

# MATERIAL SAFETY DATA SHEET

**Hazardous according to criteria of Worksafe Australia.**

## COMPANY DETAILS

Company Name:	Tessenderlo Kerley Incorporated,
Address:	7 Piermont Place, Cleveland, Qld, 4163
Phone Number:	07 3286 7864
Emergency Contact:	1800 024 973 (24 hours)

## IDENTIFICATION

Product Name: **Ammonium Bisulfite Solution**

**Other Names:** Ammonium hydrogen sulfite, Sulfurous acid, monoammonium salt.

**Chemical formula:**  $\text{NH}_4\text{HSO}_3$

**Use:** Reducing and precipitant agent in flotation circuits.

UN Number:	2693
Proper Shipping Name:	BISULFITES, AQUEOUS SOLUTION, NOS (contains Ammonium Bisulfite)
Class:	8 (Corrosive)
Packaging Group:	III
Hazchem:	2XE
E.P.G.:	8A1
Poison Schedule:	Not a scheduled poison.

### Physical Description / Properties:

Appearance:	Clear to pale yellow liquid	Specific gravity:	1.253 - 1.380
Odour:	Slight sulfur dioxide odour	Flashpoint:	Not applicable
Boiling point:	104° - 111°C (220° - 231°F)	Flammability Limits:	Not flammable
Vapour pressure:	Not determined.	pH:	5.5
Solubility in water:	Soluble.		

### Ingredients:

<i>Chemical Entity</i>	<i>CAS No.</i>	<i>Proportion</i>
Ammonium bisulfite	10192-30-0	45 - 70% w/w
Water	7732-18-5	30 - 55% w/w

### HEALTH HAZARD INFORMATION

**Acute Effects:**

- Swallowed:** Ingestion of product solution will cause irritation and corrosion of tissues in the gastrointestinal tract and a burning sensation.
- Eye:** Contact with the eyes by the product mist or solution will cause irritation and a burning sensation.
- Skin:** Prolonged or repeated skin contact with product mist or solution will cause skin irritation.
- Inhaled:** Inhalation of product vapours (slight amount of sulfur dioxide) will cause nose, throat and lung irritation.

**Chronic Effects:**

Not listed as carcinogenic.

**First Aid:**

- Swallowed:** If poisoning occurs, contact a doctor or Poisons Information Centre. Phone Australia 131126. If swallowed, immediately give 2 to 4 glasses of water, and induce vomiting, preferably using Ipecac Syrup APF.
- Eye:** Immediately flood with large quantities of water for at least 15 minutes. Hold eyelids apart during irrigation to ensure thorough flushing of entire area of eye and lids. Obtain immediate medical attention.
- Skin:** Immediately flush with large quantities of water. Remove contaminated clothing under a safety shower. Obtain immediate medical attention.
- Inhaled:** Remove victim from contaminated atmosphere. If breathing is laboured, administer oxygen. If breathing has ceased, clear airways and start CPR. Obtain immediate medical attention.

### PRECAUTIONS FOR USE

**Exposure Standards:**

	OSHA		ACGIH	
Sulfur dioxide	5 ppm (TWA)	35 ppm (STEL)	2 ppm (TLV)	5 ppm (STEL) 15 mins

**Engineering Standards:**

Use adequate exhaust ventilation to prevent inhalation of product vapours. Maintain an eyewash/safety shower in areas where product is handled.

**Personal Protection:**

- Eyes:** Avoid contact with eyes. Chemical protective goggles or a full face shield
- Skin:** Rubber or PVC gloves, chemical suit or overalls and boots. When using do not eat, drink or smoke. Wash thoroughly before smoking, eating or using toilet facilities. Wash contaminated clothing before reuse. Contaminated shoes cannot be cleaned and must be discarded. Avoid contact with eyes and skin.
- Respiratory:** Where vapour exposure is possible, use a respirator approved by NOHSC for sulfur dioxide. Do not breathe vapour or spray.

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**Ammonium Bisulfite Solution**

Page 3 of 3  
Issued: May 2000

**Flammability:** Not flammable.

## SAFE HANDLING INFORMATION

### Storage and Transport:

Dangerous Good class 8, with label "Corrosive 8" UN 2693 and packaging group III. Hazchem 2XE and EPG 8A1. Proper Shipping name BISULFITES, AQUEOUS SOLUTIONS, N.O.S. (contains Ammonium bisulfite).

Do not load with Dangerous Goods Class 1, 4.3, 5, 7, food and food packaging.

Keep out of reach of children. Keep away from living quarters. Store apart from animal and human foodstuffs. Store in original container in a cool dry, well ventilated place, out of direct sunlight. Do not store combustibles in the area of storage vessels.

**Incompatibility:** Strong oxidiser's such as nitrates, nitrites or chlorates. Acids will cause the release of sulfur dioxide, a highly toxic gas. Alkalies will accelerate the evolution of ammonia. **Ammonium bisulfite is NOT compatible with copper or zinc or their alloys (i.e. bronze, brass, galvanised metals, etc.).** These materials of construction should not be used in handling systems or storage containers for this product.

### Spills and Disposal:

Small releases should be contained or absorbed using sand, earth or sawdust. Released material may contain residual sulfides. Spray with weak (~5%) hydrogen peroxide solution to oxidise sulfides. For larger releases, confine area to qualified personnel. Wear proper protection equipment. Shut off release if safe to do so. Dike spill area to prevent runoff into sewers, drains or waterways (potential aquatic toxicity). Recover as much of the solution as possible. Treat remaining material as a small release.

### Fire / Explosion:

When heated, sulfur dioxide vapours will evolve. This gas is a severe respiratory hazard. Keep containers in fire area cool with water spray.

In fire situations where large quantities of this product are involved, always fight fires upwind. If down wind, in enclosed spaces or in smoke or fumes, wear self contained breathing apparatus. Use extinguishing media for surrounding fire. Hazardous polymerisation will not occur.

**Hazchem:** 2XE.

## OTHER INFORMATION & REFERENCES

**Ecological Information:** Potentially an aquatic hazard. No data available for this product.

**Contact Point:** Australian Manager

Phone: 07 3286 7864

Revised Personal Protection Eyes, and company logo, 5/8/02

This MSDS summarises our best knowledge of the health and safety hazard information of the product and how to safely handle and use the product in the workplace. Each user should read this MSDS and consider the information in the context of how the product will be handled and used in the workplace including in conjunction with other

products. If clarification or further information is needed to ensure that an appropriate risk assessment can be made, the user should contact this company. (abs-msd)