



Creating Value Through Innovative Solutions

## Safety Data Sheet Sectagon – K54<sup>®</sup>

SDS Number: 2125      Revision: 1/13/2014

### Section 1: Identification

- 1a. Product Name:** Sectagon – K54<sup>®</sup>
- 1b. Other Identification:**
- |                        |  |
|------------------------|--|
| Chemical Family        | Dithiocarbamate salt solution                    |
| Formula                | C <sub>2</sub> H <sub>4</sub> NS <sub>2</sub> .K |
| EC Pre-Registration #: | No   |
- 1c. Recommended Use of Chemical:** Soil fumigant (Restricted Us Pesticide)
- 1d. Manufacturer:** Tessenderlo Kerley, Inc.  
2255 N. 44<sup>th</sup> Street, Suite 300  
Phoenix, Arizona 85008-3279  
(602) 889-8300
- Information
- 1e. Emergency Contact:**
- |            |                                |  |
|------------|--------------------------------|--|
| NovaSource | (866) 374-1975                 |  |
| CHEMTREC   | (800) 424-9300 (Domestic)      |  |
|            | (703) 527-3887 (International) |  |

### Section 2: Hazard(s) Identification

- 2a. Hazard Classification:**
- |  |          |  |
|--|----------|--|
|  | Health   | Acute toxicity, inhalation, category 3<br>Acute oral toxicity, Category 4<br>Acute dermal toxicity, Category 4<br>Skin corrosion Category 1B<br>Eye damage, Category 1<br>Aquatic toxicity |
|  | Physical | None   |
- 2b. Signal Word:** DANGER
- Hazard Statement(s):** Toxic if inhaled  
Causes serious eye damage  
Harmful if swallowed  
Causes severe skin burns and eye damage.



**Symbol(s):**

**Precautionary Statement(s):**

Avoid breathing product gases/vapors.  
 Use only outdoors in well ventilated areas.  
 If inhaled, remove person to fresh air and keep comfortable for breathing.  
 Store in a well-ventilated area. Keep containers tightly closed.  
 Store locked up.  
 Wear eye protection/face protection  
 If in eyes, rinse cautiously with water for several minutes  
 Immediately contact medical center, Prosar, (866) 374-1975  
 Wash hands and exposed skin areas thoroughly after handling  
 Wear protective gloves/protective clothing  
 Do not allow release/runoff into aquatic waterways

**2c. Unclassified Hazard(s):** None

**2d. Unknown Toxicity Ingredient:** None

### Section 3: COMPOSITION/ INFORMATION ON INGREDIENTS

**3.1 Chemical Ingredients:** (See Section 8 for exposure guidelines)

Chemical	Synonym Common Name	CAS No.	EINECS No.	% by Wt.
Potassium methyldithiocarbamate	Metam potassium	137-41-7	205-292-5	54
Inerts				Remaining %

### Section 4: FIRST AID MEASURES

**4.1 Symptoms/Effects:**

**Acute:** Eye contact may cause eye irritation. Repeated or prolonged skin contact may cause skin irritation. Ingestion may irritate the gastrointestinal tract.

**Chronic:** No known chronic effects.

**4.2 Eyes:** Immediately flush with large quantities of water for 15 minutes. Hold eyelids apart during irrigation to insure thorough flushing of the entire area of the eye and lids. Do not attempt to neutralize with chemical agents or use oils or ointments. Obtain immediate medical attention.

**4.3 Skin:** Immediately flush with large quantities of water. Remove contaminated clothing under a safety shower. Do not neutralize with chemical agents. Obtain medical immediate attention.

**4.4 Ingestion:** DO NOT INDUCE VOMITING. Give 1 or 2 glasses of water. If vomiting does occur, repeat fluid administration. If unconscious or convulsing, do not give fluids. Obtain medical attention.

**4.5 Inhalation:** Remove victim from contaminated atmosphere. If breathing is labored, administer oxygen.

If breathing has ceased, clear airway and start mouth to mouth resuscitation. If heart has stopped beating, external heart massage should be applied. Obtain medical attention.

<b>Section 5: FIRE FIGHTING MEASURES</b>
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**5.1 Flammable Properties:** (See Section 9, for additional flammable properties)

**NFPA:**      **Health**    **2**      **Flammability**    **0**                      **Reactivity**      **1**

**5.2 Extinguishing Media:**

As appropriate for combustibles involved in the fire.

**5.2.1 Suitable Extinguishing Media:**

Not flammable, use media suitable for combustibles involved in fire.

**5.2.2 Unsuitable Extinguishing Media:**

Not applicable.

**5.3 Protection of Firefighters:**

**5.3.1: Specific hazards arising from the chemical:**

Heating will cause the evolution of methyl isothiocyanate (MITC) and hydrogen sulfide, both of which are highly toxic and flammable gases. It is also conceivable that product breakdown from heating could release carbon disulfide and methylamine, which are also toxic and flammable.

**Physical hazards:**

Heating, fire.

**Chemical hazards:**

Contact with strong acids will release methylamine and carbon disulfide, both highly flammable hazards.

**5.3.2: Protective equipment and precautions for firefighters:** Firefighters should wear self-contained breathing apparatus and full fire-fighting turnout gear. Keep containers/storage vessels in fire area cooled with water spray.

<b>Section 6: ACCIDENTAL RELEASE MEASURES</b>
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**6.1 Personal Precautions:**

Use personal protective equipment specified in Section 8. Isolate the release area and deny entry to unnecessary, unprotected and untrained personnel.

**6.2 Environmental Precautions:**

Keep out of "waters of the "US" because of potential aquatic toxicity (See Section 12).

**6.3 Methods of Containment:**

**Small release:** Confine and absorb small releases with sand, earth or other inert absorbent.

**Large release:** Shut off release if safe to do so. Dike spill area with earth, sand or other inert absorbent to prevent runoff into surface waterways (potential aquatic toxicity).

**6.4 Method for Cleanup:**

**Small release:** For small areas shovel up absorbed material and place in plastic drum for disposal.

**Large release:** Recover as much of the spilled product as possible for use as originally intended. Treat remaining material as small release above.

## Section 7: HANDLING and STORAGE

This is a Restricted Use Pesticide (RUP).

All personnel who handle this product in its end-use application should use this product only in accordance with its pesticide labeling and with the "Worker Protection Standard", 40 CFR 170.

**7.1 Handling:** Avoid contact with eyes and skin. Use only in a well ventilated area. Wash thoroughly after handling. Avoid breathing of vapors.

**7.2 Storage:** Store in cool, dry, well ventilated areas. Do not store exposed to the atmosphere as product will decompose and evolve methyl iso-cyanate and hydrogen sulfide, both very toxic gases. Do not store combustibles in the area of storage vessels. Keep away from any sources of heat or flame. Store tote and smaller containers out of direct sunlight at moderate temperatures. Do not store at temperatures below 0°F (-18°C) as the product crystallizes at low temperatures. If crystallization occurs, warm or store at higher temperatures and mix to re-dissolve crystals before use. (See Section 10.3, for materials of construction)

## Section 8: EXPOSURE CONTROLS/ PERSONAL PROTECTION

8.1 Exposure Guidelines:	OSHA		ACGIH	
	TWA	Ceiling	TLV	STEL
Hydrogen sulfide:	None	20 ppm	10	15

**8.2 Engineering Controls:** Use adequate exhaust ventilation to prevent inhalation of product vapors.

**8.3. Personal Protective Equipment (PPE):**

**8.3.1 Eye/Face Protection:** Chemical goggles and a full face shield.

**8.3.2 Skin Protection:** Neoprene rubber gloves and apron should be worn to prevent repeated or prolonged contact with the liquid. Wash contaminated clothing prior to reuse.

**8.3.3 Respiratory Protection:** A NIOSH/MSHA approved respirator fitted with organic vapor cartridges may be required when working with this product.

**8.3.4 General Hygiene Considerations:** Common good industrial hygiene practices should be followed, such as, washing thoroughly after handling and before eating or drinking.

## Section 9: PHYSICAL and CHEMICAL PROPERTIES

**9.1 Appearance/State/Odor:** Pale green through colorless to yellow-amber/liquid/strong sulfur/amine like odor

<b>9.2 Odor Threshold:</b>	Not determined
<b>9.3 pH:</b>	10.0 to 11.0
<b>9.4 Freezing Point:</b>	Approximately 0°F (-18°C)
<b>9.5 Boiling Point:</b>	227°F (108°C)
<b>9.6 Flash Point:</b>	>200°F (93°C)
<b>9.7 Evaporation Rate:</b>	Not known
<b>9.8 Flammability:</b>	Not applicable
<b>9.9 Flammability Limits:</b>	Not determined
<b>9.10 Vapor Pressure:</b>	Not determined
<b>9.11 Vapor Density:</b>	Not determined
<b>9.12 Specific gravity:</b>	1.273 (10.6 lbs per gallon) @ 25°C typical
<b>9.13 Solubility:</b>	Miscible with water (complete)
<b>9.14 Partition Coefficient:</b>	Data not available
<b>9.15 Auto-ignition Temperature:</b>	Not applicable
<b>9.16 Decomposition Temperature:</b>	Not determined
<b>9.17 Viscosity:</b>	3.46 cP @ 20°C

## Section 10: STABILITY and REACTIVITY

<b>10.1 Reactivity:</b>	Product is reactive to elevated temperatures or dilution with water.
<b>10.2 Chemical Stability:</b>	This is a stable product under ambient conditions of temperature and pressure.
<b>10.3 Possibility of hazardous reactions:</b>	Heating or fire conditions.
<b>10.4 Conditions to Avoid:</b>	Prolonged exposure to air will result in decomposition to form methyl isothiocyanate (MITC) a very toxic and flammable material. Metam potassium solutions are corrosive to copper, zinc and aluminum or any of their alloys such as brass, bronze or galvanized materials. These materials of construction should not be used in handling systems or storage containers for this product.
<b>10.5 Incompatible:</b>	Heat, acids or acidic materials.
<b>10.6 Hazardous Decomposition Products:</b>	Heating this product will evolve methyl isothiocyanate (MITC) and hydrogen sulfide (H <sub>2</sub> S) and potentially carbon disulfide (CS <sub>2</sub> ) and methylamine (MMA). Heating to dryness will cause the production of oxides of nitrogen.

## Section 11: TOXICOLOGICAL INFORMATION

<b>11.1 Oral:</b>	Oral Rat LD <sub>50</sub> : 500 mg/Kg
<b>11.2 Dermal:</b>	Dermal Rat LD <sub>50</sub> : > 2,000 mg/kg
<b>11.3 Inhalation:</b>	Inhalation Rat, LC <sub>50</sub> : 3.04 mg/l (4 Hr.)
<b>11.4 Eye:</b>	Data not available
<b>11.5 Chronic/Carcinogenicity:</b>	Lab studies have shown some carcinogenic effects in lab animals.
<b>11.6 Teratology:</b>	Lab studies have shown some developmental effects in lab animals.

- 11.7 Reproduction:** Lab studies have shown no evidence of reproductive toxicity in lab animals.
- 11.8 Mutagenicity:** Lab studies have shown some evidence of mutagenicity *in vitro* but no conclusive evidence *in vivo*.

## Section 12: ECOLOGICAL INFORMATION

Metam potassium is toxic to aquatic species. Do not apply to waterways, to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate waterways when disposing of equipment washwaters.

- 12.1 Ecotoxicity:**
- Toxicity to fish – LC<sub>50</sub>: 0.10 – 100 mg/L
  - Water flea (daphnia) EC<sub>50</sub>: 110 mg/L (48 Hrs.)
  - Algae EC<sub>50</sub>: 0.56 mg/L (72 Hrs.)
  - Toxicity to bacteria – 4.36 mg/L (3 Hrs.)
- 12.2 Persistence & Degradability:** Product is readily biodegradable
- 12.3 Bioaccumulative potential:** Minimal
- 12.4 Mobility in Soil:** K<sub>oc</sub> = < 50
- 12.5 Other Adverse Effects:** None

## Section 13: DISPOSAL CONSIDERATIONS

If this product as supplied becomes a waste, it does not meet the criteria of a hazardous waste as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR 261. Consult state and local regulations for different or more restrictive disposal regulations. Purification solids (as from filtering, evaporation, etc.) from the production of dithiocarbamic acid salts are a K161 listed waste and should be disposed of in accordance with RCRA regulations.

## Section 14: TRANSPORT INFORMATION

### 14.1 Basic Shipping Description:

- 14.1.1 Proper Shipping Name:** Corrosive liquid, basic, inorganic, n.o.s.
- 14.1.2 Hazard Class(s):** 8
- 14.1.3 Identification Number:** UN3266
- 14.1.4 Packing Group:** II
- 14.1.5 Hazardous Substance:** No
- 14.1.6 Marine Pollutant:** Yes

### 14.2 Additional Information:

#### 14.2.1 Other DOT Requirements:

- 14.2.1.1 Reportable Quantity:** No

<b>14.2.1.2 Placard(s):</b>	Corrosive
<b>14.2.1.3 Label(s):</b>	Corrosive
<b>14.2.2 USCG Classification:</b>	Not determined
<b>14.2.3 International Transportation:</b>	
<b>14.2.3.1 IMO:</b>	Corrosive liquid, basic, inorganic, n.o.s. (UN3266)
<b>14.2.3.2 IATA:</b>	Corrosive liquid, basic, inorganic, n.o.s. (UN3266)
<b>14.2.3.3 TDG (Canada):</b>	Corrosive liquid, basic, inorganic, n.o.s. (UN3266)
<b>14.2.3.4 ADR (Europe):</b>	Corrosive liquid, basic, inorganic, n.o.s. (UN3266)
<b>14.2.3.5 AICS (Australia):</b>	Corrosive liquid, basic, inorganic, n.o.s. (UN3266)
<b>14.2.3.6 ENCS (MITI) Japan</b>	Not determined
<b>14.2.3.7 New Zealand</b>	Not determined
<b>14.2.4 Emergency Response Guide:</b>	154
<b>14.2.5 ERAP - Canada:</b>	Not applicable
<b>14.2.6 Special Precautions:</b>	Not applicable

<b>Section 15: REGULATORY INFORMATION</b>
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**15.1 US Federal Regulations:**

<b>15.1.1 OSHA:</b>	This product meets the criteria of the Federal OSHA Hazard Communication Standard (29 CFR 1910.1200).		
<b>15.1.2 TSCA:</b>	Not applicable		
<b>15.1.3 CERCLA:</b>	Reportable Quantity – Not applicable		
<b>15.1.4 SARA Title III:</b>			
<b>15.1.4.1 Extremely Hazardous Substance (EHS):</b>	Not Applicable		
<b>15.1.4.2 Section 312 (Tier II) ratings:</b>	Immediate (acute)	Yes	
	Fire	Yes	
	Sudden release	No	
	Reactivity	Yes	
	Delayed (chronic)	No	
<b>15.1.4.3 Section 313 (FORM R):</b>	Yes	Potassium methyldithiocarbamate	54%
<b>15.1.5 RCRA:</b>	Not Applicable (See Section 13)		
<b>15.1.6 CAA: Hazardous Air Pollutant (HAP):</b>	Not Applicable		
<b>15.1.7 FIFRA</b>	EPA Reg. No, 61842-7 (Restricted Use Pesticide)		
<b>15.1.8 Prop. 65 (CA)</b>	This product contains potassium methyldithiocarbamate a chemical known to the state of California to cause cancer, birth defects or other reproductive harm.		

**15.2 International Regulations****15.2.1 Canada**

**15.2.1.1 WHMIS:** Not determined

**15.2.1.2 DSL/NDL:** No

**Section 16: OTHER INFORMATION**

The entire SDS was reformatted to comply with ANSI Standard Z400.1-2004, and OSHA Hazard Communications Act (GHS), by Tessenderlo Kerley, Inc., Regulatory Affairs.

**REVISIONS:**

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