



Material Safety Data Sheet

Product Name: ESD-Magic Surfactant

Product Number: 1110

General Use: The solution will discharge electro-static build-up on magnetic read heads as well as coat magnetic heads to inhibit continued build-up.

Product Description: Solution to be used in conjunction with technical cleaning products

SECTION I**Manufacturer's Name & Address:**

KICTeam, Inc.
P.O. Box 1120
Auburn, ME 04211-1120
Phone (207) 514-7299
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Emergency Telephone: (800) 424-9300
Telephone for information: (800) 255-3924
Date Prepared: May, 2008

Complies with OSHA's Hazard Communication
Standard 29 CFR 1910.1200

SECTION II - Hazardous Ingredients/ Identity Information

Hazardous Components	CAS #	%
De-Ionized Water		> 80 %
Glycols, polyethylene, mono[(1,1,3,3-tetramethylbutyl)phenyl] ether	9036-19-5	> 19 %
Polyethylene glycol	25322-68-3	<1%

This Product contains the following chemicals subject to the reporting requirements of SARA 313 and 40 CFR 372: NONE

SECTION III - Physical/Chemical Characteristics

Appearance	Pale Yellow
Physical State	Liquid
Odor	Mild

Vapor Pressure: < 0.01 mmHg 20 °C Boiling Point (760 mmHg): > 200 °C > 392 °F

Vapor Density (air = 1): > 1

Specific Gravity (H2O = 1): 1.067



Freezing Point: 6 °C 43 °F

Melting Point: Not applicable.

Solubility in Water (by weight): Completely soluble but some compositions may form gels

pH: 9.7

Molecular Weight: 624 g/mol (average)

Evaporation Rate (Butyl Acetate = 1): < 0.01

Percent Volatiles: 0.0065 Wt%

SECTION IV - Fire and Explosion Hazard Data

Flash point- Closed cup 251°C 485°F Pensky-Martens Closed Cup ASTM D 93

Flash Point -Open Cup: 290 °C 555 °F Cleveland Open Cup ASTM D 92

Extinguishing Media: Extinguish fires with water spray or apply alcohol-type or all-purpose-type foam by manufacturer's recommended techniques for large fires. Use carbon dioxide or dry chemical media for small fires.

Special Fire Fighting Procedures: Do not direct a solid stream of water or foam into hot, burning pools; this may cause frothing and increase fire intensity.

Unusual Fire and Explosion Hazards: Avoid accumulation of water. Product may be carried across water surface spreading fire or contacting an ignition source. Burning can produce the following products: Carbon monoxide and/or carbon dioxide. Carbon monoxide is highly toxic if inhaled; carbon dioxide in sufficient concentrations can act as an asphyxiant.

SECTION V - Reactivity Data

Stability: Stable

Hazardous Polymerization: will not occur

Conditions to Avoid: Prolonged excessive heat may cause product decomposition.

Incompatibility (Materials to avoid): Normally unreactive; however, avoid strong bases at



high temperatures, strong acids, strong oxidizing agents and materials reactive with hydroxyl compounds.

Hazardous Decomposition or Product:

SECTION VI - Health Hazard Data

Health Hazards: Danger. Causes eye burns. Harmful if swallowed. Causes skin irritation. Plastic container, if present, may cause static ignition hazard. Aspiration may cause lung damage.

Inhalation: Mist may cause irritation of the respiratory tract, experienced as nasal discomfort and discharge, with chest pain and coughing.

Skin: Brief contact is not irritating. Prolonged or repeated contact may cause discomfort and local redness. Skin Absorption: No evidence of harmful effects from available information.

Ingestion: Moderately toxic. May cause abdominal discomfort, nausea, vomiting, and diarrhea. Aspiration into the lungs may occur during ingestion or vomiting, resulting in lung injury.

Acute: Mist may cause irritation of the respiratory tract, experienced as nasal discomfort and discharge, with chest pain and coughing.

Chronic: Effects of Repeated Overexposure No adverse effects anticipated from available information. Other Effects of Overexposure None currently known.

Carcinogenicity: NTP? IARC Monographs?

OSHA Regulated?

Signs and Symptoms of Exposure:

Medical Conditions Generally Aggravated by Exposure: Knowledge of the available toxicology information and of the physical and chemical properties of the material suggests that overexposure is unlikely to aggravate existing medical conditions. See Section 11 for toxicological information and additional information about potential health effects.

Emergency and First Aid Procedures:

EYE AND SKIN CONTACT: Immediately flush eyes with water and continue washing for at least 15 minutes. DO NOT remove contact lenses, if



worn. Obtain medical attention without delay, preferably from an ophthalmologist.

SKIN CONTACT:

Remove contaminated clothing. Wash skin with soap and water. Obtain medical attention if irritation persists. Wash clothing before reuse.

INHALATION:

If any symptoms develop, remove to fresh air.

INGESTION:

If patient is fully conscious, give two glasses of water. DO NOT INDUCE VOMITING. Obtain medical attention.

NOTE TO PHYSICIAN:

There is no specific antidote. Treatment of overexposure should be directed at the control of symptoms and the clinical condition of the patient. Any material aspirated during vomiting may cause lung injury. Therefore, emesis should not be induced mechanically or pharmacologically. If it is considered necessary to evacuate the stomach contents, this should be done by means least likely to cause aspiration (e.g., gastric lavage after endotracheal intubation).

SECTIONS VII - Precautions for Safe Handling and Use

Steps to be taken if material is released or spilled: Contain spills immediately with inert materials (e.g., sand, earth). Transfer liquids and solid diking material to suitable containers for recovery or disposal. To avoid gelling and foaming problems, do not use water to flush away spills.

Waste Disposal Method: DO NOT DUMP INTO ANY SEWERS, ON THE GROUND, OR INTO ANY BODY OF WATER. All disposal practices must be in compliance with all Federal, State/Provincial and local laws and regulations. Regulations may vary in different locations. Waste characterizations and compliance with applicable laws are the responsibility solely of the waste generator.

Do not get in eyes. Do not swallow. Avoid contact with skin and clothing. Do not handle or empty in presence of flammable vapor. Keep container closed. Use with adequate ventilation. Wash thoroughly after handling.



Storage: Store in accordance with good industrial practices. Storage information may be obtained from product-specific Storage and Handling Guides.

SECTION VIII - Control Measures

Respiratory Protect (specify type): Atmospheric levels should be maintained below the exposure guideline. When airborne exposure guidelines and/or comfort levels may be exceeded, use an approved air-purifying respirator. For emergency response or for situations where the atmospheric level is unknown, use an approved positive-pressure self-contained breathing apparatus or positive-pressure airline with auxiliary self-contained air supply.

Ventilation:

Local Exhaust: Provide general and/or local exhaust ventilation to control airborne levels below the exposure guidelines.

Mechanical (general):

Special:

Other:

Protective Gloves: Polyvinyl chloride coated

Eye Protection: Monogoggles

Other Protective Clothing or Equipment Eye bath, safety shower, chemical apron. Personnel protective clothing and use of equipment must be in accordance with 29 CFR 1910.33 and 1910.134.

Work/Hygienic Practices: Do not eat, drink or smoke in work areas.

SECTION IX- TOXICOLOGY

ACUTE TOXICITY

Peroral

Rat; female; LD50 = 707 (402 -1240) mg/kg

Major Signs: sluggishness, unsteady gait, labored breathing, lacrimation, prostration, piloerection, encrustation on perinasal fur Gross Pathology: lungs and liver discolored; stomach and intestines liquid-filled

Peroral



Rat; male = 500 mg/kg Mortality: 0/3 Major Signs: sluggishness, unsteady gait, labored Breathing, lacrimation, prostration, piloerection, encrustation on perinasal fur Gross Pathology: lungs and liver discolored; stomach and intestines liquid-filled

Percutaneous

Rabbit; female; LD50 = 12.3 (9.13 -16.7) g/kg; 24 h occluded.

Major Signs: sluggishness, labored breathing, gasping, wetness or staining on perioral and perinasal fur, emaciation

Gross Pathology: lungs, liver, kidneys and spleen discolored

Percutaneous

Rabbit; male = 8.0 g/kg; 24 h occluded.

Mortality: 2/3

Major Signs: sluggishness, labored breathing, gasping, wetness or staining on perioral and perinasal fur, emaciation

Gross Pathology: lungs, liver, kidneys and spleen discolored

Irritation

Skin: Rabbit; 4 h occluded Results: minor to moderate erythema, minor edema

Eye: Rabbit; 0.1 ml Results: minor to severe corneal injury with vascularization, iritis, moderate to severe conjunctival irritation with purulent discharge

Eye: Rabbit; 0.01 ml Results: severe corneal injury, severe iritis and conjunctival irritation

SIGNIFICANT DATA WITH POSSIBLE RELEVANCE TO HUMANS

Rats fed dietary concentrations of the 40-mole ethoxylate of octylphenol(OPE40) up to 14000 ppm (700 mg/kg/day) for two years showed no adverse effects on growth or survival, feed consumption, hematologic values, urine measurements, organ weights or histopathologic lesions. In two-year feeding studies for related alkylphenol ethoxylates, the 4-mole ethoxylate of nonylphenol (NPE4) at doses of 200 mg/kg/day or 40 mg/kg/day in rats and dogs, respectively, produced no significant effects. The 9-mole ethoxylate (NPE9) at doses of 140 or 30 mg/kg/day in the diet of rats or dogs, respectively, produced no adverse effects.

Parameters evaluated included body and organ weights and histopathology of 28 tissues. A dose of 1000 mg/kg/day of NPE9 resulted in reduced body weights and enlarged livers in rats and reduced weight, emesis, and minimal blood changes in dogs. A dose of 88 mg/kg/day NPE9 produced increased liver to body weight ratios in dogs which was attributed to decreased feed consumption. Alkylphenol Ethoxylate Toxicity: In studies with rabbits, sustained occluded skin contact of undiluted similar material caused inflammatory changes in the lung. Developmental effects including extra ribs and other skeletal variations were observed in the fetuses of rats treated with maternally toxic levels of a 9-mole ethoxylate of octylphenol, or a 4-mole or 9-mole ethoxylate of nonylphenol. The significance of these findings to humans is unclear as several human studies did not show any association of congenital effects in children with maternal exposure to spermicides containing octyl or nonylphenol ethoxylates. Alkylphenol Toxicity: In a 2-generation reproduction study with



octylphenol at dietary concentrations of 0.2 to 2000 ppm, treatment-related effects in adult F0, F1, and F2 animals were limited to reduced body weights and food consumption at 2000 ppm. No effects on any reproductive parameters were observed in either generation. No effects on sperm measurements, estrous cyclicity, or reproductive organs were observed in adult animals. Pup body weights during lactation were reduced at 2000 ppm. The NOAEL for systemic and postnatal toxicity was 200 ppm (approximately 15 mg/kg/day) and for reproductive toxicity was >2000 ppm (approximately 150 mg/kg/day). Although octylphenol has weak estrogen mimetic activity in some screening assays, no estrogenic or reproductive effects occurred from dietary exposure to rats for two generations over a 10,000 fold dose range.

SECTION X: ECOLOGICAL INFORMATION

BOD (% oxygen consumption)

Day 5 30%
Day 10 40%
Day 15 49%
Day 20 51%

Modified Sturm Test (OECD 301B)(% CO₂ evolved)

Day 5
Day 10
Day 15
Day 28 70%

Closed Bottle Test (OECD 301D) (% Oxygen consumption)

Day 5 11%
Day 10
Day 15 34%
Day 28 36%

DOC die-away test (OECD 301A) (% dissolved organic carbon disappearance)

Day 7 58%
Day 14 62%
Day 21 80%
Day 28 90%

ECOTOXICITY: Toxicity to Micro-organisms

Bacterial Inhibition; IC₅₀ Result value: 5000 mg/l

Toxicity to Aquatic Invertebrates

Daphnia; 48 h; LC₅₀ Result value: 26 mg/l



Toxicity to Aquatic Invertebrates
Daphnia; 48 h; NOEC Result value: 18 mg/l

Toxicity to Aquatic Invertebrates
Daphnia; 48 h; NOEC Result value: 18 mg/l

Toxicity to Fish
Fathead Minnow; 96 h; NOEC Result value: 3.2 mg/l

Toxicity to Fish
Fathead Minnow; 96 h; LC50 Result value: 8.9 mg/l

Further Information: Based on available data for related alkylphenol ethoxylate (APE), appropriate treatment of effluents will reduce levels of octylphenol ethoxylate (OPE) residues to concentrations that should pose no harm to the environment, including protection for weak estrogen-mimetic activity observed in laboratory studies for some degradation intermediates. Chemical Oxygen Demand (COD) -measured: 2.18 mg/mg

SECTION XI: Transport Information

U.S. D.O.T. NON-BULK

Proper Shipping Name : NOT REGULATED

BULK Proper Shipping Name : ENVIRONMENTALLY HAZARDOUS SUBSTANCES
LIQUID, NOS

Technical Name : CONTAINS ALCOHOL C13-C15 POLY(1-6) ETHOXYLATE

Hazard Class : 9

ID Number : UN3082

Packing Group : PG III

Other Information : MARINE POLLUTANT (ALCOHOL C13-C15 POLY (1-6) ETHOXYLATE)
This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. Additional transportation system information can be obtained through an authorized sales or customer service representative. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.



SECTION XII: Regulatory Information

FEDERAL/NATIONAL

COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION, AND LIABILITY ACT OF 1980 (CERCLA) SECTION 103. This product contains the following substances subject to CERCLA Section 103 reporting requirements and are listed in 40 CFR Part 302.4. Component CAS # Amount Glycol Ethers Not available <= 2.0000% 1,4-Dioxane 123-91-1 <= 0.0055% Ethylene oxide 75-21-8 <= 0.0010%

SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986 TITLE III (EMERGENCY PLANNING AND COMMUNITY RIGHT TO KNOW ACT) SECTION 302. This product contains the following substances subject to SARA Section 302 reporting requirements and are listed in 40 CFR Part 302.4. None

SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986 TITLE III (EMERGENCY PLANNING AND COMMUNITY RIGHT TO KNOW ACT) SECTION 313 This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act 1986 and 40 CFR Part 372. Component CAS # Amount Glycol Ethers Not available <= 2.0000%

SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986 TITLE III (EMERGENCY PLANNING AND COMMUNITY RIGHT TO KNOW ACT) SECTIONS 311 AND 312 Delayed (Chronic) Health Hazard : Yes Fire Hazard : No Immediate (Acute) Health Hazard : Yes Reactive Hazard : No Sudden Release of Pressure Hazard : No TOXIC SUBSTANCES CONTROL ACT (TSCA) All components of this product are on the TSCA Inventory or are exempt from TSCA Inventory requirements.

EUROPEAN INVENTORY OF EXISTING COMMERCIAL CHEMICAL SUBSTANCES (EINECS) The components of this product are on the EINECS inventory or are exempt from EINECS inventory requirements.

CEPA -DOMESTIC SUBSTANCES LIST (DSL) All substances contained in this product are listed on the Canadian Domestic Substances List (DSL) or are not required to be listed.

15.2 STATE/LOCAL

PENNSYLVANIA (WORKER AND COMMUNITY RIGHT-TO-KNOW ACT)

The following product components are cited in the Pennsylvania Hazardous Substances List, the Pennsylvania Special Hazardous Substance List, and/or the Pennsylvania Environmental Hazardous Substance list, and are present at levels which require reporting.

Component CAS # Amount Glycol Ethers Not available <= 2.0000%



MASSACHUSETTS (HAZARDOUS SUBSTANCES DISCLOSURE BY EMPLOYERS)

The following components of this product appear on the Massachusetts Substance List and are present at levels which could require identification in the MSDS:

Component CAS # Amount 1,4-Dioxane 123-91-1 <= 0.0055% Ethylene oxide 75-21-8 <= 0.0010%

CALIFORNIA PROPOSITION 65 (SAFE DRINKING WATER AND TOXIC ENFORCEMENT ACT OF 1986) This product contains the following chemical(s) known to the State of California to cause cancer: Component CAS # Amount 1,4-Dioxane 123-91-1 <= 0.0055% CALIFORNIA PROPOSITION 65 (SAFE DRINKING WATER AND TOXIC ENFORCEMENT ACT OF 1986)

This product contains the following chemical(s) known to the State of California to cause cancer and birth defects or other reproductive harm. Component CAS # Amount Ethylene oxide 75-21-8 <= 0.0010%

CALIFORNIA SCAQMD RULE 443.1 (SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT RULE 443.1, LABELING OF MATERIALS CONTAINING ORGANIC SOLVENTS)

VOC: Vapor pressure <0.01 mmHg @ 20° C 0 g/L This section provides selected regulatory information on this product including its components. This is not intended to include all regulations. It is the responsibility of the user to know and comply with all applicable rules, regulations and laws relating to the product being used.

SECTION XIII: Hazard Rating System

NFPA ratings for this product are: H -3 F-1 R-0

These ratings are part of a specific hazard communication program and should be disregarded where individuals are not trained in the use of this hazard rating system. You should be familiar with the hazard communication programs applicable to your workplace.

SECTION XIV: Recommended Uses and Restrictions

NOTICE! NOT TO BE USED AS A BIOCIDES IN INTRAVAGINAL END-USE APPLICATIONS (INCLUDING SPERMICIDES). FOR INDUSTRY USE ONLY.

SECTION XV: Legend

Bacterial/NA Non Acclimated Bacteria F Fire H Health IHG Industrial Hygiene Guideline N/A Not available NFPA National Fire Protection Association O Oxidizer R Reactivity TS Trade secret VOL/VOL Volume/Volume W Water Reactive W/W Weight/Weight



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