

Simplot Grower Solutions 6.5% Zinc 4-0-0

Safety Data Sheet

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

SECTION 1: Identification

1.1. Identification

Product form : Mixture
Product name : Simplot Grower Solutions 6.5% Zinc 4-0-0
Product code : M67121

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

No additional information available

1.3. Details of the supplier of the safety data sheet

JR Simplot Company
P.O. Box 70013
Boise, ID 83707
T 1-208-336-2110

1.4. Emergency telephone number

Emergency number : CHEMTREC 1-800-424-9300

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS-US classification

Acute toxicity (oral), Category 4 H302
Serious eye damage/eye irritation, Category 2B H320
Full text of H statements : see section 16

2.2. Label elements

GHS-US labelling

Hazard pictograms (GHS-US) :



GHS07

Signal word (GHS-US) : Warning
Hazard statements (GHS-US) : H302 - Harmful if swallowed
H320 - Causes eye irritation
H312 - Harmful in contact with skin
Precautionary statements (GHS-US) : P261 - Avoid breathing dust/fume/gas/mist/vapours/spray
P273 - Avoid release to the environment
P280 - Wear protective gloves/protective clothing/eye protection/face protection
P337+P313 - If eye irritation persists: Get medical attention
P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P302+P352 - If on skin: Wash with plenty of water/...
P101 - If medical advice is needed, have product container or label at hand
P102 - Keep out of reach of children
P103 - Read label before use

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

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3.2. Mixture

Name	Product identifier	%	GHS-US classification
Water	(CAS No) 7732-18-5		Not classified
Humic Acids	(CAS No) 1415-93-6		Acute Tox. 3 (Oral), H301
zinc sulfate	(CAS No) 7733-02-0		Acute Tox. 4 (Oral), H302 Eye Dam. 1, H318
diammonium hydrogen citrate	(CAS No) 3012-65-5		Not classified
zinc oxide	(CAS No) 1314-13-2		Aquatic Acute 1, H400 Aquatic Chronic 1, H410

Full text of H-statements: see section 16

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 : Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
- 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 : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention. Call a POISON CENTER or doctor/physician if you feel unwell.

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

- Symptoms/injuries after inhalation : May cause respiratory irritation.
- Symptoms/injuries after eye contact : Causes eye irritation.
- Symptoms/injuries after ingestion : Swallowing a small quantity of this material will result in serious health hazard.

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.

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 : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.

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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 vapour. Avoid breathing dust/fume/gas/mist/vapours/spray. Use only outdoors or in a well-ventilated area.
- Hygiene measures : Do not eat, drink or smoke when using this product. Wash hands, forearms and face thoroughly after handling.

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 tightly closed.
- Incompatible products : Strong bases. Strong acids.
- Incompatible materials : Sources of ignition. Direct sunlight.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Water (7732-18-5)		
Not applicable		
Humic Acids (1415-93-6)		
Not applicable		
zinc sulfate (7733-02-0)		
Not applicable		
diammonium hydrogen citrate (3012-65-5)		
Not applicable		
zinc oxide (1314-13-2)		
ACGIH	ACGIH TWA (mg/m ³)	2 mg/m ³
ACGIH	ACGIH STEL (mg/m ³)	10 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 : Liquid
- Colour : Black
- Odour : Odorless
- Odour threshold : No data available
- pH : 8.6
- Melting point : No data available
- Freezing point : No data available
- Boiling point : 100 °C (212 Degrees F)
- Flash point : No data available
- Relative evaporation rate (butylacetate=1) : No data available
- Flammability (solid, gas) : No data available

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Explosive limits	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Vapour pressure	: 23 hPa (17 mm Hg) (@ 20 Degrees C/68 Degrees F)
Relative density	: No data available
Relative vapour density at 20 °C	: No data available
Density	: 1.415 g/m ³ (11.808 lbs/gal)
Solubility	: Water: Solubility in water of component(s) of the mixture : • zinc oxide: 0.00029 g/100ml • zinc sulfate: > 54 g/100ml • diammonium hydrogen citrate: 50 g/100ml
Log Pow	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: 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

Not established.

10.3. Possibility of hazardous reactions

Not established.

10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures.

10.5. Incompatible materials

Strong acids. Strong bases.

10.6. Hazardous decomposition products

fume. Carbon monoxide. Carbon dioxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Oral: Harmful if swallowed.

Simplot Grower Solutions 6.5% Zinc 4-0-0	
ATE US (oral)	1110.000 mg/kg bodyweight
Humic Acids (1415-93-6)	
LD50 oral rat	111 mg/kg
ATE US (oral)	111.000 mg/kg bodyweight
zinc sulfate (7733-02-0)	
LD50 oral rat	1000 - 2000 mg/kg (Rat)
ATE US (oral)	1000.000 mg/kg bodyweight
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

Skin corrosion/irritation : Not classified
pH: 8.6

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Serious eye damage/irritation	: Causes eye irritation. pH: 8.6
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
Specific target organ toxicity (single exposure)	: Not classified
Specific target organ toxicity (repeated exposure)	: Not classified
Aspiration hazard	: Not classified
Potential adverse human health effects and symptoms	: Based on available data, the classification criteria are not met. Harmful if swallowed.
Symptoms/injuries after inhalation	: May cause respiratory irritation.
Symptoms/injuries after eye contact	: Causes eye irritation.
Symptoms/injuries after ingestion	: Swallowing a small quantity of this material will result in serious health hazard.

SECTION 12: Ecological information

12.1. Toxicity

zinc sulfate (7733-02-0)	
LC50 fish 1	1.7 mg/l (96 h; <i>Poecilia reticulata</i>)
EC50 Daphnia 1	1 mg/l (24 h; <i>Daphnia magna</i>)
LC50 fish 2	2.4 mg/l 96 h; <i>Salmo gairdneri</i> (<i>Oncorhynchus mykiss</i>)
EC50 Daphnia 2	0.56 mg/l (48 h; <i>Daphnia magna</i>)
Threshold limit algae 1	136 µg/l (72 h; <i>Selenastrum capricornutum</i> ; Growth rate)
Threshold limit algae 2	24 µg/l (3 days; <i>Selenastrum capricornutum</i> ; Growth rate)
zinc oxide (1314-13-2)	
LC50 fish 1	0.59 ppm (96 h; <i>Salmo gairdneri</i> (<i>Oncorhynchus mykiss</i>); Zinc ion)
EC50 Daphnia 1	0.068 mg/l (48 h; <i>Daphnia magna</i> ; Zinc ion)
LC50 fish 2	0.14 mg/l (96 h; <i>Oncorhynchus mykiss</i>)
Threshold limit algae 1	0.136 mg/l (72 h; <i>Pseudokirchneriella subcapitata</i> ; Zinc ion)
Threshold limit algae 2	< 0.12 mg/l (Algae; Zinc ion)

12.2. Persistence and degradability

Simplot Grower Solutions 6.5% Zinc 4-0-0	
Persistence and degradability	Not established.
Water (7732-18-5)	
Persistence and degradability	Not established.
Humic Acids (1415-93-6)	
Persistence and degradability	Not established.
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
diammonium hydrogen citrate (3012-65-5)	
Persistence and degradability	Biodegradable in water.

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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

12.3. Bioaccumulative potential

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Bioaccumulative potential	Not established.
Water (7732-18-5)	
Bioaccumulative potential	Not established.
Humic Acids (1415-93-6)	
Bioaccumulative potential	Not established.
zinc sulfate (7733-02-0)	
BCF fish 1	59 - 242 (Cyprinus carpio; Test duration: 8 weeks)
Bioaccumulative potential	Bioaccumable. Not established.
diammonium hydrogen citrate (3012-65-5)	
Log Pow	-2.84 (Estimated value)
Bioaccumulative potential	Bioaccumulation: not applicable.
zinc oxide (1314-13-2)	
Log Pow	1.53 (Estimated value)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4). Not established.

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

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. Dispose of contents/container to ..

Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

Not regulated for transport

TDG

No additional information available

Transport by sea

No additional information available

Air transport

No additional information available

SECTION 15: Regulatory information

15.1. US Federal regulations

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All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory except for:

diammonium hydrogen citrate	CAS No 3012-65-5	%
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Chemical(s) subject to the reporting requirements of Section 313 or Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372.

zinc sulfate	CAS No 7733-02-0	%
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zinc sulfate (7733-02-0)	
CERCLA RQ	1000 lb

15.2. International regulations

CANADA

No additional information available

EU-Regulations

No additional information available

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, developmental and/or reproductive harm

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

zinc oxide (1314-13-2)
U.S. - New Jersey - Right to Know Hazardous Substance List

SECTION 16: Other information

Other information : None.

Full text of H-statements:

H301	Toxic if swallowed
H302	Harmful if swallowed
H318	Causes serious eye damage
H320	Causes eye irritation
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects

SDS US (GHS HazCom 2012)

Disclaimer: This information relates to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is to the best of our knowledge and belief, accurate and reliable as of the date compiled. However, no representation, warranty or guarantee is made as to its accuracy, reliability or completeness. NO WARRANTY OF MERCHANTABILITY, FITNESS FOR ANY PARTICULAR PURPOSE, OR ANY OTHER WARRANTY, EXPRESS OR IMPLIED, IS MADE CONCERNING THE INFORMATION HEREIN PROVIDED. It is the user's responsibility to satisfy himself as to the suitability and completeness of such information for his own particular use. We do not accept liability for any loss or damage that may occur from the use of this information nor do we offer warranty against patent infringement.