

## Urea, Dry

### Section 1. Identification

**Product identifier** : Urea, Dry

**SDS #** : 301

**Other means of identification**

**Synonyms** : Urea Granular; Urea Microprills; Urea Pastille; Urea Prills

**This safety data sheet applies to the following:**

URGRAN – Urea Granular 46-0-0, Agricultural Grade  
 URGRANFR – Urea Granular 46-0-0, Forest Grade  
 URGRANTF – Urea Granular 46-0-0, Turf Grade  
 URPRL – Urea Prilled Industrial Grade  
 URPRLAG – Urea Prilled 46-0-0, Agricultural Grade  
 URPRLAGF – Urea Prilled 46-0-0, Agricultural Grade Forestry  
 URPRLC – Urea Prilled Commercial Grade  
 URPRLCH – Urea Prilled Chemical Grade  
 URPRENV – Urea Prilled Environmental Grade  
 URPRLMIA – Urea Microprilled 46-0-0, Agricultural Grade  
 URPRLMII – Urea Microprilled Industrial Grade  
 URPRLR – Urea Prilled Reagent Grade  
 URPAS – Pastille Urea Chemical Grade

**Product code(s)** : URGRAN, URGRANFR, URGRANOS, URGRANTF, URTURFOS, URPRILOS, URPRL, URPRLAG, URPRLAGF, URPRLC, URPRLCH, URPRENV, URPRLMIA, URPRLMII, URPRLR, URPAS, URPASOS

**Product type** : Granular solid.

**Relevant identified uses of the substance or mixture and uses advised against**

**Identified uses**

Fertilizer. Manufacture of chemical products. Manufacture of intermediates. Manufacture of personal care products. Manufacture of pharmaceutical products. Manufacture of resins. Manufacture of specialty fertilizers. Pollution control products.

**Uses advised against**

None identified.

**Reason**

Non-hazardous substance.

**Supplier's details**

: PCS Sales (USA), Inc. (A Subsidiary of Nutrien Ltd.)  
 1101 Skokie Blvd.  
 Suite 500  
 Northbrook, IL 60062

PCS Sales (Canada), Inc. (A Subsidiary of Nutrien Ltd.)  
 Suite 500  
 122 1st Avenue South  
 Saskatoon, Saskatchewan S7K 7G3

Company phone number (North America):  
 1-800-524-0132 (Customer Service)

sds@nutrien.com - www.nutrien.com

## Section 1. Identification

**Emergency telephone number (with hours of operation)** : Nutrien North American  
24 HOUR EMERGENCY TELEPHONE NUMBERS:

English:  
Transportation Emergencies: 1-800-792-8311  
Medical Emergencies: 1-303-389-1653

French or Spanish:  
Transportation or Medical Emergencies: 1-303-389-1654

## Section 2. Hazard identification

**Classification of the substance or mixture** : Not classified.

**OSHA/HCS status** : While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.

**GHS label elements**

**Hazard pictograms** : **Not Applicable.**  
**No Aplicable.**  
**Non applicable.**

**Signal word** : No signal word.

**Hazard statements** : No known significant effects or critical hazards.

**Precautionary statements**

**General** : Read label before use. Keep out of reach of children. If medical advice is needed, have product container or label at hand.

**Prevention** : Not applicable.

**Response** : Not applicable.

**Storage** : Not applicable.

**Disposal** : Not applicable.

**Supplemental label elements** : None known.

**Other hazards which do not result in classification** : None known.

## Section 3. Composition/information on ingredients

**Substance/mixture** : Multi-constituent substance

Ingredient name	% (w/w)	CAS number
Urea	97.5 - 99.7	57-13-6
Urea, reaction products with formaldehyde	0 - < 1.5	68611-64-3
Imidodicarbonic diamide	< 1.5	108-19-0

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

## Section 4. First-aid measures

### Description of necessary first aid measures

- Eye contact** : May cause irritation due to mechanical action. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. If possible, remove contact lenses being careful not to cause additional eye damage. Get medical attention if irritation occurs.
- Inhalation** : Remove person to fresh air. No known significant effects. Seek medical attention for any signs of wheezing and/or breathing difficulties. For additional advice call the medical emergency number on this SDS or your poison center or medical provider.
- Skin contact** : No known significant effects. Rinse the affected areas with water. Remove contaminated clothing, jewelry, and shoes. Wash/clean items before reuse. Seek medical attention for persistent skin pain or irritation. For additional advice call the medical emergency number on this SDS or your poison center or doctor.
- Ingestion** : Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person.

### Most important symptoms/effects, acute and delayed

#### Potential acute health effects

- Eye contact** : No known significant effects or critical hazards. May cause slight transient irritation.
- Inhalation** : No known significant effects or critical hazards. May cause slight transient irritation.
- Skin contact** : No known significant effects or critical hazards.
- Ingestion** : No known significant effects or critical hazards.

#### Over-exposure signs/symptoms

- Eye contact** : No specific data. May cause irritation due to mechanical action.
- Inhalation** : No specific data. Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs.
- Skin contact** : No specific data. Inorganic salt. Prolonged or repeated exposure may dry the skin, causing irritation.
- Ingestion** : No specific data. May cause irritation of the digestive tract with accompanying nausea, vomiting and diarrhea.

### Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours. 24 Hr Medical Emergency telephone number for professional support - From Canada or the U.S., English: 1-303-389-1653; French or Spanish: 1-303-389-1654.
- Specific treatments** : No specific treatment. If necessary, veterinary advice may be obtained by calling the Medical Emergency number in Section 1.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. Mouth-to-mouth resuscitation of oral exposure patients is not recommended. First-aiders with contaminated clothing should be properly decontaminated.

See toxicological information (Section 11)

## Section 5. Fire-fighting measures

### Extinguishing media

- Suitable extinguishing media** : Non-flammable. Material will not burn. Use an extinguishing agent suitable for the surrounding fire.
- Unsuitable extinguishing media** : None known.

**Specific hazards arising from the chemical** : Incompatible with halogens. If mixed with chlorine or hypochlorites, it may form nitrogen trichloride which may explode spontaneously in air.

**Hazardous thermal decomposition products** : Material will not burn. Undergoes thermal decomposition at elevated temperatures to produce solid cyanuric acid and release toxic and combustible gases (ammonia, carbon dioxide, and oxides of nitrogen).

**Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

**Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

**Remark** : Contain and collect the water used to fight the fire for later treatment and disposal.

## Section 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

**For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Keep unnecessary and unprotected personnel from entering. Put on appropriate personal protective equipment.

**For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

**Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused adverse impacts (sewers, waterways, soil or air).

### Methods and materials for containment and cleaning up

**Small spill** : Move containers from spill area. Recover the material and use it for the intended purpose.  
or  
Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.

**Large spill** : Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Collect spillage. Use appropriate equipment to put the spilled substance in a container for reuse or disposal. Recycle to process, if possible.  
or  
Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

## Section 7. Handling and storage

### Precautions for safe handling

**Protective measures** : Put on appropriate personal protective equipment (see Section 8). Do not ingest. If user operations generate dust, fumes or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

**Advice on general occupational hygiene** : Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

## Section 7. Handling and storage

**Conditions for safe storage, including any incompatibilities** : Store in accordance with local regulations. May form steep piles that can collapse without warning when transported or stored in bulk. This may damage equipment and endanger workers. The risk of cliffing and sudden collapse increases if product is loaded or stored when hot or in high humidity conditions. Avoid forming steep slopes when removing product. If product has caked, cliffed, or has adhered to the storage or transport container, stay out of the potential engulfment zone in case the material collapses. Do not enter bins, railcars or trucks without conducting a risk assessment and following all confined space entry requirements. Ensure that consideration is given to fall protection and mobile equipment securement if applicable. Carefully loosen the set product from outside the container using mechanical vibration, sledge hammers, or other devices.

Ensure that bulk bags or smaller packaged products stored in tiers are stacked, racked, blocked, interlocked, or otherwise secured to prevent sliding, rolling, or collapse. Use caution when opening truck or railcar doors as product may have shifted during transport.

Must be stored in a dry location. Absorbs moisture on long-term storage under high humidity conditions. Store away from incompatible materials (see Section 10). When product is stored in sealable containers, keep container tightly closed and sealed until ready for use. Sealable containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers.

## Section 8. Exposure controls/personal protection

### Control parameters

#### Occupational exposure limits

Ingredient name	Exposure limits
<p><b>Canadian Regulations:</b> Urea, including: Urea, reaction products with formaldehyde Biuret</p> <p><b>U.S. Federal Regulations:</b> Urea including: Urea, reaction products with formaldehyde Biuret</p>	<p><b>AIHA WEEL (United States, 10/2011).</b> TWA: 10 mg/m<sup>3</sup> 8 hours.</p> <p><b>CA Alberta Provincial:</b> Particulates not otherwise regulated (PNOR) TWA (8 hours), Total dust: 10 mg/m<sup>3</sup>; Respirable fraction: 3 mg/m<sup>3</sup>.</p> <p><b>AIHA WEEL (United States, 10/2011).</b> TWA: 10 mg/m<sup>3</sup> 8 hours.</p> <p><b>OSHA (United States):</b> Particulates not otherwise regulated (PNOR) TWA (8 hours), Total dust: 15 mg/m<sup>3</sup>; Respirable fraction: 5 mg/m<sup>3</sup>.</p>

**Appropriate engineering controls** : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

**Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

### Individual protection measures

**Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Wash contaminated clothing before reusing.

**Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: sealed eyewear

### Skin protection

## Section 8. Exposure controls/personal protection

- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Cotton or cotton/synthetic overalls or coveralls are normally suitable.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Hazard of slipping on spilled product. Use slip resistant footwear.
- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

## Section 9. Physical and chemical properties

### Appearance

- Physical state** : Solid. [Granular solid. Crystals. Powder. Solid beads.]
- Color** : White.
- Odor** : Slight Ammoniacal.
- Odor threshold** : Not available.
- pH** : 7 to 8 [Conc. (% w/w): 10%]
- Melting point** : 134°C (273.2°F)
- Boiling point** : Not available.
- Flash point** : Not applicable.
- Evaporation rate** : Not available.
- Flammability (solid, gas)** : Non-flammable substance. Non-combustible.
- Lower and upper explosive (flammable) limits** : Not applicable.
- Vapor pressure** : 0 kPa (0 mm Hg) [room temperature]
- Vapor density** : Not available.
- Relative density** : 2.31
- Solubility** : Easily soluble in the following materials: cold water and hot water: 1193 g/l @ 25 °C
- Solubility in water** : 620 g/l
- Partition coefficient: n-octanol/water** : <-1.73
- Auto-ignition temperature** : Not applicable.
- Decomposition temperature** : 135°C (275°F)
- Viscosity** : Not available.

## Section 10. Stability and reactivity

- Reactivity** : Incompatible with halogens, hydrogen peroxide, chlorinated hydrocarbons, fluorine, nitric acid, oxidizing agents and sulfuric acid.
- Chemical stability** : The product is stable.
- Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.
- Conditions to avoid** : Absorbs moisture on long-term storage under high humidity conditions. Decomposes on heating. Store in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10).

## Section 10. Stability and reactivity

**Incompatible materials** : See above. May be incompatible with some materials of construction. Contact your sales representative or a metallurgical specialist to ensure compatibility with your equipment.

**Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## Section 11. Toxicological information

### Information on toxicological effects

#### Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Urea	LD50 Oral TDLo Oral	Rat Cattle - Male, Female	8471 mg/kg 200 mg(N)/kg	- -

**Conclusion/Summary** : Very low toxicity to humans or animals. Effects are not sufficient for classification as hazardous.

#### Irritation/Corrosion

Not available.

#### Conclusion/Summary

**Skin** : May cause slight transient irritation. Inorganic salt. Prolonged or repeated exposure may dry the skin, causing irritation. Effects are not sufficient for classification as hazardous.

**Eyes** : No known significant effects or critical hazards. May cause irritation due to mechanical action.

**Respiratory** : Non-irritating to the respiratory system.

#### Sensitization

Not available.

#### Conclusion/Summary

**Skin** : Non-sensitizer to skin.

**Respiratory** : Non-sensitizer to lungs.

#### Mutagenicity

Product/ingredient name	Test	Experiment	Result
Urea, Dry	OECD 471 Bacterial Reverse Mutation Test	Experiment: In vitro Subject: Bacteria Cell: Somatic Metabolic activation: With and without	Negative

**Conclusion/Summary** : No mutagenic effect.

#### Carcinogenicity

Product/ingredient name	Result	Species	Dose	Exposure
Urea, Dry	Negative - Oral - TC	Rat - Male, Female	2250 mg/kg Continuous	-

**Conclusion/Summary** : No known significant effects or critical hazards.

#### Reproductive toxicity

Not available.

**Conclusion/Summary** : No known significant effects or critical hazards.

#### Teratogenicity

Not available.

## Section 11. Toxicological information

**Conclusion/Summary** : No known significant effects or critical hazards.

### Specific target organ toxicity (single exposure)

Not available.

### Specific target organ toxicity (repeated exposure)

Not available.

### Aspiration hazard

Not available.

**Information on the likely routes of exposure** : Skin contact  
Inhalation (dusts and mists)

### Potential acute health effects

**Eye contact** : No known significant effects or critical hazards. May cause slight transient irritation.  
**Inhalation** : No known significant effects or critical hazards. May cause slight transient irritation.  
**Skin contact** : No known significant effects or critical hazards.  
**Ingestion** : No known significant effects or critical hazards.

### Symptoms related to the physical, chemical and toxicological characteristics

**Eye contact** : No specific data. May cause irritation due to mechanical action.  
**Inhalation** : No specific data. Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs.  
**Skin contact** : No specific data. Inorganic salt. Prolonged or repeated exposure may dry the skin, causing irritation.  
**Ingestion** : No specific data. May cause irritation of the digestive tract with accompanying nausea, vomiting and diarrhea.

### Delayed and immediate effects and also chronic effects from short and long term exposure

#### Short term exposure

**Potential immediate effects** : See above.  
**Potential delayed effects** : See above.

#### Long term exposure

**Potential immediate effects** : See above.  
**Potential delayed effects** : See below.

### Potential chronic health effects

**Conclusion/Summary** : No known significant effects or critical hazards.  
**General** : No known significant effects or critical hazards.  
**Carcinogenicity** : No known significant effects or critical hazards.  
**Mutagenicity** : No known significant effects or critical hazards.  
**Teratogenicity** : No known significant effects or critical hazards.  
**Developmental effects** : No known significant effects or critical hazards.  
**Fertility effects** : No known significant effects or critical hazards.



## Section 12. Ecological information

### Toxicity

Product/ingredient name	Result	Species	Exposure
Urea	Acute EC50 3910000 µg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
	Acute LC50 1000 mg/l Marine water	Crustaceans - Chaetogammarus marinus - Young	48 hours
	Acute LC50 5000 µg/l Fresh water	Fish - Colisa fasciata - Fingerling	96 hours
	Chronic NOEC 2 g/L Fresh water	Fish - Heteropneustes fossilis	30 days

**Conclusion/Summary** : Excessive nutrient runoff to a body of water may result in eutrophication.

### Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
Urea, Dry	OECD 302B Inherent Biodegradability: Zahn-Wellens/ EMPA Test	96 % - Readily - 16 days	-	-

**Conclusion/Summary** : Readily biodegradable

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Urea, Dry	-	-	Readily

### Bioaccumulative potential

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
Urea, Dry	<-1.73	-	low

### Mobility in soil

**Soil/water partition coefficient (K<sub>oc</sub>)** : 0.037

**Other adverse effects** : No known significant effects or critical hazards.

## Section 13. Disposal considerations

**Disposal methods** : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

## Section 14. Transport information

	TDG Classification	DOT Classification	Mexico Classification	IMDG	IATA
<b>UN number</b>	Not regulated.	Not regulated.	Not regulated.	Not regulated.	Not regulated.

## Section 14. Transport information

UN proper shipping name	-	-	-	-	-
Transport hazard class(es)	-	-	-	-	-
Packing group	-	-	-	-	-
Environmental hazards	No.	No.	No.	No.	No.
Additional information	-	-	-	-	Marine Pollutant (MARPOL): No.

**Special precautions for user** : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

**Transport in bulk according to Annex II of MARPOL and the IBC Code** : Not available.

## Section 15. Regulatory information

### Canadian lists

**Canadian NPRI** : None of the components are listed.

**CEPA Toxic substances** : None of the components are listed.

**Canada inventory** : This material is listed or exempted.

### International regulations

#### Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

#### Montreal Protocol (Annexes A, B, C, E)

Not listed.

#### Stockholm Convention on Persistent Organic Pollutants

Not listed.

#### Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

#### UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

### Inventory list

**Australia** : This material is listed or exempted.

**China** : This material is listed or exempted.

**Europe** : All components are listed or exempted.

**Japan** : This material is listed or exempted.

**Malaysia** : Not determined.

**New Zealand** : This material is listed or exempted.

**Philippines** : This material is listed or exempted.

**Republic of Korea** : This material is listed or exempted.

**Taiwan** : This material is listed or exempted.

**Turkey** : Not determined.

## Section 15. Regulatory information

**U.S. Federal Regulations:** : **TSCA 8(a) CDR Exempt/Partial exemption:** Not determined  
**TSCA 8(b) Active inventory:** This material is listed or exempted.

**Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs)** : Not listed

**Clean Air Act Section 602 Class I Substances** : Not listed

**Clean Air Act Section 602 Class II Substances** : Not listed

**DEA List I Chemicals (Precursor Chemicals)** : Not listed

**DEA List II Chemicals (Essential Chemicals)** : Not listed

**SARA 302/304 Composition/information on ingredients**

**SARA 304 RQ** : Not applicable.

**SARA 311/312**

**Classification** : Not applicable.

**State regulations**

**Massachusetts** : None of the components are listed.

**New York** : None of the components are listed.

**New Jersey** : None of the components are listed.

**Pennsylvania** : None of the components are listed.

**California Prop. 65** : This product, as manufactured, does NOT contain any substance in concentrations known to the state of California to cause cancer, birth defects or other reproductive harm. Nutrien cannot guarantee the downstream compliance of any product once out of Nutrien custody.

## Section 16. Other information

**History**

**Date of issue/Date of revision** : 5/7/2019

**Date of previous issue** : 3/13/2019

**Version** : 2.4

☑ Indicates information that has changed from previously issued version.

**Key to abbreviations**

: ATE = Acute Toxicity Estimate  
 BCF = Bioconcentration Factor  
 GHS = Globally Harmonized System of Classification and Labelling of Chemicals  
 IATA = International Air Transport Association  
 IBC = Intermediate Bulk Container  
 IMDG = International Maritime Dangerous Goods  
 LogPow = logarithm of the octanol/water partition coefficient  
 MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)  
 UN = United Nations  
 HPR = Hazardous Products Regulations

**Procedure used to derive the classification**

Classification	Justification
Not classified.	Weight of evidence

## Section 16. Other information

### References

- : Transportation of Dangerous Goods Act and Clear Language Regulations, current edition at time of SDS preparation, Transport Canada;
- Hazardous Products Act and Regulations, current revision at time of SDS preparation, Health Canada;
- Domestic Substances List, current revision at time of SDS preparation, Environment Canada;
- 29 CFR Part 1910, current revision at time of SDS preparation, U.S. Occupational Safety and Health Administration;
- 40 CFR Parts 1-799, current revision at time of SDS preparation, U.S. Environmental Protection Agency;
- 49 CFR Parts 1-199, current revision at time of SDS preparation, U.S. Department of Transport;
- Mexican Official Standard NOM-018-STPS-2015, Harmonised System for the Identification and Communication of Hazards and Risks by Hazardous Chemicals in the Workplace;
- NORMA Oficial Mexicana NOM-010-STPS-2014, Agentes químicos contaminantes del ambiente laboral-Reconocimiento, evaluación y control.
- Mexican Official Standard NOM-002-SCT / 2011, List of the most commonly transported hazardous substances and materials;
- Threshold Limit Values for Chemical Substances, current edition at time of SDS preparation, American Conference of Governmental Industrial Hygienists;
- NFPA 400, National Fire Codes, National Fire Protection Association, current edition at time of SDS preparation;
- NFPA 704, National Fire Codes, National Fire Protection Association, current edition at time of SDS preparation;
- Corrosion Data Survey, Sixth Edition, 1985, National Association of Corrosion Engineers;
- ERG 2016, Emergency Response Guidebook, U.S. Department of Transport, Transport Canada, and the Secretariat of Transportation and Communications of Mexico
- Hazardous Substances Data Bank, current revision at time of SDS preparation, National Library of Medicine, Bethesda, Maryland
- Integrated Risk Information System, current revision at time of SDS preparation, U. S. Environmental Protection Agency, Washington, D.C.
- Pocket Guide to Chemical Hazards, current revision at time of SDS preparation, National Institute for Occupational Safety and Health, Cincinnati, Ohio ;
- Agency for Toxic Substances and Disease Registry Databank, current revision at time of SDS preparation, U.S. Department of Health and Human Services, Atlanta, Georgia
- National Toxicology Program, Report on Carcinogens, Division of the National Institute of Environmental Health Sciences, Research Triangle Park, North Carolina.
- Registry of Toxic Effects of Chemical Substances. National Institute for Occupational Safety and Health, Cincinnati, Ohio
- California Code of Regulations, Title 27, Div 4, Chapter 1, Proposition 65 Aug 30, 2018 rev and current updates
- The Fertilizer Institute, Product Toxicology Testing Program Results, TFI, Washington , D.C., 2003

### Notice to reader

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The information and recommendations contained in this Safety Data Sheet ("SDS") relate only to the specific material referred to herein (the "Material") and do not relate to the use of such Material in combination with any other material or process. The information and recommendations contained herein are believed to be current and correct as of the date of this SDS. **HOWEVER, THE INFORMATION AND RECOMMENDATIONS ARE PRESENTED WITHOUT WARRANTY, REPRESENTATION OR LICENSE OF ANY KIND, EXPRESS OR IMPLIED, WITH RESPECT TO THEIR ACCURACY, CORRECTNESS OR COMPLETENESS, AND THE SELLER, SUPPLIER AND MANUFACTURER OF THE MATERIAL AND THEIR RESPECTIVE AFFILIATES (COLLECTIVELY, THE "SUPPLIER") DISCLAIM ALL LIABILITY FOR RELIANCE ON SUCH INFORMATION AND RECOMMENDATIONS.** This SDS is not a guarantee of safety. A buyer or user of the Material (a "Recipient") is responsible for ensuring that it has all current information necessary to safely use the Material for its specific purpose.

## Section 16. Other information

FURTHERMORE, THE RECIPIENT ASSUMES ALL RISK IN CONNECTION WITH THE USE OF THE MATERIAL. THE RECIPIENT ASSUMES ALL RESPONSIBILITY FOR ENSURING THE MATERIAL IS USED IN A SAFE MANNER IN COMPLIANCE WITH APPLICABLE ENVIRONMENTAL, HEALTH, SAFETY AND SECURITY LAWS, POLICIES AND GUIDELINES. THE SUPPLIER DOES NOT WARRANT THE MERCHANTABILITY OF THE MATERIAL OR THE FITNESS OF THE MATERIAL FOR ANY PARTICULAR USE AND ASSUMES NO RESPONSIBILITY FOR INJURY OR DAMAGE CAUSED DIRECTLY OR INDIRECTLY BY OR RELATED TO THE USE OF THE MATERIAL.

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