



molekō™

TESSENDERLO GROUP

**DIMET**®

**FOR WATER**

**TREATMENT**

**AND SOIL**

**REMEDICATION**

MOLECULES ON THE MOVE





**EFFECTIVE AND EFFICIENT  
CAPTURE OF HEAVY METALS  
FROM WATER AND SOIL**



**Dimet (Sodium dimethyldithiocarbamate) is highly effective at capturing and removing metals from the environment.**

**Dimet is an effective metal precipitating agent for waste water streams and soil remediation applications.**

The sludge cake produced from using Dimet as a heavy metal precipitant is compact, highly insoluble and easily dewatered.

- Heavy metal precipitant
- 40% aqueous solution of sodium dimethyldithiocarbamate
- Should be used in alkaline conditions

### TYPICAL PROPERTIES

<b>Color</b>	Slightly yellow
<b>Density At 77°F (25°C)</b>	1.18 g / mL
<b>Approximate Weight per U.S. Gallon</b>	9.8 lb
<b>Approximate Volume per Kilogram</b>	847 mL
<b>Approximate Volume per Pound</b>	385 mL
<b>pH (neat)</b>	12-14
<b>pH (100 ppm In Water)</b>	8-9
<b>Flash Point</b>	Above 201°F (93.9°C)
<b>Salt out temperature</b>	> 32°F (0°C)
<b>Suggested typical pH range for use in mildly alkaline conditions</b>	7-9





## APPLICATION

The weight of Dimet equivalent to a unit weight of metal ion is approximately equal to 360 times the metal ion valence divided by the atomic weight of the metal. Table 1 shows the concentration of Dimet equivalent to 1.0 mg/L (1 ppm) of various metal ions.

The recommended dosage for complete precipitation of a metal is 10 to 30% in excess of the stoichiometric equivalent. For example, the equivalent for  $\text{Cu}^{+2}$  is 11.3 parts by weight of Dimet per 1.0 part of  $\text{Cu}^{+2}$  but about 13 parts of Dimet would be needed for complete precipitation. For best results, the required concentration for a given application should be determined by laboratory tests. If practical, adjustment of the pH to values between 7 and 9 can often help improve the effectiveness of the precipitant.

Dimet can be added continuously or batch-wise as required. The treated effluent should be agitated, and then allowed to settle. Cationic polyelectrolyte flocculants can be used to improve the efficiency of the separation of the precipitate from the liquid.

A jar test following the above protocol is recommended before application. Please contact [info@moleko.com](mailto:info@moleko.com) for additional information or technical support.

## DIMET/METAL ION STOICHIOMETRIC EQUIVALENTS

METAL ION	DIMET EQUIVALENT CONCENTRATION
$\text{Ag}^{+1}$	3.3
$\text{Au}^{+1}$	1.8
$\text{Au}^{+2}$	3.6
$\text{Au}^{+3}$	5.4
$\text{Cd}^{+2}$	6.4
$\text{Co}^{+2}$	12.1
$\text{Cr}^{+3}$	20.7
$\text{Cu}^{+2}$	11.3
$\text{Fe}^{+2}$	12.8
$\text{Hg}^{+2}$	3.6
$\text{Hg}^{+1}$	1.8
$\text{Mn}^{+2}$	13.0
$\text{Ni}^{+2}$	12.2
$\text{Pb}^{+2}$	3.5
$\text{Zn}^{+2}$	11.0



## PACKAGING AND HANDLING

**Dimet is a water-soluble liquid available in bulk, drums, and totes. Materials of construction suitable for storing and handling the product include stainless steel, polyethylene (HDPE, LDPE, XLPE), polypropylene, neoprene, viton, teflon and molded nylon.**

Do not use Dimet in systems where it can come in contact with copper alloys, bronze or brass.

Improper handling of this product can be injurious to workers. Observe all safety precautions shown on the product label included in the safety data sheet.

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