

## UREA

### SECTION 1: PRODUCT IDENTIFICATION

**Product Name:** UREA  
**Product Code:** 492  
**CAS#:** CAS 57-13-6  
**Chemical Formula:** CH<sub>4</sub>N<sub>2</sub>O  
**Molecular Formula:** 60.06

### SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

**Name:** UREA  
**Chemical Formula:** CH<sub>4</sub>N<sub>2</sub>O  
**Molecular Formula:** 60.06

### SECTION 3: HAZARDS IDENTIFICATION

**Classification of the substance or mixture**

Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

This substance is not classified as dangerous according to Directive 67/548/EEC.

**Other hazards** – none

### SECTION 4: FIRST AID MEASURES

**Eye Contact**

Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Cold water may be used.

**Skin Contact**

After contact with skin, wash immediately with plenty of water. Gently and thoroughly wash the contaminated skin with running water and non-abrasive soap. Be particularly careful to clean folds, crevices, creases and groin. Cold water may be used. Cover the irritated skin with an emollient. If irritation persists, seek medical attention. Wash contaminated clothing before reusing.

**Serious skin contact**

Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek immediate medical attention.

**Inhalation**

If breathed in, move person into fresh air. If not breathing, give artificial respiration.

**Serious Inhalation**

Not Available.

**Ingestion**

Never give anything by mouth to an unconscious person. Rinse mouth with water.

**Serious Ingestion**

Not available

### SECTION 5: FIRE FIGHTING MEASURES

**Suitable extinguishing media**

Special powder against metal fire Dry sand Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Special hazards arising from the substance or mixture**



Carbon oxides, nitrogen oxides (NOx)

**Advice for firefighters**

Wear self contained breathing apparatus for fire fighting if necessary.

**SECTION 6: ACCIDENTAL RELEASE MEASURES**

**Personal precautions and emergency procedures**

Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas.

**Environmental precautions**

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

**Methods and materials for containment and cleaning up**

Sweep up and shovel. Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13). Do not flush with water. Keep in suitable, closed containers for disposal. Contain spillage, pick up with an electrically protected vacuum cleaner or by wet-brushing and transfer to a container for disposal according to local regulations.

**SECTION 7: HANDLING AND STORAGE**

**Precautions:**

Provide appropriate exhaust ventilation at places where dust is formed .Normal measures for preventive fire protection.

**Storage:**

Store in cool, dry place in closed containers

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

**Exposure controls**

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

**Personal protective equipment**

**Eye/face protection** Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

**Skin protection** Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

**Body Protection** Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

**Respiratory protection** Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

**Control of environmental exposure** Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

<b>Physical state and appearance Form</b>	: White color solid
<b>Odour</b>	: Not available
<b>Taste</b>	: Not available



<b>Molecular Weight</b>	: Not available
<b>Colour</b>	: White
<b>pH</b>	: 7.5 – 9.5 at 480 g/l at 25 °C.
<b>Boiling Point</b>	: Not available
<b>Melting Point</b>	: Melting point/range: 132 - 135 °C - lit.
<b>Critical Temperature</b>	: Not available
<b>Specific Density</b>	: Not Available
<b>Vapor Pressure</b>	: Not Available
<b>Vapor Density</b>	: Not available
<b>Volatility</b>	: Not Available
<b>Odor Threshold</b>	: Not Available
<b>Water/Oil Dist. Coeff.</b>	: Not Available
<b>Ionicity (in Water)</b>	: Not Available
<b>Dispersion Properties</b>	: Not Available
<b>Solubility</b>	: Soluble in water .

#### SECTION 10: STABILITY AND REACTIVITY DATA

**Stability:** Stable under recommended storage conditions.

**Instability Temperature:** Not available.

**Conditions of Instability:** Excess heat.

**Incompatibility with various substances:** Strong base.

**Special Remarks on Reactivity:** Not available.

#### SECTION 11: TOXICOLOGICAL INFORMATION

**Acute toxicity:** LD50 Oral - rat - 8.471 mg/kg

**Skin corrosion/irritation:** Not available.

**Serious eye damage/eye irritation:** Not available.

**Respiratory or skin sensitization:** Not available.

**Carcinogenicity:** IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

**Reproductive toxicity:** Not available.

**Specific target organ toxicity - single exposure:** Not available.

**Specific target organ toxicity - repeated exposure:** Not available.

**Aspiration hazard:** Not available.

#### SECTION 12: ECOLOGICAL INFORMATION

##### **Toxicity:**

Toxicity to fish LC50 - Poecilia reticulata (guppy) - 17.500 mg/l - 96 h

Toxicity to daphnia and EC50 - Daphnia magna (Water flea) - 3.910 mg/l - 48 h.

other aquatic

invertebrates

**Persistence and degradability:** Not available.

**Bioaccumulative potential:** Not available.

**Mobility in soil:** Not available.

#### SECTION 13: DISPOSAL CONSIDERATIONS

**Waste Disposal:** Waste must be disposed of in accordance with federal, state and local environmental control regulations.



**SECTION 14: TRANSPORT INFORMATION**

**UN number:**

**ADR/RID:**

**IMDG:**

**IATA:**

**UN proper shipping name**

**ADR/RID:** Not dangerous goods

**IMDG:** Not dangerous goods

**IATA:** Not dangerous goods

**Transport hazard class (es):**

**ADR/RID:**

**IMDG:**

**IATA:**

**Packaging group:**

**ADR/RID:**

**IMDG:**

**IATA:**

**Environmental hazards:**

**ADR/RID:**

**IMDG Marine pollutant:**

**IATA:**

**SECTION 15: OTHER REGULATORY INFORMATION**

**Safety, health and environmental regulations/legislation specific for the substance or mixture**

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006

**Specific hazard:** Not Available.

**Protective Equipment:** Gloves, Lab coat, Safety glasses, Dust respirator - be sure to use an approved/certified respirator or equivalent.

**SECTION 16: OTHER INFORMATION**

**References: Full Text of H & R Statements:**

Not available.

**Other Special Considerations:** Not available.

The information contained in this data sheet represents the best information currently available to us. However, no warranty is made with respect to its completeness and we assume no liability resulting from its use. The information is offered solely for user's obligation to investigate and determine the suitability of the information for their particular purpose.

