



Safety Data Sheet

Urea Prill



1. Identification

Product identifier	Urea Prill
Product code	N.Av.
Other means of identification	None.
Recommended use of the chemical and restrictions on use	Agricultural, fertilizer.
Manufacturer	Sylvite 3221 North Service Road, Suite 200 Burlington, Ontario Canada L7N 3G2 Tel. 1-800-229-0602 Fax 905-315-2083 www.sylvite.ca
Emergency phone number	Quebec Poison Center: 1-800-463-5060 (toll free in QC) Ontario and Manitoba Poison Centres: 1-800-268-9017 or 419-813-5900 BC Drug and Poison Information Centre: 1-800-567-8911 (toll free in BC) or contact your local poison control centre in the state/province or territory where you live. Canutec: 613-996-6666 (for transportation)

2. Hazard identification

Summary	Avoid contact with eyes. Avoid prolonged or repeated contact with skin. Avoid breathing dust. Use in a manner that avoids generating dust. Do not ingest. If ingested consult physician immediately and show this Safety Data Sheet. Wear eye protection, gloves and other protective clothing that are adapted to the task being performed and the risks involved.
WHMIS 2015/OSHA HCS 2012/GHS	
Not Regulated under WHMIS 2015/GHS	
P101: If medical advice is needed, have product container or label at hand. P102: Keep out of reach of children. P103: Read label before use.	

3. Composition/information on ingredients

Common name	CAS	Weight % content
Urea	57-13-6	95 - 100 %

4. First-aid measures

Inhalation	Move person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen by trained personnel. If a problem develops or persists, seek medical attention.
Skin contact	Flush with plenty of water. Wash skin with warm water and mild soap. Remove contaminated clothing and wash before reuse. If a problem develops or persists, seek medical attention.
Eye contact	Flush with water for at least 15 minutes. Remove contact lenses if easy to do. Hold eyelids apart to rinse properly. If a problem develops or persists, seek medical attention.
Ingestion	DO NOT induce vomiting, unless recommended by medical personnel. If victim is conscious wash out mouth with water and give 1-2 glasses of water to drink. Never give anything by mouth if victim is unconscious or convulsing. If a problem develops or persists, seek medical attention or contact a Poison Centre.
Other	No information available.
Symptoms	May cause redness and irritation of the skin and to eyes. Inhalation of dust may cause nose, throat and respiratory tract irritation.
Notes to the physician	Apply a symptomatic and supportive treatment.

5. Fire-fighting measures

Suitable extinguishing media	Use appropriate extinguisher for surrounding fire.
Specific hazards arising from the chemical	This product is not flammable. Thermal decomposition products at elevated temperatures may include the following materials: biuret, ammonia (NH ₃), cyanuric acid, hydrogen cyanide, nitrogen oxides, carbon dioxide (CO ₂), carbon monoxide (CO).
Special protective equipment	Firefighters must wear self contained breathing apparatus with full face mask. Firefighting suit may not be efficient against chemicals.
Special protective actions for fire-fighters	Prevent run-off from fire control or dilution from entering streams, sewers or drinking water supply.


6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Do not touch spilled material. Make sure to wear personal protective equipment mentioned in this Safety Data Sheet.
Environmental precautions	Prevent entry into sewers, closed areas and release to the environment. Product will promote algae growth which may degrade water quality and taste. Notify downstream water users. For a large spill, consult the Department of Environment or the relevant authorities.
Methods and materials for containment and cleaning up	No action shall be taken involving any personal risk or without suitable training. Ventilate the area well. Avoid conditions that produce dust. Never advance your work against the wind. Always work with a side or a back wind. Vacuum or sweep up and place in an appropriate waste disposal container. Dispose via a licensed waste disposal contractor.

7. Handling and storage

Precautions for safe handling	Use in well ventilated area. Avoid breathing dust. Use in a manner that avoids generating dust. Avoid contact with eyes. Avoid prolonged or repeated contact with skin. Wear eye protection, gloves and other protective clothing that are adapted to the task being performed and the risks involved. Keep containers tightly closed when not in use. Do not eat, do not drink and do not smoke during use. Wash hands, forearms and face thoroughly after handling this compound and before eating, drinking or using toiletries. Remove contaminated clothing and wash before reuse.
Conditions for safe storage, including any incompatibilities	Store tightly closed and in properly labelled containers in a cool, dry and well ventilated place. Keep away from direct sunlight and heat. Store away from incompatible materials (see section 10). Protect container from physical damages.
Storage temperature	10 to 35°C (50 to 95°F)

8. Exposure controls/personal protection

Immediately Dangerous to Life or Health	No IDLH value is reported.		
Urea	TWA (8h)	10 mg/m ³	US AIHA
Appropriate engineering controls	Provide sufficient mechanical (general and/or local exhaust) to keep the airborne concentrations of dust below their respective occupational exposure limits.		
Individual protection measures			
Eye	Safety eyewear should always be used when there is a likelihood of exposure. Wear safety glasses. If there is a risk of contact with eyes, wear chemical splash goggles.		
Hands	Wear nitrile or neoprene gloves. Disposable nitrile gloves can also be used, but discard after single use. Before using, user should confirm impermeability. Discard gloves with tears, pinholes, or signs of wear. Gloves must only be worn on clean hands. Wash gloves with water before removing them. After using gloves, hands should be washed and dried thoroughly.		
Skin	Personal protective equipment for the body should be selected based on the task being performed and the risks involved. Wear normal work clothing covering arms and legs as required by employer code. If necessary, wear an apron or long-sleeve protective coverall suit.		
Respiratory	Respiratory protection is not required for normal use. Where the conditions in the workplace require a respirator, it is necessary to follow a respiratory protection program. Moreover, respiratory protection equipment (RPE) must be selected, fitted, maintained and inspected in accordance with regulations and standard 29 CFR 1910.134 (OSHA), ANSI Z88.2 or CSA Z 94.11 (Canada) and approved by NIOSH/MSHA. For nuisance exposures use type N95 particle respirator.		
Feet	Wear rubber boots to clean up a spill.		
 Safety glasses Nitrile gloves			

9. Physical and chemical properties

Physical state	Solid (Beads, washers, powder or dry granules)	Flammability	Non-flammable.
Colour	White	Flammability limits	N/Ap.
Odour	Slight ammonia	Flash point	N/Ap.
Odour threshold	17 ppm		N/Ap.

		Auto-ignition temperature	
pH	7 to 9.5 @ 10%	Sensibility to electrostatic charges	No
Melting point	132 to 133°C (269.6 to 271.4°F)	Sensibility to sparks and/or friction	No
Freezing point	132 to 133°C (269.6 to 271.4°F)	Vapour density	N/Av. (Air = 1)
Boiling point	N/Av.	Relative density	1.32 to 1.33 kg/L (Water = 1)
Solubility	Soluble in water. 1080 g/L @20	Partition coefficient n-octanol/water	-1.59
Evaporation rate	N/Av.	Decomposition temperature	135°C (275°F)
Vapour pressure	0.08kPa (0.6 mm Hg) @ 20°C (68°F)	Viscosity	N/Av.
Percent Volatile	N/Av.	Molecular mass	60.1
N/Av.: Not Available N/Av.: Not Applicable Und.: Undetermined N/E: Not Established			

10. Stability and reactivity

Reactivity	Reacts with phosphorus pentachloride and sodium or calcium hypochlorite to form explosive nitrogen trichloride.
Chemical stability	Stable under normal conditions of use.
Possibility of hazardous reactions (including polymerizations)	A dangerous reaction will not occur.
Conditions to avoid	Avoid contact with incompatible substances. Keep away from moisture. Avoid heat, flame and sparks.
Incompatible materials	Strong acids, strong bases, alkalis, strong oxidants, hypochlorites, perchlorates, sodium nitrite, phosphorus pentachloride, chromyl chloride.
Hazardous decomposition products	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

11. Toxicological information


Numerical measures of toxicity	Urea Ingestion 8471 mg/kg Rat LD50 Skin >21000 mg/kg Rabbit LD50
Likely routes of exposure	Skin, eyes, inhalation, ingestion.
Delayed, immediate and chronic effects	<p>Eye contact Dust and powder can irritate eyes by mechanical friction. The severity of symptoms may vary depending on exposure conditions. Eye Irritation, Rabbit: Urea onto eyes after 24 h is not irritating (OECD 405).</p> <p>Skin contact Prolonged and repeated contact may cause redness and slight irritation of the skin. The mechanical friction can increase skin irritation. Skin Irritation/Corrosion, Human : 30% Urea solutions in water/48 h; score from 0.8 to 2.4 on the scale 0-4 (Chamber-Scarification Test). Slightly irritating. (OECD SIDS). Skin Irritation/Corrosion, Human : 22 mg of urea/3 days (Intermittent); mild irritating (RTECS).</p> <p>Inhalation</p>

	<p>Exposure to large amounts dust may cause coughing, sneezing, nose, throat and respiratory tract irritation.</p> <p>Ingestion Low degree of acute toxicity. May cause gastrointestinal irritation with nausea and vomiting. Swallowing a large amount of this product may cause diuretic effect.</p> <p>Respiratory or skin sensitization Ingredients present at levels greater than or equal to 0.1% of this product are not skin or respiratory sensitizers.</p> <p>IARC/NTP Classification No ingredients listed.</p> <p>Carcinogenicity Ingredients present at levels greater than or equal to 0.1% of this product are not listed as a carcinogen by IARC, ACGIH, NIOSH, NTP or OSHA.</p> <p>Mutagenicity Ingredients in this product present at levels greater than or equal to 0.1% are not known to cause mutagenic effects.</p> <p>Reproductive toxicity Ingredients in this product present at levels greater than or equal to 0.1% are not known to cause reproduction effects.</p> <p>Specific target organ toxicity - single exposure No target organ is listed.</p> <p>Specific target organ toxicity - repeated exposure No target organ is listed.</p>
Interactive effects	No information available.
Other information	This product is on the US FDA's GRAS (GENERALLY REGARDED AS SAFE) list. Urea has been used in human medicine as diuretic at doses of 15 to 60 grams/day.

12. Ecological information

Ecological toxicity	<p>Fish - Rasbora heteromorpha - marine water LC50 12000 mg urea/L; 96 h</p> <p>Aquatic Invertebrate - Daphnia Magna Straus - eau douce EC50 >10000 mg urea/L; 24 h</p> <p>Green Algae, Scenedesmus quadricauda CESO >10000 mg urea/L; 196 h</p> <p>Aquatic Invertebrate - Crustaceans - Chaetogammarus marinus - marine water EC50 >1000 mg urea/L; 48 h</p> <p>Aquatic Invertebrate - Daphnia Magna, Water flea, fresh water EC50 3910 mg/L; 48h (Urea, CAS no 57-13-6)</p>
Persistence	No persistent.
Degradability	In soil and water urea is expected to biodegrade fairly rapidly to ammonia and bicarbonate if temperature is not too low. Biodegradable from 1 to 20 day (OECD 302B).
Bioaccumulative potential	The inorganic products of this kind are not expected to accumulate in living organisms, but they are expected to accumulate in plants. Log Pow of -1.59. Bioconcentration Factor (BCF) of 1
Mobility in soil	The product is soluble in water, it is not expected to partition to the soil.
Other adverse effects	Product will promote algae growth which may degrade water quality and taste. The degradation product of urea, ammonia, is known to be toxic to all vertebrates. In neutral and acidic conditions, however, ammonia exists in the form of ammonium. This chemical does not deplete the ozone layer.

13. Disposal considerations

<p>Container</p> 	Important! Prevent waste generation. Use in full. DO NOT dispose residue in sewers, streams or drinking water supply. Empty containers can be treated (recycled) where there is a recovery program. Dispose via a licensed waste disposal contractor. Observe all federal, state/provincial and municipal regulations. If necessary consult the Department of Environment or the relevant authorities.
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14. Transport information

UN Number	UN
UN Proper Shipping Name	Not regulated by TDG (Canada) and 49 CFR DOT (USA).
Environmental hazards	This material is not listed as a marine pollutant.
Special precautions for user	No information available.
TDG - Transportation of Dangerous Goods (Canada)	
Transport hazard class(es)	Not regulated
Packing group	Not regulated
Emergency response guidebook 2016	
IMO/IMDG - International Maritime Transport	
Classification	Not regulated
IATA - International Air Transport Association	
Classification	Not regulated
<p>These transportation classifications are provided as a customer service. As the shipper YOU remain responsible for complying with all applicable laws and regulations, including proper transportation classification and packaging. In addition, if a domestic exemption exists, it is the responsibility of the shipper to define the application of it.</p>	

15. Regulatory information

CANADA

Common name	CAS	CEPA	DSL	NDSL	NPRI
Urea	57-13-6		X		

- CEPA: List of Toxic Substances Managed Under Canadian Environmental Protection Act
- DSL: Domestic Substances List Inventory
- NDSL: Non-Domestic Substances List Inventory
- NPRI: National Pollutant Release Inventory Substances

UNITED STATE OF AMERICA

Common name	CAS	TSCA	CER CLA	EPCRA 313	EPCRA 302/304	CAA 112(b) HON	CAA 112(b) HAP	CAA 112(r)	CWA 311	CWA Prio.
Urea	57-13-6	X								

- TSCA: Toxic Substance Control Act
- CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act list of hazardous substances
- EPCRA 313: Emergency Planning and Community Right-to-Know Act, Section 313 Toxic Chemicals
- EPCRA 302/304: Emergency Planning and Community Right-to-Know Act, Section 302/304 Extremely Hazardous Substances
- CAA 112(b) HON: Clean Air Act - Hazardous Organic National Emission Standard for Hazardous Air Pollutant
- CAA 112(b) HAP: Clean Air Act - Hazardous Air Pollutants lists pollutants
- CAA 112(r): Clean Air Act - Regulated Chemicals for Accidental Release Prevention
- CWA 311: Clean Water Act - List of Hazardous Substances
- CWA Priority: Clean Water Act - Priority Pollutant list

California Proposition 65

No ingredients listed.

Other regulations

CANADA :

- Fertilizers Regulations (C.R.C., c. 666):
This material is listed.
- Feeds Regulations, 1983 (SOR/83-593):
This material is listed.

UNITED STATE OF AMERICA:

- Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA-Inerts) Inert Ingredients in Pesticide Products:
This material is listed.

WHMIS 1988



Non-WHMIS controlled

HMIS



NFPA



16. Other information

**Date
(YYYY-MM-DD)**

Sylvite 2016-03-24

Version

01

Other information

REFERENCES:

- OECD Existing Chemicals Database, Chemicals Screening Information DataSet (SIDS) for High Volume Chemicals, UNEP publications, <http://webnet.oecd.org/HPV/UI/Search.aspx>
- Haz-Map, Information on Hazardous Chemicals and Occupational Diseases, <http://hazmap.nlm.nih.gov/index.php>
- TOXNET Databases, Toxicology Data Network, NIH U.S. National Library of Medicine, <http://toxnet.nlm.nih.gov/>
- Service du répertoire toxicologique de la Commission des normes, de l'équité, de la santé et de la sécurité du travail (CNESST), <http://www.reptox.csst.qc.ca>
- Toxicological Review, Integrated Risk Information System (IRIS), USA Environment Protection Agency, www.epa.gov/iris
- IPCS INCHEM, Chemical Safety Information from Intergovernmental Organizations, Canadian Centre for Occupational Health and Safety (CCOHS), Copyright International Programme on Chemical Safety (IPCS), <http://www.inchem.org>
- Urea, The Registry of Toxic Effects of Chemical Substances, RTECS #: YR6250000.

ACGIH: American Conference of Governmental Industrial Hygienists

AIHA: American Industrial Hygiene Association

HMIS: Hazardous Materials Identification System

NFPA: National Fire Protection Association

OSHA: Occupational Safety and Health Administration (USA)

NIOSH: National Institute for Occupational Safety and Health

NTP: National Toxicology Program

RSST: Règlement sur la santé et la sécurité du travail (Québec)

GHS: Globally Harmonized System

IARC: International Agency for Research on Cancer

IDLH: Immediately Dangerous to Life or Health

STEL: Short Term Exposure Limit (15 min)

TWA: Time Weighted Averages

WHMIS: Workplace Hazardous Materials Information System

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