

Material Safety Data Sheet

Product: 24403 **KIWO MEGACLEAN ACTIVE**
Date: 9/13/2004 Revision date: 4/28/2006

1.IDENTIFICATION OF PRODUCT AND COMPANY

Product Code: 24403
Product Name: **KIWO MEGACLEAN ACTIVE**
Company: KIWO, Inc.
1929 Marvin Circle
Seabrook, TX 77586 USA
Phone: 281-474-9777
Fax: 281-474-7325
Supplier: _____

Phone: _____
Fax: _____
Recommended use: Cleaner

2. COMPOSITION/INFORMATION ON INGREDIENTS

Mixture of the below mentioned materials and non-hazardous substances
Hazardous components:

CAS-No.	Name	% content
872-50-4	N-Methyl-2-pyrrolidinone	10 - 30
25498-49-1	2(2-methoxymethylethoxy)-methylethoxypropanol	7 - 13
1310-73-2	sodium hydroxide	10 – 30
34590-94-8	2-Methoxymethylethoxypropanol	5 - 10
112-34-5	2-(2-Butoxyethoxy) ethanol	5 - 10

3. HAZARD IDENTIFICATION OF THE PREPARATION

Emergency Overview This material is hazardous according to This material is considered hazardous by the OSHA Communication Standard (29CFR 1910.1200)

Signal Word: WARNING. Corrosive

Hazards: Moderately combustible , corrosive liquid. May form reactive peroxides.

WHMIS Class: B3. E.

Physical State: Paste

Color: Colorless.

Odor: Aromatic, fruity odor.

Odor Threshold: No Data Available.

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Potential Health Effects

Routes of Exposure: Skin. Eye. Inhalation Ingestion (not expected)

Signs and Symptoms of Acute Exposure

Severe irritant. Effects from inhalation of mist vary from mild irritation to serious damage of the upper respiratory tract, depending on severity of exposure.

Symptoms may include sneezing, sore throat or runny nose. Severe pneumonitis may occur.

Skin

Skin absorption hazard. Corrosive! Contact with skin can cause irritation or severe burns and scarring with greater exposures.

Inhalation

Signs of respiratory tract irritation (such as nasal discharge and difficulty breathing) may occur after exposure to aerosol or high vapor concentrations.

Eye

Corrosive! Causes irritation of eyes, and with greater exposures it can cause burns that may result in permanent impairment of vision, even blindness.

Ingestion

Corrosive! Swallowing may cause severe burns of mouth, throat, and stomach.

Severe scarring of tissue and death may result. Symptoms may include bleeding, vomiting, diarrhea, fall in blood pressure. Damage may appears days after exposure.

Chronic Health Effects

See component summary.

- N-Methyl-2-pyrrolidinone 872-50-4

Repeated inhalation exposure may cause reversible irritation at the site of initial contact, and transient CNS effects have also been observed. NMP produced liver tumors and kidney effects in test animals. The relevance of these findings to humans is unknown. NMP may adversely affect reproduction in the rat after ingestion, although fertility is unaltered. The relevance of these findings to humans is unknown. Fetal effects were seen in pregnant animals exposed to NMP by ingestion, inhalation and skin contact. The relevance of these findings to humans is unknown. Prolonged contact with dilute solutions or dust has a destructive effect upon tissue.

Conditions Aggravated by Exposure

This material or its emissions may defat skin, cause contact dermatitis, or otherwise aggravate existing skin disease. Persons with pre-existing skin disorders or eye problems or impaired respiratory function may be more susceptible to the effects of the substance.

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4. FIRST AID MEASURES

General

Take proper precautions to ensure your own health and safety before attempting rescue and providing first aid. For specific information refer to the Emergency Overview in Section 3 of this MSDS.

Inhalation:

Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

Ingestion:

DO NOT INDUCE VOMITING! Give large quantities of water or milk if available. Never give anything by mouth to an unconscious person. Get medical attention immediately.

Skin Contact:

Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Call a physician, immediately. Wash clothing before reuse.

Eye Contact:

Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.

5. FIRE-FIGHTING MEASURES

Flash Point / Method: >93°C (TCC)

Auto-Ignition Temperature: 270 °C

Flammable Limits: LOWER: 1.2 vol% **UPPER:** 12 vol%

Hazardous Combustion Products:

Carbon Monoxide and other toxic vapors.

Special Conditions to Avoid:

When heated above the flash point, releases flammable vapors. When mixed with air and exposed to ignition source, vapors can burn in open or explode if confined. Vapors may be heavier than air. May travel long distances along the ground before igniting and flashing back to vapor source. Fine sprays/mists may be combustible at temperatures below normal flash point.

Suitable: SMALL FIRE: Use dry chemicals, CO₂, water spray or alcohol-resistant foam. LARGE FIRE: Use water spray, water fog or alcohol-resistant foam.

Extinguishing Media:

Unsuitable: Do not use solid water stream.

Fire Fighting Instructions:

Protective Equipment/Clothing: Do not enter fire area without proper protection. Wear positive pressure self-contained breathing apparatus (SCBA). Structural firefighters protective clothing will only provide limited protection.

INSTRUCTIONS: Fight fire from a safe distance/protected location. Heat may build enough pressure to rupture closed containers/spreading fire/increasing risk of burns/injuries. Use water spray/fog for cooling. Avoid frothing/steam explosion. Burning liquid may float on water. Although water soluble, may not be practical to

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extinguish fire by water dilution. Notify authorities immediately if liquid enters sewer/public waters.

6. ACCIDENTAL RELEASE MEASURES

Do not empty into drains. Keep away sources of ignition. Ensure sufficient ventilation. Prevent unauthorized access. Collect with liquid absorbing material, neutralize and proceed according to local waste regulations.

7. HANDLING AND STORAGE

Keep container tightly closed and in a cool and well ventilated place. Ensure adequate ventilation, especially when using a spray-gun. Avoid contact with skin and eyes. Avoid flammable/ explosive air/vapor-mixtures and prevent concentrations exceeding the exposure limits,

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Occupational exposure limits:

Component	ACGIH suggested	OSHA PEL
872-50-4 N-Methyl-2-pyrrolidinone	Not established	Not established
25498-49-1 2(2-methoxymethylethoxy)- methylethoxypropanol	Not established	Not established
1310-73-2 sodium hydroxide	2 mg/m ³ Ceiling AEL*	2 mg/m ³ Ceiling AEL*
34590-94-8 2-Methoxy- methylethoxypropanol	150 ppm15 MIN/STEL Skin. 100 ppm,8 HRS/TWA	Not established
112-34-5 2-(2-Butoxyethoxy) ethanol	Not established	Not established

AEL = Airborne Exposure Limit

Ventilation System:

A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, *Industrial Ventilation, A Manual of Recommended Practices*, most recent edition, for details.

Personal Respirators (NIOSH Approved):

If the exposure limit is exceeded, a full facepiece respirator with organic vapor cartridge may be worn up to 50 times the exposure limit or the maximum use concentration specified by the appropriate regulatory agency or respirator supplier, whichever is lowest. For emergencies or instances where the exposure

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levels are not known, use a full-facepiece positive-pressure, air-supplied respirator. **WARNING:** Air purifying respirators do not protect workers in oxygen-deficient atmospheres.

Skin Protection:

Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact. Polyvinyl alcohol (PVA) is a recommended material for personal protective equipment.

Eye Protection:

Use chemical safety goggles and/or a full face shield where splashing is possible. Maintain eye wash fountain and quick-drench facilities in work area.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form paste

Color: light yellow to pale beige

Odor : mild amine

Density : 1.02 g/cm³

Viscosity : light paste

Boiling point: >200 °C

Vapor Pressure: <0.3 mm Hg

Flash point : >(93 °C

Viscosity: No Data Available.

Solubility (Water): Complete (In All Proportions).

Additional Physical and Chemical Properties: Hygroscopic. Additional properties may be listed in Sections 3 and 5.

10. STABILITY AND REACTIVITY

Chemical Stability: This material is stable when properly handled and stored.

Conditions to Avoid: Extended contact with air or oxygen. In contact with moisture, this hygroscopic (i.e., absorbs water from the air) material may degrade or become contaminated. Heat, sparks, open flame, other ignition sources, and oxidizing conditions.

Incompatibility with: Strong oxidizing agents, acids. Moisture and humidity. May react with oxygen to form peroxides. However, there is no known evidence that it has nearly the peroxide forming potential as, for example, diethyl ether, etc.

Decomposition Products: Carbon Monoxide and other toxic vapors.

Hazardous Polymerization: Not expected to occur.

Reactions with Air and Water: May react with oxygen to form peroxides.

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11. TOXICOLOGICAL INFORMATION

Product Summary: No additional toxicology information is available for this material.

Component	LD ₅₀	LC ₅₀
872-50-4 N-Methyl-2-pyrrolidinone	4150 mg/kg, (Oral) Rat 7000 mg/kg, (Skin) Rat	> 5.0 mg/l (aerosol) (Inhl) Rat 4 Hours
25498-49-1 2(2-methoxymethylethoxy)- methylethoxypropanol	3200 mg/kg rat, oral > 20 ml/kg, rabbit, skin	
34590-94-8 2-Methoxymethyl- ethoxypropanol	5220 mg/kg (Oral) Rat 13000 - 14000 mg/kg (Skin) Rabbit	
112-34-5 2-(2-Butoxyethoxy) ethanol	5660 mg/kg, (rat, oral) 2400 mg/kg, (mouse, oral) 2700 mg/kg, (rabbit, skin)	

Sodium hydroxide: irritation data: skin, rabbit: 500 mg/24H severe; eye rabbit: 50 ug/24H severe.

Target Organ Effects

Eye. Skin. Respiratory system. Skin irritant. CNS depressant.

Reproductive Effects

NMP may adversely affect reproduction in the rat after ingestion, although fertility is unaltered. These effects occurred at exposures which also caused mild generalized effects in the parental animals. It is therefore unclear if NMP specifically targets the reproductive system or whether these changes were secondary to other systemic effects. The relevance of these findings to humans is unknown. Fetal effects (including delayed development and the occurrence of soft tissue and skeletal variations) were observed in pregnant animals exposed by ingestion, inhalation and skin contact. While these events generally occurred in the presence of maternal toxicity, mild fetotoxicity was sometimes present in the absence of maternal effects. The relevance of these findings to humans is unknown.

Carcinogenicity

No increase in tumors in rats exposed by inhalation or via feed for 2 years. A dietary study found increased liver tumors in male and female mice given 1100 and 1400 mg/kg bwt/day for 18 months, respectively. Since liver tumors are commonly reported when non-genotoxic chemicals are tested in the mouse bioassay, the relevance of these findings to humans appears doubtful.

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12. ECOLOGICAL INFORMATION

Ecotoxicity: No Data Available.

Environmental Fate: It may enter soil and may contaminate water.

Biodegradation: Data for a closely related material suggest it will be inherently biodegradable.

13. WASTE DISPOSAL INFORMATION

Contaminated product, soil, or water may be hazardous waste. (See 40 U.S. Code of Federal Regulations (CFR) 261 and 29 CFR 1910). Landfill solids at permitted sites. Use registered transporters. Burn concentrated liquids. Avoid flame-outs. Assure emissions comply with applicable regulations. Dilute aqueous waste may biodegrade. Avoid overloading/poisoning plant biomass. Assure effluent complies with applicable regulations

14. TRANSPORT INFORMATION

DOT, IATA, IMDG

Proper Shipping Name: Corrosive Liquid N.O.S. (Sodium Hydroxide)

Hazard Class: 8

UN/NA: UN1760

Packing Group: II

15. REGULATORY INFORMATION

Regulatory Status: All components of this product appear on the Domestic Substances List of the Canadian Environmental Protection Act (CEPA). All components of this product are listed or are exempt from listing on the TSCA 8(b) inventory. If identified components of this product are listed under the TSCA 12(b) Export Notification rule, they will be listed below.

2-(2-Butoxyethoxy) ethanol

This product has been classified in accordance with hazard criteria of the Controlled Product Regulations and the MSDS contains all the information required by the Controlled Products Regulations. This material is hazardous according to criteria specified by the Canadian Hazardous Products Act and its regulations.

WHMIS Class: B3. E.

16. OTHER INFORMATION

DISCLAIMER OF RESPONSIBILITY:

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information presented and conclusions drawn herein are from sources other than direct test data on the substance itself. The conditions or methods of handling, storage, use and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage, or expense arising out of or in any way connected with handling, storage, use, or disposal of this product.