



SAFETY DATA SHEET

KOCH FERTILISER AUSTRALIA PTY LTD

Section 1 - Identification

Product identifier CENTURO U-PRO UREA (46-0-0-0)
Other means of identification None.
Recommended use of the chemical and restrictions on use
Recommended use Nutrient
Restrictions on use Uses other than the recommended use.

Details of manufacturer or importer

Company name Koch Fertiliser Australia Pty Ltd
Address Level 4 492 St Kilda Rd
Melbourne 3004
Australia
Telephone +011 61 3 94528200
e-mail kochmsds@kochind.com
Emergency telephone number Chemtrec: +001 703-527-3887
(Please reverse charges)

Section 2 - Hazard(s) identification

Classification of the hazardous chemical

Physical hazards Not classified.
Health hazards Not classified.

Label elements, including precautionary statements

Hazard symbol(s) None.
Signal word None.
Hazard statement(s) The mixture does not meet the criteria for classification.
Precautionary statement(s)
Prevention Not assigned.
Response Not assigned.
Storage Not assigned.
Disposal Not assigned.

Supplemental information None.

Other hazards which do not result in classification None known.

Section 3 - Composition and information on ingredients

Mixture

| Identity of chemical ingredients | CAS number and other unique identifiers | Concentration of ingredients |
|----------------------------------|---|------------------------------|
| Urea | 57-13-6 | 99 - 100 |
| Non-hazardous reaction products | Proprietary | < 0.5 |

Composition comments All concentrations are in percent by weight.

Section 4 - First aid measures

Description of necessary first aid measures

Inhalation Move to fresh air. Call a physician if symptoms develop or persist.
Skin contact Wash off with soap and water. Get medical attention if irritation develops and persists.

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| Eye contact | Do not rub eyes. Rinse with water. Get medical attention if irritation develops and persists. |
| Ingestion | Rinse mouth. Get medical attention if symptoms occur. |
| Personal protection for first-aid responders | Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. |
| Symptoms caused by exposure | Dusts may irritate the respiratory tract, skin and eyes. |
| Medical attention and special treatment | Treat symptomatically. |

Section 5 - Firefighting measures

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| Extinguishing media | |
| Suitable extinguishing equipment | Use fire-extinguishing media appropriate for surrounding materials. |
| Unsuitable extinguishing equipment | None known. |
| Specific hazards arising from the chemical | Urea is non-combustible under most conditions. However, during a fire, irritating/toxic gases may be generated. The dust can be ignited at very high temperatures, but not expected to explode (minimum ignition temperature (cloud) = 900 deg C). |
| Special protective equipment and precautions for firefighters | Self-contained breathing apparatus and full protective clothing must be worn in case of fire. |
| Fire fighting equipment/instructions | Use water spray to cool unopened containers. |
| Hazchem code | None. |
| General fire hazards | No unusual fire or explosion hazards noted. |
| Specific methods | Use standard firefighting procedures and consider the hazards of other involved materials. |

Section 6 - Accidental release measures

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| Personal precautions, protective equipment and emergency procedures | |
| For non-emergency personnel | Wear appropriate protective equipment and clothing during clean-up. |
| For emergency responders | Keep unnecessary personnel away. For personal protection, see section 8 of the SDS. |
| Environmental precautions | Avoid discharge into drains, water courses or onto the ground. |
| Methods and materials for containment and cleaning up | Avoid the generation of dusts during clean-up. Collect dust using a vacuum cleaner equipped with HEPA filter. Stop the flow of material, if this is without risk. Large Spills: Wet down with water and dike for later disposal. Shovel the material into waste container. Following product recovery, flush area with water. Small Spills: Sweep up or vacuum up spillage and collect in suitable container for disposal. For waste disposal, see section 13 of the SDS. |

Section 7 - Handling and storage

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| Precautions for safe handling | Minimise dust generation and accumulation. Provide appropriate exhaust ventilation at places where dust is formed. Practice good housekeeping. |
| Conditions for safe storage, including any incompatibilities | Store in tightly closed container. Store in a well-ventilated place. Store away from incompatible materials (see section 10 of the SDS). |

Section 8 - Exposure controls and personal protection

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| Control parameters | Follow standard monitoring procedures. |
| Occupational exposure limits | No exposure limits noted for ingredient(s). |
| Biological limit values | No biological exposure limits noted for the ingredient(s). |
| Control banding | Follow standard monitoring procedures. |
| Engineering controls | If material is ground, cut, or used in any operation which may generate dusts, use appropriate local exhaust ventilation to keep exposures below the recommended exposure limits. |
| Individual protection measures, such as personal protective equipment (PPE) | |
| Eye/face protection | Wear safety glasses with side shields (or goggles). |
| Skin protection | |
| Hand protection | Wear appropriate chemical resistant gloves. |
| Other | Wear suitable protective clothing. |

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| Respiratory protection | Wear respirator with dust filter. |
| Thermal hazards | Wear appropriate thermal protective clothing, when necessary. |
| Hygiene measures | Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. |

Section 9 - Physical and chemical properties

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| Physical state | Solid. |
| Form | Granules. |
| Colour | Purple. |
| Odour | Ammonia-like. |
| Odour threshold | Not available. |
| pH | Not available. |
| Melting point/freezing point | Not available. |
| Boiling point and boiling range | Not available. |
| Flash point | Not available. |
| Evaporation rate | Not available. |
| Upper/lower explosive limits | |
| Explosion limit - lower (%) | Not available. |
| Explosion limit - upper (%) | Not available. |
| Vapour pressure | Not available. |
| Vapour density | Not available. |
| Relative density | Not available. |
| Solubility | |
| Solubility (water) | Not available. |
| Flammability (solid, gas) | Not available. |
| Partition coefficient: n-octanol/water | Not available. |
| Auto-ignition temperature | Not available. |
| Decomposition temperature | Not available. |
| Viscosity | Not available. |
| Particle characteristics | Not available. |
| Data relevant with regard to physical hazard classes | No relevant additional information available. |
| Other physical and chemical parameters | |
| Explosive properties | Not explosive. |
| Oxidising properties | Not oxidising. |

Section 10 - Stability and reactivity

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| Reactivity | Reacts violently with strong oxidants, nitrites, inorganic chlorides, chlorites and perchlorates causing fire and explosion hazard. |
| Chemical stability | Normally stable. May gradually give off ammonia. The product is hygroscopic and will absorb water by contact with the moisture in the air. |
| Possibility of hazardous reactions | Hazardous polymerisation does not occur. |
| Conditions to avoid | Moisture. High temperatures. Contact with incompatible materials. |
| Incompatible materials | Strong oxidising agents. Hypochlorites. Nitric acid. Nitrites. |
| Hazardous decomposition products | Carbon oxides. Nitrogen oxides (NOx). Ammonia. Biuret. |

Section 11 - Toxicological information

Information on possible routes of exposure

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| Inhalation | Dust may irritate respiratory system. |
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| Skin contact | Dust or powder may irritate the skin. |
| Eye contact | Dust may irritate the eyes. |
| Ingestion | May cause discomfort if swallowed. |
| Early onset symptoms related to exposure | Dusts may irritate the respiratory tract, skin and eyes. |
| Delayed health effects from exposure | None known. |
| Acute toxicity | Not expected to be acutely toxic. |

| Components | Species | Test Results |
|---|--|--------------|
| Urea (CAS 57-13-6) | | |
| Acute | | |
| Oral | | |
| LD50 | Rat | 14300 mg/kg |
| Skin corrosion/irritation | Prolonged skin contact may cause temporary irritation. | |
| Serious eye damage/irritation | Direct contact with eyes may cause temporary irritation. | |
| Respiratory or skin sensitisation | | |
| Respiratory sensitisation | Not a respiratory sensitiser. | |
| Skin sensitisation | This product is not expected to cause skin sensitisation. | |
| Germ cell mutagenicity | No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic. | |
| Carcinogenicity | Not classifiable as to carcinogenicity to humans. | |
| Reproductive toxicity | This product is not expected to cause reproductive or developmental effects. | |
| Specific target organ toxicity - single exposure | Not classified. | |
| Specific target organ toxicity - repeated exposure | Not classified. | |
| Aspiration hazard | Not an aspiration hazard. | |

Section 12 - Ecological information

Ecotoxicity The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

| Components | Species | Test Results |
|--|--|---|
| Urea (CAS 57-13-6) | | |
| Aquatic | | |
| Algae | EC10 | Algae 47 mg/l, 192 hours |
| Fish | LC50 | Leuciscus idus > 6810 mg/l, 96 hours |
| Acute | | |
| Crustacea | LC50 | Water flea (Daphnia magna) > 10000 mg/l, 24 hours |
| Persistence and degradability | No data is available on the degradability of this product. | |
| Bioaccumulative potential | | |
| Partition coefficient n-octanol / water (log Kow) | | |
| Urea (CAS 57-13-6) | | -2.11 |
| Mobility in soil | No data available for this product. | |
| Other adverse effects | No data available. | |

Section 13 - Disposal considerations

Disposal methods Collect and reclaim or dispose in sealed containers at licensed waste disposal site.

Residual waste Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

Section 14 - Transport information

ADG

Not regulated as dangerous goods.

RID

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

Section 15 - Regulatory information

Safety, health and environmental regulations

National regulations

No poison schedule number allocated. This Safety Data Sheet was prepared in accordance with Australia Model Code of Practice for the preparation of Safety Data Sheets for Hazardous Chemicals.

Australia Medicines & Poisons Appendix B

Urea (CAS 57-13-6)

High Volume Industrial Chemicals (HVIC)

Urea (CAS 57-13-6)

100000 - 999999 TONNES See the regulation for additional information.

Importation of Ozone Depleting Substances (Customs(Prohibited imports) Regulations 1956, Schedule 10, as amended)

Not listed.

National Pollutant Inventory (NPI) substance reporting list

Not listed.

Prohibited Carcinogenic Substances

Not regulated.

Prohibited Substances (National Model Regulation for the control of Workplace Hazardous Substances, Schedule 2 NOHSC:1005 (1994) as amended)

Not listed.

Restricted Carcinogenic Substances

Not regulated.

Restricted Importation of Organochlorine Chemicals (Customs(Prohibited Imports) Regulations 1956, Schedule 9)

Not listed.

International regulations

Stockholm Convention

Not applicable.

Rotterdam Convention

Not applicable.

Kyoto Protocol

Not applicable.

Montreal Protocol

Not applicable.

Basel Convention

Not applicable.

International Inventories

Country(s) or region

Inventory name

On inventory (yes/no)*

| | | |
|-----------|--|-----|
| Australia | Australian Inventory of Industrial Chemicals (AICIS) | Yes |
| Canada | Domestic Substances List (DSL) | No |
| Canada | Non-Domestic Substances List (NDSL) | No |
| China | Inventory of Existing Chemical Substances in China (IECSC) | No |

| Country(s) or region | Inventory name | On inventory (yes/no)* |
|-----------------------------|--|------------------------|
| Europe | European Inventory of Existing Commercial Chemical Substances (EINECS) | No |
| Europe | European List of Notified Chemical Substances (ELINCS) | No |
| Japan | Inventory of Existing and New Chemical Substances (ENCS) | No |
| Korea | Existing Chemicals List (ECL) | No |
| New Zealand | New Zealand Inventory | No |
| Philippines | Philippine Inventory of Chemicals and Chemical Substances (PICCS) | No |
| Taiwan | Taiwan Chemical Substance Inventory (TCSI) | No |
| United States & Puerto Rico | Toxic Substances Control Act (TSCA) Inventory | Yes |

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

Section 16 - Any other relevant information

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Revision date -

Key abbreviations or acronyms used AICIS: Australian Inventory of Industrial Chemicals.

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