

**Super Rainbow® Plant Food 17-8-0-18S 2Zn,
Americus**

Section 1. Identification

Product identifier : Super Rainbow® Plant Food 17-8-0-18S 2Zn, Americus
Other means of identification : Product code: 5656-31773
Product type : Granular solid.

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

Identified uses


Fertilizer.

Supplier's details : Agrium Canada Partnership (A Subsidiary of Nutrien Ltd.)
 13131 Lake Fraser Drive, S.E.
 Calgary, Alberta, Canada, T2J 7E8

 Agrium U.S. Inc. (A Subsidiary of Nutrien Ltd.)
 5296 Harvest Lake Drive
 Loveland, CO 80538

 Company phone number (North America):
 1-800-403-2861 (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:
 Transportation or Medical Emergencies: 1-303-389-1654

Section 2. Hazard identification

Classification of the substance or mixture : EYE IRRITATION - Category 2B
OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

GHS label elements

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

Signal word : Warning
Hazard statements : Causes eye irritation.

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 : Wash hands thoroughly after handling. Wear eye or face protection.

Section 2. Hazard identification

Response	: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.
Storage	: Not applicable.
Disposal	: Dispose of contents and container in accordance with all local, regional, national and international regulations.
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
Ammonium sulfate	63 - 74	7783-20-2
Ammonium dihydrogen orthophosphate	14	7722-76-1
Calcium sulfate, dihydrate	5 - 6	10101-41-4
Zinc oxide	1 - 3	1314-13-2
Ammonium nitrate	2	6484-52-2
Zinc bis(dihydrogen phosphate)	0 - 2.5	13598-37-3
Zinc sulfate	0 - 2	7733-02-0

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

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. Continue to rinse for at least 10 minutes. If irritation persists, get medical attention.
Inhalation	: May cause irritation due to mechanical action. Remove person to fresh air. 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. Wash clothing before reuse. Clean shoes thoroughly before reuse.
Ingestion	: May be irritating to mouth, throat and stomach. Wash out mouth with water. 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. For additional advice call the medical emergency number on this SDS or your poison center or doctor.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact	: Causes eye irritation.
Inhalation	: Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs.
Skin contact	: Inorganic salt. Prolonged or repeated exposure may dry the skin, causing irritation.
Ingestion	: May cause irritation of the digestive tract with accompanying nausea, vomiting and diarrhea.

Over-exposure signs/symptoms

Section 4. First-aid measures

- Eye contact** : Adverse symptoms may include the following:
irritation
watering
redness
- Inhalation** : Adverse symptoms may include the following:
respiratory tract irritation
coughing
- Skin contact** : No specific data.
- Ingestion** : No specific data. Adverse symptoms may include the following:
nausea or vomiting
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. For professional, multilingual, medical support, in case of medical emergencies involving Nutrien products, telephone the Nutrien global 24 hour Emergency Number: 1-303-389-1653.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

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. The substance will not burn. Undergoes thermal decomposition at elevated temperatures to release toxic and flammable gases.

- 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.

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. Avoid breathing dust. Provide adequate ventilation. 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".

Section 6. Accidental release measures

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). Will dissolve and disperse in water. Reclaiming material may not be possible. If possible, recover spilled product and place in suitable containers for recycle, reuse, or disposal. Product will promote algae growth and may degrade water quality and taste. Notify downstream water users.

Methods and materials for containment and cleaning up

- Small spill** : Put on appropriate personal protective equipment (see Section 8). Move containers from spill area. Avoid dust generation. Use appropriate equipment to put the spilled substance in a container for reuse or disposal. Recycle, if possible.
or
Place spilled material in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Put on appropriate personal protective equipment (see Section 8). Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Avoid creating dusty conditions and prevent wind dispersal. Use appropriate equipment to put the spilled substance in a container for reuse or disposal. Recycle, 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. Avoid contact with eyes, skin and clothing. Avoid breathing dust.
- 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 stored in bulk. Avoid forming steep slopes when removing product. 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

Section 8. Exposure controls/personal protection

Ingredient name	Exposure limits
<p>Canadian Regulations: Ammonium nitrate or Ammonium sulfate or Ammonium dihydrogen orthophosphate or Calcium sulfate, dihydrate or Zinc bis(dihydrogen phosphate) or Zinc sulfate</p>	<p>CA Alberta Provincial: Particulates not otherwise regulated (PNOR) TWA (8 hours), Total dust: 10 mg/m³; Respirable fraction: 3 mg/m³.</p>
<p>Zinc oxide</p>	<p>CA Alberta Provincial (Canada, 6/2008). 8 hrs OEL: 5 mg/m³ 8 hours. Form: Fume 15 min OEL: 10 mg/m³ 15 minutes. Form: Fume CA Alberta Provincial (Canada, 4/2009). 8 hrs OEL: 2 mg/m³ 8 hours. Form: Respirable 15 min OEL: 10 mg/m³ 15 minutes. Form: Respirable CA British Columbia Provincial (Canada, 4/2014). TWA: 2 mg/m³ 8 hours. Form: Respirable STEL: 10 mg/m³ 15 minutes. Form: Respirable CA Ontario Provincial (Canada, 1/2013). TWA: 2 mg/m³ 8 hours. Form: Respirable fraction STEL: 10 mg/m³ 15 minutes. Form: Respirable fraction CA Quebec Provincial (Canada, 1/2014). TWAEV: 5 mg/m³ 8 hours. Form: fume STEV: 10 mg/m³ 15 minutes. Form: fume</p>
<p>U.S. Federal Regulations: Ammonium sulfate</p>	<p>OSHA (United States): Particulates not otherwise regulated (PNOR) TWA (8 hours), Total dust: 15 mg/m³; Respirable fraction: 5 mg/m³.</p>
<p>Ammonium dihydrogen orthophosphate</p>	<p>OSHA (United States): Particulates not otherwise regulated (PNOR) TWA (8 hours), Total dust: 15 mg/m³; Respirable fraction: 5 mg/m³.</p>
<p>Calcium sulfate, dihydrate</p>	<p>ACGIH TLV-TWA: 10 mg/m³ Inhalable, 3 mg/m³ Respirable, for Particles Not Otherwise Specified (Insoluble or Poorly Soluble).</p>
<p>Zinc sulfate</p>	<p>Fed OSHA PEL: 15 mg/m³ Total dust, 5 mg/m³ Respirable fraction, for Particulates Not Otherwise Regulated.</p>
<p>Zinc oxide</p>	<p>OSHA (United States): Particulates not otherwise regulated (PNOR) TWA (8 hours), Total dust: 15 mg/m³; Respirable fraction: 5 mg/m³. ACGIH TLV-TWA: 2 mg/m³ respirable fraction; TLV-STEL: 10 mg/m³ respirable fraction, as particulate OSHA Permissible Exposure Limit: Table Z-1 8-hr Time Weighted Avg: 15 mg/m³ as total dust; 5 mg/m³ respirable fraction</p>

Section 8. Exposure controls/personal protection

- Appropriate engineering controls** : Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.
- 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. Ensure that eyewash stations and safety showers are close to the workstation location.
- 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 operating conditions cause high dust concentrations to be produced, use dust goggles.
- Skin protection**
- Hand protection** : The personal protective equipment required varies, depending upon your risk assessment. No special measures are typically indicated. For prolonged or repeated handling, use the following type of gloves: 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.
- 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. 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** : Granular solid.
- Color** : Brown.
- Odor** : Odorless.
- Odor threshold** : Not applicable.
- pH** : 6 [Conc. (% w/w): 10%]
- Melting point** : Not available.
- Boiling point** : Decomposes.
- Flash point** : [Product does not sustain combustion.]
- Evaporation rate** : Not applicable.
- Flammability (solid, gas)** : Not applicable. The substance will not burn. Undergoes thermal decomposition at elevated temperatures to release toxic and flammable gases.
- Lower and upper explosive (flammable) limits** : Not applicable.
- Vapor pressure** : Not applicable.
- Vapor density** : Not applicable.
- Relative density** : Not available.
- Solubility** : Easily soluble in the following materials: hot water.
Soluble in the following materials: cold water.

Section 9. Physical and chemical properties

Solubility in water	: Water soluble.
Partition coefficient: n-octanol/water	: Not available.
Auto-ignition temperature	: Not applicable.
Decomposition temperature	: Not available.
Viscosity	: Not applicable.

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	: No specific data.
Incompatible materials	: Incompatible with halogens. A mixture of salts. May be corrosive to metals. 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
Ammonium sulfate	LD50 Oral	Mouse - Male, Female	3040 mg/kg	-
	LD50 Oral	Rat	2840 mg/kg	-
	LD50 Oral	Rat - Male, Female	>2000 mg/kg	-
ammonium dihydrogenorthophosphate	LD50 Oral	Rat - Male, Female	>2000 mg/kg	-
Ammonium nitrate	LD50 Oral	Rat	2217 mg/kg	-
	LD50 Oral	Rat - Male, Female	2950 mg/kg	-
Zinc bis(dihydrogen phosphate)	LD50 Oral	Rat	1990 mg/kg	-
Zinc sulfate	LD50 Oral	Mouse	245 mg/kg	-
	LD50 Oral	Mouse - Male	926 mg/kg	-

Conclusion/Summary : Very low toxicity to humans or animals. No known significant effects or critical hazards.

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Ammonium sulfate	Skin	Rabbit	0	20 hours	24 hours
	Eyes	Rabbit	0	-	72 hours
Zinc oxide	Eyes	Rabbit	0	24 hours 500 milligrams	-
	Skin	Rabbit	0	24 hours 500 milligrams	-
Ammonium nitrate	Skin	Rabbit	0	-	72 hours
	Eyes - Edema of the	Rabbit	3	-	3 days

Section 11. Toxicological information

Zinc sulfate	conjunctivae Eyes - Moderate irritant	Rabbit	2	420 Micrograms	-
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Conclusion/Summary

- Skin** : No known significant effects or critical hazards.
Eyes : Irritating to the eyes.
Respiratory : No known significant effects or critical hazards.

Sensitization

Product/ingredient name	Route of exposure	Species	Result
Ammonium sulfate	skin	Guinea pig	Not sensitizing
Ammonium nitrate	skin	Mouse	Not sensitizing

Conclusion/Summary

- Skin** : Non-sensitizer.
Respiratory : No known significant effects or critical hazards.

Mutagenicity

Product/ingredient name	Test	Experiment	Result
Ammonium sulfate	OECD 476	Experiment: In vitro Subject: Mammalian-Animal Cell: Somatic	Negative
	OECD 473	Experiment: In vitro Subject: Mammalian-Animal Cell: Germ	Negative
Ammonium nitrate	OECD 471 Bacterial Reverse Mutation Test	Experiment: In vitro Subject: Bacteria	Negative
	OECD 476 <i>In vitro</i> Mammalian Cell Gene Mutation Test	Experiment: In vitro Subject: Mammalian-Animal	Negative

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

Carcinogenicity

Product/ingredient name	Result	Species	Dose	Exposure
Ammonium sulfate	Negative - Oral - TCLo	Rat - Male, Female	1288 mg/kg	2 years; 7 days per week

- Conclusion/Summary** : Potential for nitrosamine formation if ingested. Do not ingest.

Reproductive toxicity

Product/ingredient name	Maternal toxicity	Fertility	Development toxin	Species	Dose	Exposure
Ammonium sulfate	Negative	Negative	-	Mouse - Male, Female	Oral: 5000 mg/ kg	-

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

Teratogenicity

Product/ingredient name	Result	Species	Dose	Exposure
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.

Section 11. Toxicological information

Aspiration hazard

Not available.

Information on the likely routes of exposure : Inhalation
Skin contact

Potential acute health effects

Eye contact : Causes eye irritation.

Inhalation : Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs.

Skin contact : Inorganic salt. Prolonged or repeated exposure may dry the skin, causing irritation.

Ingestion : May cause irritation of the digestive tract with accompanying nausea, vomiting and diarrhea.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Adverse symptoms may include the following:
irritation
watering
redness

Inhalation : Adverse symptoms may include the following:
respiratory tract irritation
coughing

Skin contact : No specific data.

Ingestion : No specific data. Adverse symptoms may include the following:
nausea or vomiting
diarrhea

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

Short term exposure

Potential immediate effects : May interfere with the oxygen carrying capacity of the blood if ingested in large quantities or over a prolonged period of time. Persons with anemia, bowel diseases, or infants, are more likely to develop effects. Over-exposure by ingestion is unlikely under normal working conditions.

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 : Potential for nitrosamine formation if ingested. Do not ingest. Methemoglobinemia (see Acute Health Effects)

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
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 68 µg/l Fresh water	Fish - Oncorhynchus gorboscha - Alevin	96 hours
Zinc oxide	Acute LC50 53 mg/l	Fish - Oncorhynchus mykiss	96 hours
	Acute EC50 0.042 mg/l Fresh water	Algae - Pseudokirchneriella subcapitata - Exponential growth phase	72 hours
	Acute LC50 98 µg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
Ammonium nitrate	Acute LC50 1.1 ppm Fresh water	Fish - Oncorhynchus mykiss	96 hours
	Chronic NOEC 6 to 12 mg/l Fresh water	Crustaceans - Cladocera	21 days
Zinc sulfate	Acute EC50 0.042 mg/l Fresh water	Algae - Pseudokirchneriella subcapitata - Exponential growth phase	72 hours
	Acute LC50 4 µg/l Fresh water	Crustaceans - Mesocyclops hyalinus - Adult	48 hours
	Acute LC50 21.8 µg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
	Acute LC50 2.36 µg/l Fresh water	Fish - Cirrhinus mrigala	96 hours

Conclusion/Summary : Excessive nutrient runoff to a body of water may result in eutrophication. Harmful to aquatic life with long lasting effects. May be harmful to the environment if released in large quantities.

Persistence and degradability

Conclusion/Summary : Persistent in the environment.

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
zinc oxide	-	60960	high
Zinc bis(dihydrogen phosphate)	-	60960	high
Zinc sulfate	-0.07	60960	high

Mobility in soil

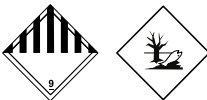

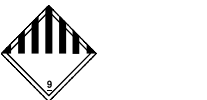


Soil/water partition coefficient (K_{oc}) : Not available.

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. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. 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. 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
UN number	UN3077	UN3077	UN3077	UN3077	UN3077
UN proper shipping name	Environmentally hazardous substance, solid, n.o.s. (zinc oxide, zinc sulfate (anhydrous))	Environmentally hazardous substance, solid, n.o.s. (zinc sulfate (anhydrous), zinc oxide, mixture)	Environmentally hazardous substance, solid, n.o.s. (zinc sulfate (anhydrous), zinc oxide)	Environmentally hazardous substance, solid, n.o.s. (Zinc sulfate (anhydrous), Zinc oxide)	Environmentally hazardous substance, solid, n.o.s. (Ammonium sulfate, Zinc sulfate (anhydrous))
Transport hazard class(es)	9 	9 	9 	9 	9 
Packing group	III	III	III	III	III
Environmental hazards	Yes.	Yes.	Yes.	Yes.	Yes.

Additional information	<p>The product is not regulated as a dangerous good when transported by road or rail.</p> <p>Passenger Carrying Road or Rail Index 5</p> <p>Special provisions 16, 99</p> <p>Classification per the current revision, Transportation of Dangerous Goods Regulation, Part 2, Sec 2.3.</p>	<p>Non-bulk packages of this product are not regulated as hazardous materials in package sizes less than the product reportable quantity, unless transported by inland waterway.</p> <p>The marine pollutant mark is not required when transported on inland waterways in sizes of ≤5 L or ≤5 kg.</p> <p>Reportable quantity 1000 lbs / 454 kg</p> <p>Packages of less than the reportable quantity are not subject to Hazmat transportation requirements.</p>	<p>The environmentally hazardous substance mark is not required when transported in sizes of ≤5 L or ≤5 kg.</p>	<p>The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg.</p>	<p>The environmentally hazardous substance mark is not required when transported in sizes of ≤5 L or ≤5 kg.</p>
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Section 14. Transport information

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 : The following components are listed: Ammonia (total); Ammonia (total); Zinc (and its compounds); Ammonia (total); Zinc (and its compounds); Zinc (and its compounds)

CEPA Toxic substances : None of the components are listed.

Canada inventory : All components are 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

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Inventory list

Australia : All components are listed or exempted.

China : All components are listed or exempted.

Europe : All components are listed or exempted.

Japan : **Japan inventory (ENCS):** All components are listed or exempted.
Japan inventory (ISHL): Not determined.

Malaysia : Not determined.

New Zealand : All components are listed or exempted.

Philippines : All components are listed or exempted.

Republic of Korea : All components are listed or exempted.

Taiwan : All components are listed or exempted.

Turkey : Not determined.

U.S. Federal Regulations: : **TSCA 8(a) CDR Exempt/Partial exemption:** Not determined
TSCA 8(b) Active inventory:: All components are listed or exempted.
Clean Water Act (CWA) 307: zinc oxide; zinc bis(dihydrogen phosphate); zinc sulfate (anhydrous)
Clean Water Act (CWA) 311: zinc sulfate (anhydrous)

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

Clean Air Act Section 602 Class I Substances : Not listed

Section 15. Regulatory information

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 : Immediate (acute) health hazard

Composition/information on ingredients

Name	%	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard.
Zinc sulfate	1.2 - 1.6	No.	No.	No.	Yes.	No.

SARA 313

	Product name	CAS number	%
Form R - Reporting requirements	Ammonium sulfate	7783-20-2	63 - 74
	Ammonium dihydrogen orthophosphate	7722-76-1	14
	Zinc oxide	1314-13-2	1.25 - 3
	Zinc sulfate	7733-02-0	< 2
Supplier notification	Ammonium sulfate	7783-20-2	63 - 74
	Ammonium dihydrogen orthophosphate	7722-76-1	14
	Zinc oxide	1314-13-2	1.25 - 3
	Zinc sulfate (anhydrous)	7733-02-0	< 2

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 : The following components are listed: Ammonium sulfate; Zinc oxide fume; Zinc sulfate

New York : The following components are listed: Zinc sulfate

New Jersey : The following components are listed: Zinc oxide; Zinc sulfate; Sulfuric acid, zinc salt

Pennsylvania : The following components are listed: Sulfuric acid diammonium salt; Zinc oxide; Sulfuric acid, zinc salt (1:1)

California Prop. 65 : Not applicable – This product is not registered for sale into the State of California and has not been evaluated for Prop 65 notification requirements.

Section 16. Other information

History

Date of issue/Date of revision : 5/6/2019

Date of previous issue : 9/6/2018

Version : 1.2

Indicates information that has changed from previously issued version.

Section 16. Other information

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
EYE IRRITATION - Category 2B	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, 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

Notice to reader

Section 16. Other information

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