



# Material Safety Data Sheet

## K-Row 23

MSDS Number 116 (3/16/2011)

6 Pages

**Section 1: CHEMICAL PRODUCT and COMPANY IDENTIFICATION**

- 1.1 **Product Name** .....K-Row 23  
 Chemical Family ..... Inorganic salt solution  
 Synonyms ..... Sulfurous acid, dipotassium salt, Dipotassium sulfite, potassium sulfite, K31  
 Formula .....  $K_2SO_3$
- 1.2 **Manufacturer** .....Tessenderlo Kerley Inc.  
 2255 North 44<sup>th</sup> Street, Suite 300  
 Phoenix, Arizona 85008-3279  
 Information .....(602) 889-8300
- 1.3 **Emergency Contact** ..... (800) 877-1737 (Tessenderlo Kerley)  
**(800) 424-9300 (CHEMTREC)**

**Section 2: COMPOSITION, INFORMATION ON INGREDIENTS**

**2.1 Chemical Ingredients (% by wt.)**

Potassium sulfite	CAS # 10117-38-1	42-48%
Potassium bisulfite	CAS #: 7773-03-7	1-5%
Water	CAS #:7732-18-5	47-57%

(See Section 8 for exposure guidelines)

**Section 3: HAZARDS IDENTIFICATION**

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

**EMERGENCY OVERVIEW**

Contact may cause severe eye irritation.  
 Repeated/prolonged skin contact may cause irritation or burns.  
 Avoid inhalation of fumes in vapor space (sulfur dioxide).  
 Ingestion may cause burns to gastrointestinal tract.  
 Heating will cause sulfur dioxide gas, a severe respiratory irritant to evolve.

<b>Section</b>	<b>3:</b>	<b>HAZARDS IDENTIFICATION, Cont.</b>
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**3.1 POTENTIAL HEALTH EFFECTS**

**EYE:** Contact with the eyes by product mist or solution will cause irritation and a burning sensation. Burning may be severe

**SKIN CONTACT:** Prolonged or repeated contact with product mist or solution will cause skin irritation or burns to the exposed skin.

**SKIN ABSORPTION:** Absorption is unlikely to occur.

**INGESTION:** Ingestion of product solution will cause irritation and potentially burns of the gastrointestinal tract in addition to nausea, vomiting and diarrhea.

**INHALATION:** Inhalation of product vapors (slight amount of sulfur dioxide) will cause nose, throat and lung irritation.

**CHRONIC EFFECTS/CARCINOGENICITY:** Not listed as a carcinogen by NTP, IARC or OSHA.

<b>Section</b>	<b>4:</b>	<b>FIRST AID MEASURES</b>
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**4.1 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. Obtain immediate medical attention.

**4.2 SKIN:** Immediately flush with large quantities of water. Remove contaminated clothing under a safety shower. Obtain immediate medical attention.

**4.3 INGESTION:** If victim is conscious, immediately give 2 to 4 glasses of water. Induce vomiting by touching finger to back of throat Obtain immediate medical attention. Note: May cause severe allergic reaction in some asthmatics and sulfite sensitive individuals.

**4.4 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 immediate medical attention.

<b>Section</b>	<b>5:</b>	<b>FIRE FIGHTING MEASURES</b>
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**5.1 FLAMMABLE PROPERTIES**

**FLASH POINT:** Not flammable

**METHOD USED:** NA

**5.2 FLAMMABLE LIMITS**

**LFL:** NA

**UFL:** NA

**5.3 EXTINGUISHING MEDIA:** As appropriate for combustibles involved in fire.

<b>Section</b>	<b>5:</b>	<b>FIRE FIGHTING MEASURES, Cont.</b>
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**5.4 FIRE & EXPLOSIVE HAZARDS:** .When heated , sulfur dioxide vapors will evolve. This gas is a severe respiratory hazard. Keep containers/storage vessels in fire area cooled with water spray.

**5.5 FIRE FIGHTING EQUIPMENT:** Because of the possible presence of toxic gases and the corrosive nature of the product, wear self-contained breathing apparatus, pressure demand, MSHA/NIOSH (approved or equivalent) and protective gear to prevent skin and eye contact..

<b>Section</b>	<b>6:</b>	<b>ACCIDENTAL RELEASE MEASURES</b>
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**6.1 Small releases:** Confine and absorb small releases on sand, earth or other inert absorbent. Dispose of in a chemical waste landfill.

**6.2 Large releases:** Confine area to qualified personnel. Wear proper protective equipment. Shut off release if safe to do so. Dike spill area to prevent runoff into sewers, drains or surface waterways (potential aquatic toxicity). Spray product vapors with water spray or mist. Recover as much of the solution as possible. Treat remaining material as a small release (above).

<b>Section</b>	<b>7:</b>	<b>HANDLING and STORAGE</b>
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**7.1 Handling:** Handle in enclosed containers to avoid breathing product. Avoid contact with skin and eyes. Use in a well ventilated area. Wash thoroughly after handling. Wear appropriate PPE.

**7.2 Storage:** Store in well ventilated areas in enclosed containers. 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 (See Section 10.4 for materials of construction).

<b>Section</b>	<b>8:</b>	<b>EXPOSURE CONTROLS, PERSONAL PROTECTION</b>
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**8.1 RESPIRATORY PROTECTION:** None generally required. If vapor exposure is possible a NIOSH approved respirator for sulfur dioxide is required. Wear self-contained breathing apparatus, positive pressure, MSHA/NIOSH (approved or equivalent) if handling product under fire conditions.

**8.2 SKIN PROTECTION:** Neoprene rubber gloves, boots, and apron should be worn to prevent contact with the liquid. Wash contaminated clothing prior to reuse.

**8.3 EYE PROTECTION:** Chemical goggles and a full face shield.

**8.4 EXPOSURE GUIDELINES:**

	OSHA		ACGIH	
	<u>TWA</u>	<u>STEL</u>	<u>TLV</u>	<u>STEL</u>
Sulfur dioxide	5 ppm	35 ppm	2 ppm	5 ppm (15 min)

**8.5 ENGINEERING CONTROLS:** Use adequate exhaust ventilation to prevent inhalation of product vapors. Maintain eyewash/safety shower in areas where product is handled.

**Section 9: PHYSICAL and CHEMICAL PROPERTIES**

<b>9.1 APPEARANCE:</b>	Clear to faint yellow colored liquid
<b>9.2 ODOR:</b>	Faint sulfur odor.
<b>9.3 BOILING POINT:</b>	> 212°F (100°C)
<b>9.4 VAPOR PRESSURE:</b>	Data not available
<b>9.5 VAPOR DENSITY:</b>	Not determined
<b>9.6 SOLUBILITY IN WATER:</b>	Complete
<b>9.7 SPECIFIC GRAVITY:</b>	1.41 (11.75 lbs/gal)
<b>9.8 Salt-Out Temperature:</b>	-11°F (-24°C)
<b>9.9 pH:</b>	8 - 9
<b>9.10 VOLATILE:</b>	Not determined

**Section 10: STABILITY and REACTIVITY**

**10.1 STABILITY:** This is a stable material

**10.2 HAZARDOUS POLYMERIZATION:** Will not occur.

**10.3 HAZARDOUS DECOMPOSITION PRODUCTS:** Heating this product will evolve sulfur dioxide.

**10.4 INCOMPATIBILITY:** Strong oxidizers such as nitrates, nitrites or chlorates. Acids will cause the release of sulfur dioxide, a highly toxic gas. Potassium sulfite is not compatible with aluminum, copper, zinc or their alloys (i.e. bronze, brass, galvanized metals, etc.). These materials of construction should not be used in handling systems or storage containers for this product. (SEE Section 7.2, Storage)

**Section 11: TOXICOLOGICAL INFORMATION**

**11.1 ORAL:** Data not available

**11.2 DERMAL:** Data not available

**11.3 INHALATION:** Data not available

**11.4 CHRONIC/CARCINOGENICITY:** No evidence available

**11.5 TERATOLOGY:** Data not available

**11.6 REPRODUCTION:** Data not available

**11.7 MUTAGENICITY:** Data not available

**Section 12: ECOLOGICAL INFORMATION**

No data available.

<b>Section</b>	<b>13:</b>	<b>DISPOSAL CONSIDERATIONS</b>
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If released to the environment for other than its intended purpose, this product does not meet the definition of a hazardous waste under 40 CFR 261.

<b>Section</b>	<b>14:</b>	<b>TRANSPORT INFORMATION</b>
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<b>14.1 DOT Shipping Name:</b>	Potassium sulphite solution
<b>14.2 DOT Hazard Class:</b>	NA
<b>14.3 UN/NA Number:</b>	NA
<b>14.4 Packing Group:</b>	NA
<b>14.5 DOT Placard:</b>	NA
<b>14.6 DOT Label(s):</b>	NA
<b>14.7 IMO Shipping Name:</b>	NA
<b>14.8 RQ (Reportable Quantity):</b>	NA
<b>14.9 RR STCC Number:</b>	ND

<b>Section</b>	<b>15:</b>	<b>REGULATORY INFORMATION</b>
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**15.1 OSHA:** This product is listed as a hazardous material under criteria of the Federal OSHA Hazard Communication Standard, 29 CFR 1910.1200.

**15.2 SARA TITLE III:**

a.	<b>EHS</b> (Extremely Hazardous Substance) List:	No
b.	Section 311/312, (Tier I,II) Categories:	Immediate (acute) Yes
	Fire	No
	Sudden release	No
	Reactivity	Yes
	Delayed (chronic)	No
c.	Section 313 (Toxic Release Reporting-Form R):	No
	<u>Chemical Name</u> <u>CAS Number</u>	<u>Concentration</u>
	N/A	
d.	<b>TPQ</b> (Threshold Planning Quantity):	No

<b>Section</b>	<b>15: REGULATORY INFORMATION (Cont.)</b>
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<b>15.3 CERCLA/SUPERFUND:</b>	RQ (Reportable Quantity)	No
<b>15.4 TSCA</b> (Toxic Substance Control Act) Inventory List:		Yes
<b>15.5 RCRA</b> (Resource Conservation and Recovery Act) Status:		No
<b>15.6 WHMIS</b> (Canada) Hazard Classification:		ND
<b>15.7 DOT</b> Hazardous Material: (See Section 14)		No
<b>15.8 CAA</b> Hazardous Air Pollutant (HAP)		No
<b>15.9 DSL/NDSL</b> Canadian substance List		Yes
<b>15.10 EU EINECS</b> European Union Identifier		233-321-1

<b>Section</b>	<b>16: OTHER INFORMATION</b>
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**REVISIONS:** The entire MSDS is reformatted to comply to ANSI Standard Z400.1-1993, by Technical Services-Tessenderlo Kerley, Inc.

Revised Section 9, minor adjustments to physical properties, 4/21/2009.

<p>THE INFORMATION PUBLISHED IN THIS MATERIAL SAFETY DATA SHEET HAS BEEN COMPILED FROM OUR EXPERIENCE AND OSHA, ANSI, NFPA, DOT, ERG, AND CHRIS. IT IS THE USER'S RESPONSIBILITY TO DETERMINE THE SUITABILITY OF THIS INFORMATION FOR THE ADOPTION OF NECESSARY SAFETY PRECAUTIONS. WE RESERVE THE RIGHT TO REVISE MATERIAL SAFETY DATA SHEETS PERIODICALLY AS NEW INFORMATION BECOMES AVAILABLE.</p>
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