



#569 D2

ENV score 45

MATERIAL SAFETY DATA SHEET

METALNOX[®] M6093

NEWLY DEVELOPED PRODUCT

SECTION 1: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name METALNOX[®] M6093

Manufacturer Kyzen Corporation
430 Harding Industrial Drive
Nashville, TN 37211

Information Phone (615) 831-0888
www.kyzen.com

EMERGENCY PHONE (24 HOURS) CHEMTREC (800) 424-9300

Effective Date October 8, 2002

Supersedes Date NEW

SECTION 2: COMPOSITION / INFORMATION ON INGREDIENTS

Component Name	CAS Number	Approximate % by wt.
Penta-hydroxi-caproic acid	526-95-4	1 – 5 %
2 hydroxy-1,2,3-propane tricarboxylic acid	77-92-9	10-20%

No other ingredients identified by OSHA as hazardous are known to be present, or the ingredients present are below levels specified as hazardous by OSHA (29 CFR 1910.1200).

See Section 8 for additional information.

SECTION 3: HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Clear, pale straw liquid. May cause eye and skin irritation.

Routes of Entry: Inhalation: Yes Skin Contact: Yes
Skin Absorption: Yes Ingestion: Yes

Potential Health Effects: May cause severe irritation, burns, and ulceration of the eyes and is a severe skin irritant. Prolonged exposure may cause skin burns and ulceration. Inhalation may cause nose, throat, and lung irritation. Ingestion may cause burns and/or perforation of the gastrointestinal tract.

Chemical Ingredients Listed as a Carcinogen or Potential Carcinogen:

National Toxicology Program:	None
IARC Monographs:	None
OSHA Regulated:	None

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SECTION 4: FIRST AID MEASURES

Emergency and First Aid Procedures for Overexposure:

Eye Contact:	Immediately flush with water for 15 minutes while lifting eyelids and rolling eyes. Get immediate medical attention.
Skin Contact:	Immediately wash with soap and water. Get medical attention if irritation occurs. Remove contaminated clothing. Launder clothing before reuse.
Inhalation:	Remove person to fresh air. If necessary, restore and support breathing. If breathing is difficult, oxygen should be administered by qualified personnel. Get medical attention.
Ingestion:	Get medical attention immediately. 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. Induce vomiting only at the advice of a physician.

SECTION 5: FIRE FIGHTING MEASURES

Flash Point	None to boiling (COC)
Flammable Limits in Air	None established for product as whole.
Fire Fighting	Firefighters should have eye protection and wear self-contained breathing apparatus. Use water spray to cool containers exposed to fire.
Extinguishing Media	Alcohol foam, carbon dioxide, dry chemical, water spray for dilution to non-flammable mixture.

Decomposition Products Under Fire Conditions:

Combustion produces unidentified organics, oxides of carbon, carbon dioxide, carbon monoxide, sulfur compounds, and acid vapors.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Material Release or Spill	Neutralize spills with lime or soda ash. 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.
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SECTION 7: HANDLING AND STORAGE

Handling and Storage	Store in cool, dry, well ventilated location away from incompatible materials. Do not store in open, unlabeled or mislabeled containers. Separate from oxidizing agents, active metals, cyanides, sulfides, and chlorine hypochlorites. Keep containers tightly closed. Avoid contact with skin, eyes, and clothing. Avoid breathing mists and vapors. Avoid prolonged or repeated exposure. Use appropriate personal protective equipment. Do not wear contact lenses when working with this material. No smoking, eating, or drinking in handling areas.
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SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

Personal Protection Under normal ventilated use conditions, personal respiratory protection is typically not required. If misting or vapors occur, use NIOSH approved organic vapor air purifying respirator. Use impervious chemical gloves. Long sleeves, aprons, or other protective clothing is suggested to avoid skin exposure. Use chemical safety goggles, face shield or safety glasses for eye protection. Do not wear contact lenses when working with this material. Have eye wash and safety shower readily available.

Workplace Exposure Guidelines

Avoid direct contact with this material. General ventilation and local exhaust required to minimize or eliminate exposure to mists and vapors. Do not eat, drink, or smoke when working with this material.

Note Personal protection information given is based upon the general information as to normal uses and conditions. Where special or unusual uses or conditions exist, it is suggested that the expert assistance of an industrial hygienist or other qualified professional be sought.

Exposure Guidelines Not established for product as whole.

Exposure Guidelines for Individual Components

Penta-hydroxi-caproic acid: No exposure limits established.

2 hydroxy-1,2,3-propane tricarboxylic acid: OSHA PEL: 8-hr TWA for nuisance particulate, 15 mg/m3 (total dust) . ACGIH TLV: TWA: 10 mg/m3 (nuisance particulate)

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Clear pale straw liquid
Odor	Mild
Boiling Point	> 200°F
Vapor Pressure	Not determined
Vapor Density	Not determined
Solubility in Water	Complete
Specific Gravity	1.0 - 1.1
pH	0.5 – 2.5

SECTION 10: STABILITY AND REACTIVITY

Stability	Stable
Hazardous Polymerization	Will not occur
Incompatible Materials	Oxidizing agents, active metals, cyanides, sulfides, chlorine hypochlorites
Conditions to Avoid	Heat, sparks, flame or other sources of ignition.

Hazardous Decomposition Products

Combustion produces unidentified organics, oxides of carbon, carbon dioxide, carbon monoxide, sulfur compounds, and acid vapors.

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SECTION 11: TOXICOLOGICAL INFORMATION

No information exists for product as whole.

Health Hazards (Acute and Chronic)

Penta-hydroxi-caproic acid: Eye contact may cause eye damage. Skin contact may cause skin irritation. Higher or prolonged skin contact may cause burns or ulceration. Inhalation may cause irritation of the respiratory passages with cough, difficulty breathing and irritation. Ingestion may cause irritation of the gastrointestinal tract with abdominal pain, irritation and burning.

2 hydroxy-1,2,3-propane tricarboxylic acid: Eye contact may cause eye damage. Skin contact may cause skin irritation, redness and irritation. Higher or prolonged skin contact may cause burns or ulceration. Inhalation may cause irritation of the respiratory passages with cough, difficulty breathing and irritation. Ingestion may cause irritation of the gastrointestinal tract with abdominal pain, irritation and burning.

SECTION 12: ECOLOGICAL INFORMATION

No information exists for product as whole.

SECTION 13: DISPOSAL CONSIDERATIONS

Disposal of Material Waste must be disposed of in accordance with federal, state and local environmental control regulations. Empty containers must be handled with care due to product residue.

SECTION 14: TRANSPORT INFORMATION

D.O.T. Shipping Name Compounds, Cleaning Liquid

D.O.T. Label Nonhazardous, Nonflammable

SECTION 15: REGULATORY INFORMATION

All ingredients used in METALNOX® M6093 are TSCA listed.

None of the ingredients are regulated under Section 313 of Title III of SARA of 1986 and 40 CFR 372.65.

None of the ingredients are regulated as a hazardous substance per 40 CFR 302 and 40 CFR 372.45.

SECTION 16: OTHER INFORMATION

NFPA Rating H=1, F=0, R=0
Effective Date October 8, 2002
Supersedes Date NEW
Sections Revised NEW MSDS
Prepared By Kyzen Health & Safety

This Material Safety Data Sheet adheres to ANSI standard ANSI Z400.1-1993.

The data contained herein is based on information currently available to Kyzen Corporation and is believed to be factual. As a formulator, blender, and compounder, Kyzen Corporation does not manufacture the raw materials used in this product and correspondingly relies on information provided to Kyzen Corporation from material safety data sheets on the specific raw materials in the construction of this material safety data sheet. Such information is to the best of Kyzen Corporation's knowledge and belief to be accurate and reliable as of the date of this MSDS. HOWEVER, NO REPRESENTATION, WARRANTY OR GUARANTEE IS MADE AS TO THE ACCURACY, RELIABILITY, OR COMPLETENESS. It is the user's responsibility to satisfy himself as to the suitability and completeness of such information for his own particular application. This information is not intended to be all-inclusive as to the manner and conditions of use, handling and storage. Other factors may involve other or additional safety or performance considerations. This data is not to be taken as a warranty or representation of which Kyzen Corporation assumes legal responsibility.
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