

# SAFETY DATA SHEET

## 1. Identification

**Product identifier** EX-74 Hardener  
**Other means of identification**  
**SDS number** 23500H  
**Product code** 12025, 23500, 23500C.  
**Recommended use** High Gloss Coating  
**Recommended restrictions** None known.

### Manufacturer/Importer/Supplier/Distributor information

#### Manufacturer

**Company name** Environmental Technology, Inc.  
**Address** 300 S. Bay Depot Road  
Fields Landing  
CA 95537, USA.  
**Telephone number** 001 707-443-9323  
**E-mail** mail@eti-usa.com  
**Contact person** Technical Director  
**Emergency phone number** 800-424-9300 (CHEMTREC)

## 2. Hazard identification

**Physical hazards** Not classified.  
**Health hazards**  
Acute toxicity, oral Category 4  
Acute toxicity, dermal Category 4  
Skin corrosion/irritation Category 1  
Serious eye damage/eye irritation Category 1  
Sensitization, skin Category 1  
Reproductive toxicity (fertility, the unborn child) Category 2

### Label elements



**Signal word** Danger

**Hazard statement** Harmful if swallowed. Harmful in contact with skin. Causes severe skin burns and eye damage. May cause an allergic skin reaction. Suspected of damaging fertility. Suspected of damaging the unborn child.

### Precautionary statement

**Prevention** Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe the mist or vapour. Do not eat, drink or smoke when using this product. Wear protective gloves/protective clothing/eye protection/face protection. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace.

**Response** IF SWALLOWED: rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTRE/doctor. Wash contaminated clothing before reuse.

**Storage** Store locked up.

**Disposal** Dispose of contents/container in accordance with local/regional/national/international regulations.

**Other hazards** None known.  
**Supplemental information** None known.

### 3. Composition/information on ingredients

#### Mixtures

Chemical name	Common name and synonyms	CAS number	%
3-Aminomethyl-3,5,5-trimethyl-cyclohexylamine		2855-13-2	10-30% wt/wt
Nonyl phenol		84852-15-3	45-70 % wt/wt
Trimethylolpropane poly(oxypropylene)triamine		39423-51-3	30-60 % wt/wt

**Composition comments** All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume. The exact concentrations of the above listed chemicals are being withheld as a trade secret.

### 4. First-aid measures

**Inhalation** If inhaled, remove to fresh air. For breathing difficulties, oxygen may be necessary. Get medical attention immediately.

**Skin contact** Remove contaminated clothing. Rinse skin thoroughly with lukewarm water for at least 15 minutes. Call a physician or poison control centre immediately. Wash contaminated clothing before reuse.

**Eye contact** Immediately flush eyes with plenty of water for at least 15 minutes, lifting upper and lower eyelids occasionally. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician or poison control centre immediately.

**Ingestion** Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Call a physician or Poison Control Centre immediately. Never give anything by mouth to a victim who is unconscious or is having convulsions.

**Most important symptoms/effects, acute and delayed** Ingestion may produce burns to the lips, oral cavity, upper airway, esophagus and possibly the digestive tract. May cause an allergic skin reaction. Dermatitis. Rash. Contact can cause corrosive burns, corneal damage, and blindness. Itching, redness, swelling, burning or blistering of skin.

**Indication of immediate medical attention and special treatment needed** Exposure may aggravate pre-existing skin disorders. Treat symptomatically. Keep victim under observation. Symptoms may be delayed.

**General information** IF exposed or concerned: Get medical advice/attention. If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before reuse.

### 5. Fire-fighting measures

**Suitable extinguishing media** Water fog. Alcohol resistant foam. Dry chemical powder. Carbon dioxide (CO<sub>2</sub>).

**Unsuitable extinguishing media** Water. Do not use water jet as an extinguisher, as this will spread the fire.

**Specific hazards arising from the chemical** During fire, hazardous combustion products are released that may include: Carbon oxides (CO<sub>x</sub>). Nitrogen Oxides (NO<sub>x</sub>).

**Special protective equipment and precautions for firefighters** Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

**Fire fighting equipment/instructions** In case of fire, do not breathe fumes. Move container from fire area if it can be done without risk.

**Specific methods** Use standard firefighting procedures and consider the hazards of other involved materials.

**General fire hazards** No unusual fire or explosion hazards noted.

### 6. Accidental release measures

**Personal precautions, protective equipment and emergency procedures** Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapour. Do not get in eyes, on skin or on clothing. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

<b>Methods and materials for containment and cleaning up</b>	Keep unnecessary personnel away. This product is miscible in water. Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Prevent entry into waterways, sewer, basements or confined areas. Following product recovery, flush area with water.
<b>Environmental precautions</b>	Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS. Avoid discharge into drains, water courses or onto the ground. Contact local authorities in case of spillage to drain/aquatic environment.
<b>7. Handling and storage</b>	
<b>Precautions for safe handling</b>	Keep out of reach of children. Do not handle until all safety precautions have been read and understood. Do not breathe mist or vapour. Do not get this material in your eyes, on your skin, or on your clothing. Do not taste or swallow. Avoid contact during pregnancy/while nursing. Avoid prolonged exposure. When using, do not eat, drink or smoke. Provide adequate ventilation. Use personal protective equipment as required. Wash hands thoroughly after handling. Wash contaminated clothing before reuse. Avoid release to the environment. Observe good industrial hygiene practices.
<b>Conditions for safe storage, including any incompatibilities</b>	Keep out of the reach of children. Store locked up. Store in tightly closed original container in a dry, cool and well-ventilated place. Store away from incompatible materials, see Section 10 of the SDS.
<b>8. Exposure controls/personal protection</b>	
<b>Occupational exposure limits</b>	No exposure limits noted for ingredient(s).
<b>Biological limit values</b>	No biological exposure limits noted for the ingredient(s).
<b>Exposure guidelines</b>	No exposure standards allocated. Use personal protective equipment as required. Keep working clothes separately.
<b>Appropriate engineering controls</b>	Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.
<b>Individual protection measures, such as personal protective equipment</b>	
<b>Eye/face protection</b>	Wear safety glasses with side shields (or goggles) and a face shield.
<b>Skin protection</b>	
<b>Hand protection</b>	Chemical resistant gloves. The most suitable glove must be chosen in consultation with the gloves supplier, who can inform about the breakthrough time of the glove material.
<b>Other</b>	Wear appropriate chemical resistant clothing to prevent any possibility of skin contact.
<b>Respiratory protection</b>	If ventilation is insufficient, suitable respiratory protection must be provided.
<b>Thermal hazards</b>	Wear appropriate thermal protective clothing, when necessary.
<b>General hygiene considerations</b>	When using, do not eat, drink or smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Contaminated work clothing should not be allowed out of the workplace. Wash at the end of each work shift and before eating, smoking or using the toilet.
<b>9. Physical and chemical properties</b>	
<b>Appearance</b>	Viscous liquid.
<b>Physical state</b>	Liquid.
<b>Form</b>	Pourable liquid.
<b>Colour</b>	Clear. Slight yellow.
<b>Odour</b>	Slight ammonia odor.
<b>Odour threshold</b>	Not available.
<b>pH</b>	Not available
<b>Melting point/freezing point</b>	Not available.
<b>Initial boiling point and boiling range</b>	105.6 °C (222 °F)
<b>Flash point</b>	100.0 °C (212.0 °F) Pensky-Martens Closed Cup
<b>Evaporation rate</b>	Not available.

<b>Flammability (solid, gas)</b>	Not applicable.
<b>Upper/lower flammability or explosive limits</b>	
<b>Flammability limit - lower (%)</b>	Not available.
<b>Flammability limit - upper (%)</b>	Not available.
<b>Explosive limit - lower (%)</b>	Not available.
<b>Explosive limit – upper (%)</b>	Not available.
<b>Vapour pressure</b>	< 1 mm Hg at 68 F
<b>Vapour density</b>	Not available
<b>Relative density</b>	0.972 g/cm3
<b>Solubility(ies)</b>	
<b>Solubility (water)</b>	Slightly Soluble (0.1-1%)
<b>Partition coefficient (n-octanol/water)</b>	Not available.
<b>Auto-ignition temperature</b>	Not available.
<b>Decomposition temperature</b>	Not available.
<b>Viscosity</b>	1400 cP (25 °C (77 °F))
<b>Other information</b>	
<b>Density</b>	8.00 lbs/gal
<b>Explosive properties</b>	Not explosive.
<b>Oxidising properties</b>	Not oxidising.
<b>VOC</b>	0 g/l

## 10. Stability and reactivity

<b>Reactivity</b>	The product is stable and non-reactive under normal conditions of use, storage and transport.
<b>Chemical stability</b>	Stable under normal temperature conditions and recommended use.
<b>Possibility of hazardous reactions</b>	Hazardous polymerisation does not occur.
<b>Conditions to avoid</b>	Avoid incompatible materials and intense heat. When product is mixed with Part A and left in a large mass a vigorous exothermic reaction may occur, and may result in charring of the reactants. Read and follow all instructions. Do not add nitrites, may form suspected cancer causing nitrosamines.
<b>Incompatible materials</b>	Acids. Strong oxidising agents. Alkali metals. Peroxides. Phenols.
<b>Hazardous decomposition products</b>	None expected under normal conditions of use.

## 11. Toxicological information

### Information on likely routes of exposure

<b>Inhalation</b>	Under normal conditions of intended use, this material is not expected to be an inhalation hazard. When heated, the vapours/fumes given off may cause respiratory tract irritation.
<b>Skin contact</b>	Causes severe skin burns. Harmful in contact with skin. May cause an allergic skin reaction.
<b>Eye contact</b>	Causes serious eye damage.
<b>Ingestion</b>	Under normal conditions of intended use, this material does not pose a risk to health. Causes digestive tract burns. Harmful if swallowed.

<b>Symptoms related to the physical, chemical and toxicological characteristics</b>	Ingestion may produce burns to the lips, oral cavity, upper airway, esophagus and possibly the digestive tract. May cause an allergic skin reaction. Dermatitis. Rash. Contact can cause corrosive burns, corneal damage, and blindness. Itching, redness, swelling, burning or blistering of skin.
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### Information on toxicological effects

<b>Acute toxicity</b>	Harmful if swallowed. Harmful in contact with skin.
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Components	Species	Test Results
3-Aminomethyl-3,5,5-trimethyl-cyclohexylamine (CAS 2855-13-2)		
<b>Acute</b>		
<b>Oral</b>		
LD50	Rat	1030 mg/kg
Nonyl phenol (CAS 84852-15-3)		
<b>Acute</b>		
<b>Dermal</b>		
LD50	Rabbit	2031 mg/kg
<b>Oral</b>		
LD50	Rat	1200 mg/kg
Trimethylolpropane poly(oxypropylene)triamine (CAS 39423-51-3)		
<b>Acute</b>		
<b>Dermal</b>		
LD50	Rabbit	610 mg/kg
<b>Oral</b>		
LD50	Rat	220 mg/kg
<b>Skin corrosion/irritation</b>	Causes skin burns.	
<b>Serious eye damage/eye irritation</b>	Causes serious eye damage.	
<b>Respiratory or skin sensitisation</b>		
<b>Respiratory sensitisation</b>	Due to partial or complete lack of data the classification is not possible.	
<b>Skin sensitisation</b>	May cause an allergic skin reaction.	
<b>Germ cell mutagenicity</b>	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.	
<b>Carcinogenicity</b>	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.	
<b>Reproductive toxicity</b>	Possible reproductive hazard. Possible risk of harm to the unborn child. Possible risk of impaired fertility.	
<b>Specific target organ toxicity - single exposure</b>	Not classified.	
<b>Specific target organ toxicity - repeated exposure</b>	Not classified.	
<b>Aspiration hazard</b>	Due to the high viscosity the product is not an aspiration hazard.	
<b>Chronic effects</b>	Prolonged exposure may cause chronic effects. Possible adverse reproductive and developmental effects.	

## 12. Ecological information

**Ecotoxicity** Expected to be very toxic to aquatic organisms. May cause long-term adverse effects in the environment.

Components	Species	Test Results
3-Aminomethyl-3,5,5-trimethyl-cyclohexylamine (CAS 2855-13-2)		
<b>Aquatic</b>		
<i>Acute</i>		
Algae	EC50	Scenedesmus subspicatus > 50 mg/l, 72 hours
Crustacea	EC50	Daphnia magna 23 mg/l, 48 hours
Fish	LC50	Leuciscus idus 110 mg/l, 96 hours
<i>Chronic</i>		
Algae	EC50	Scenedesmus subspicatus 11 mg/l, 72 hours
Crustacea	NOEC	Daphnia magna 3 mg/l, 21 days
Nonyl phenol (CAS 84852-15-3)		
<b>Aquatic</b>		
<i>Acute</i>		
Algae	EC50	Scenedesmus subspicatus 1.3 mg/l, 72 Hours

Components		Species	Test Results
Crustacea	EC50	Daphnia magna	0.085 mg/l, 48 Hours
Fish	LC50	Pimephales promelas	0.128 mg/l, 96 Hours
<i>Chronic</i>			
Crustacea	NOEC	Daphnia magna	24 µg/l, 21 days
Fish	NOEC	Pimephales promelas	0.0074 mg/l, 33 days

**Persistence and degradability** No data is available on the degradability of this product.

#### Bioaccumulative potential

##### Partition coefficient n-octanol / water (log Kow)

Nonyl phenol (CAS 84852-15-3) 5.71

**Mobility in soil** No data available.

**Other adverse effects** None known.

### 13. Disposal considerations

**Disposal instructions** Dispose in accordance with applicable federal, state, and local regulations. Do not allow this material to drain into sewers/water supplies.

**Local disposal regulations** Dispose in accordance with all applicable regulations.

**Hazardous waste code** The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

**Waste from residues / unused products** Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

**Contaminated packaging** Dispose in accordance with applicable federal, state, and local regulations.

### 14. Transport information

#### TDG

**UN number** UN1760

**UN proper shipping name** Corrosive liquids, n.o.s. (Nonyl Phenol Mixture)

**Transport hazard class(es)**

**Class** 8

**Subsidiary risk** -

**Packing group** III

**Environmental hazards** Yes

**Special precautions for user** Read safety instructions, SDS and emergency procedures before handling.

#### IATA

**UN number** UN1760

**UN proper shipping name** Corrosive liquids, n.o.s. (Nonyl Phenol Mixture)

**Transport hazard class(es)**

**Class** 8

**Subsidiary risk** -

**Label(s)** 8

**Packing group** III

**Environmental hazards** Yes

**Special precautions for user** Read safety instructions, SDS and emergency procedures before handling.

#### IMDG

**UN number** UN1760

**UN proper shipping name** Corrosive liquids, n.o.s. (Nonyl Phenol Mixture)

**Transport hazard class(es)**

**Class** 8

**Subsidiary risk** -

**Label(s)** 8

**Packing group** III

**Environmental hazards**

**Marine pollutant** Yes

**EmS** Not available.

**Special precautions for user** Read safety instructions, SDS and emergency procedures before handling.

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** Not applicable.

**General information** IMDG Regulated Marine Pollutant.

## 15. Regulatory information

**Canadian regulations** This product has been classified in accordance with the hazard criteria of the HPR and the SDS contains all the information required by the HPR.

### Controlled Drugs and Substances Act

Not regulated.

### Export Control List (CEPA 1999, Schedule 3)

Not listed.

### Greenhouse Gases

Not listed.

### Precursor Control Regulations

Not regulated.

### International regulations

#### Stockholm Convention

Not applicable.

#### Rotterdam Convention

Not applicable.

#### Kyoto Protocol

Not applicable.

#### Montreal Protocol

Not applicable.

#### Basel Convention

Not applicable.

### International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
Taiwan	Taiwan Chemical Substance Inventory (TCSI)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

\*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s).

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

## 16. Other information

**Issue date** 08-August-2017

**Revision date** 21-July-2019

**Version No.** 02

**List of abbreviations**

LD50: Lethal Dose 50%.  
LC50: Lethal Concentration 50%.  
EC50: Effective Concentration, 50%.  
NOAEC: No observed adverse effect concentration. PEL: Permissible Exposure Limit.  
STEL: Short-term Exposure Limit.  
TWA: Time Weighted Average Value.

**References**

ACGIH  
EPA: AQUIRE database  
NLM: Hazardous Substances Data Base  
US. IARC Monographs on Occupational Exposures to Chemical Agents  
HSDB® - Hazardous Substances Data Bank  
IARC Monographs. Overall Evaluation of Carcinogenicity  
National Toxicology Program (NTP) Report on Carcinogens  
ACGIH Documentation of the Threshold Limit Values and Biological Exposure Indices

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