

MATERIAL SAFETY DATA SHEET



Date Issued: 10/16/2008
 MSDS No: MX2302_US
 Date Revised: 09/18/2009
 Revision No: 3

Micronox MX2302

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Micronox MX2302

GENERAL USE: Cleaning agent

MANUFACTURER

KYZEN CORPORATION
 430 Harding Industrial Drive
 Nashville, TN 37211

Product Stewardship: 800-845-5524

Alternate Emergency Phone: 615-831-0888

DISTRIBUTOR

24 HR. EMERGENCY TELEPHONE NUMBERS

CANUTEC (Canadian Transportation) :(613) 996 - 6666

CHEMTREC (US Transportation) :(800) 424 - 9300

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

PHYSICAL APPEARANCE: Clear liquid.

IMMEDIATE CONCERNS: May be mildly irritating to the eyes and skin. Vapor exposure may cause mild discomfort of the nose and throat. Excessive exposure to vapors may cause dizziness, drunkenness, blurred vision, nausea, vomiting or headaches; may be harmful if ingested.

POTENTIAL HEALTH EFFECTS

EYES: May cause irritation.

SKIN: May cause irritation.

INGESTION: May be harmful if swallowed.

INHALATION: May cause irritation.

SIGNS AND SYMPTOMS OF OVEREXPOSURE

EYES: May cause irritation.

SKIN: May cause irritation.

INGESTION: May be harmful if swallowed.

INHALATION: May cause irritation.

ACUTE TOXICITY: Avoid direct contact with eyes, skin and clothing. May be irritating to eyes and skin; may be harmful if inhaled or swallowed.

CHRONIC EFFECTS: No data established on product as a whole.

CARCINOGENICITY: None expected

MUTAGENICITY: None expected

REPRODUCTIVE TOXICITY

REPRODUCTIVE EFFECTS: Tetrahydrofurfuryl alcohol CAS# 97-99-4: Animal dermal, inhalation and feeding studies on this material at relatively high dosage levels have demonstrated systemic toxicity and reproductive toxicity in males with no reproductive effects noted in females. To date, there is no indication of any adverse chronic health effects in humans from this material in over 40 years of industrial use.

MEDICAL CONDITIONS AGGRAVATED: May aggravate disorders of the skin, respiratory or nervous systems.

ROUTES OF ENTRY: Eyes, skin, inhalation and ingestion

CANCER STATEMENT: None expected

IRRITANCY: May cause irritation.

WARNING CAUTION LABELS: Avoid contact with skin, eyes and clothing. Avoid breathing mists and vapors. Avoid prolonged and repeated exposure. Use appropriate personal protective equipment. Do not eat, drink or smoke in handling areas.

COMMENTS HEALTH: May be irritating to eyes, skin and mucous membranes if inhaled or swallowed.

HEALTH HAZARDS: May cause irritation.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	Wt. %	CAS
Tetrahydrofurfuryl alcohol	75 - 100	97-99-4

COMMENTS: This preparation is a proprietary blend of substances; no other component is hazardous as defined by OSHA (29CFR1910.1200) or classified as hazardous by ESIS according to Directive 1999/45/EC and its amendments and Annex 1 of Directive 67/548/EEC.

4. FIRST AID MEASURES

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

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

INGESTION: Get immediate medical attention. If conscious and medical help is not readily available, give 1 to 2 glasses of water and keep at rest. Never attempt to give anything by mouth to an unconscious person.

INHALATION: Move person to fresh air. If necessary, restore and support breathing. If breathing is difficult, give oxygen. Get immediate medical attention.

5. FIRE FIGHTING MEASURES

FLASHPOINT AND METHOD: 82°C (180°F)

FLAMMABLE CLASS: Non-flammable

FLAME PROPAGATION OR BURNING RATE OF SOLIDS: Not established

GENERAL HAZARD: None expected

EXTINGUISHING MEDIA: Alcohol foam, carbon dioxide, or water spray when fighting fires involving this material.

EXPLOSION HAZARDS: Not established

FIRE FIGHTING PROCEDURES: Use water spray to cool containers exposed to fire.

FIRE FIGHTING EQUIPMENT: Firefighters should have eye protection and wear self-contained breathing apparatus.

FIRE EXPLOSION: None expected

HAZARDOUS DECOMPOSITION PRODUCTS: Decomposition vapors will mainly consist of carbon; may contain particles of inorganic oxides and salts.

6. ACCIDENTAL RELEASE MEASURES

SMALL SPILL: Clean up spills immediately, observing precautions in Protective Equipment section.

LARGE SPILL: Pick up spill on sand, earth or other non-combustible absorbent material. Flush or wipe area with water to remove last traces. Collect wash water/material for disposal. Wear all appropriate personal protective equipment.

ENVIRONMENTAL PRECAUTIONS

WATER SPILL: Avoid runoff into storm sewers and ditches which lead to waterways.

LAND SPILL: Dike area to contain spill. Take precautions necessary to prevent contamination of ground and surface waters. Recover spilled material using an adsorbent like sawdust and sweep into closed containers for disposal. After all visible traces and ignitable vapors have been removed, thoroughly wet vacuum the area. Do not flush to sewer. If area of spill is porous, remove as much contaminated earth and gravel, etc. as necessary and place in closed containers for disposal.

GENERAL PROCEDURES: Immediately contact emergency personnel and keep unnecessary personnel away. Use suitable protective

equipment (Section 8); follow all the fire fighting procedures (Section 5).

RELEASE NOTES: See Section 13 for waste disposal.

SPECIAL PROTECTIVE EQUIPMENT: See Section 8 for personal protective equipment.

7. HANDLING AND STORAGE

GENERAL PROCEDURES: Follow practices consistent with the handling and use of industrial chemicals.

HANDLING: Avoid contact with skin, eyes and clothing. Avoid breathing mists and vapors. Avoid prolonged and repeated exposure. Use appropriate personal protective equipment. Do not eat, drink or smoke in handling areas.

STORAGE: Store in cool, dry, well ventilated areas out of direct sunlight. Keep separate from oxidizers and strong acids. Keep containers tightly closed. Do not reuse empty containers.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE GUIDELINES

OSHA HAZARDOUS COMPONENTS (29 CFR1910.1200)							
		EXPOSURE LIMITS					
		OSHA PEL		ACGIH TLV		Supplier OEL	
Chemical Name		ppm	mg/m ³	ppm	mg/m ³	ppm	mg/m ³
Tetrahydrofurfuryl alcohol	TWA	NE	NE	NE	NE	2	2
	STEL	NE	NE	NE	NE	NE	NE

ENGINEERING CONTROLS: General ventilation and local exhaust are required to minimize or eliminate exposure to mists and vapors.

When used in self-contained, well ventilated industrial cleaning devices, personal respiratory protection is not typically required. For extended direct exposure to mist or vapors, use a NIOSH approved organic respirator as described in OSHA 29CFR 1910.134 or European Standard EN149.

PERSONAL PROTECTIVE EQUIPMENT

EYES AND FACE: Wear appropriate protective eyeglasses or chemical safety goggles as directed by OSHA's eye and face protection regulations in 29CFR1910.133 or European Standard EN166.

SKIN: Wash thoroughly after handling.

RESPIRATORY: General ventilation and local exhaust are required to minimize or eliminate exposure to mists and vapors. When used in self-contained, well ventilated industrial cleaning devices, personal respiratory protection is not typically required. For extended direct exposure to mist or vapors, use a NIOSH approved organic respirator as described in OSHA 29CFR 1910.134 or European Standard EN149.

PROTECTIVE CLOTHING: No special clothing is needed.

WORK HYGIENIC PRACTICES: Do not eat, drink or smoke when handling industrial materials.

OTHER USE PRECAUTIONS: Do not mix with nitrites due to the possible formation of nitrosoamines.

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: Liquid

ODOR: Mild

APPEARANCE: Clear

COLOR: Straw

pH: 9.5 to 10.4

VAPOR PRESSURE: 0.19 mmHg at 20°C

VAPOR DENSITY: Not determined

BOILING POINT: 150°C (302°F)

FLASHPOINT AND METHOD: 82°C (180°F)

SOLUBILITY IN WATER: Soluble

SPECIFIC GRAVITY: 1.040 to 1.060

(VOC): 1034.900 g/L EPA Method 24

Notes: Vapor Pressure of VOC Components: 0.10-0.50 mmHg at 20C

COMMENTS: These physical properties are typical values based on material tested but may vary from sample to sample. These values should not be construed as guaranteed analysis of any specific lot or as specifications for the product.

10. STABILITY AND REACTIVITY

STABLE: Yes

HAZARDOUS POLYMERIZATION: No

CONDITIONS TO AVOID: Heat, sparks, flame or other sources of ignition.

POSSIBILITY OF HAZARDOUS REACTIONS: Do not mix with nitrites due to the possible formation of nitrosoamines.

HAZARDOUS DECOMPOSITION PRODUCTS: Decomposition vapors will mainly consist of carbon; may contain particles of inorganic oxides and salts.

INCOMPATIBLE MATERIALS: Strong acids and oxidizers

11. TOXICOLOGICAL INFORMATION

EYE EFFECTS: May cause irritation.

SKIN EFFECTS: May cause irritation.

CHRONIC: No data established on product as a whole.

CARCINOGENICITY

IARC: None

NTP: None

OSHA: None

REPEATED DOSE EFFECTS: No data established on product as a whole.

IRRITATION: No data established on product as a whole.

CORROSIVITY: No data established on product as a whole.

SENSITIZATION: None expected

REPRODUCTIVE EFFECTS: No data established on product as a whole.

TERATOGENIC EFFECTS: No data established on product as a whole.

MUTAGENICITY: No data established on product as a whole.

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL DATA: No data established on product as a whole.

ECOTOXICOLOGICAL INFORMATION: No data established on product as a whole.

BIOACCUMULATION/ACCUMULATION: No data established on product as a whole.

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: Use approved treatment transporters and disposal sites.

EMPTY CONTAINER: Keep containers tightly closed when not in use; do not reuse empty containers.

EUROPEAN WASTE CATALOGUE: Number 070604: Other organic solvents, washing liquids and mother liquors

14. TRANSPORT INFORMATION

DOT (DEPARTMENT OF TRANSPORTATION)

PROPER SHIPPING NAME: Compounds, Cleaning liquid, Non-hazardous, Non-flammable

PRIMARY HAZARD CLASS/DIVISION: 000 Not regulated

ROAD AND RAIL (ADR/RID)

PROPER SHIPPING NAME: Compounds, Cleaning liquid, Non-hazardous, Non-flammable

KEMLER NUMBER: 000/NA

HAZARD CLASS: 000 Not regulated

AIR (ICAO/IATA)

SHIPPING NAME: Compounds, Cleaning liquid, Non-hazardous, Non-flammable

PRIMARY HAZARD CLASS/DIVISION: 000 Not regulated

COMMENTS: Harmonized Code: US 3402.90.5030 and MY 3402.90.990 Cleaning Preparations

15. REGULATORY INFORMATION

UNITED STATES

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)

311/312 HAZARD CATEGORIES: Acute/Fire

FIRE: No **PRESSURE GENERATING:** No **REACTIVITY:** No **ACUTE:** Yes **CHRONIC:** No

313 REPORTABLE INGREDIENTS: None

302/304 EMERGENCY PLANNING

EMERGENCY PLAN: None

CERCLA (COMPREHENSIVE RESPONSE, COMPENSATION, AND LIABILITY ACT)

CERCLA REGULATORY: None

TSCA (TOXIC SUBSTANCE CONTROL ACT)

TSCA STATUS: All components of this product are listed on the TSCA Inventory.

CLEAN AIR ACT

40 CFR PART 68---RISK MANAGEMENT FOR CHEMICAL ACCIDENT RELEASE PREVENTION: None

OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA)

29 CFR1910.119---PROCESS SAFETY MANAGEMENT OF HIGHLY HAZARDOUS CHEMICALS: None

REGULATIONS

STATE REGULATIONS: RTK: Tetrahydrofurfuryl alcohol CAS# 97-99-4: MA, PA

CALIFORNIA PROPOSITION 65: None

RCRA STATUS: None

OSHA HAZARD COMM. RULE: None

CLEAN WATER ACT: None

NATIONAL RESPONSE CENTER: None

CARCINOGEN: None

16. OTHER INFORMATION

REASON FOR ISSUE: New format

APPROVED BY: Kyzen Health & Safety

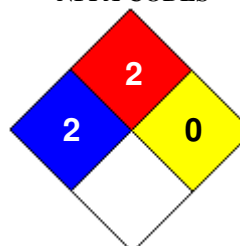
PREPARED BY: JAQ

REVISION SUMMARY: Revision #: 3. This MSDS replaces the May 18, 2009 MSDS. Any changes in information are as follows: In Section 1: MSDS Number

HMIS RATING

HEALTH:	2
FLAMMABILITY:	2
PHYSICAL HAZARD:	0
PERSONAL PROTECTION:	

NFPA CODES



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