

Portland Rose Society Fertilizer 15-10-10

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form : Mixture
Product name : Portland Rose Society Fertilizer 15-10-10
Product code : M77522

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

1.3. Details of the supplier of the safety data sheet

JR Simplot Company
Boise, ID 83707
T 1-208-336-2110

1.4. Emergency telephone number

Emergency number : CHEMTREC 1-800-424-9300

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (GHS-US)

Skin Irrit. 2 H315
Eye Irrit. 2B H320
STOT SE 3 H335

Full text of H-phrases: see section 16

2.2. Label elements

GHS-US labeling

Hazard pictograms (GHS-US) :



GHS07

Signal word (GHS-US) :

Warning

Hazard statements (GHS-US) :

H315 - Causes skin irritation
H320 - Causes eye irritation
H335 - May cause respiratory irritation

Precautionary statements (GHS-US) :

P261 - Avoid breathing dust/fume/gas/mist/vapors/spray
P264 - Wash ... thoroughly after handling
P271 - Use only outdoors or in a well-ventilated area
P280 - Wear protective gloves/protective clothing/eye protection/face protection
P302 + P352 - If on skin: Wash with plenty of water/...
P304 + P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing
P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P312 - Call a poison center/doctor/... if you feel unwell
P321 - Specific treatment (see ... on this label)
P332 + P313 - If skin irritation occurs: Get medical advice/attention
P337 + P313 - If eye irritation persists: Get medical advice/attention
P362 - Take off contaminated clothing and wash before reuse
P403 + P233 - Store in a well-ventilated place. Keep container tightly closed
P405 - Store locked up
P501 - Dispose of contents/container to ... specify in accordance with local/regional/national regulations

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS-US)

No data available

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SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Name	Product identifier	%	Classification (GHS-US)
ammonium sulfate	(CAS No) 7783-20-2		Not classified
Monoammonium Phosphate	(CAS No) 7722-76-1		Eye Irrit. 2B, H320 STOT SE 3, H335
urea	(CAS No) 57-13-6		Skin Irrit. 2, H315 Eye Irrit. 2B, H320 STOT SE 3, H335
Potassium Magnesium Sulfate	(CAS No) 13826-56-7		Not classified
potassium chloride	(CAS No) 7447-40-7		Not classified
dolomite	(CAS No) 16389-88-1		Eye Irrit. 2B, H320
Anti-caking agent			Not classified
iron(III) oxide	(CAS No) 1309-37-1		Not classified
Sodium Calcium Borate	(CAS No) 1319-33-1		Skin Irrit. 2, H315 Eye Irrit. 2B, H320 STOT SE 3, H335
manganese(II)oxide	(CAS No) 1344-43-0		Not classified
calcium oxide	(CAS No) 1305-78-8		Skin Corr. 1C, H314 Eye Dam. 1, H318 STOT SE 3, H335
silicon dioxide, amorphous	(CAS No) 7631-86-9		Skin Irrit. 2, H315 Eye Irrit. 2A, H319 STOT SE 3, H335
zinc oxide	(CAS No) 1314-13-2		Aquatic Acute 1, H400 Aquatic Chronic 1, H410
iron(II)sulfate	(CAS No) 7720-78-7		Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315
copper(II) sulfate, pentahydrate	(CAS No) 7758-99-8		Acute Tox. 3 (Oral), H301 Skin Irrit. 2, H315 Eye Irrit. 2B, H320 STOT SE 3, H335
copper(II)oxide	(CAS No) 1317-38-0		Not classified
manganese(II)sulfate	(CAS No) 7785-87-7		STOT RE 2, H373
zinc sulfate	(CAS No) 7733-02-0		Acute Tox. 4 (Oral), H302 Eye Dam. 1, H318
disodium molybdate	(CAS No) 7631-95-0		Not classified

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
First-aid measures after inhalation	: Assure fresh air breathing. Allow the victim to rest.
First-aid measures after skin contact	: Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse.
First-aid measures after eye contact	: Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persist.
First-aid measures after ingestion	: Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries : Not expected to present a significant hazard under anticipated conditions of normal use.

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: Foam. Dry powder. Carbon dioxide. Water spray. Sand.
Unsuitable extinguishing media	: Do not use a heavy water stream.

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5.2. Special hazards arising from the substance or mixture

No additional information available

5.3. Advice for firefighters

- Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.
- Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

- Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

- Protective equipment : Equip cleanup crew with proper protection.
- Emergency procedures : Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

- Methods for cleaning up : On land, sweep or shovel into suitable containers. Minimize generation of dust. Store away from other materials.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor.

7.2. Conditions for safe storage, including any incompatibilities

- Storage conditions : Keep only in the original container in a cool, well ventilated place away from : Keep container closed when not in use.
- Incompatible products : Strong bases. Strong acids.
- Incompatible materials : Sources of ignition. Direct sunlight.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

dolomite (16389-88-1)		
USA ACGIH	ACGIH TWA (mg/m ³)	3 mg/m ³
iron(III) oxide (1309-37-1)		
USA ACGIH	ACGIH TWA (mg/m ³)	5 mg/m ³
iron(II)sulfate (7720-78-7)		
USA ACGIH	ACGIH TWA (mg/m ³)	1 mg/m ³
manganese(II)oxide (1344-43-0)		
USA ACGIH	ACGIH TWA (mg/m ³)	0.1 mg/m ³
manganese(II)sulfate (7785-87-7)		
USA ACGIH	ACGIH TWA (mg/m ³)	0.1 mg/m ³
disodium molybdate (7631-95-0)		
USA ACGIH	ACGIH TWA (mg/m ³)	0.5 mg/m ³

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zinc oxide (1314-13-2)		
USA ACGIH	ACGIH TWA (mg/m ³)	2 mg/m ³
USA ACGIH	ACGIH STEL (mg/m ³)	10 mg/m ³

calcium oxide (1305-78-8)		
USA ACGIH	ACGIH TWA (mg/m ³)	2 mg/m ³

8.2. Exposure controls

Personal protective equipment	: Avoid all unnecessary exposure.
Hand protection	: Wear protective gloves.
Eye protection	: Chemical goggles or safety glasses.
Respiratory protection	: Wear appropriate mask.
Other information	: Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Solid
Appearance	: Multicolored granules.
Color	: Multi-colored
Odor	: No data available on odour
Odor threshold	: No data available
pH	: No data available
Relative evaporation rate (butyl acetate=1)	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapor pressure	: No data available
Relative vapor density at 20 °C	: No data available
Relative density	: No data available
Solubility	: Water: Solubility in water of component(s) of the mixture : •: 100 g/100ml •: 38 g/100ml •: 34 g/100ml •: 0.0078 g/100ml •: 77 g/100ml •: •: 23 g/100ml •: < 0.1 g/100ml •: 26 g/100ml •: •: 52 g/100ml •: 0.00029 g/100ml •: > 54 g/100ml •: 0.1 g/100ml •: 0.15 g/100ml
Log Pow	: No data available
Log Kow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available
Explosive limits	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Stable. Not established.

10.3. Possibility of hazardous reactions

Not established.

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10.4. Conditions to avoid

Extremely high temperatures. Direct sunlight. Extremely high or low temperatures.

10.5. Incompatible materials

Strong acids. Prolonged contact may cause oxidation of unprotected metals. Strong bases.

10.6. Hazardous decomposition products

May evolve chlorine gas when in contact with strong acids. fume. Carbon monoxide. Carbon dioxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

urea (57-13-6)	
LD50 oral rat	8471 mg/kg (Rat)
LD50 dermal rat	> 3200 mg/kg (Rat)
LD50 dermal rabbit	> 21000 mg/kg (Rabbit)
ATE US (oral)	8471.00000000 mg/kg body weight

Monoammonium Phosphate (7722-76-1)	
LD50 oral rat	5750 mg/kg (Rat)
LD50 dermal rat	> mg/kg
LD50 dermal rabbit	> 7940 mg/kg (Rabbit)
ATE US (oral)	5750.00000000 mg/kg body weight

potassium chloride (7447-40-7)	
LD50 oral rat	2600 mg/kg (Rat)
ATE US (oral)	2600.00000000 mg/kg body weight

ammonium sulfate (7783-20-2)	
LD50 oral rat	2840 mg/kg (Rat)
LD50 dermal rat	> 2000 mg/kg
ATE US (oral)	2840.00000000 mg/kg body weight

Sodium Calcium Borate (1319-33-1)	
LD50 oral rat	2660 mg/kg
ATE US (oral)	2660.00000000 mg/kg body weight

copper(II)oxide (1317-38-0)	
LD50 oral rat	> 2500 mg/kg (Rat; OECD 423: Acute Oral Toxicity – Acute Toxic Class Method; Experimental value)

copper(II) sulfate, pentahydrate (7758-99-8)	
LD50 oral rat	300 mg/kg (Rat; OECD 401: Acute Oral Toxicity; Experimental value; 482 mg/kg bodyweight; Rat)
LD50 dermal rabbit	> 2000 mg/kg (Rabbit; Literature study; OECD 402: Acute Dermal Toxicity)
ATE US (oral)	300.00000000 mg/kg body weight

iron(III) oxide (1309-37-1)	
LD50 oral rat	> 5000 mg/kg (Rat; Literature study)

iron(II)sulfate (7720-78-7)	
LD50 oral rat	319 mg/kg (Rat; Literature)
ATE US (oral)	319.00000000 mg/kg body weight

manganese(II)sulfate (7785-87-7)	
LD50 oral rat	2150 mg/kg (Rat; Experimental value)
ATE US (oral)	2150.00000000 mg/kg body weight

disodium molybdate (7631-95-0)	
LD50 oral rat	4000 mg/kg (Rat)
LD50 dermal rat	> 2000 mg/kg (Rat)
LC50 inhalation rat (mg/l)	> 2.1 mg/l/4h (Rat; >584 mg/l/4h; Rat)

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disodium molybdate (7631-95-0)	
ATE US (oral)	4000.00000000 mg/kg body weight

zinc oxide (1314-13-2)	
LD50 oral rat	> 5000 mg/kg (Rat; Equivalent or similar to OECD 401; Experimental value)
LD50 dermal rabbit	> 7940 mg/kg (Rabbit; Literature study)
LC50 inhalation rat (mg/l)	> 5.7 mg/l/4h (Rat; Experimental value)
LC50 inhalation rat (ppm)	> 5.71 ppm/4h mouse

zinc sulfate (7733-02-0)	
LD50 oral rat	1000 - 2000 mg/kg (Rat)
ATE US (oral)	1000.00000000 mg/kg body weight

silicon dioxide, amorphous (7631-86-9)	
LD50 oral rat	> 10000 mg/kg (Rat)
LD50 dermal rabbit	> 5000 mg/kg (Rabbit)

Skin corrosion/irritation : Causes skin irritation.
Serious eye damage/irritation : Causes eye irritation.
Respiratory or skin sensitization : Not classified
Germ cell mutagenicity : Not classified
Based on available data, the classification criteria are not met
Carcinogenicity : Not classified

iron(III) oxide (1309-37-1)	
IARC group	3 - Not classifiable

silicon dioxide, amorphous (7631-86-9)	
IARC group	3 - Not classifiable

Reproductive toxicity : Not classified
Based on available data, the classification criteria are not met
Specific target organ toxicity (single exposure) : May cause respiratory irritation.
Specific target organ toxicity (repeated exposure) : Not classified
Based on available data, the classification criteria are not met
Aspiration hazard : Not classified
Based on available data, the classification criteria are not met
Potential Adverse human health effects and symptoms : Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

12.1. Toxicity

urea (57-13-6)	
LC50 fish 1	> 6810 mg/l (96 h; Leuciscus idus)
EC50 Daphnia 1	> 10000 mg/l (48 h; Daphnia magna)
LC50 fish 2	17500 mg/l (96 h; Poecilia reticulata)
EC50 Daphnia 2	> 10000 mg/l (24 h; Daphnia magna)
TLM fish 1	17500 ppm (96 h; Poecilia reticulata)
Threshold limit other aquatic organisms 1	120000 mg/l (16 h; Bacteria; Toxicity test)
Threshold limit other aquatic organisms 2	> 10000 mg/l (Pseudomonas putida)
Threshold limit algae 2	> 10000 mg/l (168 h; Scenedesmus quadricauda)

Monoammonium Phosphate (7722-76-1)	
LC50 fish 1	155 ppm (96 h; Pimephales promelas)

potassium chloride (7447-40-7)	
LC50 fish 1	920 mg/l (96 h; Gambusia affinis; Static system)
EC50 Daphnia 1	630 mg/l (48 h; Ceriodaphnia dubia)
LC50 fish 2	2010 mg/l (96 h; Lepomis macrochirus; Static system)

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potassium chloride (7447-40-7)	
EC50 Daphnia 2	660 mg/l (48 h; Daphnia magna)
Threshold limit algae 1	850 mg/l (72 h; Scenedesmus subspicatus)
Threshold limit algae 2	> 100 mg/l (72 h; Scenedesmus subspicatus; GLP)
ammonium sulfate (7783-20-2)	
LC50 fish 1	126 mg/l (96 h; Poecilia reticulata)
EC50 Daphnia 1	202 mg/l (96 h; Daphnia magna)
LC50 fish 2	250 - 480 mg/l (96 h; Brachydanio rerio)
EC50 Daphnia 2	433 mg/l (50 h; Daphnia magna)
TLM fish 1	1290 ppm (96 h; Gambusia affinis)
copper(II)oxide (1317-38-0)	
LC50 fish 1	0.093 mg/l (96 h; Oncorhynchus mykiss)
EC50 Daphnia 1	0.109 mg/l (48 h; Daphnia magna)
Threshold limit algae 1	0.047 mg/l (96 h; Chlamydomonas reinhardtii)
Threshold limit algae 2	0.032 mg/l (10 days; Chlamydomonas reinhardtii)
copper(II) sulfate, pentahydrate (7758-99-8)	
LC50 fish 1	1.5 mg/l (24 h; Lepomis macrochirus; Toxicity test)
EC50 Daphnia 1	0.109 - 0.798 mg/l (48 h; Daphnia magna; Anhydrous form)
LC50 fish 2	0.17 mg/l (24 h; Salmo gairdneri (Oncorhynchus mykiss); Anhydrous form)
TLM fish 1	3.8 ppm 24 h; Salmo gairdneri (Oncorhynchus mykiss)
Threshold limit algae 1	0.01 - 0.28,72 h; Selenastrum capricornutum; Anhydrous form
Threshold limit algae 2	0.368 mg/l (72 h; Pseudokirchneriella subcapitata; Anhydrous form)
iron(III) oxide (1309-37-1)	
LC50 fish 1	> 1000 mg/l (48 h; Leuciscus idus; Nominal concentration)
iron(II)sulfate (7720-78-7)	
LC50 fish 1	925 mg/l (96 h; Poecilia reticulata; Heptahydrate)
EC50 Daphnia 1	7.2 mg/l (48 h; Daphnia magna; Metal ion)
LC50 fish 2	100 mg/l (96 h; Oryzias latipes; GLP)
EC50 Daphnia 2	152 mg/l (48 h; Daphnia magna; Heptahydrate)
Threshold limit algae 1	130 mg/l (72 h; Pseudokirchneriella subcapitata; Heptahydrate)
Threshold limit algae 2	3.2 mg/l (72 h; Pseudokirchneriella subcapitata; Heptahydrate)
manganese(II)sulfate (7785-87-7)	
LC50 fish 1	2850 mg/l (96 h; Colisa fasciatus; Manganese ion)
EC50 Daphnia 1	8.28 mg/l (48 h; Daphnia magna)
LC50 fish 2	33.8 mg/l (96 h; Pimephales promelas)
EC50 Daphnia 2	10 mg/l (24 h; Daphnia magna)
Threshold limit algae 1	25.7 mg/l (Phaeodactylum; Growth)
Threshold limit algae 2	61 mg/l (72 h; Desmodesmus subspicatus; GLP)
disodium molybdate (7631-95-0)	
LC50 fish 1	> 1000 mg/l (96 h; Oncorhynchus kisutch; Dihydrate)
EC50 Daphnia 1	330 mg/l (48 h; Daphnia magna; Dihydrate)
LC50 fish 2	7600 mg/l 96 h; Salmo gairdneri (Oncorhynchus mykiss)
Threshold limit algae 1	4.6 mg/l (72 h; Selenastrum capricornutum; Nominal concentration)
Threshold limit algae 2	12.5 mg/l (72 h; Scenedesmus subspicatus; Dihydrate)
zinc oxide (1314-13-2)	
LC50 fish 1	0.59 ppm (96 h; Salmo gairdneri (Oncorhynchus mykiss); Zinc ion)
EC50 Daphnia 1	0.068 mg/l (48 h; Daphnia magna; Zinc ion)
LC50 fish 2	0.14 mg/l (96 h; Oncorhynchus mykiss)
Threshold limit algae 1	0.136 mg/l (72 h; Pseudokirchneriella subcapitata; Zinc ion)
Threshold limit algae 2	< 0.12 mg/l (Algae; Zinc ion)
zinc sulfate (7733-02-0)	
LC50 fish 1	1.7 mg/l (96 h; Poecilia reticulata)

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zinc sulfate (7733-02-0)	
EC50 Daphnia 1	1 mg/l (24 h; Daphnia magna)
LC50 fish 2	2.4 mg/l 96 h; Salmo gairdneri (Oncorhynchus mykiss)
EC50 Daphnia 2	0.56 mg/l (48 h; Daphnia magna)
Threshold limit algae 1	136 µg/l (72 h; Selenastrum capricornutum; Growth rate)
Threshold limit algae 2	24 µg/l (3 days; Selenastrum capricornutum; Growth rate)

calcium oxide (1305-78-8)	
LC50 fish 1	1070 mg/l (96 h; Cyprinus carpio)
EC50 Daphnia 1	159.6 mg/l (24 h; Crustacea)
LC50 fish 2	240 mg/l (24 h; Gambusia affinis)
TLM fish 1	240 ppm (24 h; Gambusia affinis)

silicon dioxide, amorphous (7631-86-9)	
LC50 fish 1	> 10000 mg/l (96 h; Brachydanio rerio)
EC50 Daphnia 1	> 10000 mg/l (24 h; Daphnia magna)
Threshold limit algae 2	60 mg/l (72 h; Selenastrum capricornutum; Growth rate)

12.2. Persistence and degradability

Portland Rose Society Fertilizer 15-10-10	
Persistence and degradability	Not established.

urea (57-13-6)	
Persistence and degradability	Inherently biodegradable. Hydrolysis in water. Not established.
ThOD	0.27 g O ₂ /g substance

Monoammonium Phosphate (7722-76-1)	
Persistence and degradability	Biodegradability in water: no data available. Not established.

potassium chloride (7447-40-7)	
Persistence and degradability	Biodegradability: not applicable. Not established.
Biochemical oxygen demand (BOD)	Not applicable
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
BOD (% of ThOD)	Not applicable

dolomite (16389-88-1)	
Persistence and degradability	Biodegradability: not applicable. Not established.
Biochemical oxygen demand (BOD)	Not applicable
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
BOD (% of ThOD)	Not applicable

ammonium sulfate (7783-20-2)	
Persistence and degradability	Biodegradability in water: no data available. Not established.

Anti-caking agent	
Persistence and degradability	Not established.

Potassium Magnesium Sulfate (13826-56-7)	
Persistence and degradability	Not established.

Sodium Calcium Borate (1319-33-1)	
Persistence and degradability	Not established.

copper(II)oxide (1317-38-0)	
Persistence and degradability	Biodegradability: not applicable. Adsorbs into the soil.
Biochemical oxygen demand (BOD)	Not applicable
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
BOD (% of ThOD)	Not applicable

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copper(II) sulfate, pentahydrate (7758-99-8)	
Persistence and degradability	Biodegradability: not applicable. No (test)data on mobility of the substance available. Not established.
Biochemical oxygen demand (BOD)	Not applicable
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
BOD (% of ThOD)	Not applicable

iron(III) oxide (1309-37-1)	
Persistence and degradability	Biodegradability: not applicable. Adsorbs into the soil. Not established.
Biochemical oxygen demand (BOD)	Not applicable
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
BOD (% of ThOD)	Not applicable

iron(II)sulfate (7720-78-7)	
Persistence and degradability	Biodegradability in water: no data available. No (test)data on mobility of the substance available. Not established.

manganese(II)oxide (1344-43-0)	
Persistence and degradability	Biodegradability: not applicable. Biodegradability in soil: not applicable. Adsorbs into the soil. Not established.
Biochemical oxygen demand (BOD)	Not applicable
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
BOD (% of ThOD)	Not applicable

manganese(II)sulfate (7785-87-7)	
Persistence and degradability	Biodegradability: not applicable. No (test)data on mobility of the substance available. May cause long-term adverse effects in the environment.
ThOD	Not applicable (inorganic)

disodium molybdate (7631-95-0)	
Persistence and degradability	Biodegradability: not applicable. Photolysis in water. Not established.
Biochemical oxygen demand (BOD)	Not applicable
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
BOD (% of ThOD)	Not applicable

zinc oxide (1314-13-2)	
Persistence and degradability	Biodegradability: not applicable. Biodegradability in soil: not applicable. Low potential for adsorption in soil. Not established.
Biochemical oxygen demand (BOD)	Not applicable
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
BOD (% of ThOD)	Not applicable

zinc sulfate (7733-02-0)	
Persistence and degradability	Biodegradability: not applicable. Not established.
Biochemical oxygen demand (BOD)	Not applicable
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
BOD (% of ThOD)	Not applicable

calcium oxide (1305-78-8)	
Persistence and degradability	Biodegradability: not applicable. Not established.
Biochemical oxygen demand (BOD)	Not applicable
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
BOD (% of ThOD)	Not applicable

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silicon dioxide, amorphous (7631-86-9)	
Persistence and degradability	Biodegradability: not applicable. Not established.
Biochemical oxygen demand (BOD)	Not applicable
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
BOD (% of ThOD)	Not applicable

12.3. Bioaccumulative potential

Portland Rose Society Fertilizer 15-10-10	
Bioaccumulative potential	Not established.

urea (57-13-6)	
BCF fish 1	1 (72 h; Brachydanio rerio; Fresh water)
BCF other aquatic organisms 1	11700 (Chlorella sp.)
Log Pow	-2.59 - -1.59
Bioaccumulative potential	Bioaccumulation: not applicable. Not established.

Monoammonium Phosphate (7722-76-1)	
Bioaccumulative potential	Not bioaccumulative. Not established.

potassium chloride (7447-40-7)	
Log Pow	-0.46 (Estimated value)
Bioaccumulative potential	Bioaccumulation: not applicable. Not established.

dolomite (16389-88-1)	
Bioaccumulative potential	No bioaccumulation data available. Not established.

ammonium sulfate (7783-20-2)	
Log Pow	-5.1
Bioaccumulative potential	Bioaccumulation: not applicable. Not established.

Anti-caking agent	
Bioaccumulative potential	Not established.

Potassium Magnesium Sulfate (13826-56-7)	
Bioaccumulative potential	Not established.

Sodium Calcium Borate (1319-33-1)	
Bioaccumulative potential	Not established.

copper(II) sulfate, pentahydrate (7758-99-8)	
Bioaccumulative potential	Bioaccumable. Not established.

iron(III) oxide (1309-37-1)	
Bioaccumulative potential	No bioaccumulation data available. Not established.

iron(II)sulfate (7720-78-7)	
BCF fish 1	2 - 20 (28 days; Cyprinus carpio; Heptahydrate)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500). Not established.

manganese(II)oxide (1344-43-0)	
Bioaccumulative potential	No bioaccumulation data available. Not established.

manganese(II)sulfate (7785-87-7)	
Bioaccumulative potential	No bioaccumulation data available. Not established.

disodium molybdate (7631-95-0)	
BCF fish 1	4.9 (28 days; Oncorhynchus tshawytscha)
BCF other aquatic organisms 1	164.3 (Mollusca)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500). Not established.

zinc oxide (1314-13-2)	
Log Pow	1.53 (Estimated value)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4). Not established.

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zinc sulfate (7733-02-0)	
BCF fish 1	59 - 242 (Cyprinus carpio; Test duration: 8 weeks)
Bioaccumulative potential	Bioaccumable. Not established.

calcium oxide (1305-78-8)	
Bioaccumulative potential	Not bioaccumulative. Not established.

silicon dioxide, amorphous (7631-86-9)	
Bioaccumulative potential	Not bioaccumulative. Not established.

12.4. Mobility in soil

copper(II) sulfate, pentahydrate (7758-99-8)	
Ecology - soil	Toxic to flora.

12.5. Other adverse effects

Effect on ozone layer : No additional information available
Effect on the global warming : No known ecological damage caused by this product.
Other information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.
Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

In accordance with DOT
Not regulated for transport

Additional information

Other information : No supplementary information available.

ADR

Transport document description :

Transport by sea

No additional information available

Air transport

No additional information available

SECTION 15: Regulatory information

15.1. US Federal regulations

Portland Rose Society Fertilizer 15-10-10		
Not listed on the United States TSCA (Toxic Substances Control Act) inventory		
All components of this product are listed on the Toxic Substances Control Act (TSCA) inventory except for:		
Anti-caking agent	CAS No	C \geq 0.0102% ; C \leq 2.56%
Potassium Magnesium Sulfate	CAS No 13826-56-7	12.60%
Sodium Calcium Borate	CAS No 1319-33-1	0.777%
copper(II) sulfate, pentahydrate	CAS No 7758-99-8	0.148%

This product or mixture does not contain a toxic chemical or chemicals in excess of the applicable de minimis concentration as specified in 40 CFR §372.38(a) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

Potassium Magnesium Sulfate (13826-56-7)	
Not listed on the United States TSCA (Toxic Substances Control Act) inventory	

Sodium Calcium Borate (1319-33-1)	
Not listed on the United States TSCA (Toxic Substances Control Act) inventory	

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copper(II) sulfate, pentahydrate (7758-99-8)

Not listed on the United States TSCA (Toxic Substances Control Act) inventory

iron(II)sulfate (7720-78-7)

Not listed on SARA Section 313 (Specific toxic chemical listings)

RQ (Reportable quantity, section 304 of EPA's List of Lists) :	1000 lb
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zinc sulfate (7733-02-0)

Listed on United States SARA Section 313

RQ (Reportable quantity, section 304 of EPA's List of Lists) :	1000 lb
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15.2. International regulations

CANADA

No additional information available

EU-Regulations

No additional information available

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Classification according to Directive 67/548/EEC or 1999/45/EC

Not classified

15.2.2. National regulations

No additional information available

15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer and/or reproductive harm

iron(III) oxide (1309-37-1)

U.S. - New Jersey - Right to Know Hazardous Substance List

iron(II)sulfate (7720-78-7)

U.S. - Massachusetts - Right To Know List
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) List

zinc oxide (1314-13-2)

U.S. - New Jersey - Right to Know Hazardous Substance List

zinc sulfate (7733-02-0)

U.S. - Massachusetts - Right To Know List
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) List

calcium oxide (1305-78-8)

U.S. - New Jersey - Right to Know Hazardous Substance List

SECTION 16: Other information

Data sources

:
: REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labeling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

Other information

: None.

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Full text of H-phrases: see section 16:

Acute Tox. 3 (Oral)	Acute toxicity (oral) Category 3
Acute Tox. 4 (Oral)	Acute toxicity (oral) Category 4
Aquatic Acute 1	Hazardous to the aquatic environment - Acute Hazard Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment - Chronic Hazard Category 1
Eye Dam. 1	Serious eye damage/eye irritation Category 1
Eye Irrit. 2A	Serious eye damage/eye irritation Category 2A
Eye Irrit. 2B	Serious eye damage/eye irritation Category 2B
Skin Corr. 1C	Skin corrosion/irritation Category 1C
Skin Irrit. 2	Skin corrosion/irritation Category 2
STOT RE 2	Specific target organ toxicity (repeated exposure) Category 2
STOT SE 3	Specific target organ toxicity (single exposure) Category 3
H301	Toxic if swallowed
H302	Harmful if swallowed
H314	Causes severe skin burns and eye damage
H315	Causes skin irritation
H318	Causes serious eye damage
H319	Causes serious eye irritation
H320	Causes eye irritation
H335	May cause respiratory irritation
H373	May cause damage to organs through prolonged or repeated exposure
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects

SDS US (GHS HazCom 2012)

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