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MATERIAL SAFETY DATA SHEET

PRODUCT OCEANIC HW-525 **ISSUE DATE** 10/02/2006
PRODUCT CODE 174901

24 Hour Emergency Number: CHEMTREC(1-800-424-9300)

SECTION 1 PRODUCT IDENTIFICATION

TRADE NAME OCEANIC HW-525
CHEMICAL FAMILY ORGANIC MIXTURE

NFPA RATING:

1 **Health** 1 **Flammability**
0 **Reactivity** **Other**

(0 = Insignificant, 1 = Slight, 2 = Moderate, 3 = High and 4 = Extreme)

SECTION 2 HAZARDOUS INGREDIENTS

MacDermid has concluded that the ingredients in this product may pose a minor hazard or slight risk under certain conditions for some individuals.

Chemical Name	CAS#	By Weight%
ETHYLENE GLYCOL	107-21-1	20 - 30
ETHYLENE GLYCOL BUTYL ETHER	111-76-2	1 - 3

SECTION 3 PHYSICAL DATA

DENSITY	8.69 LB/GL	FORM	Liquid
SPECIFIC GRAVITY	1.042	PH	9.3
FREEZING POINT	Not determined	FLASH POINT	> 212 °F > 100 °C Method not listed
VAPOR PRESSURE	Not determined	% VOC	25
BOILING POINT	> 212 °F > 100 °C	MELTING POINT	Not determined
CHEMICAL OXYGEN DEMAND (COD)	Not determined		
BIOLOGICAL OXYGEN DEMAND (BOD)	Not determined		
SOLUBILITY IN WATER	Soluble		
COLOR/ODOR	Blue/mild		

NOTE: These physical properties are typical values for this product.

SECTION 4 FIRE AND EXPLOSION DATA

FLASH POINT	> 212 °F > 100 °C Method not listed
EXTINGUISHING MEDIA	Dry chemical, carbon dioxide, foam, water. As appropriate for surrounding material.
UNUSUAL FIRE & EXPLOSION HAZARDS	When heated to decomposition, toxic fumes are emitted. Wear self-contained breathing apparatus/protective clothing.

SECTION 5 FIRST AID DATA

EYES	Flush with water for 15 minutes. Obtain medical aid IMMEDIATELY.
SKIN	Wash contaminated skin with large amounts of soap and water. Remove and isolate contaminated clothing. If irritation develops, get medical aid.
INGESTION	Rinse mouth with water. Give water to drink. Obtain medical aid immediately. Induce vomiting if advised by physician.
INHALATION	Remove the victim to a cool uncontaminated area. Monitor for respiratory distress.
CAUTION	If unconscious – having trouble breathing – or in convulsions do not induce vomiting or give water.

Always clean contaminated clothing and gear prior to reuse. NEVER administer anything to an unconscious person.

SECTION 6 HEALTH EFFECTS DATA

Primary Route(s) of Exposure: Eye, Skin, Inhalation and Ingestion

EYE CONTACT (ACUTE)	May cause irritation, tears, blurred vision and redness to the eyes.
EYE CONTACT (CHRONIC)	There are no known chronic effects associated with this material.
SKIN CONTACT (ACUTE)	May cause irritation to the skin.
SKIN CONTACT (CHRONIC)	There are no known chronic effects associated with this material.
INGESTION (ACUTE)	May cause abdominal discomfort, nausea, vomiting, central nervous system effects, convulsions and coma, Cardiac failure and pulmonary edema may develop. Severe kidney damage follows the swallowing of large volumes of ethylene glycol. May be fatal.
INGESTION (CHRONIC)	Chronic overexposure to ethylene glycol may aggravate an existing kidney disease.
INHALATION (ACUTE)	Vapors/mists: Exposure to vapors or mists is possible and may produce irritation of the mucous membranes of nose, mouth, throat and respiratory tract. Large amounts may cause difficulty in breathing and be harmful. Headache or nausea may occur.
INHALATION (CHRONIC)	Chronic exposure may affect central nervous system.

SECTION 7	PERSONAL PROTECTIVE DATA
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RESPIRATORY PROTECTION	If there is a value for OSHA-PEL/ACGIH-TLV in section 13 and it is exceeded, it is recommended that a NIOSH approved respirator be used. Consult with your Industrial Hygienist for appropriate cartridge selection and use. See 29CFR 1910.134 for details. For large spills, entry into large tanks, vessels or enclosed small spaces with inadequate ventilation, a positive pressure, self contained breathing apparatus is recommended.
VENTILATION	General ventilation is recommended. Additionally, local exhaust ventilation is recommended where vapors, dusts, mists or aerosols may be released.
PROTECTIVE EQUIPMENT	Chemically resistant apron, boots and gloves. Recommended material of construction: PVC, rubber, neoprene. The availability of a safety shower is recommended. If clothing is contaminated, remove clothing and thoroughly wash the affected body area. Launder contaminated clothing before reuse. Wear safety glasses or splash proof goggles, face shield. The availability of an eye wash is recommended. These are general recommendations to provide a safe level of protection for various material handling conditions. Consult with your Safety Professional/Industrial Hygienist for specific information regarding applications at your facility

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SECTION 8	TOXICOLOGY DATA
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TOXICITY STUDIES:

Toxicity studies have not been conducted on this product. However toxicity literature surveys have been conducted on the ingredient(s) in section 2. The results are as follows:

ACUTE ORAL TOXICITY	Ethylene glycol- orl-rat LD50: 4700 mg/kg
ACUTE DERMAL TOXICITY	Ethylene glycol- skn-rbt LD50: 19530 mg/kg
ACUTE RESPIRATORY TOXICITY	Ethylene glycol- ihl-hmn TCLo: 10000 mg/m3
OTHER TOXICOLOGICAL EFFECTS	Ethylene glycol: human poison by ingestion. Human systemic effects by ingestion and inhalation: abdominal pain, headache, cough, nausea, vomiting, pulmonary, kidney and liver changes. If ingested, it causes initial central nervous system stimulation followed by depression. Later, it causes potentially lethal kidney damage. Very toxic in particulate form upon inhalation. An experimental teratogen. A mucous membrane and eye irritant, particularly from mist.

Listed as suspected carcinogen by:

IARC	NO	NTP	NO	OSHA	NO
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SECTION 9	REACTIVITY DATA
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INCOMPATIBILITY	Oxidizers
HAZARDOUS DECOMPOSITION PRODUCTS	Thermal decomposition may yield carbon monoxide and/or carbon dioxide.
STABILITY	Stable
HAZARDOUS POLYMERIZATION	No hazardous polymerization.

SECTION 10 SPILLS & DISPOSAL DATA

In case of Transportation Accidents, call the following 24 hour telephone number: **CHEMTREC (1-800-424-9300)**

SPILL CONTROL AND RECOVERY Soak up into inert absorbent material. DO NOT use sawdust or other organic materials. Collect for disposal in plastic recovery drum. Flush residue with plenty of water to chemical drain.

DISPOSAL Dispose of by an approved method at an approved secure facility.

Please ensure that packaging, including drums, are disposed of in a responsible manner and in accordance with federal, and your state's, solid/hazardous waste regulations. You may want to refer to www.reuseablepackaging.org for further disposal guidance.

Due to more restrictive waste disposal regulations, NEVER wastetreat or dispose of material until you check your appropriate local, state, & federal regulations for requirements. Spills may REQUIRE notification to FEDERAL, STATE and/or LOCAL AUTHORITIES.

SECTION 11 TRANSPORTATION DATA**DOT****PROPER SHIPPING NAME**

If Qty less than RQ: NON REGULATED
If Qty equal or greater than RQ: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(CONTAINS ETHYLENE GLYCOL)

HAZARD CLASS / SUBSIDIARY CLASS 9
UN/NA# UN3082
REPORTABLE QUANTITY (RQ) 999 GL **Pkg Group** III

IMO**PROPER SHIPPING NAME**

ORGANIC ADDITIVE
NON REGULATED

HAZARD CLASS / SUBSIDIARY CLASS

UN/NA # **Pkg Group**

IATA**PROPER SHIPPING NAME**

If Qty less than RQ:
If Qty equal or greater than RQ: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

HAZARD CLASS / SUBSIDIARY CLASS 9
UN/NA # UN3082 **Pkg Group** III

EXPORT LICENSE MAY BE REQUIRED TO EXPORT THIS PRODUCT

SECTION 12 GENERAL STORAGE DATA

STORAGE TEMPERATURE Maximum: 120 °F 48.8 °C Minimum: Not Applicable

STORAGE INFORMATION Store in a cool, dry area.

SECTION 13 REGULATORY DATA

The following regulations apply to this product.

FEDERAL REGULATIONS

OSHA HAZARD COMMUNICATION RULE, 29 CFR 1910.1200:

Based on our evaluation, the following ingredients in this product are subject to this rule:

Chemical Name	OSHA-PEL	ACGIH-TLV
ETHYLENE GLYCOL		100 mg/m3
ETHYLENE GLYCOL BUTYL ETHER	50 ppm	25 ppm

CERCLA/SUPERFUND, 40 CFR 117, 302/304: Notification of spills of this product is required

SARA/SUPERFUND AMENDMENTS & REAUTHORIZATION ACT OF 1986 (TITLE III)**Sections 302, 311, 312 and 313****Section 302: Extremely Hazardous Substances**

This product does not contain ingredient(s) listed in APPENDIX A of 40 CFR 355.

SECTIONS 311 & 312 – M.S.D.S. REQUIREMENTS (40 CFR 370)

This product contains ingredient(s) that may require reporting under Hazardous Chemical Inventory Reporting

- | | |
|---|--|
| <input checked="" type="checkbox"/> Immediate (Acute) health hazard | <input type="checkbox"/> Sudden release of pressure hazard |
| <input checked="" type="checkbox"/> Delayed (Chronic) health hazard | <input type="checkbox"/> Reactive Hazard |
| <input type="checkbox"/> Fire Hazard | |

SECTION 313 – LIST OF TOXIC CHEMICALS (40 CFR 372)

This product contains ingredient(s) listed under 40 CFR 372.65

Chemical Name
ETHYLENE GLYCOL

TOXIC SUBSTANCE CONTROL ACT (TSCA)

The chemical ingredient(s) in this product are listed on the 8(b) Inventory List (40 CFR 710).

RESOURCE CONSERVATION & RECOVERY ACT (RCRA), 40 CFR 261 SUBPARTS C & D

Please refer to section 10, disposal information for pertinent data.

PRIORITY POLLUTANTS

This product does not contain ingredient(s) on the list of Clean Water Act Priority Pollutants.

OSHA PROCESS SAFETY (1910.119)

This product does not contain ingredient(s) listed in APPENDIX A of 29 CFR 1910.119 of Highly Hazardous Chemicals, Toxics, and Reactives of OSHA process safety management.

CLEAN AIR ACT

This product contains ingredient(s) listed on the Hazardous Air Pollutants of CAA 40 CFR 112(G).

Chemical Name
ETHYLENE GLYCOL

OZONE DEPLETING SUBSTANCES

This product does not contain ingredient(s) listed on Ozone Depleting Substances of CAA 40 CFR 82.

STATE REGULATIONS**CALIFORNIA PROPOSITION 65**

This product does not contain ingredient(s) listed on California Prop 65 suspected carcinogen/reproductive toxicant list.

MICHIGAN CRITICAL MATERIALS

This product does not contain ingredient(s) listed on the Michigan Critical Material Register.

The information listed above does not include all Federal, State, and International regulations. The regulations listed above may change from time to time; It is the users responsibility to keep advised of current regulatory requirements.

Prepared by MacDermid Safety & Regulatory Compliance Department, based upon publicly available reference information.

SECTION 14**USER NOTIFICATION**

To the best of our knowledge the information contained herein is correct. All chemicals may present unknown health hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist. Final determination of suitability of the chemical is the sole responsibility of the user. Users of any chemical should satisfy themselves that the conditions and methods of use assure that the chemical is used safely. NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESSED OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER NATURE ARE MADE HERE UNDER WITH RESPECT TO THE INFORMATION CONTAINED HEREIN OR THE CHEMICAL TO WHICH THE INFORMATION REFERS.

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