

SAFETY DATA SHEET

1. Product and company identification

Product name DURATION CR® urea
Other name DURATION CR® urea 120 Day 43-0-0 * DURATION CR® urea 180 Day * DURATION CR® urea 45 Day * DURATION CR® urea 270 Day 39-0-0 * DURATION CR® urea 120 Day 40-0-0 * DURATION CR® urea 90 Day 41-0-0 * DURATION CR® urea 90 Day 44-0-0
Product code KAS_DURATION_NZ_EN
Manufacturer/Supplier Koch Agronomic Services, LLC
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Emergency telephone number For Chemical Emergency
 Call CHEMTREC day or night
 USA/Canada +1.800.424.9300
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Recommended use and Limitations on use

Recommended use Fertilizer.

2. Hazards identification

GHS classification

Physical hazards Not classified.
Health hazards Acute toxicity, oral Category 4
 Acute toxicity, inhalation Category 5
 Skin corrosion/irritation Category 3
 Serious eye damage/eye irritation Category 2A
Environmental hazards Not classified.

Label elements

Symbols



Signal word

Warning

Hazard statement

Harmful if swallowed. May be harmful if inhaled. Causes mild skin irritation. Causes serious eye irritation.

Precautionary statement

Prevention Observe good industrial hygiene practices. Wear eye protection/face protection. Do not eat, drink or smoke when using this product.

Response Wash hands after handling. IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. Rinse mouth. IF INHALED: Call a POISON CENTER/doctor if you feel unwell. If skin irritation occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention.

Storage Store away from incompatible materials.

Disposal Dispose of waste and residues in accordance with local authority requirements.

Other hazards Not a PBT or vPvB substance or mixture.

3. Composition/information on ingredients

Substance or mixture Mixture

Chemical property	CAS Number	Concentration (%)
Urea	57-13-6	80 - 100
Polymer Coating	N/A	3 - 15
Non-hazardous ingredients	N/A	< 2

4. First aid measures

Inhalation	Move to fresh air. Get medical attention if any discomfort continues.
Skin contact	Wash contact areas with soap and water. Get medical attention if irritation develops and persists.
Eye contact	Dust in the eyes: Do not rub eyes. Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Get medical attention if irritation persists after washing.
Ingestion	Rinse mouth thoroughly. Get medical attention if any discomfort continues.
Potential delayed effects	Eye contact: Symptoms can include irritation, redness, scratching of the cornea, and tearing. Skin contact: May cause mild skin irritation. Dust may irritate throat and respiratory system and cause coughing.
Personal protection for first-aid responders	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.
Notes to physician	Treat symptomatically.

5. Fire-fighting measures

Extinguishing media	Use fire-extinguishing media appropriate for surrounding materials.
Extinguishing media to avoid	None known.
HAZCHEM Code Number	None.
Specific hazards during fire fighting	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 fire fighting procedures	Move containers from fire area if you can do it without risk. Use water spray to prevent dust formation, absorb heat, keep containers cool and protect fire-exposed material.
Protection of fire-fighters	Selection of respiratory protection for firefighting: follow the general fire precautions indicated in the workplace. Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Hazards from combustion products	Carbon oxides. Nitrogen Oxides Cyanide compounds. Ammonia. Biuret.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Avoid inhalation of dust and contact with skin and eyes. Ensure adequate ventilation. Wear suitable protective clothing. Use personal protection recommended in Section 8 of the SDS.
Environmental precautions	Prevent further leakage or spillage if safe to do so. Do not contaminate water. Do not allow to enter drains, sewers or watercourses.
Spill cleanup methods	Prevent entry into waterways, sewer, basements or confined areas. Stop the flow of material, if this is without risk. Avoid dust formation. Sweep up or vacuum up spillage and collect in suitable container for disposal. If sweeping of a contaminated area is necessary use a dust suppressant agent which does not react with the product. After removal flush contaminated area thoroughly with water. Never return spills to original containers for re-use.

7. Handling and storage

Handling	
Precautions	Avoid inhalation of dust and contact with skin and eyes. Use work methods which minimize dust production. Keep the workplace clean.
Safe handling advice	Do not eat, drink or smoke when using the product.
Prevention of fire and explosion	No specific recommendations.
Storage	
Suitable storage conditions	Keep container tightly closed. Store in a cool, dry, well-ventilated place. Keep away from incompatible material.
Incompatible materials	Nitric acid. Nitrites. Strong oxidizing agents.
Safe packaging materials	Store in original container.

8. Exposure controls/personal protection

Exposure limits

New Zealand. WES. (Workplace Exposure Standards)

Components	Type	Value	Form
Dust	TWA	3 mg/m ³ 10 mg/m ³	Respirable dust. Inhalable dust.

US. ACGIH Threshold Limit Values

Components	Type	Value	Form
Dust	TWA	3 mg/m ³ 10 mg/m ³	Respirable particles. Inhalable particles.

UK. EH40 Workplace Exposure Limits (WELs)

Components	Type	Value	Form
Dust	TWA	4 mg/m ³ 10 mg/m ³	Respirable dust. Inhalable dust.

Biological limit values	No biological exposure limits noted for the ingredient(s).
Engineering controls	Provide adequate ventilation. Observe Occupational Exposure Limits and minimize the risk of inhalation of dust.
Personal protective equipment	
Respiratory protection	If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. Wear air supplied respiratory protection if exposure concentrations are unknown. In case of inadequate ventilation or risk of inhalation of dust, use suitable respiratory equipment with particle filter.
Hand protection	Risk of contact: Wear protective gloves. Suitable gloves can be recommended by the glove supplier.
Skin protection	Risk of contact: Wear appropriate clothing to prevent any possibility of skin contact.
Eye/face protection	Use tight fitting goggles if dust is generated.
Radioactive or thermal hazards	Follow standard monitoring procedures.
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. Handle in accordance with good industrial hygiene and safety practice.

9. Physical and chemical properties

Appearance

Physical state	Solid.
Form	Granular solid.
Color	Light brown to tan.
Odor	Slightly ammoniacal.
Odor threshold	Not available.
pH	Not available.
Melting point/freezing point	Not available.
Auto-ignition temperature	Not available.
Flammability (solid, gas)	Not available.
Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Vapor pressure	Not available.
Vapor density	Not available.
Evaporation rate	Not available.
Relative density	Not available.
Density	Not available.
Solubility(ies)	
Solubility (water)	Not available.
Partition coefficient (n-octanol/water)	Not available.
Decomposition temperature	Not available.
Other data	
Explosive properties	Not explosive.
Oxidizing properties	Not oxidizing.

10. Stability and reactivity

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

11. Toxicological information

Information on likely routes of exposure

Ingestion	Harmful if swallowed.
Inhalation	May be harmful if inhaled.
Skin contact	Dust may irritate skin.
Eye contact	Causes serious eye irritation.

Acute toxicity Harmful if swallowed. May be harmful if inhaled.

Components	Species	Test Results
Urea (CAS 57-13-6)		
Acute		
<i>Oral</i>		
LD50	Rat	14300 mg/kg

Routes of exposure Skin. Eyes. Ingestion. Inhalation.

Symptoms Symptoms can include irritation, redness, scratching of the cornea, and tearing.

Skin corrosion/irritation May cause irritation through mechanical abrasion.

Serious eye damage/eye irritation Causes serious eye irritation.

Respiratory sensitizer Based on available data, the classification criteria are not met.

Skin sensitizer Not a skin sensitizer.

Germ cell mutagenicity Based on available data, the classification criteria are not met.

Carcinogenicity Not classifiable as to carcinogenicity to humans.

Toxic to reproduction Based on available data, the classification criteria are not met.

Specific target organ toxicity - single exposure Inhalation of dusts may cause respiratory irritation.

Specific target organ toxicity - repeated exposure Based on available data, the classification criteria are not met.

Aspiration hazard Not an aspiration hazard.

Chronic effects Frequent inhalation of dust over a long period of time increases the risk of developing lung diseases.

Relevant negative data Not available.

Other information No other specific acute or chronic health impact noted.

12. Ecological information

Ecotoxicological data

Components	Species	Test Results
Urea (CAS 57-13-6)		
Aquatic		
Fish	LC50 Leuciscus idus	> 6810 mg/l, 96 hours

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.

Persistence and degradability No data available.

Bioaccumulation No data available.

**Partition coefficient
n-octanol/water (log Kow)**

Urea (CAS 57-13-6) -2.11

Bioconcentration factor (BCF) Not available.

Mobility The product is water soluble and may spread in water systems.

Other hazardous effects No data available.

13. Disposal considerations

Disposal methods/information Do not allow this material to drain into sewers/water supplies. Dispose in accordance with all applicable regulations.

Special precautions Disposal recommendations are based on material as supplied. Disposal must be in accordance with current applicable laws and regulations, and material characteristics at time of disposal.

14. Transport information

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. However, the product is covered under Appendix I of the IMSBC Code.

15. Regulatory information

Applicable regulations New Zealand Code of Practice for the Preparation of Safety Data Sheets (SDS) [No. HSNO CoP 8-1 09-06].
Classified as hazardous according to the Hazardous Substances (Minimum Degrees of Hazard) Regulations 2001.

HSNO - Fertilizers (subsidiary hazard) Group Standard 2006 [HSR002571].
HSNO: Hazard Classification - Urea (>26% non-hazardous diluent) 6.1D; 6.1E; 6.3B; 6.4A; 9.3C

16. Other information

References

ECHA CHEM
EPA: Acquire database
HSDB® - Hazardous Substances Data Bank
RTECS

Issued by

Not available.

Prepared by

Not available.

Disclaimer

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