



MATERIAL SAFETY DATA SHEET

Date Prepared: 08.28.03
MSDS No. 344404
FUEL ADDITIVE HO-1

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

KEROLIFT.

Product Identifier: FUEL ADDITIVE HO-1

Product Code: 10613

MANUFACTURER:

TOMAH Products

1012 Terra Drive

P. O. Box 388

Milton, WI 53563

Customer Service: (608) 868-6811

24 HR. EMERGENCY TELEPHONE NUMBERS:

CHEMTREC (800) 424-9300

Emergency Phone (608) 868-6811

2. COMPOSITION/INFORMATION ON INGREDIENTS

	wt. %
Surfactant blend	~99
Diethanolamine	~1

OSHA HAZARDOUS COMPONENTS (29 CFR 1910.1200)

	EXPOSURE LIMITS		
	<u>OSHA PEL</u>	<u>ACGIH TVL</u>	<u>Supplier</u>
Diethanolamine			3 ppm

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

IMMEDIATE CONCERNS:

Warning!

Causes Eye and Skin Irritation

POTENTIAL HEALTH EFFECTS

EYES:

Moderately irritating, and may injure eye tissue if not removed promptly.

SKIN:

Severely irritating; may cause permanent skin damage.

INGESTION:

Based on testing of a similar product, liquid is considered to be moderately toxic by ingestion.

INHALATION:

Vapors and/or aerosols which may be formed at elevated temperatures may be irritating to eyes and respiratory tract.

SIGNS AND SYMPTOMS OF OVEREXPOSURE

EYES:

Irritation

SKIN:

Irritation



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SUBCHRONIC/CHRONIC TOXICITY

CARCINOGENICITY:

The National Toxicology Program has concluded that there is clear evidence of liver tumor and some evidence of kidney tumor in mice dermally exposed for their lifetime to diethanolamine, applied near or as a component of Cocamide DEA. The significance of these findings and their relevance to humans is not clear as diethanolamine was not genotoxic (neither mutagenic and/or clastogenic) and did not induce tumors in rats or in transgenic mice similarly treated.

Rats given high doses of diethanolamine for 90 days developed anemia. In a postnatal screening test (Cherhoff-kavlook test) DEA at a dose of 450 mg/kg/day given orally by gavage to pregnant mice affected the survival and weight gain of their offspring. Testes injury and adverse sperm effects were found in rats given multiple oral doses.

Additional research to better understand the significance of these observations is underway.

MEDICAL CONDITIONS AGGRAVATED

Pre existing skin and eye disorders may be aggravated by exposure to this product.

4. FIRST AID MEASURES

EYES:

Immediately flush eyes with large amounts of water for at least 15 minutes whilst holding eyelids open. Get prompt medical attention.

SKIN:

Immediately flush with large amounts of water for at least 15 minutes; use soap if available. Remove contaminated clothing, including shoes, after flushing has begun. Get prompt medical attention. Do not reuse clothing or shoes until thoroughly cleaned.

INGESTION:

Do not give liquids if victim is unconscious or very drowsy. Otherwise, give no more than 2 glasses of water and induce vomiting by giving 30 cc (2 Tablespoons) syrup of IPECAC[™]. If IPECAC is not available, give 2 glasses of water and induce vomiting by touching finger to back of victim's throat. Keep victim's head below hips while vomiting. Get Medical Attention.

INHALATION:

Using proper respiratory protection, immediately remove victim from exposure. Administer artificial respiration if breathing has stopped. Keep at rest. Call for prompt medical attention.

NOTES TO PHYSICIAN:

If victim is a child, give no more than 1 glass of water and 15 cc (1 Tablespoon) syrup of IPECAC.

If symptoms such as loss of gag reflex, convulsions or unconsciousness occur before emesis, gastric lavage should be considered following intubation with a cuffed endotracheal tube.

ADDITIONAL INFORMATION:

Traces of free ethylene oxide EO may be present in this product and they could accumulate in the headspace of storage and transport vessels.

The trace amounts of EO in this product are not expected to result in either acute or long term hazard when the material is handled according to sections X and XI. You should be aware though, that EO is a cancer and reproductive hazard. Repeated exposure to EO may be harmful.



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5. FIRE FIGHTING MEASURES

Flashpoint and Method: 255°F Penskey-Marten CC
Flammable Limits: Not Applicable to Not Applicable

EXTINGUISHING MEDIA:

Use alcohol type foam, universal foam, dry chemical, carbon dioxide or water spray to extinguish fire.

HAZARDOUS COMBUSTION PRODUCTS:

Carbon Monoxide, Carbon Dioxide

FIRE FIGHTING PROCEDURES:

Use water spray to cool fire exposed surfaces and so protect personnel. Isolate "fuel" supply from fire.

FIRE EXPLOSION:

Low Hazard, liquid can burn upon heating to temperatures at or above the flashpoint. "Empty" containers retain product residue (liquid and/or vapor) and can be dangerous, DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION; THEY MAY EXPLODE AND CAUSE INJURY OR DEATH. Empty drums should be completely drained, properly bunged and promptly returned to a drum reconditioner, or properly disposed of.

SENSITIVE TO STATIC DISCHARGE:

Unknown, use proper grounding procedure.

6. ACCIDENTAL RELEASE MEASURES

SMALL SPILL:

For small spills, take up material with an absorbent such as clay or sand and dispose of properly. Flush area with water to remove trace residue. Small quantities of product may be flushed to sanitary sewer systems.

LARGE SPILL

Wear respirator and protective clothing as appropriate, Shut off source leak if it is safe to do so. Dike and contain spilled material. Remove with vacuum trucks or pump to storage/salvage containers. Soak up residue with an absorbent such as clay, sand or other suitable material. Flush area with water to remove trace residue. Consult an expert on disposal of recovered material and ensure conformity to local disposal regulations.

ENVIRONMENTAL PRECAUTIONS:

WATER SPILL:

Remove the surface by skimming or with suitable adsorbents. If allowed by local authorities and environmental agencies, sinking and/or suitable dispersants may be used in non-contained waters. Consult an expert on disposal of recovered material and ensure conformity to local disposal regulations.

LAND SPILL:

Eliminate sources of ignition. Prevent additional discharge of material, if possible to do so without hazard. For small spills implement cleanup procedures; for large spills implement



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cleanup procedures and, if in public area, keep public away and advise authorities. Also, if this product is subject to CERCLA reporting (see Section 15) notify the National Response Center.

7. HANDLING AND STORAGE

GENERAL PROCEDURES:

Keep container closed. Handle and open containers with care. Store in a cool, well-ventilated place away from incompatible materials.

Do NOT handle or store near an open flame, heat or other sources of ignition. Protect material from direct sunlight.

It is not known if this material is a static accumulator. Therefore, use proper grounding procedures.

Do NOT pressurize, cut, heat, or weld containers. Empty product containers may contain product residue. Do NOT reuse empty containers without commercial cleaning or reconditioning.

Storage Temperature: 20°F minimum to 100°F maximum

Loading Temperature: 20°F minimum to 100°F maximum

Loading/Unloading Viscosity: ~10 to 50 cps

SPECIAL SENSITIVITY:

It is recommended to store this material under a nitrogen blanket to minimise the potential for ethoxylate oxidation. Overheating of an ethoxylate stored under air should be avoided. When an ethoxylate is vigorously mixed in the presence of air or oxygen at temperatures >325 degrees F, it can undergo exothermic oxidative degradation.

ELECTROSTATIC ACCUMULATION HAZARD:

Unknown, use proper grounding procedure.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS:

Ventilation should be provided to control worker exposures and prevent health risk.

PERSONAL PROTECTION

RESPIRATORY:

Use a NIOSH-Approved respirator as required to prevent overexposure. In accord with 29 CFR 1910.134, use either atmosphere-supplying or air-purifying respirator for organic vapours. For EO: If occupational exposure may or does exceed 1 ppm, respiratory protection is required.

Use a NIOSH-Approved atmosphere-supplying, full-facepiece respirator in pressure-demand mode for > 50 ppm. NIOSH has approved a full facepiece canister respirator with an end of service life indicator for < 50 ppm.

WORK HYGIENIC PRACTICES:

Avoid contact with eyes, skin and clothing.

Where contact may occur, wear long sleeves, chemical resistant gloves, chemical goggles, and a face shield.

Where concentrations in air may exceed the limits given in this Section and engineering, work practice or other means of exposure reduction are not adequate, NIOSH/MSHA approved respirators may be necessary to prevent overexposure by inhalation.

9. PHYSICAL AND CHEMICAL PROPERTIES



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Physical State:	Liquid
Odor:	Mild odor
Appearance:	Viscous amber liquid
Vapor Pressure:	<0.10 mmHg at 25°F
Boiling Point:	>300°F
Freezing Point:	~
Melting Point:	~
Evaporation Rate:	Not Applicable
Specific Gravity: (VOC):	0.943 g/ml at 60°F 20 Percent Method 24

COMMENTS:

Water Solubility: Slight solubility, may form a gel.

10. STABILITY AND REACTIVITY

STABLE:

Yes

HAZARDUS POLYMERIZATION:

No

STABILITY:

Not applicable

POLYMERIZATION:

Not applicable

CONDITIONS TO AVOID:

Oxidation of alcohol ethoxylates may occur under certain conditions. Avoid overheating (temperatures > 325 °F) especially when vigorously mixed with air. See special precautions.

HAZARDOUS DECOMPOSITION:

Carbon monoxide, corrosive amines and unidentified organic compounds.

INCOMPATIBLE MATERIALS:

Strong acids
Oxidizing agents
Copper and copper alloys
Galvanized iron
Brass
Zinc

11. TOXICOLOGICAL INFORMATION

12. ECOLOGICAL INFORMATION

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD:

Dispose of in accordance with federal, state and local regulations.



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14. TRANSPORT INFORMATION

DOT (DEPARTMENT OF TRANSPORTATION)

Proper Shipping Name: Not regulated
Hot Hazard: No
Combustible Class: No
Reportable Quantity (RQ) Under CERCLA: 5000

INTERNATIONAL (I.M.O.)

Proper Shipping Name: Not regulated

AIR (I.C.A.O.)

Proper Shipping Name: Not regulated

SPECIAL SHIPPING NOTES:

If quantities exceeding the reportable quantity of this material are shipped, the shipping description is the following:

RQ, Environmentally hazardous substances, liquid, nos (diethanolamine), 9. UN 3082, PG III (diethanolamine)

15. REGULATORY INFORMATION

UNITED STATES

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)

Fire: No Pressure Generating: No Reactivity: No Acute: Yes Chronic: Yes

311/312 Hazard Categories:

Under the provisions of Title III, Sections 311/312 of the Superfund Amendments and Reauthorization Act (SARA) this product is classified into the hazards listed above.

313 Reportable Ingredients:

This product contains the following ingredients reportable under Section 313

Chemical	CAS No.	wt%
Diethanolamine	111-42-2	2%

CERCLA (COMPREHENSIVE RESPONSE, COMPENSATION, AND LIABILITY ACT)

CERCLA Regulatory:

If the reportable quantity of this product is accidentally spilled, the incident is subject to the provisions of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) and must be reported to the National Response Centre by calling 800-424-8802.

CERCLA RQ:

Diethanolamine

Reportable Spill Quantity:
5000

EPA

EPA RQ Ingredient:
Diethanolamine



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TSCA (TOXIC SUBSTANCE CONTROL ACT)

TSCA Status:

Components of this product are listed on the TSCA Inventory.

RCRA STATUS:

If this product becomes a waste, it would not be a hazardous waste by RCRA criteria (40CFR 261). However the waste should be properly characterized to evaluate whether its composition has been modified through procession prior to disposal.

STATE REGULATIONS

PROPOSITION 65 STATEMENT:

This product contains the following levels of compounds found by the state of California to cause cancer, birth defects and other reproductive harm:

Ethylene oxide CAS No. 75-21-8 <1 ppm

REGULATIONS:

State Regulations:

The following chemicals are specifically listed by individual states; other product specific health and safety data in other sections of the MSDS may also be applicable for state requirements. For details on your regulatory requirements you should contact the appropriate agency in your state.

Ethylene Oxide	CAS No. 75-21-8	<1 ppm
	Massachusetts	
	California Safe drinking water and toxics conformance act of 1996 (PROP 65)	

GENERAL COMMENTS:

PROTECTION OF STRATOSPHERIC OZONE (PURSUANT TO SECTION 611 OF THE CLEAN AIR ACT AMMENDMENTS OF 1990):

Per 40 CFR Part 82, this product does not contain nor was it directly manufactured with any Class I or Class II ozone depleting substances.

16. OTHER INFORMATION

Approval date: 08.29.2003

REVISION SUMMARY
New MSDS

NFPA CODES

Fire: 1 Health: 2 Reactivity: 0

HMIS CODES

Fire: 1 Health: 2 Reactivity: 0

MANUFACTURER DISCLAIMER:



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This information relates to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is to the best of our knowledge and belief, accurate and reliable as of the date compiled. However, no representation, warranty or guarantee is made as to its accuracy, reliability and completeness. It is the users responsibility to satisfy himself as to the suitability and completeness of such information for his own particular use. We do not accept liability for any loss or damage that may occur from the use of this information nor do we offer warranty against patent infringement.