



## Safety Data Sheet Dimet Solution

SDS Number: 121 Revision: June 10, 2016

### Section 1: IDENTIFICATION

1.1 Product Name: Dimet Solution

1.2 Other Identification:

Chemical Family: Carbamodithioic acid, dimethyl-, sodium salt  
Formula:  $C_3H_7NS_2 \cdot Na$

1.3 Recommended Use of Chemical: Metal precipitation/stabilization.

1.4 Manufacturer: Tessenderlo Kerley, Inc.  
2255 N. 44<sup>th</sup> Street, Suite 300  
Phoenix, Arizona 85008-3279  
Information: (602) 889-8300

1.5 Emergency Contact: Tessenderlo Kerley, Inc. (800) 877-1737  
CHEMTREC (800) 424-9300 (Domestic)  
(703) 527-3887 (International)

### Section 2: HAZARD(S) IDENTIFICATION

2.1 Hazard Classification:	Health	Acute Toxicity Oral	Category 4
		Acute Toxicity Dermal	Category 4
		Acute Toxicity Inhalation	Category 3
		Skin Corrosion/Irritation	Category 1C
		Eye Damage/Irritation	Category 1

Physical None

2.2 Signal Word: **DANGER**

2.3 Hazard Statement(s): Harmful if swallowed.  
Harmful in contact with skin.  
Toxic if inhaled.  
Causes severe skin burns and eye damage.  
Causes serious eye damage.

**2.4 Symbol(s):****2.5 Precautionary Statement(s):**

**If swallowed:** Rinse mouth. Do NOT induce vomiting. Call a poison center/doctor/regional medical center if you feel unwell.

**If on skin (or hair):** Wash with plenty of water. Call a poison center/doctor/regional medical center if you feel unwell. Take off contaminated clothing and wash it before reuse.

**If inhaled:** Remove person to fresh air and keep comfortable for breathing. Call a poison center/doctor/regional medical center.

**If in eyes:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center/doctor/regional medical center.

Do not breath fumes/gas/mist/vapors/spray.

Wear neoprene rubber gloves, chemical suit, boots, chemical goggles and full-face shield.

Wash hands/face thoroughly after handling. Do not eat, drink or smoke when using product.

Use only outdoors or in well-ventilated area. Store in a well-ventilated place.

Keep container tightly closed. Store locked up.

Dispose of contents/container to chemical waste facility in accordance with local/regional/federal regulations.

Do not allow release to aquatic waterways

**2.6 Unclassified Hazard(s):** Aquatic Toxicity

**2.7 Unknown Toxicity Ingredient:** None

<b>Section 3: COMPOSITION/INFORMATION on INGREDIENTS</b>
--

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

Chemical	Synonym Common Name	CAS No.	EINECS No.	% by Wt.
Carbamodithioic acid, dimethyl-, sodium salt	Sodium dimethyldithiocarbamate	128-04-1	204-876-7	39-41
Water	Water	7732-18-5	231-791-2	Remaining %

<b>Section 4: FIRST AID MEASURES</b>
--------------------------------------

**4.1 Symptoms/Effects:**

Acute: Eye contact may cause eye irritation and a burning sensation and lead to severe corneal damage. Skin contact will cause skin irritation and result in skin corrosion.

Chronic: No known chronic effects.

- 4.2 Eyes:** Immediately flush with large quantities of water for 15 minutes. Hold eyelids apart during irrigation to ensure thorough flushing of the entire area of the eye and lids. Obtain immediate medical attention.
- 4.3 Skin:** Immediately flush with large quantities of water. Remove contaminated clothing under a safety shower. Continue rinsing. Obtain immediate medical attention.
- 4.4 Ingestion:** DO NOT INDUCE VOMITING. If victim is conscious, give 2 to 4 glasses of water. If vomiting does occur, continue to give fluids. Obtain immediate medical attention.
- 4.5 Inhalation:** Remove victim from contaminated atmosphere. If breathing is labored, administer Oxygen. If breathing has ceased, clear airway and start CPR. Obtain immediate medical attention.

<b>Section 5: FIRE FIGHTING MEASURES</b>
--

**5.1 Flammable Properties:** (See Section 9, for additional flammable properties)

**NFPA:**                    **Health - 3**      **Flammability - 1**      **Reactivity - 1**

**5.2 Extinguishing Media:**

**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:**

**Physical Hazards:**                              Heating solution will cause Carbon disulfide and/or Dimethylamine vapors to be evolved.

**Chemical Hazards:**                              Mixture with acids or acidic materials will cause Carbon disulfide and/or Dimethylamine vapors to be evolved. These vapors may cause flammable mixtures with air.

**5.3.2 Protective Equipment and Precautions for Firefighters:**

Firefighters should wear self-contained breathing apparatus (SCBA) and full fire-fighting turnout gear. Keep containers/storage vessels in fire area cooled with water spray.

**Section 6: ACCIDENTAL RELEASE MEASURES**

- 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 United States” because of aquatic toxicity (See Section 12).
- 6.3 Methods of Containment:**
- Small Release:** Confine and absorb small releases with sand, earth or other inert absorbents.
- Large Release:** Shut off release if safe to do so. Dike spill area with earth, sand or other inert absorbents to prevent runoff into surface waterways (aquatic toxicity), storm drains or sewers.
- 6.4 Method for Cleanup:**
- Small Release:** For small areas shovel up absorbed material and place contaminated product and soil in suitable container for proper waste disposal.
- Large Release:** Recover as much of the spilled product as possible with air-operated diaphragm pump and hoses. Use as originally intended or if unusable, dispose of as a chemical waste. Treat remaining material as a small release above.

**Section 7: HANDLING and STORAGE**

- 7.1 Handling:** Avoid contact with eyes/skin. Handle only in enclosed containers. Use outdoors or in a well-ventilated area. Wash thoroughly after handling. Avoid breathing of vapors.
- 7.2 Storage:** Store locked up in well ventilated areas. Keep containers tightly closed when not in use. Do not store combustibles in the area of storage vessels. Keep away from any sources of heat or flame. Store totes and smaller containers out of direct sunlight at moderate temperatures.

**Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**
**8.1 Exposure Guidelines:**

Chemical	OSHA PELs		ACGIH TLVs	
	TWA	STEL	TWA	STEL
Carbon disulfide	20 ppm	30 ppm (Ceiling)	1 ppm	None
Dimethylamine	10 ppm	None	5 ppm	15 ppm
Carbamodithioic acid, dimethyl-, sodium salt	None	None	None	None
Water	None	None	None	None

**8.2 Engineering Controls:** Use adequate exhaust ventilation to prevent inhalation of product vapors. Keep eye wash/safety shower in areas where product is commonly handled.

**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 or chemical suit should be worn to prevent repeated contact with the liquid. Wash contaminated clothing prior to reuse.

**8.3.3 Respiratory Protection:** Users handling Dimet should test their particular operation to assess whether the vapors evolving from the process present a respiratory exposure problem to workers. Depending on results, handlers may be required to wear self-contained breathing apparatus (SCBA), positive pressure (MSHA/NIOSH approved), air supplied respirator with full-face mask or a full-face respirator with organic cartridges.

**8.3.4 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:** Clear yellow liquid.  
**9.2 Odor:** Amine (fish) odor.  
**9.3 Odor Threshold:** 0.02 to 0.1 ppm (carbon disulfide).  
 0.047 ppm (dimethylamine).  
**9.4 pH:** > 13  
**9.5 Melting Point/Freezing Point:** Salt out temperature is > 32°F (0°C).  
**9.6 Boiling Point:** 212°F (100°C)

9.7 Flash Point:	201°F (93.9°C)
9.8 Evaporation Rate:	Not determined
9.9 Flammability:	Not applicable
9.10 Upper/Lower Flammability Limits:	1.3 to 50% (carbon disulfide). 2.8 to 14.4% (dimethylamine).
9.11 Vapor Pressure:	13 mm Hg @ 68°F (1.73 kpa @ 20°C).
9.12 Vapor Density:	1.17 to 1.19
9.13 Relative Density:	1.17 to 1.18 (9.75 to 9.83 lbs/gal).
9.14 Solubility:	Complete
9.15 Partition Coefficient:	Not determined
9.16 Auto-ignition Temperature:	Not applicable
9.17 Decomposition Temperature:	Not determined
9.18 Viscosity:	23 cps @ 72°F (22.2°C).

## Section 10: STABILITY and REACTIVITY

10.1 Reactivity:	Contact with acids will cause Carbon disulfide and Dimethylamine to be evolved.
10.2 Chemical Stability:	This product is stable under normal (ambient) temperature and pressure.
10.3 Possibility of Hazardous Reactions:	Acids and oxidizers.
10.4 Conditions to Avoid:	High heat and fire conditions.
10.5 Incompatible Materials:	Acids and oxidizing agents. <b>Dimet is not compatible with Copper or its alloys (i.e. brass, bronze, etc.)</b> These materials of construction should not be utilized in handling systems or storage containers for this product.
10.6 Hazardous Decomposition Products:	Heating this product will evolve Carbon disulfide and Dimethylamine.

## Section 11: TOXICOLOGICAL INFORMATION

11.1 Oral:	Oral Rat LD <sub>50</sub> : 1,000 mg/kg. (sodium dimethyldithiocarbamate)
11.2 Dermal:	Acute dermal limit test, rabbits (24 hrs.) >2,000 mg/kg bw. (sodium dimethyldithiocarbamate) Corrosiveness/irritation rabbits (4 hrs. – slight irritating). (sodium dimethyldithiocarbamate)
11.3 Inhalation:	Acute inhalation limit test, rats (4 hrs.) 2.05 mg/L. (sodium

dimethyldithiocarbamate)

- 11.4 Eyes:** No data available.
- 11.5 Chronic/Carcinogenicity:** Not listed in NTP, IARC or by OSHA.
- 11.6 Teratology:** No data available.
- 11.7 Reproduction:** No data available.
- 11.8 Mutagenicity:** Rubber and Plastics Adhesive Panel concludes sodium dimethyldithiocarbamate is weakly mutagenic to bacteria but not mutagenic to mammalian cells, in vitro, and that no further testing is warranted.

## Section 12: ECOLOGICAL INFORMATION

- 12.1 Ecotoxicity:** Flow-through acute 96 hour – LC<sub>50</sub>: for sheepshead minnow is 60.1 mg/l. (sodium dimethyldithiocarbamate)  
Static acute 96 hour – LC<sub>50</sub>: for rainbow trout is 0.85 mg/l. (sodium dimethyldithiocarbamate)
- 12.2 Persistence & Degradability:** No data available.
- 12.3 Bioaccumulative Potential:** No data available.
- 12.4 Mobility in Soil:** No data available.
- 12.5 Other Adverse Effects:** None

## Section 13: DISPOSAL CONSIDERATIONS

Consult federal, state and local regulations for disposal requirements.

## Section 14: TRANSPORT INFORMATION

### 14.1 Basic Shipping Description:

- 14.1.1 Proper Shipping Name:** Caustic alkali liquids n.o.s. (sodium dimethyldithiocarbamate).
- 14.1.2 Hazard Classes:** 8
- 14.1.3 Identification Number:** UN 1719
- 14.1.4 Packing Group:** II
- 14.1.5 Hazardous Substance:** No
- 14.1.6 Marine Pollutant:** No

**14.2 Additional Information:****14.2.1 Other DOT Requirements:**

<b>14.2.1.1 Reportable Quantity:</b>	No
<b>14.2.1.2 Placard(s):</b>	Corrosive
<b>14.2.1.3 Label(s):</b>	Corrosive

**14.2.2 USCG Classification:** Not determined

**14.2.3 International Transportation:**

<b>14.2.3.1 IMO:</b>	Caustic alkali liquids n.o.s. (sodium dimethyldithiocarbamate).
<b>14.2.3.2 IATA:</b>	Caustic alkali liquids n.o.s. (sodium dimethyldithiocarbamate).
<b>14.2.3.3 TDG (Canada):</b>	Caustic alkali liquids n.o.s. (sodium dimethyldithiocarbamate).
<b>14.2.3.4 ADR (Europe):</b>	Caustic alkali liquids n.o.s. (sodium dimethyldithiocarbamate).
<b>14.2.3.5 ADG (Australia):</b>	Caustic alkali liquids n.o.s. (sodium dimethyldithiocarbamate).

**14.2.4 Emergency Response Guide:** 154

**14.2.5 ERAP - Canada:** Not applicable

**14.2.6 Special Precautions:** Not applicable

<b>Section 15: REGULATORY INFORMATION</b>
---

**15.1 U.S. Federal Regulations:**

**15.1.1 OSHA:** This product is considered hazardous under the criteria of the Federal OSHA Hazard Communication Standard (29 CFR 1910.1200).

**15.1.2 TSCA:** Product is contained in USEPA Toxic Substance Control Act Inventory.

**15.1.3 CERCLA (Reportable Quantity):** No

**15.1.4 SARA Title III:**

**15.1.4.1 Extremely Hazardous Substance (EHS):** No

<b>15.1.4.2 Section 312 (Tier II) Ratings:</b>	Immediate (acute)	Yes
	Fire	No
	Sudden Release	No
	Reactivity	Yes
	Delayed (chronic)	No

**15.1.4.3 Section 313 (FORM R):** Yes, sodium dimethyldithiocarbamate.



**15.1.5 RCRA:** Possible D002, if product becomes a Waste.

**15.1.6 CAA (Hazardous Air Pollutant/HAP):** Not applicable

## 15.2 International Regulations:

### 15.2.1 Canada:

**15.2.1.1 WHMIS:** E, D2B

**15.2.1.2 DSL/NDL:** Listed on DSL. Record No. 3624.

## 15.3 State Regulations:

**15.3.1 CA Proposition 65:** WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

## Section 16: OTHER INFORMATION

**REVISIONS:** This SDS was reformatted to comply with the new Hazard Communication Standard dated March 26, 2012, by the Regulatory Affairs Department of Tessenderlo Kerley, Inc. 7/1/2014

Revised Section 2, formatting Hazard Classification and Precautionary Statements 9/16/2014

Revised Section 2, Hazard Classes and Precautionary Statements. 4/14/2015.

Revised sections 1, 2, 4, 5,6, 8-12 and 15. 6/10/2016.

*The information above is believed to be accurate and represents the best information currently available to Tessenderlo Kerley, Inc. (TKI). No warranty of merchantability, fitness for any particular purpose, or any other warranty is expressed or is to be implied regarding the accuracy or completeness of this information, the results to be obtained from the use of this information or the product, the safety of this product, or the hazards related to its use. Users should make their own investigations to determine the suitability of the information for their particular purpose and on the condition that they assume the risk of their use thereof. TKI reserves the right to revise this Safety Data Sheet periodically as new information becomes available.*