Material Safety Data Sheet

Urea (BUN)

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: Urea (BUN)
Catalog Numbers: TR12003/1770-500, TR12004, TR12015, 1770-200, 7500-024A, BU1201-BP, UV1201xxxx-BP, VC1201xxxx, VT1201xxxx
Use: This reagent is intended for the in vitro quantitative determination of urea (BUN) in human serum, plasma or urine.

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Contact Point

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24 Hour Emergency Assistance
1-800-255-3924

2. HAZARD IDENTIFICATION

CLASSIFIED AS HAZARDOUS ACCORDING TO EU CRITERIA

Hazard Classification: HAZARDOUS SUBSTANCE, NON DANGEROUS GOODS.

Hazard Category: Harmful, Irritant

RISK PHRASES
R22 Harmful if swallowed.
R36/38 Irritating to eyes and skin.

SAFETY PHRASES
S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S28 After contact with skin, wash immediately with plenty of soap and water.

Poison Schedule: None allocated.

3. COMPOSITION / INFORMATION ON INGREDIENTS

SUBSTANCE NAME	Proportion	CAS Number
TRIS(HYDROXYMETHYL)AMINOMETHANE	30 to 60 %	77-86-1
SODIUM AZIDE	< 0.9 %	26628-22-8
FILLERS, ADDITIVES NON-HAZARDOUS	Balance	Mixture

All other ingredients determined not to be hazardous according to the EU criteria.

4. FIRST AID MEASURES

Swallowed:
If swallowed, **DO NOT** induce vomiting. Give 3 to 4 glasses of water to drink. Seek urgent medical assistance.

Eye:
If material is splashed into eyes, flush with plenty of water for at least 15 minutes, ensuring eye lids are held open. Transport to hospital or doctor if irritation persists.

Skin:
If material is splashed onto the skin, remove any contaminated clothing and wash skin thoroughly with soap and water. Transport to hospital or doctor if irritation develops.

4. FIRST AID MEASURES (continued)

Inhaled:
Remove victim to fresh air. Apply resuscitation if victim is not breathing - DO NOT USE DIRECT MOUTH - TO - MOUTH METHOD if victim ingested or inhaled substance; use alternative respiratory method or proper respiratory device - Administer oxygen if breathing is difficult.

First Aid Facilities:
Eye wash fountain, safety shower and normal wash room facilities.

Advice to Doctor:
Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Fire/Explosion Hazard
EXTINGUISHING MEDIA: Use dry chemical, carbon dioxide, foam or water spray.
SPECIAL FIRE FIGHTING PROCEDURES: Self-contained breathing apparatus (SCBA) required for fire-fighting personnel. Use water spray to spray to cool fire-exposed surfaces and to protect personnel.
UNUSUAL FIRE AND EXPLOSION HAZARDS: Emits oxides of carbon, oxides of nitrogen and oxides of phosphorus when heated to decomposition.

Flammability
Material does not burn. Runoff may pollute waterways, drains or sewers.

6. ACCIDENTAL RELEASE MEASURES

This product is a powder, under appropriate conditions dusts may be generated. Wear suitable protective equipment in these circumstances. Ventilate area. If possible wet area down to prevent high dust levels. If spill occurs, use dustless methods, such as a HEPA vacuum and filter. Otherwise, use a non-sparking shovel and place into a suitably labeled container for later disposal. Do not dry sweep. Remainder of material can be picked up and disposed.

7. HANDLING AND STORAGE

Store in a cool place and out of direct sunlight. Store away from sources of heat or ignition, strong alkalis, acids, combustibles and oxidizing agents. All equipment must be earthed. Store in original packages as approved by manufacturer. When stored at 2 - 8°C reagent is stable until the expiration date stated on the bottle and kit box label. For further information please refer to the Engineering Controls of this MSDS.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Standards

No exposure standards are available for this product, however, the following exposure standards have been assigned by the National Occupational Health & Safety Commission (NOHSC) to the following component of the product:

SODIUM AZIDE
(Worksafe Australia)
[TWA]0.11 ppm 0.3 mg/m³
[STEL]Peak limitation

References: H
Engineering Controls
Good industrial hygiene practice requires that employee exposure be maintained below the recommended exposure standards. This is preferably achieved through the provision of adequate ventilation where necessary. Where dust cannot be controlled in this way, personal respiratory protection should be employed.
Personal Protection Equipment
GLOVES: PVC or natural rubber.
EYES: Chemical goggles or faceshield to protect eyes.
RESPIRATORY PROTECTION: Avoid breathing of dusts. The use of a respirator is not normally required, however, if high dust levels are present, then the use of a suitable dust mask or half-face respirator with a combined dust and organic vapour cartridge is recommended. All respirators must comply with AS/NZS 1715 and AS/NZS 1716.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	White and free flowing powder
Boiling Point:	Not available.
Freezing Point:	Not available.
Vapour Pressure:	Not available.
Specific Gravity:	Not available.
Flash Point:	Not applicable.
Flammability Limits:	Not applicable.
Solubility in Water:	Completely miscible.

Other Properties

pH:	8.5 ± 0.1 @ 19 - 22°C (at use concentrations)

10. STABILITY AND REACTIVITY

STABILITY:
Stable under normal conditions of use.

HAZARDOUS DECOMPOSITION PRODUCTS:
Emits oxides of carbon, oxides of nitrogen and oxides of phosphorus when heated to decomposition.

HAZARDOUS POLYMERIZATION:
Will not occur.

INCOMPATIBILITIES:
Copper, lead and oxidizing agents.

CONDITIONS TO AVOID:
High temperatures and incompatibles.

11. TOXICOLOGICAL INFORMATION

There is no toxicological information available for this product, however, for the ingredient:

Sodium azide:

Oral LD50(rat): 27 mg/kg
Dermal LD50(rabbit): 20 mg/kg
Oral LDLo(human): 143 mg/kg

Systemic effects: CNS disorders, cardiovascular failure, tachycardia, drop in blood pressure, coughing, dyspnoea, spasms, headache, dizziness, nausea, vomiting, collapse, unconsciousness.

ACUTE HEALTH EFFECTS
Swallowed:
Harmful if swallowed. Over exposure to sodium azide will include headache, nausea, blurred vision, dizziness, vomiting and low blood pressure. May cause irritation to mouth, throat and stomach.

Eye:
May cause irritation to the eyes, with effects including: tearing and blurred vision. These effects are anticipated to be of a short acting nature and no long term injury is anticipated, ***if the product is removed promptly***.

Skin:
May cause irritation to the skin, with effects including; Redness and itchiness.

Inhaled:
Mists from the product may cause irritation to the nose, throat and respiratory system.

Chronic:
Prolonged or repeated skin contact may lead to dermatitis. Prolonged or repeated exposure may lead to irreversible damage to health.

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12. ECOLOGICAL INFORMATION

Environmental Degradation: Dissipation of azides in soil is not by microbial action but is strictly a chemical process, which is accelerated by increased acidity and elevated temperatures. This reaction appears to occur rapidly in soils by oxidation or by reaction of hydrazoic acid with soil organic acids to form azides of these acids which then decompose by a Curtius Rearrangement. Sodium azide appears to be stable in water in the absence of light, however, it appears to be susceptible to photo-decomposition by UV radiation. Photolysis of sodium azide may result in metal nitrides initially, with the eventual formation of the free metal and nitrogen gas.
There is no ecological information available for this product, however, for the following component:

13. DISPOSAL CONSIDERATIONS

Refer to appropriate authority in your State. Normally suitable for disposal by approved waste disposal agent.

14. TRANSPORT INFORMATION

UN Number: None allocated
Proper Shipping Name: NONE ALLOCATED
Dangerous Goods Class: None allocated
Subsidiary risk: None allocated
Packing Group: None allocated
Hazchem Code: None allocated

Road and Rail Transport:
Not classified as a Dangerous Good according to the United Nations Recommendations for the Transport of Dangerous Goods and Globally Harmonized System for the classification and labelling of Chemicals.

Air Transport:
Not classified as a Dangerous Good according to the International Civil Aviation Organization (ICAO) and International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air.

Marine Transport:
Not classified as a Dangerous Good according to the International Maritime Organization Rules (Maritime Dangerous Goods Code - IMDG Code) for transport by sea.

15. REGULATORY INFORMATION

Poison Schedule: None allocated

Inventory Status:

Australia (AICS)	Y
United States (TSCA)	Y
Canada (DSL)	Y
Europe (EINECS/ELINCS)	Y
Japan (MITI)	Y
South Korea (KECL)	Y

Y = all ingredients are on the inventory.

16. OTHER INFORMATION

Issue date: December, 2004

Key Legend Information:
NOHSC - National Occupational Health & Safety Commission [Aust]
TWA - Time Weighted Average [Int]
STEL - Short Term Exposure Limit [Int]
AICS - Australian Inventory of Chemical Substances
EPA - Environmental Protection Agency [Int]
NIOSH - National Institute for Occupational Safety and Health [US]

16. OTHER INFORMATION (continued)

AS/NZS 1715 - Selection, use and maintenance of respiratory protective devices. [Aust/NZ]
AS/NZS 1716 - Respiratory protective devices. [Aust/NZ]
SAA/SNZ HB76:1997 Dangerous Goods - Initial Emergency Response Guide (IERG) [Aust/NZ]
IATA - International Aviation Transport Authority [Int]
ICAO - International Civil Aviation Organization
IMO - International Maritime Organisation. [Int]

IMDG - International Maritime Dangerous Goods
United Nations Recommendations for the Transport of Dangerous Goods and Globally Harmonized System for the classification and labelling of Chemicals. {Road Transport} [Int]
EU - European Union

[Aust/NZ] = Australian/New Zealand
[Int] = International
[US] = United States of America

Principal References:
Information supplied by manufacturer, reference sources including the public domain.

Disclaimer
This MSDS summarises our best knowledge of the health and safety hazard information of the product and how to safely handle and use the product in the workplace. Each user should read this MSDS and consider the information in the context of how the product will be handled and used in the workplace including in conjunction with other products. If clarification or further information is needed to ensure that an appropriate risk assessment can be made, the user should contact this company.
Our responsibility for products sold is subject to our standard terms and conditions which are available on request.

END OF MSDS