

**Description**

Urea is a chaotropic agent useful for the solubilization and denaturation of proteins. Urea is also useful for renaturation of protein samples previously denatured with 6 M guanidine hydrochloride (inclusion bodies).

Urea is commonly used for sample preparation prior to electrophoretic methods such as isoelectric focusing (IEF), SDS polyacrylamide gel electrophoresis (SDS-PAGE) and two-dimensional electrophoresis (2DE). Preparing samples for 2DE typically involves solubilization, denaturation, and reduction in order to completely disrupt the interactions between the proteins. Urea is also used to facilitate enzymatic digestion of proteins for analysis by mass spectrometry.

**Storage:** Supplied as 8M Urea Solution, 500mL. Store at room temperature.

Note: The solution will initially become cold to the touch. Warm the bottle at 20–25 °C for ~30 minutes, while mixing periodically to ensure complete dissolution.

**This product is for *in vitro* research use only and is not intended for use in humans or animals.**

**This product is not intended for use as a therapeutic or in diagnostic procedures.**

**Free of detectable DNase/RNase/human DNA.**

**Free of detectable endotoxins (pyrogens).**

**Sterility**

**The product was passed a 0.22 micron filter.**

**Orders** Tel:650-917-9269  
[order@tribioscience.com](mailto:order@tribioscience.com)

**Support** Tel:650-917-9269  
[info@tribioscience.com](mailto:info@tribioscience.com)

**Web:** [www.tribioscience.com](http://www.tribioscience.com)

**RELATED PRODUCTS:**

PBS-1x (catalog# TBS5003)  
PBS-10x (catalog# TBS5004)  
BSA Standard solution (catalog# TBS5002)  
Protein Assay kit (catalog# TBS2005)  
RIPA Buffer (catalog# TBS5017)  
TBE-10x (catalog# TBS5007)  
DNA Loading Buffer (catalog# TBS5018)  
Protein Loading Buffer (catalog# TBS5014)  
TAE-10x (catalog# TBS5006)

**Identification:**

**Product name:** Urea Solution (8M)

**Product Catalog:** TBS5037

**Manufacturer Supplier:**

4062 Fabian Way, Suite 1, Palo Alto,

CA 94303 USA

1-650-917-9269 TEL

1-650-618-5498 FAX

**Composition/Information on Ingredients:**

**This product is For Research Use Only.**

<b>Ingredient Name</b>	<b>CAS#</b>	<b>Percent</b>
Urea	57-13-6	48%

**Hazard Identification:**

**CAUTION:** This product is not for use in humans. It is intended for research purposes only. To the best of our knowledge, the chemical, physical, and toxicological properties of this material have not been established.

**Emergency Overview:**

**OSHA Hazards:** Target Organ Effect, Harmful by Ingestion, Toxic by skin absorption, Irritant.

**Target Organs:** Lungs

**Potential Health Effects:**

**Inhalation:** May be harmful if inhaled. Causes respiratory tract irritation.

**Eye Contact:** Causes eye irritation. Risk of damage to eyes.

**Skin Contact:** May be harmful if absorbed through skin. Causes skin irritation.

**Ingestion:** Harmful if swallowed.

**First Aid Measures for hazardous ingredient:**

Urea Solution:

**Inhalation:** Remove to fresh air. If breathing is difficult, get medical attention.

**Ingestion: DO NOT INDUCE VOMITING.** If person is conscious, wash out mouth with water. Get medical attention.

**Skin contact:** Wash skin with soap or mild detergent and water for at least 15 minutes. If irritation develops or persists, get medical attention.

**Eye contact:** Immediately flush eyes water for at least 15 minutes. Get medical attention.

**Accidental Release Measures:**

Wear appropriate personal protective equipment as indicated. Absorb liquid with an absorbent material. Transfer contaminated absorbent to a closed chemical waste container for disposal. Wash spill site after material has been picked up for disposal.

**Handling and Storage:**

Store at room temperature in tightly closed container. Avoid inhalation of vapor or mist. Avoid contact with eyes, skin, and clothing. Wash thoroughly after handling. Avoid prolonged or repeated exposure.

**Exposure Controls/Personal**

**Ventilation System:** a system of local (fume hood) and general exhaust is recommended.

**Skin Protection:** wear compatible chemical resistant gloves and protective clothing.

**Eye protection:** wear chemical safety goggles.

Maintain emergency eyewash and shower in work area.

**Physical and Chemical Properties**

**Appearance:** colorless liquid

**Odor:** data not available

**pH:** data not available

**Boiling Point:** data not available

**Melting or Freezing Point:** data not available

**Flash Point:** data not available

**Volatile Organic Compounds:** data not available

**Autoignition temp:** data not available

**Solubility (water):** Soluble in water

**Toxicological Information:**

**Acute toxicity:** data not available

**Chronic exposure:** data not available

**Potential Health Effects:**

**Inhalation:** May be harmful if inhaled. Causes respiratory tract irritation.

**Skin:** May be harmful if absorbed through skin. Causes skin irritation.

**Eyes:** Causes eye irritation.

**Ingestion:** Harmful if swallowed.

**Disposal Considerations:**

Dispose of in accordance with federal, state and local environmental regulations. Contact a licensed professional waste disposal service to dispose of this material.

**Other Information:**

This product is for research use only and is not intended for use in humans. To the best of our knowledge, this document is accurate. It is intended to serve as a guide for safe use of this product in a laboratory setting by experienced personnel. The burden of safe use of this material rests entirely with the user. The above information is believed to be accurate but is not necessarily all-inclusive and shall be used only as a guide. Tribioscience, Inc., shall not be held liable for any damage resulting from the handling of or from contact with the above product.