



## Safety Data Sheet

### Section 1: Identification

#### Product identifier

**Product Name**

- **Steric K DS®**
- FFN: 00263

#### Relevant identified uses of the substance or mixture and uses advised against

**Recommended use**

- Plant Nutrient

#### Details of the supplier of the safety data sheet

**Manufacturer**

- Verdesian Life Sciences, U.S., LLC  
1001 Winstead Drive, Suite 480  
Cary, NC 27513  
United States

**Telephone (General)** • 1-800-868-6446

#### Emergency telephone number

**Manufacturer**

- 1-800-535-5053 - INFOTRAC

### Section 2: Hazard Identification

#### United States (US)

According to: OSHA 29 CFR 1910.1200 HCS

#### Classification of the substance or mixture

**OSHA HCS 2012**

- Oxidizing Solids 3  
Acute Toxicity Oral 4  
Specific Target Organ Toxicity Single Exposure 3: Respiratory Tract Irritation

#### Label elements

**OSHA HCS 2012**

#### WARNING



**Hazard statements**

- May intensify fire; oxidizer  
Harmful if swallowed  
May cause respiratory irritation

## Precautionary statements

### Prevention

- Keep away from heat.  
Keep/Store away from clothing and other combustible materials.  
Take any precaution to avoid mixing with combustibles  
Avoid breathing dust.  
Wash thoroughly after handling.  
Do not eat, drink or smoke when using this product.  
Use only outdoors or in a well-ventilated area.  
Wear protective gloves and eye/face protection.

### Response

- In case of fire: Use appropriate media for extinction.  
IF INHALED: 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.  
IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician if you feel unwell.  
Rinse mouth.

### Storage/Disposal

- Store in a well-ventilated place. Keep container tightly closed.  
Store locked up.  
Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

### Supplemental information

- 7.53 percent of this product consists of an ingredient of unknown toxicity.

## Other hazards

### OSHA HCS 2012

- Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard), this product is considered hazardous.

## Section 3 - Composition/Information on Ingredients

## Substances

- Material does not meet the criteria of a substance.

## Mixtures

Composition					
Chemical Name	Identifiers	%	LD50/LC50	Classifications According to Regulation/Directive	Comments
Potassium sulfate (2:1)	CAS:7778-80-5	44.55% TO 45%	Ingestion/Oral-Rat LD50 • 6600 mg/kg	OSHA HCS 2012: Not Classified	NDA
Potassium nitrate	CAS:7757-79-1	44%	Ingestion/Oral-Rat LD50 • 3540 mg/kg	OSHA HCS 2012: Ox. Sol. 3; Acute Tox. 4 (orl); STOT SE 3: Resp. Irrit.	NDA
Muriate of Potash	NDA	7.53%	NDA	OSHA HCS 2012: Not Classified	NDA
Citric acid	CAS:77-92-9	1.078%	Ingestion/Oral-Rat LD50 • 11700 mg/kg	OSHA HCS 2012: Comb. Dust; Skin Irrit. 2; Eye Irrit. 2; STOT SE 3: Resp. Irrit.	NDA
Amino Acid	NDA	0.5772%	NDA	OSHA HCS 2012: Not Classified	NDA
Calcium silicate	CAS:1344-95-2	0.01%	NDA	OSHA HCS 2012: Exposure limits	NDA

## Section 4: First-Aid Measures

## Description of first aid measures

- Inhalation** • Move victim to fresh air. Administer oxygen if breathing is difficult. Give artificial respiration if victim is not breathing. If signs/symptoms continue, get medical attention.
- Skin** • In case of contact with substance, immediately flush skin with running water for at least 20 minutes.
- Eye** • In case of contact with substance, immediately flush eyes with running water for at least 20 minutes.
- Ingestion** • If ingested dilute with large quantities of water or milk. Further dilution possible with diluted vinegar or fruit juice. Do NOT induce vomiting. Obtain medical attention immediately if ingested.

## Most important symptoms and effects, both acute and delayed

- Refer to Section 11 - Toxicological Information.

## Indication of any immediate medical attention and special treatment needed

- Notes to Physician** • All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

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## Section 5: Fire-Fighting Measures

### Extinguishing media

- Suitable Extinguishing Media** • LARGE FIRES: Water spray, fog or regular foam.  
SMALL FIRES: Dry chemical, CO<sub>2</sub>, water spray or regular foam.
- Unsuitable Extinguishing Media** • No data available.

### Special hazards arising from the substance or mixture

- Unusual Fire and Explosion Hazards** • Some may burn, but none ignite readily.  
These substances will accelerate burning when involved in a fire.  
Some may decompose explosively when heated or involved in a fire.  
May explode from heat or contamination.  
Some will react explosively with hydrocarbons (fuels)  
Containers may explode when heated.  
Runoff may create fire or explosion hazard.

- Hazardous Combustion Products** • No data available.

### Advice for firefighters

- Wear positive pressure self-contained breathing apparatus (SCBA).  
Structural firefighters' protective clothing will only provide limited protection.  
Move containers from fire area if you can do it without risk.  
LARGE FIRES: Flood fire area with water from a distance.  
LARGE FIRES: Cool containers with flooding quantities of water until well after fire is out.  
LARGE FIRES: ALWAYS stay away from tanks engulfed in fire.  
LARGE FIRES: For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible, withdraw from area and let fire burn.

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## Section 6 - Accidental Release Measures

### Personal precautions, protective equipment and emergency procedures

**Personal Precautions** • Ventilate enclosed areas. Do not walk through spilled material. Wear appropriate personal protective equipment, avoid direct contact. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.

**Emergency Procedures** • As an immediate precautionary measure, isolate spill or leak area for at least 25 meters (75 feet) in all directions. Keep unauthorized personnel away. Stay upwind. Keep out of low areas. Keep combustibles (wood, paper, oil, etc.) away from spilled material.

**Environmental precautions**

- Prevent entry into waterways, sewers, basements or confined areas.

**Methods and material for containment and cleaning up**

**Containment/Clean-up Measures** • Avoid generating dust.  
 SMALL DRY SPILLS: With clean shovel place material into clean, dry container and cover loosely; move containers from spill area.  
 Do not get water inside containers.

**Section 7 - Handling and Storage**

**Precautions for safe handling**

**Handling** • Use only in well ventilated areas. Use good safety and industrial hygiene practices. Wear appropriate personal protective equipment, avoid direct contact. Avoid breathing dust. Do not eat, drink, smoke, or apply cosmetics while handling this product. Wash thoroughly with soap and water after handling and before eating, drinking, or using tobacco.

**Conditions for safe storage, including any incompatibilities**

**Storage** • Keep container closed when not in use. All containers of this product must be properly labeled. Store containers in a cool, dry location, away from direct sunlight, incompatible materials, sources of intense heat, or where freezing is possible. Store below 105°F. Keep from direct sunlight.

**Section 8 - Exposure Controls/Personal Protection**

**Control parameters**

Exposure Limits/Guidelines				
	Result	ACGIH	NIOSH	OSHA
Calcium silicate (1344-95-2)	TWAs	10 mg/m3 TWA (synthetic nonfibrous, particulate matter containing no asbestos and <1% crystalline silica)	10 mg/m3 TWA (total dust); 5 mg/m3 TWA (respirable dust)	15 mg/m3 TWA (total dust); 5 mg/m3 TWA (respirable fraction)

**Exposure controls**

**Engineering Measures/Controls** • Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

**Personal Protective Equipment**

**Respiratory** • For limited exposure use an N95 dust mask. For prolonged exposure use an air-purifying respirator with high efficiency particulate air (HEPA) filters. Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or symptoms are experienced.

**Eye/Face** • Wear safety goggles.

**Skin/Body** • Wear appropriate gloves.

**Environmental Exposure Controls** • Follow best practice for site management and disposal of waste.

Key to abbreviations

ACGIH = American Conference of Governmental Industrial Hygiene  
 NIOSH = National Institute of Occupational Safety and Health  
 OSHA = Occupational Safety and Health Administration  
 TWA = Time-Weighted Averages are based on 8h/day, 40h/week exposures

## Section 9 - Physical and Chemical Properties

### Information on Physical and Chemical Properties

Material Description			
Physical Form	Solid	Appearance/Description	Yellow crystals with no odor.
Color	Yellow	Odor	Odorless
Odor Threshold	No data available		
General Properties			
Boiling Point	100 C(212 F)	Melting Point	No data available
Decomposition Temperature	No data available	pH	3.9
Specific Gravity/Relative Density	No data available	Water Solubility	Appreciable 10 to 99 %
Viscosity	No data available		
Volatility			
Vapor Pressure	No data available	Vapor Density	No data available
Evaporation Rate	No data available		
Flammability			
Flash Point	No data available	UEL	No data available
LEL	No data available	Autoignition	No data available
Flammability (solid, gas)	No data available		
Environmental			
Octanol/Water Partition coefficient	No data available		

## Section 10: Stability and Reactivity

### Reactivity

- No dangerous reaction known under conditions of normal use.

### Chemical stability

- Stable under normal temperatures and pressures.

### Possibility of hazardous reactions

- Hazardous polymerization not indicated.

### Conditions to avoid

- Exposure to extreme temperatures and incompatible materials.

### Incompatible materials

- Avoid contact with strong alkaline materials such as caustic potash (potassium hydroxide) and caustic soda (sodium hydroxide). Mildly corrosive to common metals.

### Hazardous decomposition products

- Oxides of sulfur and zinc.

## Section 11 - Toxicological Information

### Information on toxicological effects

		Components
Potassium nitrate (44%)	7757-79-1	<b>Acute Toxicity:</b> Ingestion/Oral-Rat LD50 • 3540 mg/kg; <i>Lungs, Thorax, or Respiration:</i> <b>Other changes;</b> <i>Liver:</i> <b>Other changes;</b> <i>Kidney, Ureter, and Bladder:</i> <b>Other changes;</b> Ingestion/Oral-Rat TDLo • 10 mg/kg;

		<i>Blood:Metheinglobincinia-Carboxyhemoglobin; Nutritional and Gross Metabolic:Gross Metabolite Changes:Weight loss or decreased weight gain;</i> <b>Multi-dose Toxicity:</b> Ingestion/Oral-Rat TDLo • 2250 mg/kg 150 Day(s)-Intermittent; <i>Endocrine:Thyroid weight (goiter); Endocrine:Evidence of thyroid hypofunction;</i> <i>Nutritional and Gross Metabolic:Gross Metabolite Changes:Weight loss or decreased weight gain</i>
Potassium sulfate (2:1) (44.55% TO 45%)	7778-80-5	<b>Acute Toxicity:</b> Ingestion/Oral-Rat LD50 • 6600 mg/kg; <b>Multi-dose Toxicity:</b> Inhalation-Rat TCLo • 15 mg/m <sup>3</sup> 4 Hour(s) 16 Week(s)-Intermittent; <i>Liver:Changes in liver weight; Kidney, Ureter, and Bladder:Changes in kidney weight; Immunological Including Allergic:Decrease in immune response</i>
Citric acid (1.078%)	77-92-9	<b>Acute Toxicity:</b> Ingestion/Oral-Rat LD50 • 3 g/kg; Inhalation-Rat TCLo • 180 mg/m <sup>3</sup> ; <i>Lungs, Thorax, or Respiration:Other changes; Liver:Liver function tests impaired; Biochemical:Enzyme inhibition, induction, or change in blood or tissue levels:Dehydrogenases;</i> <b>Irritation:</b> Eye-Rabbit • 750 µg 24 Hour(s) • Severe irritation; Skin-Rabbit • 500 mg 24 Hour(s) • Mild irritation

GHS Properties	Classification
Acute toxicity	<b>OSHA HCS 2012</b> •Acute Toxicity - Oral 4 - ATEmix (oral)= 1132 mg/kg
Aspiration Hazard	<b>OSHA HCS 2012</b> •No data available
Carcinogenicity	<b>OSHA HCS 2012</b> •No data available
Germ Cell Mutagenicity	<b>OSHA HCS 2012</b> •No data available
Skin corrosion/Irritation	<b>OSHA HCS 2012</b> •No data available
Skin sensitization	<b>OSHA HCS 2012</b> •No data available
STOT-RE	<b>OSHA HCS 2012</b> •No data available
STOT-SE	<b>OSHA HCS 2012</b> •Specific Target Organ Toxicity Single Exposure 3: Respiratory Tract Irritation
Toxicity for Reproduction	<b>OSHA HCS 2012</b> •No data available
Respiratory sensitization	<b>OSHA HCS 2012</b> •No data available
Serious eye damage/Irritation	<b>OSHA HCS 2012</b> •No data available

## Potential Health Effects

### Inhalation

**Acute (Immediate)** • May cause respiratory irritation.

**Chronic (Delayed)** • No data available

### Skin

**Acute (Immediate)** • Exposure to dust may cause mechanical irritation.

**Chronic (Delayed)** • No data available.

### Eye

**Acute (Immediate)** • Exposure to dust may cause mechanical irritation. Excessive concentrations of nuisance dust in the workplace may reduce visibility and may cause unpleasant deposits in eyes.

**Chronic (Delayed)** • No data available.

### Ingestion

**Acute (Immediate)** • Harmful if swallowed. Excessive concentrations of nuisance dust in the workplace may cause mechanical irritation to mucous membranes.

**Chronic (Delayed)** • No data available.

#### Key to abbreviations

LD = Lethal Dose

TC = Toxic Concentration

## Section 12 - Ecological Information

### Toxicity

- Non-mandatory section - information about this substance not complied for this reason.

### Persistence and degradability

- Non-mandatory section - information about this substance not complied for this reason.

### Bioaccumulative potential

- Non-mandatory section - information about this substance not complied for this reason.

### Mobility in Soil

- Non-mandatory section - information about this substance not complied for this reason.

### Other adverse effects

- Non-mandatory section - information about this substance not complied for this reason.

## Section 13 - Disposal Considerations

### Waste treatment methods

**Product waste** • Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

**Packaging waste** • Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

## Section 14 - Transport Information

	UN number	UN proper shipping name	Transport hazard class(es)	Packing group	Environmental hazards
DOT	NDA	Not Regulated	NDA	NDA	NDA

**Special precautions for user** • None specified.

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** • No data available

## Section 15 - Regulatory Information

### Safety, health and environmental regulations/legislation specific for the substance or mixture

**SARA Hazard Classifications** • Acute, Fire

Inventory		
Component	CAS	TSCA
Calcium silicate	1344-95-2	Yes
Citric acid	77-92-9	Yes
Potassium nitrate	7757-79-1	Yes

Potassium sulfate (2:1)	7778-80-5	Yes
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**United States**

Not listed

**United States - California**

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**Section 16 - Other Information**

**Last Revision Date**

- April 1, 2016

**Preparation Date**

- April 23, 2015

**Disclaimer/Statement  
of Liability**

- The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

**Key to abbreviations**

NDA = No data available

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