applicable.

SARA 311/312 : Not Applicable.

**STATE SPECIFIC:**

Massachusetts Right to Know Components : No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right to Know Components : No components are subject to the Pennsylvania Right to Know Act.

New Jersey Right to Know Components : No components are subject to the New Jersey Right to Know Act.

California Prop. 65 Components : This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

**15.2 Chemical Safety Assessment**

No Data Available.

**Section 16 - Additional Information****16.1 Hazard Ratings**

| NFPA Rating       |   |
|-------------------|---|
| Health Hazard     | 0 |
| Fire Hazard       | 0 |
| Reactivity Hazard | 0 |

The information conveyed in this Safety Data Sheet is only a representation of what BioSpectra has found to be accurate based on the current information that is available in regards to this compound. BioSpectra makes no warranty, expressed or implied, with respect to such information, and therefore assumes no liability resulting from product usage. It is strongly recommended that users of this product perform their own investigations to determine the accuracy and suitability of the information for their specific purposes. In no way will BioSpectra assume liability for any claims, losses, damages to any third party, any lost profits or any special, indirect, incidental, consequential or exemplary damages that may arise, even if BioSpectra has been advised of the possibility of such damages.

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