

# MATERIAL SAFETY DATA SHEET

## AND SAFE HANDLING AND DISPOSAL INFORMATION

ISSUE DATE: 10/19/06	PRODUCT NAME: Eco-Etch	HAZ CLASS: NR
SUPERSEDES: Original Issue	PRODUCT TYPE: Organic Salt Descaler	Page 1 of 3

### SECTION I - EMERGENCY CONTACTS

**ECO SAFETY PRODUCTS, LLC.** TELEPHONE: (602) 305-9397 7:30AM-4:30PM(MST)M-F  
 1542 E. VICTORY ST., STE 3 PHOENIX, AZ 85040 **EMAIL: INFO@ECO-SAFETY.COM**

TRANSPORTATION AND CHEMICAL EMERGENCY: CHEMTEL - 800-255-3924

### SECTION II - HAZARDOUS INGREDIENTS

DESIGNATIONS	PEL (PPM)	TLV (PPM)	EFFECTS (SEE REVERSE)	% IN PRODUCT
Organic Acidic Salt	NE	NE	IRR	30-50%

Other materials used in the product are not required to be listed or are below the requirements of 29 CFR 1910.1200, Subpart Z.

### SECTION III - HEALTH HAZARD DATA

SPECIAL NOTE: MSDS data pertains to the product as dispensed from the container. Adverse health effects would not be expected under recommended conditions of use so long as prescribed safety precautions are practiced.

#### ACUTE EFFECTS OF OVEREXPOSURE:

This product in concentrated form may be an eye and skin irritant. Contact with eye tissue may produce pain, watering, and/or burning sensation. Prolonged skin contact may irritate the skin. Inhalation of product mists may cause respiratory tract irritation. Ingestion of an excessive amount of the product may cause complications.

#### CHRONIC EFFECTS OF OVEREXPOSURE:

There are no known effects from chronic exposure to this product.

EST'D PEL/TLV: NE PRIMARY ROUTES OF ENTRY: ING, INH

HMIS CODES: HEALTH 2; FLAM. 0; PHY. HAZ. 0; PERSONAL PROTECT. C; CHRONIC HAZ. No

#### FIRST AID PROCEDURES:

SKIN : Flush contaminated skin with plenty of water. Consult a physician if irritation develops.  
 EYES : Immediately flush eyes with plenty of water for at least 15 minutes. If irritation develops, consult a physician.  
 INHALE: Move exposed person to fresh air. If irritation persists, get medical attention promptly.  
 INGEST: If this product is swallowed, do not induce vomiting. If victim is conscious give plenty of water or milk to drink. Get medical attention at once.

### SECTION IV - SPECIAL PROTECTION INFORMATION

PROTECTIVE CLOTHING : The use of rubber or plastic gloves is recommended if prolonged skin contact is expected. Wear a rubber apron to avoid splashing product on clothing.  
 EYE PROTECTION : Wear tight-fitting safety glasses especially if contact lenses are worn.  
 RESPIRATORY PROTECTION: Respiratory protection may be unnecessary since product does not give off significant quantities of vapor.  
 VENTILATION : No extra measures are needed if ventilation is adequate.

### SECTION V - PHYSICAL DATA

BOILING POINT (F) : >212°F	PH (CONCENTRATE) : 1.0-2.0
SPECIFIC GRAVITY : 1.2	VOC CONTENT (CONCENTRATE): None
VAPOR PRESSURE(MMHG): Not Deter.	APPEARANCE AND ODOR :
EVAPORATION RATE(WATER=1): <1	Clear, amber gelled liquid; mild
VAPOR DENSITY(AIR=1): >1	acidic odor
SOLUBILITY IN WATER : Complete, 100%	

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### SECTION VI - FIRE AND EXPLOSION DATA

FLASH POINT(F): Above 212 F (METHOD USED): PMCC

FLAMMABLE LIMITS LEL: NA, UEL: NA

EXTINGUISHING MEDIA : Foam, carbon dioxide, dry chemical

SPECIAL FIRE FIGHTING: When heated above the flashpoint, emits flammable vapors which, when mixed with air, can burn or be explosive. Fine mists or sprays may be flammable at temperatures below the flashpoint.

UNUSUAL FIRE HAZARDS : Thermal decomposition of this product will produce carbon monoxide, carbon dioxide, and other toxic volatiles..

### SECTION VII - REACTIVITY DATA

STABILITY : Stable

INCOMPATIBILITY(AVOID) : Alkalis, reactive metals

POLYMERIZATION : Will not occur.

HAZARDOUS DECOMPOSITION: High temperatures may create oxides of carbon, nitrogen and chlorine.

### SECTION VIII - SPILL AND DISPOSAL PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:

Observe safety procedures in SECTION IV & IX during clean-up. Absorb spill on inert absorbent material. Pick up and place residue in a suitable waste container or, if permitted, flush to sewer. Thoroughly rinse spill area with water.

WASTE DISPOSAL METHOD:

Liquid wastes are not permitted in landfills. This product is not considered a hazardous waste under RCRA. Unusable liquid may be absorbed on an inert absorbent material, drummed, and taken to a chemical or industrial landfill. In some areas disposal by flushing into a sanitary sewer with plenty of water may be permissible. Consult local, state, and federal agencies for proper disposal method in your area.

RCRA HAZ. WASTE NOS.: None

### SECTION IX - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN WHEN HANDLING AND STORING:

Keep product out of eyes.

Avoid prolonged contact with skin.

Keep away from food and food products.

Keep out of the reach of children.

### SECTION X - REGULATORY INFORMATION

DOT PROPER SHIP NAME: Not Regulated

NOTE: DOT information applies to larger package sizes of affected products. For some products, DOT may require alternate names and labeling in accordance with packaging group requirements.

DOT HAZARD CLASS: NA DOT PACKING GROUP: NA

DOT I.D. NUMBER : NA DOT LABEL/PLACARD: NA

EPA TSCA CHEMICAL INVENTORY - ALL INGREDIENTS ARE LISTED  
EPA CWA 40CFR PART 117 SUBSTANCE(RQ IN A SINGLE CONTAINER):

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### NOTICE

Thank you for your interest in and use of Eco Safety Products, LLC (ESP) We are pleased to be of service to you by supplying this Material Safety Data Sheet for your files. ESP is concerned for your health and safety. Our products can be used safely with proper protective equipment and with proper handling practices consistent with label instructions and the MSDS. Before using any product, be sure to read the complete label and the Material Safety Data Sheet.

As a further word of caution, ESP advises that serious accidents have resulted from the misuse of "emptied" containers which can retain 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, or other sources of ignition; they may explode or develop harmful vapors and possibly cause injury or death. Clean empty containers by triple rinsing with water or an appropriate solvent. Empty containers must be sent to a drum reconditioner before reuse.

### TERMS AND ABBREVIATIONS

#### Listed Alphabetically By Section

#### SECTION II: HAZARDOUS INGREDIENTS

**CAR:** Carcinogen - A chemical listed by the National Toxicology Program (NTP), the International Agency for Research on Cancer (IARC) or OSHA as a definite or possible human cancer causing agent.

**CAS#:** Chemical Abstract Services Registry Number - A universally accepted numbering system for chemical substances.

**CBL:** Combustible - At temperatures between 100°F and 200°F chemical gives off enough vapor to ignite if a source of ignition is present as tested with a closed cup tester.

**CNS:** Central Nervous System depressant which reduces the activity of the brain and spinal cord.

**COR:** Corrosive - Causes irreversible injury to living tissue (e.g. burns).

**DESIGNATIONS:** Chemical and common names of hazardous ingredients.

**EIR:** Eye Irritant Only - Causes reversible reddening and/or inflammation of eye tissues.

**EXPOSURE LIMITS:** The time weighted average (TWA) airborne concentration at which most workers can be exposed without any expected adverse effects. Primary sources include ACGIH TLVs, and OSHA PELs.

**ACGIH:** American Conference of Governmental Industrial Hygienists

**CEILING:** "The concentration that should not be exceeded in the workplace during any part of the working exposure." Source, ACGIH

**OSHA:** Occupational Safety and Health Administration.

**PEL:** Permissible Exposure Limit - A set of time weighted average exposure values, established by OSHA, for a normal 8-hour day and a 40-hour work week.

**PPM:** Parts per million - unit of measure for exposure limits.

**(S) SKIN:** Skin contact with substance can contribute to overall exposure.

**STEL:** Short Term Exposure Limit - Maximum concentration for a continuous 15-minute exposure period.

**TLV:** Threshold Limit Value - A set of time weighted average exposure limits, established by the ACGIH, for a normal 8-hour day and a 40-hour work week.

**FBL:** Flammable - At temperatures under 100°F, chemical gives off enough vapor to ignite if a source of ignition is present as tested with a closed cup tester.

**HAZARDOUS INGREDIENTS:** Chemical substances determined to be potential health or physical hazards based on the

criteria established in the OSHA Hazard Communication Standard - 29 CFR 1910.1200

**HTX:** Highly toxic - the probable lethal dose for a 70 kg (150 lb.) man, which may be approximated as less than 6 teaspoons (2 tablespoons)

**IRR:** Irritant - Causes reversible effects in living tissues (e.g. inflammation) - primarily skin and eyes.

**N/A:** Not Applicable - Category is not appropriate for this product.

**N/D:** Not Determined - Insufficient information to make a determination for this item.

**RTECS#:** Registry of Toxic Effects of Chemical Substances - an unreviewed listing of published toxicology data on chemical substances.

**SARA:** Superfund Amendment and Reauthorization Act - Section 313 designates certain chemicals for possible reporting for the Toxic Chemical Release Inventory.

**SEN:** Sensitizer - Causes allergic reaction after repeated exposure.

**TOX:** Toxic - The probable lethal dose for a 70 kg (150 kg) man is one ounce (2 tablespoons) or more.

#### SECTION III: HEALTH HAZARD DATA

**ACUTE EFFECT:** An adverse effect on the human body from a single exposure with symptoms developing almost immediately after exposure or within a relatively short time.

**CHRONIC EFFECT:** Adverse effects that are most likely to occur from repeated exposure over a long period of time.

**EST'D PEL/TLV:** This estimated, time-weighted-average, exposure limit, developed by using a formula provided by the ACGIH, pertains to airborne concentrations from the product as a whole. This value should serve as guide for providing safe workplace conditions to nearly all workers.

**HMIS CODES:** Hazardous Material Identification System - a rating system developed, by the National Paint and Coating Association for estimating the hazard potential of a chemical under normal workplace conditions. These risk estimates are indicated by a numerical rating given in each of three hazard areas (Health/Flammability/Physical Hazard) ranging from a low of zero to a high of 4. The presence of a chronic hazard is indicated by a "YES". Consult HMIS training guides for Personal Protection letter codes which indicate necessary protective equipment.

**PRIMARY ROUTE OF ENTRY:** The way one or more hazardous ingredients may enter the body and cause a generalized-systemic or specific-organ toxic effect.

**ING:** Ingestion - A primary route of exposure through swallowing of material.

**INH:** Inhalation - A primary route of exposure through breathing of vapors.

**SKIN:** A primary route of exposure through contact with the skin.

#### SECTION IV: SPECIAL PROTECTION INFORMATION

Where respiratory protection is recommended, use only MSHA and NIOSH approved respirators and dust masks.

**MSHA:** Mine Safety and Health Administration

**NIOSH:** National Institute for Occupational Safety and Health.

#### SECTION V: PHYSICAL DATA

**EVAPORATION RATE:** Refers to the rate of change from the liquid state to the vapor state at ambient temperature and pressure in comparison to a given substance (e.g. water).

**pH:** A value representing the acidity or alkalinity of an aqueous solution (Highly Acidic pH = 1; Neutral pH = 7; Highly Alkaline pH = 14)

**VOC CONTENT:** The percentage or amount in pounds per gallon of the product that is regulated as a Volatile Organic Compound under the Clean Air Act of 1990 and various state jurisdictions.

**SOLUBILITY IN WATER:** A description of the ability of the product to dissolve in water.

#### SECTION VII: REACTIVITY DATA

**HAZARDOUS DECOMPOSITION:** Breakdown products expected to be produced upon product decomposition by extreme heat or fire.

**INCOMPATIBILITY:** Keep product away from listed substances or conditions to prevent hazardous reactions.

**POLYMERIZATION:** Indicates the tendency of the product's molecules to combine with themselves in a chemical reaction releasing excess pressure and heat.

**STABILITY:** Indicates the susceptibility of the product to spontaneously and dangerously decompose.

#### SECTION VIII: SPILL AND DISPOSAL PROCEDURES

**RCRA WASTE NOS:** RCRA (Resource Conservation and Recovery Act) waste codes (40 CFR 261) applicable to the disposal of spilled or unusable product from the original container.

#### SECTION X: TRANSPORTATION DATA

**CWA:** Clean Water Act - Federal law which regulates chemical releases to bodies of water.

**RQ:** Reportable Quantity - The amount of the specific ingredient that, when spilled to the ground and, can enter a storm sewer or natural watershed, must be reported to the National Response Center, and other regulatory agencies.

**TSCA:** Toxic Substances Control Act - A federal law requiring all commercial chemical substances to appear on an inventory maintained by the EPA.

#### DISCLAIMER

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