MATERIAL SAFETY DATA SHEET

Urea

ABN: 81 008 668 371

Section 1 – Identification of the Material and Supplier

Product Name
Urea

Other names
Carbamide, CSBP Product Code: 371

Recommended use
Fertiliser, stock feed additive, adhesives manufacturing

Company name
CSBP Limited

Address	State	Postcode
Kwinana Beach Road, KWINANA	Western Australia	6167

Telephone number	Emergency telephone number
(08) 9411 8777 (Australia), +61 8 9411 8777 (Overseas)	1800 093 333 (Australia), +61 8 9411 8444

Section 2 – Hazard Identification

Hazard Classification, including a statement of overall hazardous nature

HAZARDOUS SUBSTANCE.

Urea is not classified as hazardous according to Safe Work Australia criteria.

DANGEROUS GOODS.

Urea is not classified as a dangerous good according to the ADG Code.

Section 3 – Composition/Information on Ingredients

Chemical identity of ingredients	Proportion of ingredients	CAS Number for ingredients
Urea	98.5 % minimum	57-13-6
Various Impurities	Remainder	

Section 4 – First Aid Measures

First Aid Facilities

Whenever fertilisers are in regular use ensure drinking water and eyewash facilities are available.

FIRST AID PROCEDURES FOR DEALING WITH THIS PRODUCT AND EXPOSURE TO IT

1. Swallowed

If person is conscious, rinse mouth thoroughly with water immediately and give water or milk to drink. DO NOT induce vomiting. Seek medical attention if more than a small quantity has been swallowed, or if there is pain, or difficulty with swallowing.

2. Eyes

Flush gently with running water for at least 15 minutes lifting lower and upper eyelids occasionally. Seek medical attention if irritation develops.

3. Skin

Gently flush affected areas with water. Seek medical attention if irritation develops. Remove all contaminated clothing and launder before re-use.

4. Inhalation

If over exposure occurs remove affected person to a well ventilated area. Keep warm and at rest. In emergency situations, if breathing is difficult give oxygen. If the affected person suffers cardiac arrest commence cardio-pulmonary resuscitation immediately. Seek urgent medical attention.

ADVICE TO DOCTOR.

Treat symptomatically.

Section 5 – Fire Fighting Measures

Product flammability

Non flammable and does not support combustion.

Suitable extinguishing media

Non flammable and does not support combustion.

Hazard from combustion products

If heated to the point of decomposition oxides of nitrogen may be released.

Hazchem Code

None allocated.

Section 6 – Accidental Release Measures

Methods and Materials for containment and clean up

Any spillage should be cleaned up promptly and swept up. Prevent run-off into drains and waterways.

Section 7 – Handling and Storage

Precautions for safe handling

Keep away from alkalis, hypochlorites, oxidizing agents, ammonium nitrate, nitrites, permanganates, metallic powders and strong acids when transporting.

Conditions for safe storage, including any incompatibilities

Store in a cool, clean, dry and well ventilated area. Avoid contact with moisture, as it will cause product-handling problems.

Store away from alkalis, hypochlorites, oxidizing agents, ammonium nitrate, nitrites, permanganates, metallic powders and strong acids.

Section 8 – Exposure Controls/Personal Protection

National exposure standards

No specific official limit. ACGIH recommended value for inhalable particulates is 10 mg/m^3 (TLV/TWA).

Engineering controls

Use in well ventilated areas. Avoid high dust concentration.

Personal protective equipment

Wear rubber or PVC gloves to prevent skin contact. Where dust is a problem use a P2 type canister Respirator. Wear long sleeves and long trousers to prevent contact. Wear chemical safety glasses to prevent eye contact.

Section 9 – Physical and Chemical Properties

Appearance (colour, physical form, shape)
White granules, with saline taste.

Odour
Slight ammoniacal odour.

pH of 10% solution
7.0 – 8.0.

Vapour pressure
Does not exert significant vapour pressure.

Vapour density
Not available.

Boiling point/range
Decomposes above 135°C before boiling.

Freezing/melting point
133°C.

Evaporation rate
Not available.

Solubility
Soluble in water (119.3g / 100mL at 25°C), alcohol and acetone.

Specific Gravity / Bulk density
1.34 / 0.7 – 0.8 t/m^3.

% Volatiles
Not available.

Flammability
Not Flammable.

Flash point and method of detecting flash point
Not relevant.

Upper and lower flammable (explosive) limits in air
Not relevant.

Ignition temperature
Not available.

Section 10 – Stability and Reactivity

Reactivity
Reactive with alkalis, hypochlorites, oxidizing agents, nitrites, permanganates, metallic powders and strong acids.

Mildly corrosive to aluminum, zinc, copper, nickel, cobalt, iron and mild steel.

Decomposition products
May react explosively on contact with halogens such as chlorine. If mixed with swimming pool chlorine, e.g. calcium hypochlorite and sodium hypochlorite, it can form a spontaneous explosive mixture. Ammonia may be released when urea and strong alkalis are mixed together.

Section 11 – Toxicological Information

HEALTH EFFECTS

Low toxicity. Use safe work practices to avoid eye or skin contact and dust inhalation.

There is no known effect from chronic exposure to Urea.

Inhalation:

High dust concentration of air-borne material may cause irritation to the nose and upper respiratory tract; symptoms may include coughing and sore throat.

Skin:

Prolonged contact may cause some irritation, including redness and itching. No harmful effects from skin absorption have been recorded.

Eye:

May cause irritation, redness and pain following contact.

Swallowed:

Presents little toxicity, unless large amounts are ingested. Large amounts give rise to gastro-intestinal irritation, with symptoms such as nausea, vomiting, and diarrhea.

TOXICITY DATA

Urea (57-13-6)	LDLo (Intravenous): 4800 mg/kg (rabbit) LDLo (Intraperitoneal): 6608 mg/kg (mouse) LD50 (Intraperitoneal): > 5000 mg/kg (rat) LDLo (Subcutaneous): 3000 mg/kg (rabbit) LD50 (Ingestion): 8471 mg/kg (rat) LD50 (Intravenous): 4600 mg/kg (mouse) LD50 (Subcutaneous): 8200 mg/kg (rat)

Section 12 – Ecological Information

Environment

It is not anticipated to cause any adverse effects to plants or animals.

Section 13 – Disposal Considerations

Disposal methods and containers

Dispose of on a farm, or authorised waste facility in accordance with statutory requirements.

Clean up personnel should vacuum or wet sweep to avoid dust dispersal.

Contact the manufacturer if additional information is required.

Legislation

Dispose of in accordance with relevant local legislation.

Section 14 – Transport Information

UN Number

None allocated.

UN Proper shipping name

None allocated.

Class and subsidiary risk

None allocated.

Packing group

None allocated.

EPG

None allocated.

Hazchem code

None allocated.

Section 15 – Regulatory Information

Australian regulatory information

A poison schedule number has not been allocated to this product using the criteria in the Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP).

All chemicals listed on the Australian Inventory of Chemical Substances (AICS).

Section 16 – Other Information

Key / legend to abbreviations and acronyms used in the MSDS

NOHSC	National Occupational Health and Safety Commission
SUSDP	Standard for the Uniform Scheduling of Drugs and Poisons
ACGIH	American Conference of Government Industrial Hygienists
ES-TWA	Exposure Standard – Time weighted average
ES-STEL	Exposure Standard – Short term exposure level
ES-Peak	Exposure Standard – Peak level
LD Lo	The lowest dose in an animal study in which lethality occurred.
LD50	Lethal dose 50. The single dose of a substance that causes the death of 50% of an animal population from exposure to the substance by any route other than inhalation
t/m^3	Tonnes per cubic metre
mg/m^3	Milligrams per cubic metre
mg/kg	Milligrams per kilogram
pH	relates to hydrogen ion concentration - this value will relate to a scale of 0 - 14, where 0 is highly acidic and 14 is highly alkaline

Important Notes

1. To the best of our knowledge this document complies with the National Code of Practice for the Preparation of Material Safety Data Sheets 2nd Edition [NOHSC:2011 (2003)].
2. This material safety data sheet 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 material safety data sheet 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.
3. If clarification or further information is needed to ensure that an appropriate risk assessment can be made, the user should contact the Safety and Emergency Services Department, CSBP Limited on (08) 9411 8777 (Australia), +61 8 9411 8777 (Overseas).
4. Our responsibility for products sold, is subject to our terms and conditions, a copy of which is sent to our customers, and is also available on request.
5. CSBP reserves the right to make change to material safety data sheets without notice.