

# Super Cal Formula 15-0-15

## 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 : Super Cal Formula 15-0-15  
Product code : M21424

#### 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)

Eye Irrit. 2B H320

Full text of H-phrases: see section 16

#### 2.2. Label elements

##### GHS-US labeling

Signal word (GHS-US) : Warning  
Hazard statements (GHS-US) : H320 - Causes eye irritation  
Precautionary statements (GHS-US) : P264 - Wash ... thoroughly after handling  
P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
P337 + P313 - If eye irritation persists: Get medical advice/attention

#### 2.3. Other hazards

No additional information available

#### 2.4. Unknown acute toxicity (GHS-US)

No data available

### SECTION 3: Composition/information on ingredients

#### 3.1. Substance

Not applicable

#### 3.2. Mixture

Name	Product identifier	%	Classification (GHS-US)
calcium nitrate, anhydrous	(CAS No) 10124-37-5		Not classified
potassium nitrate	(CAS No) 7757-79-1		Eye Irrit. 2B, H320
ammonium nitrate	(CAS No) 6484-52-2		Eye Irrit. 2B, H320
magnesium nitrate, hexahydrate, not oxidizing	(CAS No) 13446-18-9		Not classified
citric acid	(CAS No) 77-92-9		Skin Irrit. 2, H315 Eye Irrit. 2A, H319
edta iron(iii) sodium salt	(CAS No) 15708-41-5		Skin Irrit. 2, H315 Eye Irrit. 2A, H319 STOT SE 3, H335
Manganese EDTA	(CAS No) 55448-20-9		Not classified
Copper EDTA	(CAS No) 14025-15-1		Not classified
Zinc EDTA	(CAS No) 14025-21-9		Not classified
disodium molybdate	(CAS No) 7631-95-0		Not classified

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### 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.
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#### 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.
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##### 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.
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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 vapor.
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#### 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

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### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

##### disodium molybdate (7631-95-0)

USA ACGIH	ACGIH TWA (mg/m <sup>3</sup> )	0.5 mg/m <sup>3</sup>
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##### edta iron(iii) sodium salt (15708-41-5)

USA ACGIH	ACGIH TWA (mg/m <sup>3</sup> )	1 mg/m <sup>3</sup>
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#### 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 : Pale blue powder.  
Color : Blue  
Odor : characteristic  
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 :  
•: 190 g/100ml •: 121 g/100ml •: 32 g/100ml •: 120 g/100ml •: 100 g/100ml •: 59 g/100ml •: < 10 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.

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### 10.3. Possibility of hazardous reactions

Not established.

### 10.4. Conditions to avoid

Extremely high temperatures. This product is not flammable matter, but metallic fume and ammonia fume can be released under intense heat. Direct sunlight. Extremely high or low temperatures.

### 10.5. Incompatible materials

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

### 10.6. Hazardous decomposition products

Extremely high temperatures. The product may reach melting point and decompose to release NH<sub>3</sub>, SO<sub>x</sub>, PO<sub>x</sub>, or CN. fume. Carbon monoxide. Carbon dioxide.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity : Not classified

<b>ammonium nitrate (6484-52-2)</b>	
LD50 oral rat	4820 mg/kg (Rat)
LD50 dermal rabbit	> 3000 mg/kg (Rabbit)
ATE US (oral)	4820.00000000 mg/kg body weight

<b>magnesium nitrate, hexahydrate, not oxidizing (13446-18-9)</b>	
LD50 oral rat	5440 mg/kg (Rat)
ATE US (oral)	5440.00000000 mg/kg body weight

<b>potassium nitrate (7757-79-1)</b>	
LD50 oral rat	3750 mg/kg (Rat)
LD50 dermal rat	> 5000 mg/kg
ATE US (oral)	3750.00000000 mg/kg body weight

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

<b>edta iron(iii) sodium salt (15708-41-5)</b>	
LD50 oral rat	5000 mg/kg (Rat)
ATE US (oral)	5000.00000000 mg/kg body weight

<b>citric acid (77-92-9)</b>	
LD50 oral rat	3000 mg/kg (Rat; Literature study)
ATE US (oral)	3000.00000000 mg/kg body weight

Skin corrosion/irritation	: Not classified
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
Reproductive toxicity	: Not classified Based on available data, the classification criteria are not met
Specific target organ toxicity (single exposure)	: Not classified
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

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Potential Adverse human health effects and symptoms : Based on available data, the classification criteria are not met.

### SECTION 12: Ecological information

#### 12.1. Toxicity

<b>ammonium nitrate (6484-52-2)</b>	
LC50 fish 1	74 mg/l (48 h; Cyprinus carpio; Lethal)
EC50 Daphnia 1	555 mg/l (Daphnia magna)
LC50 fish 2	800 mg/l (3.9 h; Pisces)
TLM fish 1	100 - 1000,96 h; Pisces
TLM other aquatic organisms 1	100 - 1000,96 h
Threshold limit algae 1	83 mg/l (Scenedesmus quadricauda; Growth rate)

<b>calcium nitrate,anhydrous (10124-37-5)</b>	
LC50 fish 1	10000 mg/l (96 h; Pisces)
LC50 fish 2	10000 mg/l (96 h; Lepomis macrochirus)

<b>potassium nitrate (7757-79-1)</b>	
LC50 fish 1	162 mg/l (96 h; Pisces; Lethal)
LC50 other aquatic organisms 1	39 mg/l (96 h; Daphnia magna)
EC50 other aquatic organisms 1	200 - 1000 mg/l (Plankton; Nocivity test)
LC50 fish 2	1378 mg/l (Poecilia reticulata)
LC50 other aquatic organisms 2	490 mg/l (48 h; Daphnia magna)
TLM fish 1	3000 mg/l (96 h; Lepomis macrochirus)
TLM fish 2	162 mg/l (96 h; Gambusia affinis)
Threshold limit other aquatic organisms 1	39 mg/l (96 h; Daphnia magna)
Threshold limit other aquatic organisms 2	490 mg/l (48 h; Daphnia magna)

<b>disodium molybdate (7631-95-0)</b>	
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)

<b>edta iron(iii) sodium salt (15708-41-5)</b>	
LC50 fish 1	2592 mg/l (96 h; Pisces)

<b>citric acid (77-92-9)</b>	
LC50 fish 1	2600 mg/l (48 h; Leuciscus idus; pH = 7)
EC50 Daphnia 1	120 mg/l (72 h; Daphnia magna; pH < 7)
LC50 fish 2	1516 mg/l (96 h; Lepomis macrochirus)
EC50 Daphnia 2	85 mg/l (Daphnia magna)
Threshold limit algae 1	80 mg/l (192 h; Microcystis aeruginosa; Reproduction)
Threshold limit algae 2	640 mg/l (168 h; Scenedesmus quadricauda)

#### 12.2. Persistence and degradability

<b>Super Cal Formula 15-0-15</b>	
Persistence and degradability	Not established.

<b>ammonium nitrate (6484-52-2)</b>	
Persistence and degradability	Biodegradable in water. Biodegradable in the soil. Not established.

<b>calcium nitrate,anhydrous (10124-37-5)</b>	
Persistence and degradability	Biodegradable in the soil. 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>magnesium nitrate, hexahydrate, not oxidizing (13446-18-9)</b>	
Persistence and degradability	Biodegradability: not applicable.
Biochemical oxygen demand (BOD)	Not applicable
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
BOD (% of ThOD)	Not applicable

<b>potassium nitrate (7757-79-1)</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>disodium molybdate (7631-95-0)</b>	
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

<b>Copper EDTA (14025-15-1)</b>	
Persistence and degradability	Not established.

<b>Zinc EDTA (14025-21-9)</b>	
Persistence and degradability	Non degradable in the soil. Adsorbs into the soil. Not established.

<b>Manganese EDTA (55448-20-9)</b>	
Persistence and degradability	Not established.

<b>edta iron(iii) sodium salt (15708-41-5)</b>	
Persistence and degradability	Biodegradable in water. Not established.

<b>citric acid (77-92-9)</b>	
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil. Not established.
Biochemical oxygen demand (BOD)	0.420 g O <sub>2</sub> /g substance
Chemical oxygen demand (COD)	0.728 g O <sub>2</sub> /g substance
ThOD	0.686 g O <sub>2</sub> /g substance
BOD (% of ThOD)	(20 day(s)) 0.89

### 12.3. Bioaccumulative potential

<b>Super Cal Formula 15-0-15</b>	
Bioaccumulative potential	Not established.

<b>ammonium nitrate (6484-52-2)</b>	
Log Pow	-3.1
Bioaccumulative potential	Bioaccumulation: not applicable. Not established.

<b>calcium nitrate,anhydrous (10124-37-5)</b>	
Bioaccumulative potential	Not bioaccumulative. Not established.

<b>magnesium nitrate, hexahydrate, not oxidizing (13446-18-9)</b>	
Log Pow	-0.61 (Estimated value)
Bioaccumulative potential	Bioaccumulation: not applicable.

<b>potassium nitrate (7757-79-1)</b>	
Bioaccumulative potential	No bioaccumulation data available. Not established.

<b>disodium molybdate (7631-95-0)</b>	
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.

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<b>Copper EDTA (14025-15-1)</b>	
Bioaccumulative potential	Not established.
<b>Zinc EDTA (14025-21-9)</b>	
Bioaccumulative potential	No bioaccumulation data available. Not established.
<b>Manganese EDTA (55448-20-9)</b>	
Bioaccumulative potential	Not established.
<b>edta iron(iii) sodium salt (15708-41-5)</b>	
Log Pow	-10.6
Bioaccumulative potential	Bioaccumulation: not applicable. Not established.
<b>citric acid (77-92-9)</b>	
Log Pow	-1.72 (Experimental value)
Bioaccumulative potential	Bioaccumulation: not applicable. Not established.

### 12.4. Mobility in soil

No additional information available

### 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

All components of this product are listed on the Toxic Substances Control Act (TSCA) inventory except for:

magnesium nitrate, hexahydrate, not oxidizing	CAS No 13446-18-9
Manganese EDTA	CAS No 55448-20-9

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.

<b>magnesium nitrate, hexahydrate, not oxidizing (13446-18-9)</b>	
Not listed on the United States TSCA (Toxic Substances Control Act) inventory	
<b>Manganese EDTA (55448-20-9)</b>	
Not listed on the United States TSCA (Toxic Substances Control Act) inventory	

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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

#### ammonium nitrate (6484-52-2)

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

#### calcium nitrate,anhydrous (10124-37-5)

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

#### potassium nitrate (7757-79-1)

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.

Full text of H-phrases: see section 16:

Eye Irrit. 2A	Serious eye damage/eye irritation Category 2A
Eye Irrit. 2B	Serious eye damage/eye irritation Category 2B
Skin Irrit. 2	Skin corrosion/irritation Category 2
STOT SE 3	Specific target organ toxicity (single exposure) Category 3
H315	Causes skin irritation
H319	Causes serious eye irritation
H320	Causes eye irritation
H335	May cause respiratory irritation

SDS US (GHS HazCom 2012)

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