



MATERIAL SAFETY DATA SHEET

SECTION 1 – CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: BUEHLER INDUSTRIAL BIOCIDES/FUNGICIDES
 IDENTIFICATION NUMBER: 49-2540
 PRODUCT USE/CLASS: Biocides

SUPPLIER:
 BUEHLER, a division of Illinois Tool Works Inc.
 41 WAUKEGAN ROAD
 LAKE BLUFF, IL 60044

EMERGENCY: 800-424-9300
 INFORMATION: 847-295-6500
 PREPARER: Technical Department, 847-295-6500
 PREPARE DATE: 03/23/09, 23 March 2009

SECTION 2 – COMPOSITION/INFORMATION ON INGREDIENTS

ITEM	CHEMICAL NAME	CAS NUMBER	WT/WT%			
01	2-mercaptobenzotriazole	149-30-4	5.0-10.0			
02	Sodium dimethyldimethyldithiocarbamate	128-04-1	10.0-30.0			
ITEM	ACGIH TLV-TWA	ACGIH TLV-STEL	OSHA PEL-TWA	OSHA PEL – CEILING	COMPANY TLV-TWA	SKIN
01	N.E.	N.E.	N.E.	N.E.	N.E.	NO
02	N.E.	N.E.	N.E.	N.E.	N.E.	NO

(SEE SECTION 16 FOR ABBREVIATION LEGEND)

SECTION 3 – HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW: Harmful to aquatic organisms. Harmful if swallowed. May cause target organ or system damage. Refer to chronic health effects section. Causes eye irritation. May cause skin irritation.

ACUTE EFFECTS – EYE CONTACT: Contact may cause injury to eye tissue if not removed promptly.

ACUTE EFFECTS - SKIN CONTACT: Substance may cause slight skin irritation.

ACUTE EFFECTS – INHALATION: Not expected to present a hazard in normal industrial use (room temperature processing).

ACUTE EFFECTS - INGESTION: Moderately toxic. May cause nausea and vomiting.

CHRONIC OVEREXPOSURE EFFECTS: *Preexisting pulmonary and dermatological disorders may be aggravated by exposure to hazardous components. *Pregnant rats fed high doses of material during pregnancy showed evidence of fetal injury. *Contains a substance or substances shown to be mutagenic in in-vitro (test tube) assays.

OTHER INFORMATION: No information.

PRIMARY ROUTE(S) OF ENTRY: SKIN CONTACT, EYE CONTACT

SECTION 4 – FIRST AID MEASURES

EYE CONTACT: Immediately flush eyes with plenty of water. Get medical attention, if irritation persists.

SKIN CONTACT: Wash with soap and water. Get medical attention if irritation develops or persists.

INHALATION: If symptoms occur, remove to fresh air. Medical personnel may administer oxygen if breathing is difficult. Seek medical attention if symptoms persist.

INGESTION: Swallowing less than an ounce will not cause significant harm. For larger amounts, do not induce vomiting, but give one or two glasses of water to drink and get medical attention.

NOTES TO PHYSICIAN: No information.

SECTION 5 – FIRE FIGHTING MEASURES

FLASH POINT: 200 F (PENSKY-MARTENS C.C.)

LOWER EXPLOSIVE LIMIT: N.A.

UPPER EXPLOSIVE LIMIT: N.A.

AUTOIGNITION TEMPERATURE: No data

EXTINGUISHING MEDIA: ALCOHOL FOAM, CO₂, DRY CHEMICAL, FOAM, WATER FOG

UNUSUAL FIRE AND EXPLOSION HAZARDS: Does not burn.

SPECIAL FIREFIGHTING PROCEDURES: Does not burn.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Dike spill. Keep material from drains and waterways. Absorb spill with inert absorbent such as clay. Contaminated material should be swept or shoveled into appropriate waste container and disposed of in accordance with applicable federal, state and local regulations.

SECTION 7 – HANDLING AND STORAGE

HANDLING: Follow all MSDS/label precautions even after container is emptied because it may retain product residues. Avoid contact with skin and eyes.

STORAGE: Keep from freezing.

SECTION 8 – EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: General ventilation usually adequate.

RESPIRATORY PROTECTION: None normally required under general ventilation. If TLV/PEL is exceeded, if use is performed in a poorly-ventilated space, or if inhalation effects occur, use NIOSH-approved vapor cartridge respirator in accordance with applicable health and safety regulations and manufacturer's recommendations.

SKIN PROTECTION: Clean clothing to cover skin. Cloth or synthetic gloves.

EYE PROTECTION: Safety glasses.

OTHER PROTECTIVE EQUIPMENT: Accessible eye wash and safety shower.

HYGIENIC PRACTICES: Follow good general industrial safety practices during use. Do not smoke or eat during use.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

BOILING RANGE:	N.A.	VAPOR DENSITY:	Is heavier than air
ODOR:	Faint ammoniacal	ODOR THRESHOLD:	No data
APPEARANCE:	Yellow-green	EVAPORATION RATE:	Is slower than Butyl Acetate
SOLUBILITY IN H ₂ O:	Appreciable		
FREEZE POINT:	No data	SPECIFIC GRAVITY:	1.0705
VAPOR PRESSURE:	No data	pH @ 0.0%:	N.A.
PHYSICAL STATE:	Liquid	VISCOSITY:	Low
COEFFICIENT OF WATER/OIL DISTRIBUTION:	No data		

(SEE SECTION 16 FOR ABBREVIATION LEGEND)

SECTION 10 – STABILITY AND REACTIVITY

CONDITIONS TO AVOID: No information.

INCOMPATIBILITY: Strong Lewis or mineral acids. Strong bases or oxidants.

HAZARDOUS DECOMPOSITION PRODUCTS: Oxides of carbon. Oxides of nitrogen, ammonia. Oxides of sulfur. Carbon disulfide in acid media.

HAZARDOUS POLYMERIZATION: Will not occur under normal conditions.

STABILITY: This product is stable under normal storage conditions.

SECTION 11 – TOXICOLOGICAL PROPERTIES

COMPONENT TOXICOLOGICAL INFORMATION:

----- CHEMICAL NAME -----	----- LD50 -----	----- LC50 -----
2-mercaptobenzotriazole	Oral-rat=1680mg/kg	No data
Sodium dimethyldimethyldithiocarbamate	Oral-rat=3120mg/kg	LC50-rat>2.05 mg/l

SECTION 12 – ECOLOGICAL INFORMATION

ECOLOGICAL TEST DATA: No information.

SECTION 13 – DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: Review all current federal, state, and local regulations regarding health and disposal for appropriate disposal procedures.

SECTION 14 – TRANSPORTATION INFORMATION

DOT PROPER SHIPPING NAME: Not regulated	
DOT TECHNICAL NAME: N.A.	
DOT HAZARD CLASS: N.A.	HAZARD SUBCLASS: N.A.
DOT UN/NA CLASS: N.A.	PACKAGING GROUP: N.A.
	RESP. GUIDE PAGE:
INTERNATIONAL SHIPPING NAME: Not regulated	
INTERNATIONAL ID NUMBER: N.A.	
IMDG CLASS (1°, 2°): N.A.	IMDG PAGE NUMBER: N.A.
IMDG EMS: N.A.	IATA CLASS (1°, 2°): N.A.
ADR ITEM NO.: N.A.	ADR TREMCARD: N.A.
SUPPLEMENTAL INFORMATION: No information.	

SECTION 15 – REGULATORY INFORMATION

OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200)

CERCLA – SARA HAZARD CATEGORY: THIS PRODUCT HAS BEEN REVIEWED, AND IS CONSIDERED, UNDER APPLICABLE DEFINITIONS, TO MEET THE FOLLOWING CATEGORIES: IMMEDIATE HEALTH HAZARD
CHRONIC HEALTH HAZARD

SARA SECTION 313: THIS PRODUCT CONTAINS THE FOLLOWING SUBSTANCES SUBJECT TO THE REPORTING REQUIREMENTS OF SECTION 313 AND 40 CFR PART 372:

----- CHEMICAL NAME ----- CAS NUMBER WT/WT % IS LESS THAN

No SARA Section 313 components exist in this product.

TOXIC SUBSTANCE CONTROL ACT: THE CHEMICAL SUBSTANCES IN THIS PRODUCT ARE ON THE TSCA SECTION 8 INVENTORY. THIS PRODUCT CONTAINS THE FOLLOWING CHEMICAL SUBSTANCES SUBJECT TO THE REPORTING REQUIREMENTS OF TSCA 12(B) IF EXPORTED FROM THE UNITED STATES:

----- CHEMICAL NAME ----- CAS NUMBER

No components found.

NEW JERSEY RIGHT-TO-KNOW: THE FOLLOWING MATERIALS ARE NON-HAZARDOUS, BUT ARE AMONG THE TOP 5 COMPONENTS IN THIS PRODUCT:

----- CHEMICAL NAME ----- CAS NUMBER

Water 7732-18-5

PENNSYLVANIA RIGHT-TO-KNOW: THE FOLLOWING NON-HAZARDOUS INGREDIENTS ARE PRESENT IN THE PRODUCT AT GREATER THAN 3%:

----- CHEMICAL NAME ----- CAS NUMBER

Water 7732-18-5

CALIFORNIA PROPOSITION 65: No Proposition 65 chemicals known to exist in this product.

CANADIAN WHMIS: THIS MSDS HAS BEEN PREPARED IN COMPLIANCE WITH CONTROLLED PRODUCT REGULATIONS EXCEPT FOR USE OF THE 16 HEADINGS.

CANADIAN WHMIS CLASS: D2B

COMPONENT RCRA CLASSIFICATIONS: toxic

COMPONENT RCRA CODES: U238

CERCLA RQ VALUE (MINIMUM): 100 lb

SECTION 16 – OTHER INFORMATION

HMIS RATINGS

HEALTH: 2

FLAMMABILITY: 0

REACTIVITY: 0

PREVIOUS MSDS REVISION DATE: 05/22/06; 22 MAY 06

REASON FOR REVISION: Administrative change for new format.

VOLATILE ORGANIC COMPOUNDS: 0 grams/ltr

LEGEND:

N.A. – NO INFORMATION

N.E. – NOT ESTABLISHED

N.D. – NOT DETERMINED

ABBREVIATIONS: ACGIH = AMERICAN CONFERENCE OF GOVERNMENTAL INDUSTRIAL HYGIENISTS; OSHA = OCCUPATIONAL HEALTH AND SAFETY ADMINISTRATION; TLV-TWA = THRESHOLD LIMIT VALUE – TIME WEIGHTED AVERAGE (8 HOURS); STEL = SHORT-TERM EXPOSURE LIMIT (15 MINUTES); C = CEILING VALUE; PEL = PERMISSIBLE EXPOSURE LIMIT

DISCLAIMER: TO THE BEST OF OUR KNOWLEDGE, THE INFORMATION CONTAINED IN THIS MSDS IS ACCURATE OR IS OBTAINED FROM SOURCES BELIEVED TO BE ACCURATE. HOWEVER, NO LIABILITY, EXPRESSED OR IMPLIED, IS ASSUMED FOR THE ACCURACY OR COMPLETENESS OF THE INFORMATION CONTAINED HEREIN. BUYER ASSUMES LIABILITY IN ITS USE OF THE MATERIAL.