

### SECTION 1: Identification

#### 1.1. Identification

Product form : Mixture  
 Product name : Best Short-Kut 24 24-4-9 with X-cote  
 Product code : M74367

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

Use of the substance/mixture : Fertilizer

#### 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

Skin corrosion/irritation, Category 2	H315 Causes skin irritation.
Serious eye damage/eye irritation, Category 2B	H320 Causes eye irritation
Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation	H335 May cause respiratory irritation.

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) : 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/vapours/spray.  
 P264 - Wash hands, forearms and face 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 supplemental first aid instruction on this label)  
 P332+P313 - If skin irritation occurs: Get medical attention  
 P337+P313 - If eye irritation persists: Get medical attention  
 P362 - Take off contaminated clothing.  
 P403+P233 - Store in a well-ventilated place. Keep container tightly closed.  
 P405 - Store locked up.  
 P501 - Dispose of contents/container to ... in accordance with local/regional/national/international regulations

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

No additional information available

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

Not applicable

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

Name	Product identifier	%	GHS-US classification
urea	(CAS-No.) 57-13-6		Skin Irrit. 2, H315 Eye Irrit. 2B, H320 STOT SE 3, H335
ammonium sulfate	(CAS-No.) 7783-20-2		Eye Irrit. 2B, H320 STOT SE 3, H335
potassium sulfate	(CAS-No.) 7778-80-5		Not classified
Polymer Coating			Not classified
Monoammonium Phosphate	(CAS-No.) 7722-76-1		Eye Irrit. 2B, H320 STOT SE 3, H335
Iron Oxysulfate			Eye Irrit. 2B, H320
sulfur	(CAS-No.) 7704-34-9		Skin Irrit. 2, H315 Eye Irrit. 2B, H320
Manganese Oxysulfate			Eye Irrit. 2B, H320
Wax	(CAS-No.) 64771-72-8		Not classified
Sand			STOT SE 3, H335

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 you feel unwell, seek medical advice (show the label where possible).
- First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell.
- First-aid measures after skin contact : Wash with plenty of water/.... Wash contaminated clothing before reuse. If skin irritation occurs: Get medical advice/attention. Specific treatment (see supplemental first aid instruction on this label).
- 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/effects after inhalation : May cause respiratory irritation.
- Symptoms/effects after skin contact : Causes skin irritation.
- Symptoms/effects 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

### 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 the environment.
- Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

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### 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. Minimise 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. Avoid breathing dust/fume/gas/mist/vapours/spray. Use only outdoors or in a well-ventilated area.

Hygiene measures : 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

<b>Best Short-Kut 24 24-4-9 with X-cote</b>	
No additional information available	
<b>urea (57-13-6)</b>	
No additional information available	
<b>ammonium sulfate (7783-20-2)</b>	
No additional information available	
<b>Monoammonium Phosphate (7722-76-1)</b>	
No additional information available	
<b>potassium sulfate (7778-80-5)</b>	
No additional information available	
<b>Iron Oxysulfate</b>	
No additional information available	
<b>Manganese Oxysulfate</b>	
No additional information available	
<b>sulfur (7704-34-9)</b>	
<b>USA - ACGIH - Occupational Exposure Limits</b>	
ACGIH TWA (mg/m <sup>3</sup> )	3 mg/m <sup>3</sup>
<b>Sand</b>	
No additional information available	
<b>Polymer Coating</b>	
No additional information available	

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### Wax (64771-72-8)

No additional information available

## 8.2. Appropriate engineering controls

## 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

#### Skin and body protection:

Wear suitable protective clothing

#### 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	: Granules.
Colour	: Blue-green Grey
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
Solubility	: Soluble and slowly soluble. Polymer coating and sulfur insoluble.
Partition coefficient n-octanol/water (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

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### 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) : Not classified  
Acute toxicity (dermal) : Not classified  
Acute toxicity (inhalation) : Not classified

<b>urea (57-13-6)</b>	
LD50 oral rat	8471 mg/kg (Rat; OECD 401: Acute Oral Toxicity; Literature study; 14300 mg/kg bodyweight; Rat; Experimental value)
LD50 dermal rat	> 3200 mg/kg (Rat; Literature study)
LD50 dermal rabbit	> 21000 mg/kg (Rabbit; Literature study)
<b>ammonium sulfate (7783-20-2)</b>	
LD50 oral rat	2840 mg/kg (Rat)
LD50 dermal rat	> 2000 mg/kg
<b>Monoammonium Phosphate (7722-76-1)</b>	
LD50 oral rat	5750 mg/kg (Rat)
LD50 dermal rabbit	> 7940 mg/kg (Rabbit)
<b>potassium sulfate (7778-80-5)</b>	
LD50 oral rat	6600 mg/kg (Rat)
<b>Manganese Oxysulfate</b>	
LD50 oral rat	2150 mg/kg
<b>sulfur (7704-34-9)</b>	
LD50 oral rat	> 5000 mg/kg (Rat)
LD50 dermal rabbit	> 2000 mg/kg (Rabbit)
LC50 inhalation rat (mg/l)	> 9.23 mg/l/4h (Rat)

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

Reproductive toxicity : Not classified

STOT-single exposure : May cause respiratory irritation.

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<b>urea (57-13-6)</b>	
STOT-single exposure	May cause respiratory irritation.
<b>ammonium sulfate (7783-20-2)</b>	
STOT-single exposure	May cause respiratory irritation.
<b>Monoammonium Phosphate (7722-76-1)</b>	
STOT-single exposure	May cause respiratory irritation.
<b>Sand</b>	
STOT-single exposure	May cause respiratory irritation.

STOT-repeated exposure : Not classified

Aspiration hazard : Not classified

Viscosity, kinematic : No data available

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

Symptoms/effects after inhalation : May cause respiratory irritation.

Symptoms/effects after skin contact : Causes skin irritation.

Symptoms/effects after eye contact : Causes eye irritation.

## SECTION 12: Ecological information

### 12.1. Toxicity

<b>urea (57-13-6)</b>	
LC50 fish 1	> 6810 mg/l (96 h; <i>Leuciscus idus</i> ; Nominal concentration)
EC50 Daphnia 1	> 10000 mg/l (48 h; <i>Daphnia magna</i> ; Nominal concentration)
LC50 fish 2	17500 mg/l (96 h; <i>Poecilia reticulata</i> )
EC50 Daphnia 2	> 10000 mg/l (24 h; <i>Daphnia magna</i> )
TLM fish 1	17500 ppm (96 h; <i>Poecilia reticulata</i> )
Threshold limit other aquatic organisms 1	120000 mg/l (16 h; Bacteria; Toxicity test)
Threshold limit other aquatic organisms 2	> 10000 mg/l ( <i>Pseudomonas putida</i> )
Threshold limit algae 1	> 10000 mg/l (168 h; <i>Scenedesmus quadricauda</i> ; Growth rate)
Threshold limit algae 2	47 mg/l (192 h; <i>Microcystis aeruginosa</i> ; Growth rate)
<b>ammonium sulfate (7783-20-2)</b>	
LC50 fish 1	126 mg/l (96 h; <i>Poecilia reticulata</i> )
EC50 Daphnia 1	202 mg/l (96 h; <i>Daphnia magna</i> )
LC50 fish 2	250 – 480 mg/l (96 h; <i>Brachydanio rerio</i> )
EC50 Daphnia 2	433 mg/l (50 h; <i>Daphnia magna</i> )
TLM fish 1	1290 ppm (96 h; <i>Gambusia affinis</i> )
<b>Monoammonium Phosphate (7722-76-1)</b>	
LC50 fish 1	155 ppm (96 h; <i>Pimephales promelas</i> )
<b>potassium sulfate (7778-80-5)</b>	
LC50 fish 1	1692.4 mg/l (96 h; <i>Alburnus alburnus</i> )
LC50 other aquatic organisms 1	> 1000 mg/l (96 h)
EC50 Daphnia 1	890 mg/l (48 h; <i>Daphnia magna</i> ; Static system)
LC50 fish 2	653 – 796 mg/l (96 h; <i>Lepomis macrochirus</i> )
EC50 Daphnia 2	1180 mg/l (96 h; Crustacea)
TLM fish 1	3550 ppm (96 h; <i>Lepomis sp.</i> )
Threshold limit other aquatic organisms 1	> 1000 mg/l (96 h)
Threshold limit algae 1	2900 mg/l (72 h; <i>Scenedesmus subspicatus</i> )
<b>sulfur (7704-34-9)</b>	
LC50 fish 1	866 mg/l (96 h; <i>Brachydanio rerio</i> )

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<b>sulfur (7704-34-9)</b>	
LC50 fish 2	> 100 mg/l 96 h; <i>Salmo gairdneri</i> ( <i>Oncorhynchus mykiss</i> )
TLM fish 1	10000 ppm (96 h; <i>Gambusia affinis</i> )
Threshold limit other aquatic organisms 1	> 10000 mg/l (24 h; <i>Daphnia magna</i> )

### 12.2. Persistence and degradability

<b>Best Short-Kut 24 24-4-9 with X-cote</b>	
Persistence and degradability	Not established.
<b>urea (57-13-6)</b>	
Persistence and degradability	Inherently biodegradable. Hydrolysis in water. Not established.
ThOD	0.27 g O <sub>2</sub> /g substance
<b>ammonium sulfate (7783-20-2)</b>	
Persistence and degradability	Biodegradability in water: no data available. Not established.
<b>Monoammonium Phosphate (7722-76-1)</b>	
Persistence and degradability	Biodegradability in water: no data available. Not established.
<b>potassium sulfate (7778-80-5)</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>Iron Oxsulfate</b>	
Persistence and degradability	Not established.
<b>sulfur (7704-34-9)</b>	
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
<b>Sand</b>	
Persistence and degradability	Not established.
<b>Wax (64771-72-8)</b>	
Persistence and degradability	Not established.

### 12.3. Bioaccumulative potential

<b>Best Short-Kut 24 24-4-9 with X-cote</b>	
Bioaccumulative potential	Not established.
<b>urea (57-13-6)</b>	
BCF fish 1	1 (72 h; <i>Brachydanio rerio</i> ; Fresh water)
BCF other aquatic organisms 1	11700 ( <i>Chlorella</i> sp.)
Partition coefficient n-octanol/water (Log Pow)	< -1.73 (Experimental value; EU Method A.8: Partition Coefficient)
Bioaccumulative potential	Bioaccumulation: not applicable. Not established.
<b>ammonium sulfate (7783-20-2)</b>	
Partition coefficient n-octanol/water (Log Pow)	-5.1
Bioaccumulative potential	Bioaccumulation: not applicable. Not established.
<b>Monoammonium Phosphate (7722-76-1)</b>	
Bioaccumulative potential	Not bioaccumulative. Not established.
<b>potassium sulfate (7778-80-5)</b>	
Bioaccumulative potential	Not bioaccumulative. Not established.

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Iron Oxysulfate	
Bioaccumulative potential	Not established.
sulfur (7704-34-9)	
Partition coefficient n-octanol/water (Log Pow)	0.23 (Estimated value)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4). Not established.
Sand	
Bioaccumulative potential	Not established.
Wax (64771-72-8)	
Bioaccumulative potential	Not established.

### 12.4. Mobility in soil

sulfur (7704-34-9)	
Ecology - soil	Not toxic to bees.

### 12.5. Other adverse effects

Other information : Avoid unintentional 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.  
Ecology - waste materials : Avoid unintentional release to the environment.

## SECTION 14: Transport information

### Department of Transportation (DOT)

In accordance with DOT

Other information : No supplementary information available.

### Transportation of Dangerous Goods

### Transport by sea

### Air transport

## SECTION 15: Regulatory information

### 15.1. US Federal regulations

#### Best Short-Kut 24 24-4-9 with X-cote

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:

Iron Oxysulfate	CAS-No.	%
Manganese Oxysulfate	CAS-No.	%
Sand	CAS-No.	%
Polymer Coating	CAS-No.	%

### 15.2. International regulations

#### CANADA

#### urea (57-13-6)

Listed on the Canadian DSL (Domestic Substances List)

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<b>ammonium sulfate (7783-20-2)</b>
Listed on the Canadian DSL (Domestic Substances List)
<b>Monoammonium Phosphate (7722-76-1)</b>
Listed on the Canadian DSL (Domestic Substances List)
<b>potassium sulfate (7778-80-5)</b>
Listed on the Canadian DSL (Domestic Substances List)
<b>sulfur (7704-34-9)</b>
Listed on the Canadian DSL (Domestic Substances List)
<b>Sand</b>
Not listed on the Canadian DSL (Domestic Substances List)/NDSL (Non-Domestic Substances List)
<b>Polymer Coating</b>
Not listed on the Canadian DSL (Domestic Substances List)/NDSL (Non-Domestic Substances List)
<b>Wax (64771-72-8)</b>
Listed on the Canadian DSL (Domestic Substances List)

### EU-Regulations

No additional information available

### National regulations

No additional information available

### 15.3. US State regulations

Component	State or local regulations
ammonium sulfate(7783-20-2)	U.S. - Massachusetts - Right To Know List; U.S. - Pennsylvania - RTK (Right to Know) List
sulfur(7704-34-9)	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

## SECTION 16: Other information

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Other information : None.

Full text of H-statements:

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

SDS US (GHS HazCom 2012)

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