

## Section 1. Identification

**Product identifier** : (DAP) Diammonium Phosphate

**SDS #** : 200

**Other means of identification**

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

DAP - Diammonium Phosphate 18-46-0  
DAPFR - Diammonium Phosphate Forestry Grade

**Product code(s)** : DAP, DAPFR, DAPOS

**Product type** : Solid.

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

#### Identified uses

Fertilizer. Manufacture of chemicals. Manufacture of specialty fertilizers. Fire extinguishing agents

#### Uses advised against

None identified.

#### Reason

Not classified as dangerous

**Supplier's details** : PCS Sales (USA), Inc. (A Subsidiary of Nutrien Ltd.)  
Suite 150  
500 Lake Cook Road  
Deerfield, IL 60015  
United States

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

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

sds@nutrien.com - www.nutrien.com

**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:  
Tranportation 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** : Handling and/or processing of this material may generate a dust which can cause mechanical irritation of the eyes, skin, nose and throat.

## Section 3. Composition/information on ingredients

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

Ingredient name	% (w/w)	CAS number
Diammonium hydrogen orthophosphate	75 - 90	7783-28-0
Ammonium dihydrogen orthophosphate	5 - 20	7722-76-1
Ammonium sulfate	3 - 6	7783-20-2
Calcium sulfate, dihydrate	1 - 2	10101-41-4

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** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. 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** : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.

## Section 4. First-aid measures

**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 irritation due to mechanical action.

**Inhalation** : No known significant effects or critical hazards.

**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.

**Skin contact** : No specific data.

**Ingestion** : No specific data.

### 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** : No specific fire or explosion hazard.

**Hazardous thermal decomposition products** : Decomposition products may include the following materials:  
nitrogen oxides  
sulfur oxides

**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.

## Section 5. Fire-fighting measures

- 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. Vacuum or sweep up material and place in a designated, labeled waste container. Recover the material and use it for the intended purpose.  
or  
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. Use appropriate equipment to put the spilled substance in a container for reuse or disposal. Recycle to process, if possible. 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). Avoid breathing dust. Do not ingest.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. 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.

- 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.

## Section 7. Handling and storage

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> Monoammonium phosphate; Diammonium phosphate; Ammonium sulfate</p> <p>Calcium sulfate, dihydrate</p> <p><b>U.S. Federal Regulations</b> Monoammonium phosphate; Diammonium phosphate; Ammonium sulfate; and Calcium sulfate, dihydrate</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>CA Alberta Provincial (Canada, 4/2009).</b> 8 hrs OEL: 10 mg/m<sup>3</sup> 8 hours.</p> <p><b>CA Ontario Provincial (Canada, 1/2013).</b> TWA: 10 mg/m<sup>3</sup> 8 hours. Form: Inhalable fraction</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** : If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: sealed eyewear
- Skin protection**
  - Hand protection** : The personal protective equipment required varies, depending upon your risk assessment. Suggested personal protective equipment: leather work gloves
  - 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.

## Section 8. Exposure controls/personal protection

- Respiratory protection** : The personal protective equipment required varies, depending upon your risk assessment. Suggested personal protective equipment: disposable particulate mask.  
Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use. Contact your personal protective equipment manufacturer to verify the compatibility of the equipment for the intended purpose.

## Section 9. Physical and chemical properties

### Appearance

- Physical state** : Solid. [Granular solid.]  
**Color** : Black to Green.  
**Odor** : Odorless.  
**Odor threshold** : Not available.  
**pH** : 6 to 8 [Conc. (% w/w): 10%]  
**Melting point** : 155°C (311°F)  
**Boiling point** : Decomposition temperature: 155°C (311°F)  
**Flash point** : Not applicable.  
**Evaporation rate** : Not applicable.  
**Flammability (solid, gas)** : Non-flammable. Material will not burn.  
**Lower and upper explosive (flammable) limits** : Not applicable.  
**Vapor pressure** : 0 kPa (0 mm Hg) [room temperature]  
**Vapor density** : Not applicable.  
**Relative density** : 1.6  
Bulk density - Variable: 56 - 64 lbs/ft<sup>3</sup>; 961 - 1153 kg/m<sup>3</sup>  
**Solubility** : Soluble in the following materials: cold water and hot water.  
**Solubility in water** : 588 g/l  
**Partition coefficient: n-octanol/water** : Not available.  
**Auto-ignition temperature** : Not applicable.  
**Decomposition temperature** : 155°C (311°F)  
**Viscosity** : Not available.

## Section 10. Stability and reactivity

- Reactivity** : Not considered to be reactive.
- 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. Store in a well-ventilated, dry place. Protect from moisture. May form steep piles that can collapse without warning when stored in bulk. Avoid forming steep slopes when removing product.
- Incompatible materials** : Incompatible with: acids, alkalis, halogenated compounds
- 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
Diammonium hydrogen orthophosphate	LC50 Inhalation Dusts and mists	Rat - Male, Female	>5 mg/l	4 hours
	LD50 Dermal	Rat - Male, Female	>5000 mg/kg	-
	LD50 Oral	Rat - Male, Female	>2000 mg/kg	-
Ammonium dihydrogen orthophosphate	LC50 Inhalation Dusts and mists	Rat - Male, Female	>5 mg/l	4 hours
	LD50 Oral	Rat - Male, Female	>2000 mg/kg	-
Ammonium sulfate	LD50 Oral	Mouse - Male, Female	3040 mg/kg	-
	LD50 Oral	Rat	2840 mg/kg	-
	LD50 Oral	Rat - Male, Female	>2000 mg/kg	-
Calcium sulfate, dihydrate	LD50 Oral	Rat - Female	>2000 mg/kg	-

**Conclusion/Summary** : Very low toxicity to humans or animals.

#### Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Ammonium dihydrogen orthophosphate	Skin	Rabbit	0	-	-
	Eyes	Rabbit	0	-	-
Ammonium sulfate	Skin	Rabbit	0	20 hours	24 hours
	Eyes	Rabbit	0	-	72 hours
Calcium sulfate, dihydrate	Skin	Rabbit	0	-	72 hours
	Eyes	Rabbit	0	-	72 hours

#### Conclusion/Summary

**Skin** : Non-irritating to the skin.

**Eyes** : Non-irritating to the eyes.

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

#### Sensitization

Product/ingredient name	Route of exposure	Species	Result
Diammonium hydrogen orthophosphate	Skin	Mouse	Not sensitizing
Ammonium dihydrogen orthophosphate	Skin	Mouse	Not sensitizing
Ammonium sulfate	Skin	Guinea pig	Not sensitizing

#### Conclusion/Summary

**Skin** : Non-sensitizer.

**Respiratory** : Non-sensitizer.

#### Mutagenicity

## Section 11. Toxicological information

Product/ingredient name	Test	Experiment	Result
Diammonium hydrogen orthophosphate	471 Bacterial Reverse Mutation Test	Subject: Bacteria	Negative
Ammonium dihydrogen orthophosphate	OECD 471 Bacterial Reverse Mutation Test	Subject: Bacteria	Negative
Ammonium sulfate	OECD 476	Experiment: In vitro Subject: Mammalian-Animal Cell: Somatic	Negative
	OECD 473	Experiment: In vitro Subject: Mammalian-Animal Cell: Germ	Negative

**Conclusion/Summary** : Not mutagenic in Ames test.

### Carcinogenicity

Not available.

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

### Reproductive toxicity

Product/ingredient name	Maternal toxicity	Fertility	Development toxin	Species	Dose	Exposure
Diammonium hydrogen orthophosphate	Negative	Negative	Negative	Rat - Male, Female	Oral: 1500 mg/kg	-
Ammonium dihydrogen orthophosphate	Negative	Negative	Negative	Rat - Male, Female	Oral: >1500 mg/kg	-
Ammonium sulfate	Negative	Negative	-	Mouse - Male, Female	Oral: 5000 mg/kg	-

**Conclusion/Summary** : Not considered to be toxic to the reproductive system.

### Teratogenicity

Product/ingredient name	Result	Species	Dose	Exposure
Ammonium dihydrogen orthophosphate	Negative - Oral	Rat - Male, Female	>1500 mg/kg	-
Ammonium sulfate	Negative - Oral	Rat - Male, Female	1500 mg/kg	-

**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 irritation due to mechanical action.

**Inhalation** : No known significant effects or critical hazards.

**Skin contact** : No known significant effects or critical hazards.

**Ingestion** : No known significant effects or critical hazards.



## Section 11. Toxicological information

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

<b>Eye contact</b>	: No specific data. May cause irritation due to mechanical action.
<b>Inhalation</b>	: No specific data.
<b>Skin contact</b>	: No specific data.
<b>Ingestion</b>	: No specific data.

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

#### Short term exposure

<b>Potential immediate effects</b>	: See above.
<b>Potential delayed effects</b>	: See above.

#### Long term exposure

<b>Potential immediate effects</b>	: See above.
<b>Potential delayed effects</b>	: See below.

#### Potential chronic health effects

<b>Conclusion/Summary</b>	: No evidence of risk to humans.
<b>General</b>	: No known significant effects or critical hazards.
<b>Carcinogenicity</b>	: No known significant effects or critical hazards.
<b>Mutagenicity</b>	: No known significant effects or critical hazards.
<b>Teratogenicity</b>	: No known significant effects or critical hazards.
<b>Developmental effects</b>	: No known significant effects or critical hazards.
<b>Fertility effects</b>	: No known significant effects or critical hazards.

## Section 12. Ecological information

### Toxicity

Product/ingredient name	Result	Species	Exposure
Diammonium hydrogen orthophosphate	Acute LC50 1700 mg/l Fresh water	Fish - Cirrhinus mrigala/L. Rohita - Fry	96 hours
Ammonium dihydrogen orthophosphate	LC50 >85.9 mg/l Fresh water	Fish	96 hours
Ammonium sulfate	Acute LC50 2.6 mg/l Fresh water	Crustaceans - Ceriodaphnia dubia - Young	48 hours
	Acute LC50 14000 µg/l Fresh water	Daphnia - Daphnia magna - Young	48 hours
	Acute LC50 53 mg/l	Fish - Oncorhynchus mykis	96 hours

**Conclusion/Summary** : May be harmful to the environment if released in large quantities. Excessive nutrient runoff to a body of water may result in eutrophication.

### Persistence and degradability

**Conclusion/Summary** : According to EC criteria: Readily biodegradable

### Bioaccumulative potential

Not available.

### Mobility in soil

**Soil/water partition coefficient (K<sub>oc</sub>)** : Not available.

## Section 12. Ecological information

**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. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

## Section 14. Transport information

	<b>TDG Classification</b>	<b>DOT Classification</b>	<b>Mexico Classification</b>	<b>IMDG</b>	<b>IATA</b>
<b>UN number</b>	Not regulated.	Not regulated.	Not regulated.	Not regulated.	Not regulated.
<b>UN proper shipping name</b>	-	-	-	-	-
<b>Transport hazard class(es)</b>	-	-	-	-	-
<b>Packing group</b>	-	-	-	-	-
<b>Environmental hazards</b>	No.	No.	No.	No.	No.
<b>Additional information</b>	-	-	-	-	-

**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** : This material is listed.

**CEPA Toxic substances** : This material is not listed.

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

### International regulations

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

Not listed.

#### Montreal Protocol

Not listed.

#### Stockholm Convention on Persistent Organic Pollutants

## Section 15. Regulatory information

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** : This material is listed or exempted.
- Japan** : **Japan inventory (ENCS)**: This material is listed or exempted.  
**Japan inventory (ISHL)**: Not determined.
- 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.

- U.S. Federal Regulations** : **TSCA 8(a) CDR Exempt/Partial exemption**: Not determined  
**TSCA 8(b) Active inventory**: **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.

### SARA 313


	Product name	CAS number	%
<b>Form R - Reporting requirements</b>	Ammonium dihydrogen orthophosphate	7722-76-1	100
<b>Supplier notification</b>	Ammonium dihydrogen orthophosphate	7722-76-1	100

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

### State regulations

- Massachusetts** : This material is not listed.
- New York** : This material is not listed.
- New Jersey** : This material is not listed.

## Section 15. Regulatory information

- Pennsylvania** : This material is not listed.
- California Prop. 65** :  **WARNING:** This product can expose you to chemicals including cadmium, which is known to the State of California to cause cancer and to cause birth defects or other reproductive harm. For more information, go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

## Section 16. Other information

### History

**Date of issue/Date of revision** : 3/26/2021

**Date of previous issue** : 3/21/2019

**Version** : 2.1

 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

### 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,

## Section 16. Other information

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](#)

**Supply chain partners must ensure they pass this SDS, and all other relevant safety information to their customers.**

### **DISCLAIMER AND LIMITATION OF LIABILITY**

**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.**

**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.**