BUCKMAN LABORATORIES, INC.

Material Safety Data Sheet

Buckman

MECT-WS-1

Revision date: 12/4/2009

Buckman Laboratories, Inc. 1256 North McLean Boulevard Memphis, TN 38108

Phone 1-800-282-5626

24 Hour Emergency Phone

(901) 767-2722

CE	C	$\Gamma \mathbf{I}$	M	1

OSHA HAZARD CLASSIFICATIONS

Toxic by inhalation. Avoid inhalation of dust. Toxic if swallowed. Corrosive to eyes and skin. Sensitizer.

SECTION 2	ECTION 2 HAZARDOUS COMPONENTS		
<u>Chemical Name</u> Particulates Not Otherwise Regulated	<u>CAS Number</u>	<u>% by Weight</u> 65	TLV OSHA (United States). TWA: 5 mg/m³ 8
			hour/hours. Form: Respirable OSHA PEL Z2 (United

States). TWA: 15 mg/m³ 8 hour/hours. Form: Total

Methylene bis(thiocyanate) 6317-18-6 8 Not available. 2-(Thiocyanomethylthio)benzothiazole 21564-17-0 8 Not available. Diethylene glycol monomethyl ether 111-77-3 3 - 4 Not available.

While some substances are claimed as trade secret in accordance with the provision of OSHA 29 CFR 1910.1200(i), all known hazards are clearly communicated within this document.

SECTION 3

FIRST AID INFORMATION

Eye Flush immediately with copious amounts of tap water or normal saline (minimum of 15 Exposure:

minutes). Take exposed individual to a health care professional, preferably an ophthalmologist,

for further evaluation.

Skin Wash exposed area with plenty of soap and water. Repeat washing. Remove contaminated Exposure:

clothing and wash thoroughly before reuse. If irritation persists consult a health care

professional.

Inhalation: If exposure by inhalation is suspected, immediately move exposed individual to fresh air. If

individual experiences nausea, headache, dizziness, has difficulty in breathing or is cyanotic,

seek a health care professional immediately.

USA MECT-WS-1 Ingestion:

DO NOT INDUCE VOMITING. Rinse with copious amounts of water or milk, first. Irrigate the esophagus and dilute stomach contents by slowly giving one (1) to two (2) glasses of water or milk. Avoid giving alcohol or alcohol related products. In cases where the individual is semicomatose, comatose or convulsing, DO NOT GIVE FLUIDS BY MOUTH. In case of intentional ingestion of the product seek medical assistance immediately; take individual to nearest medical facility.

SECTION 4

PRIMARY ROUTES OF EXPOSURE

1. Effects from Acute Exposure:

Eye Very hazardous in case of eye contact (irritant, corrosive). Eye contact can result in corneal Exposure:

damage or blindness. Inflammation of the eve is characterized by redness, watering and

itching.

Skin Very hazardous in case of skin contact (sensitizer). Hazardous in case of skin contact

Exposure: (corrosive, irritant). The amount of tissue damage depends on length of contact. Skin contact

> can produce inflammation and blistering. Skin contact may produce burns. Skin inflammation is characterized by itching, scaling, reddening or, occasionally, blistering.

Inhalation: May be harmful if inhaled. Do not breathe spray mists of the undiluted product. Effects will

depend upon solution strength and length of time of exposure.

Ingestion: Ingestion is not expected to be a primary route of exposure.

2. Effects from Chronic Exposure:

Repeated or prolonged dermal exposure may cause allergic contact dermatitis in susceptible individuals. In vitro mutagenicity tests on the active ingredients were negative. Birth defects are unlikely, as animal tests on the active ingredients were negative.

SECTION 5

Toxicological Information

Acute Effects:

Expected to be acutely hazardous by all routes of exposure.

Irritant / Sensitization Effects:

Very hazardous in case of eye contact (irritant, corrosive). Eye contact can result in corneal damage or blindness. Inflammation of the eye is characterized by redness, watering and itching. Very hazardous in case of skin contact (sensitizer). Hazardous in case of skin contact (corrosive, irritant). The amount of tissue damage depends on length of contact. Skin contact can produce inflammation and blistering. Skin contact may produce burns. Skin inflammation is characterized by itching, scaling, reddening or, occasionally, blistering.

May be harmful if inhaled. Do not breathe spray mists of the undiluted product. Effects will depend upon solution strength and length of time of exposure.

Target Organs Effects:

May cause damage to the following organs: kidneys, liver, upper respiratory tract, skin, eyes, central nervous system (CNS).

Other Health Effects:

None known.

USA MECT-WS-1

SECT	ION	6

Environmental Toxicological Information

No information available.

SECTION 7	Physical and Chemical Properties	
Appearance	Light yellow solid	

Odor Organic. (Slight.)

Density 1.03 g/cm³

Flash Point Closed cup: >101.7°C (215.1°F). (Pensky-Martens. (10% aqueous solution))

Melting/Freezing Point Not available. Boiling Point Not available.

Solubility Dispersible in cold water. Dispersible in hot water.

pH (Neat) Not available. pH (100 ppm in water) Not available.

Vapor Pressure..... Not applicable for solids.

Not available. o/w Partition Coefficient Oxidizing/Reducing Properties. Not available. Not available. *Viscosity* Additional pH Information Not available.

NOTE: The physical data presented above are typical values and should not be construed as specifications.

SECTION 8	Fire and Explosion Information
S = 0 = 1 = 0 = 1	I ii c aita Explosion Injointation

Flammable Limits Not available.

Extinguishing Media Water fog, carbon dioxide, foam, dry chemical.

Special Firefighting Fire-fighters should wear positive pressure self-contained breathing apparatus Procedures (SCBA) and full turnout gear.

Г.			
ш			
Ш	SECTION 0	Descripto Information	
Ш	SECTION 9	Reactivity Information	
11		<i>J J</i>	

Stability Stable under normal conditions of use and storage. Do not heat and/or store above

50C as decomposition may increase packaging pressure.

Incompatibility Strong acids, strong oxidizers, strong bases. Extended heating at high temperatures.

Hazardous Decomposition

Cyanide salts are formed when product contacts strong alkali. Thermal Products decomposition of product can produce toxic vapors of hydrogen cyanide and sulfur dioxide. Contact with fire may generate oxides or sulfur, nitrogen and carbon.

SECTION 10 Handling Precautions

Do not breathe dust. Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value. Wear goggles or face shield, a mask or pesticide respirator jointly approved by MSHA and OSHA, protective clothing and shoes, and rubber gloves. Wash thoroughly with soap and water after handling and before eating, drinking or using tobacco. Remove and wash contaminated clothing before reuse. Do not heat and/or store above 50C as decomposition may increase packaging pressure. Emergency showers and eye wash stations should be available. Educate and train employees in the safe use and handling of this product.

USA MECT-WS-1

SECTION 11	Satisfactory Materials of Construction	
Not available		

Not available.

SECTION 12 Spill, Leak, and Disposal Procedures

SPILL AND LEAK RESPONSE GUIDELINES:

Important: Before responding to a spill or leak of this product, review each section of this MSDS. Follow the recommendations given in the Handling Precautions sections. Check the Fire and Explosion Data section to determine if the use of non-sparking tools is merited. Insure that spilled or leaked product does not come into contact with materials listed as incompatible. If irritating fumes are present, consider evacuation of enclosed areas.

Emergency Response Assistance: Emergency technical assistance is available at any time from Buckman Laboratories, Inc., by calling (901) 767-2722.

Initially minimize area effected by the spill or leak. Block any potential routes to water systems (e.g., sewers, streams, lakes, etc.). Based on the product's toxicological and chemical properties, and on the size and location of the spill or leak, assess the impact on contaminated environments (e.g. water systems, ground, air equipment, etc.). There are no methods available to completely eliminate any toxicity this product may have on aquatic environments. Minimize adverse effects on these environments. Buckman Laboratories, Inc. can be contacted for technical assistance. Determine if federal, state, and/or local release notification is required (see Regulatory Classifications section of this MSDS). Recover as much of the pure product as possible into appropriate containers. Later, determine if this recovered product can be used for its intended purpose. Address clean-up of contaminated environments. Spill or leak residuals may have to be collected and disposed of. Flushing residual material to an industrial sewer, if present at the site of a spill or leak incident, may be acceptable if authorized approval is obtained. If product and/or spill/leak residuals are flushed to an industrial sewer, insure that they do not come into contact with incompatible materials. Contact the person(s) responsible for the operation of your facility's industrial sewer system prior to intentionally flushing spills or leaks of this product to the industrial sewer.

DISPOSAL GUIDELINES

Note: Follow federal, state, and local regulations governing the disposal of waste materials.

Neat Product: Contact your Buckman representative or Buckman Laboratories, Inc., at (901) 278-0330.

Contaminated Materials: Determine if waste containing this product can be handled by available industrial effluent system or other on-site waste management unit. If off-site management is required, contact a company experienced in industrial waste management. This product is not specifically listed in 40 CFR 261 as a Resource Conservation and Recovery Act (RCRA) hazardous waste. However, spill or leak residuals may meet the criteria of a characteristic hazardous waste under this Act. Check the characteristics of the material to be disposed of and/or the physical and reactivity data given in this MSDS for the neat product.

Container Disposal: Empty containers, as defined by appropriate sections of the RCRA, are not RCRA hazardous wastes. However, insure proper management of any residuals remaining in container.

SECTION 13 Transportation and Shipping Information

DOT Shipping Information:

UN2923, CORROSIVE SOLID, TOXIC, N.O.S., (2-(Thiocyanomethylthio)benzothiazole, Methylene bis (thiocyanate)), Class 8, (6.1), P.G. III, (ERG Guide 154)

IMO/IMDG Shipping Information:

UN2923, CORROSIVE SOLID, TOXIC, N.O.S., (2-(Thiocyanomethylthio)benzothiazole, Methylene bis (thiocyanate)), Class 8, (6.1), P.G. III, MARINE POLLUTANT, (EmS No. F-A, S-B, ERG Guide 154, HazMat Code 4936353)

IATA Shipping Information:

USA MECT-WS-1

UN2923, CORROSIVE SOLID, TOXIC, N.O.S., (2-(Thiocyanomethylthio)benzothiazole, Methylene bis (thiocyanate)), Class 8, (6.1), P.G. III, (ERG Guide 154, ERG Code 8P)

Unless otherwise stated, the shipping information provided above applies only to non-bulk containers of this product. Proper shipping name and general shipping information may vary depending on packaging and mode of shipment. All products shipped from Buckman locations have been properly packaged and labeled according to appropriate hazardous materials shipping regulations. If any alteration of packaging, product, or mode of transportation is further intended, different shipping information, including but not limited to proper shipping name, RQ designation, and labeling may apply. For further information pertaining to the shipping requirements for this product, contact Buckman's Transportation Department or DOT Coordinator.

SECTION 14

Regulatory Information

The following Regulations are known to apply to the use and disposal of this product. Additional Federal, State and Local regulations may also be applicable.

SARA (Superfund Amendments and Reauthorization Act)

SARA 302 Extremely Hazardous Substances List ...

No components of this product are listed.

SARA 312 Hazard Category ...

Immediate (Acute) Health Hazard

SARA 313 Toxic Chemicals List ...

This product contains the following toxic chemical(s) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR part 372:

Diethylene glycol monomethyl ether

CERCLA (Comprehensive Environmental Response, Compensation and Liability Act)

No components of this product are present above the *de minimus* levels.

RCRA (Resource Conversation and Recovery Act) Listed Hazardous Waste

No components of this product are listed.

CWA (Clean Water Act) Listed Substances

No components of this product are listed.

FDA (Food and Drug Administration)

This product is <u>not allowed</u> for food contact uses.

TSCA (Toxic Substances Control Act) Applicability

All components may not be listed on the TSCA Inventory. Registered pesticides are exempt from the requirements of TSCA.

FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act)

This product is a registered pesticide. EPA Reg. No. 1448-408

HMIS/NPCA Rating ... Health 3 Flammability 1 Reactivity 1

NFPA Ratings Health 3 Flammability 1 Reactivity

State Regulations

Various State Right To Know Acts ...

Non-proprietary hazardous chemicals are listed in Section 2 of this MSDS. Should you require further information on specific proprietary or inert ingredients please contact Buckman Laboratories' Regulatory Affairs Department.

USA MECT-WS-1

The information on this Material Safety Data Sheet reflects the latest information and data that we have on hazards, properties, and handling of this product under the recommended conditions of use. Any use of this product or method of application which is not described in the Data Sheet is the responsibility of the user. This Material Data Safety Sheet was prepared to comply with the OSHA Hazard Communication regulations. While some components are claimed Trade Secret under OSHA Hazard Communication regulations, all known OSHA hazards associated with the Trade Secret component(s), if contained in this product, are fully disclosed.

Buckman Laboratories, Inc. warrants that this product conforms to its chemical description and is reasonably fit for the purpose referred to in the directions for use when used in accordance with the directions under normal conditions. Buyer assumes the risk of any use contrary to such directions.

Seller makes no other warranty or representation of any kind, express or implied, concerning the product, including NO IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS OF THE GOODS FOR ANY OTHER PARTICULAR PURPOSE. No such warranties shall be implied by law and no agent of seller is authorized to alter this warranty in any way except in writing with a specific reference to this warranty.

The exclusive remedy against seller shall be in a claim for damages not to exceed the purchase price of the product, without regard to whether such a claim is based upon breach of warranty or tort.

Any controversy or claim arising out or relating to this contract, or breach thereof, shall be settle by arbitration in accordance with the commercial arbitration rules of the American Arbitration Association, and judgement upon the rendered by the Arbitrator(s) may be entered in any court having jurisdiction thereof.