

# Simplot 28-0-10 Contains BOLT™, SOP & Micros

## 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 28-0-10 Contains BOLT™, SOP & Micros  
Product code : M80244

#### 1.2. Recommended use and restrictions on use

Recommended use : Fertilizers

#### 1.3. Supplier

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

Serious eye damage/eye irritation, Category 2B	H320	Causes eye irritation
Carcinogenicity, Category 1A	H350	May cause cancer
Reproductive toxicity, Category 2	H361	Suspected of damaging fertility or the unborn child

Full text of H statements : see section 16

#### 2.2. GHS Label elements, including precautionary statements

##### GHS-US labelling

Hazard pictograms (GHS-US) :



Signal word (GHS-US) : Danger

Hazard statements (GHS-US) : H320 - Causes eye irritation  
H350 - May cause cancer  
H361 - Suspected of damaging fertility or the unborn child

Precautionary statements (GHS-US) : P201 - Obtain special instructions before use  
P202 - Do not handle until all safety precautions have been read and understood  
P264 - Wash clothing, Any exposed skin thoroughly after handling  
P280 - Wear eye protection, face protection, protective clothing, protective gloves  
P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
P308+P313 - If exposed or concerned: Get medical attention  
P337+P313 - If eye irritation persists: Get medical attention  
P405 - Store locked up  
P501 - Dispose of contents/container to ...in accordance with local/regional/national regulations

#### 2.3. Other hazards which do not result in classification

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
quartz	(CAS No) 14808-60-7		Eye Irrit. 2B, H320 Carc. 1A, H350 STOT SE 3, H335 STOT RE 2, H373
calcium oxide	(CAS No) 1305-78-8		Skin Corr. 1C, H314 Eye Dam. 1, H318 STOT SE 3, H335
copper(II) sulfate, pentahydrate	(CAS No) 7758-99-8		Acute Tox. 3 (Oral), H301 Skin Irrit. 2, H315 Eye Irrit. 2B, H320
iron(II)sulfate	(CAS No) 7720-78-7		Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315
zinc sulfate	(CAS No) 7733-02-0		Acute Tox. 4 (Oral), H302 Eye Dam. 1, H318
manganese(II)sulfate	(CAS No) 7785-87-7		STOT RE 2, H373
Proprietary			Not classified

\*Chemical name, CAS number and/or exact concentration have been withheld as a trade secret

Full text of hazard classes and 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 exposed or concerned: Get medical advice/attention.
First-aid measures after inhalation	: Allow breathing of fresh air. 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	: 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.

### 4.2. Most important symptoms and effects (acute and delayed)

Potential adverse human health effects and symptoms	: Based on available data, the classification criteria are not met.
Symptoms/injuries	: Suspected of damaging fertility or the unborn child.
Symptoms/injuries after inhalation	: May cause cancer by inhalation.
Symptoms/injuries after eye contact	: Causes eye irritation.

### 4.3. Immediate medical attention and special treatment, if necessary

No additional information available

## SECTION 5: Fire-fighting measures

### 5.1. Suitable (and unsuitable) 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. Specific hazards arising from the chemical

No additional information available

### 5.3. Special protective equipment and precautions for fire-fighters

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.
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#### 6.1.2. For emergency responders

Protective equipment	: Equip cleanup crew with proper protection.
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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 vapour. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood.

### 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.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

Proprietary		
Not applicable		
copper(II) sulfate, pentahydrate (7758-99-8)		
Not applicable		
iron(II)sulfate (7720-78-7)		
ACGIH	ACGIH TWA (mg/m <sup>3</sup> )	1 mg/m <sup>3</sup>
manganese(II)sulfate (7785-87-7)		
ACGIH	ACGIH TWA (mg/m <sup>3</sup> )	0.1 mg/m <sup>3</sup>
zinc sulfate (7733-02-0)		
Not applicable		
calcium oxide (1305-78-8)		
ACGIH	ACGIH TWA (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup>
quartz (14808-60-7)		
ACGIH	ACGIH TWA (mg/m <sup>3</sup> )	0.025 R

### 8.2. Appropriate engineering controls

No additional information available

### 8.3. Individual protection measures/Personal protective equipment

#### Personal protective equipment:

Avoid all unnecessary exposure.

#### Hand protection:

Wear protective gloves

#### Eye protection:

Chemical goggles or safety glasses

#### Respiratory protection:

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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	: Granule.
Colour	: Multi-colored
Odour	: characteristic
Odour threshold	: No data available
pH	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Flammability (solid, gas)	: Non flammable.
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Density	: 60.9 LBS/ FT3
Solubility	: No data available
Log Pow	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive limits	: No data available
Explosive properties	: No data available
Oxidising properties	: 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 : Not classified

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<b>copper(II) sulfate, pentahydrate (7758-99-8)</b>	
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 mg/kg bodyweight
<b>iron(II)sulfate (7720-78-7)</b>	
LD50 oral rat	319 mg/kg (Rat; Literature)
ATE US (oral)	319 mg/kg bodyweight
<b>manganese(II)sulfate (7785-87-7)</b>	
LD50 oral rat	2150 mg/kg (Rat; Experimental value)
ATE US (oral)	2150 mg/kg bodyweight
<b>zinc sulfate (7733-02-0)</b>	
LD50 oral rat	1000 - 2000 mg/kg (Rat)
ATE US (oral)	1000 mg/kg bodyweight
<b>calcium oxide (1305-78-8)</b>	
LD50 oral rat	> 2000 mg/kg bodyweight (Rat; OECD 425: Acute Oral Toxicity: Up-and-Down Procedure; Experimental value)
LD50 dermal rabbit	> 2500 mg/kg bodyweight (Rabbit; Experimental value; OECD 402: Acute Dermal Toxicity)

Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Causes eye irritation.
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: May cause cancer.

<b>quartz (14808-60-7)</b>	
IARC group	1 - Carcinogenic to humans
Reproductive toxicity	: Suspected of damaging fertility or the unborn child.
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.
Symptoms/injuries	: Suspected of damaging fertility or the unborn child.
Symptoms/injuries after inhalation	: May cause cancer by inhalation.
Symptoms/injuries after eye contact	: Causes eye irritation.

## SECTION 12: Ecological information

### 12.1. Toxicity

<b>copper(II) sulfate, pentahydrate (7758-99-8)</b>	
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)
<b>iron(II)sulfate (7720-78-7)</b>	
LC50 fish 1	925 mg/l (96 h; Poecilia reticulata; Heptahydrate)
EC50 Daphnia 1	7.2 mg/l (48 h; Daphnia magna; Metal ion)

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<b>iron(II)sulfate (7720-78-7)</b>	
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)
<b>manganese(II)sulfate (7785-87-7)</b>	
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)
<b>zinc sulfate (7733-02-0)</b>	
LC50 fish 1	1.7 mg/l (96 h; Poecilia reticulata)
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)
<b>calcium oxide (1305-78-8)</b>	
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)
Threshold limit algae 1	184.57 mg/l (72 h; Pseudokirchneriella subcapitata; Growth rate)

### 12.2. Persistence and degradability

<b>Simplot 28-0-10 Contains BOLT™, SOP &amp; Micros</b>	
Persistence and degradability	Not established.
<b>Proprietary</b>	
Persistence and degradability	Not established.
<b>copper(II) sulfate, pentahydrate (7758-99-8)</b>	
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
<b>iron(II)sulfate (7720-78-7)</b>	
Persistence and degradability	Biodegradability in water: no data available. No (test)data on mobility of the substance available. Not established.
<b>manganese(II)sulfate (7785-87-7)</b>	
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)
<b>zinc sulfate (7733-02-0)</b>	
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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<b>calcium oxide (1305-78-8)</b>	
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
<b>quartz (14808-60-7)</b>	
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

<b>Simplot 28-0-10 Contains BOLT™, SOP &amp; Micros</b>	
Bioaccumulative potential	Not established.
<b>Proprietary</b>	
Bioaccumulative potential	Not established.
<b>copper(II) sulfate, pentahydrate (7758-99-8)</b>	
Bioaccumulative potential	Bioaccumable. Not established.
<b>iron(II)sulfate (7720-78-7)</b>	
BCF fish 1	2 - 20 (28 days; Cyprinus carpio; Heptahydrate)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500). Not established.
<b>manganese(II)sulfate (7785-87-7)</b>	
Bioaccumulative potential	No bioaccumulation data available. Not established.
<b>zinc sulfate (7733-02-0)</b>	
BCF fish 1	59 - 242 (Cyprinus carpio; Test duration: 8 weeks)
Bioaccumulative potential	Bioaccumable. Not established.
<b>calcium oxide (1305-78-8)</b>	
Bioaccumulative potential	Not bioaccumulative. Not established.
<b>quartz (14808-60-7)</b>	
Log Pow	Not applicable
Bioaccumulative potential	No bioaccumulation data available. Not established.

### 12.4. Mobility in soil

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

### 12.5. Other adverse effects

Effect on the global warming : No known effects from this product.  
 GWPmix comment : No known effects from this product.

Other information : Avoid release to the environment.

## SECTION 13: Disposal considerations

### 13.1. Disposal methods

Product/Packaging 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.

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### SECTION 14: Transport information

#### Department of Transportation (DOT)

In accordance with DOT

Not applicable

#### TDG

Not applicable

#### Transport by sea

Not applicable

#### Air transport

Not applicable

### SECTION 15: Regulatory information

#### 15.1. US Federal regulations

##### Simplot 28-0-10 Contains BOLT™, SOP & Micros

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

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:

Proprietary	CAS No	%
copper(II) sulfate, pentahydrate	CAS No 7758-99-8	%

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

CERCLA RQ 1000 lb

##### zinc sulfate (7733-02-0)

CERCLA RQ 1000 lb

#### 15.2. International regulations

##### CANADA

###### Proprietary

Not listed on the Canadian DSL (Domestic Substances List)/NDSL (Non-Domestic Substances List)

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

Listed on the Canadian DSL (Domestic Substances List)

###### manganese(II)sulfate (7785-87-7)

Listed on the Canadian DSL (Domestic Substances List)

#### EU-Regulations

No additional information available

#### National regulations

##### quartz (14808-60-7)

Listed on IARC (International Agency for Research on Cancer)

#### 15.3. US State regulations



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

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

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

### quartz (14808-60-7)

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
H314	Causes severe skin burns and eye damage
H315	Causes skin irritation
H318	Causes serious eye damage
H320	Causes eye irritation
H335	May cause respiratory irritation
H350	May cause cancer
H361	Suspected of damaging fertility or the unborn child
H373	May cause damage to organs through prolonged or repeated exposure

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.*