

1. Identification

Product Identifier: **EX-88 Resin**
 Product Code(s): 01188, 01288, 01287, 01179, 01183, 01488, 01189, 01188R, 120
 Use: Component for Mold Making and Casting. For Industrial/Professional use only.
 Manufacturer: Environmental Technology, Inc.
 1458 S 35th St. Galesburg, MI 49053 USA
 Phone Number: +1 800-447-9344 (8 a.m. to 6:30 p.m. EST)
 Emergency Phone: CHEMTREC 800-424-9300 or +1 703-527-3887
 E-mail: mail@eti-usa.com

2. Hazards Identification

GHS Classification:

Skin Irritation – Category 2
 Eye Irritation – Category 2A
 Skin Sensitization – Category 1
 Reproductive Toxin – Category 1B
 Hazardous to the Environment – Chronic Hazard Category 2

Label Elements: Danger



Hazard Phrases

H315 Causes skin irritation.
 H317 May cause an allergic skin reaction.
 H319 Causes serious eye irritation.
 H360 May damage fertility or the unborn child.
 H411 Toxic to aquatic life with long lasting effects.

Precautionary Phrases

P203 Obtain, read, and follow all safety instructions before use.
 P260 Avoid breathing fumes, mists or vapors.
 P273 Avoid release to the environment.
 P280 Wear protective gloves, protective clothing, and eye protection.
 P302+P352 IF ON SKIN: Wash with plenty of water.
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P318 IF exposed or concerned, get medical advice.
 P333+P317 If skin irritation or rash occurs: Get medical help.
 P337+P317 If eye irritation persists: Get medical help.
 P362+P364 Take off contaminated clothing and wash it before reuse.
 P391 Collect spillage.
 P405 Store locked up.
 P501 Dispose of contents and container in accordance with local, regional, and national regulations.

Supplemental Information: This is one part of a two-part system. Read and understand the hazard information on the hardener before use.

3. Composition/Information on Ingredients

Chemical Name	CAS #	%
Epoxy Resin	Proprietary	85-95
Ether Alcohol Compound	Proprietary	0-5
Cyclohexanedimethanol Compound	Proprietary	0-5
Other ingredients are not classified as health, physical or environmental hazards, or are present below cut-off/concentration limits.		

4. First-Aid Measures

Eye Contact: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Get medical attention if irritation develops and persists.

Skin Contact: Remove contaminated clothing. Wash skin thoroughly with soap and water for several minutes. If skin irritation or rash occurs: Get medical advice/attention. Take off contaminated clothing and wash before reuse.

Inhalation: Move to fresh air. Call a physician if symptoms develop or persist. Get medical attention if any discomfort continues.

Ingestion: Rinse mouth. Never give anything by mouth to a victim who is unconscious or is having convulsions. Get medical attention if symptoms occur.

Most Important Symptoms/Effects: Causes skin irritation and serious eye irritation. May cause an allergic skin reaction.

Indication of Immediate Medical Attention/Special Treatment: If in eyes, immediately flush with water.

5. Fire-Fighting Measures

Extinguishing Media: Use water fog, foam, carbon dioxide or dry chemical. Do not use solid water stream. Solid stream of water into hot product may cause violent steam generation or eruption.

Specific Hazards: Not classified as flammable or combustible. Product will burn under fire conditions.

Special Protective Equipment & Precautions for Fire-Fighters: Wear positive pressure, self-contained breathing apparatus and full-body protective clothing. Cool fire-exposed containers with water.

6. Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency

Procedures: Clear non-emergency personnel from the area. Wear appropriate protective clothing to prevent eye and skin contact and avoid breathing fumes or vapors.

Methods and Materials for Containment and Cleanup: Cover with an inert absorbent material and collect into an appropriate container for disposal. Avoid releases to the environment.

7. Handling and Storage

Safe Handling: Keep out of reach of children. Avoid breathing fumes, vapors, or mists. Avoid contact with eyes, skin, and clothing. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.

Safe Storage: Store away from incompatible materials. Store in a tightly closed original container in a dry, cool, and well-ventilated place. Read and follow manufacturer's recommendations.

8. Exposure Controls/Personal Protection

Occupational Exposure Limits: None established.

Ventilation: Use with adequate general or local exhaust ventilation to minimize exposure levels.

Respiratory Protection: If ventilation is inadequate, use a properly fitted, NIOSH-approved, air-purifying respirator with organic vapor cartridges. For higher exposures or in an emergency, use a supplied-air respirator. Use respirators in accordance with OSHA's Respiratory Protection Standard (29 CFR 1910.134).

Skin Protection: Wear impervious gloves, such as butyl rubber or nitrile rubber.

Eye Protection: Wear chemical safety glasses or goggles.

Other Protective Measures: An eye wash facility and washing facility should be available in the work area. Avoid skin contact. Follow good Industrial Hygiene practices.

9. Physical and Chemical Properties

Appearance: Liquid, clear to pale yellow
Odor: Slight
Odor Threshold: Minimal. Not distinct.
pH: No data available
Melting Point: No data available
Boiling Point: No data available
Flash Point: >392°F (>200.0°C)
Evap. Rate: No data available
Flamm. Limits: No data available
Vapor Pressure: < 1.33 mbar
Vapor Density: No data available
Relative Density: No data available
Solubility: No data available
Partition Coefficient: n-octanol/Water: No data available
Auto-Ignition Temp: No data available
Decomposition Temp: No data available
Viscosity: No data available

10. Stability and Reactivity

Reactivity: Not normally reactive.
Chemical Stability: Stable under recommended conditions.
Possibility of Hazardous Reactions: Hazardous polymerization does not occur.
Conditions to Avoid: Contact with incompatible materials. High temperatures. Heating this resin above 300°F in the present of air may cause slow oxidative decomposition.
Incompatible Materials: Strong oxidizing agents. Reacts violently with strong acids. Reacts violently with strong bases. Avoid contact with water and liquids. Do not allow molten product to contact water or other liquids. This can cause violent reactions.
Hazardous Decomposition Products: None expected under normal conditions of use.

11. Toxicological Information

Eye Contact: Causes serious eye irritation.
Skin Contact: Causes skin irritation. May cause allergic reaction to skin.
Inhalation: No data available.
Ingestion: No data available.
Chronic Health Effects: May cause allergic skin reaction.
Acute Toxicity Values: Not acutely hazardous.
Respiratory Sensitization: Components are not respiratory sensitizers.
Skin Sensitization: Components are classified as skin sensitizers.
Germ Cell Mutagenicity: Components are not classified as mutagens.
Carcinogenicity: Components are not designated as carcinogens by NTP, IARC, or OSHA.
Reproductive Toxicity: Components are classified as reproductive toxins.
Specific Target Organ Toxicity: No data available.

12. Ecological Information

Ecotoxicity: Toxic to aquatic life with long lasting effects. Avoid release to the environment.
Persistence and Degradability: Not readily biodegradable.
Bioaccumulative Potential: Low potential for bioaccumulation.
Mobility in Soil: No data available.

13. Disposal Considerations

Minimize waste generation. Dispose of with a licensed waste disposal contractor. Do not dispose of down the drain. Dispose according to local, state and federal regulations.

14. Transport Information

DOT: Non-bulk packaging (<882lb or <119gal) is not regulated for transport.
Bulk Packaging: UN3082, Environmentally hazardous substance, liquid, n.o.s (epoxy resin), 9, III
IMDG/IATA: UN3082, Environmentally hazardous substance, liquid, n.o.s (epoxy resin), 9, III, MARINE POLLUTANT.
 Excepted from IATA and IMDG regulations if shipped in quantities of 5L (1.32gal) or less. (See IATA SP A197 and IMDG 2.10.2.7)
Emergency Shipping Information: Call CHEMTREC, 800-424-9300 or +1-703-527-3887.

15. Regulatory Information

U.S. FEDERAL REGULATIONS:
CERCLA 103 Reportable Quantity: This product is not subject to these reporting requirements. Some state have more strict reporting requirements.
SARA TITLE III Section 311/312: Acute/Chronic Health
Section 313 Toxic Chemicals: This product does not contain chemicals subject to SARA Title III Section 313 reporting requirements.
Section 302 Extremely Hazardous Substances (TPQ): None
EPA Toxic Substances Control Act (TSCA) Status: Components in this product are listed on TSCA.
STATE REGULATIONS:
California Proposition 65: This product does not contain chemicals known to the State of California to cause cancer and/or reproductive harm. www.P65Warnings.ca.gov

16. Other Information

Training Advice: All personnel using/handling this product should be trained in proper chemical handling and the need for and use of engineering controls and protective equipment.
Recommended Uses and Restrictions: This product is intended for industrial/professional use only.
SDS Revision Notes: Updated GHS format: November 16, 2020
Disclaimer: The information contained herein is considered accurate; however, Environmental Technology Inc. makes no warranty regarding the accuracy of the information. The user must determine the suitability of the product for the intended use and accepts all risk and liability associated with that use.

1. Identification

Product Identifier: **EX-88 Hardener**
 Product Code(s): 01188, 01188C, 01288, 01288C, 01287, 01183
 Use: Component for Mold Making and Casting. For Industrial/Professional use only.
 Manufacturer: Environmental Technology, Inc.
 1458 S 35th St. Galesburg, MI 49053 USA
 Phone Number: +1 800-447-9344 (8 a.m. to 6:30 p.m. EST)
 Emergency Phone: CHEMTREC 800-424-9300 or
 +1 703-527-3887
 E-mail: mail@eti-usa.com

2. Hazards Identification

GHS Classification:

Acute Toxicity (Oral) – Category 4
 Skin Corrosion – Category 1B
 Serious Eye Damage – Category 1
 Skin Sensitization – Category 1
 Reproductive Toxin – Category 2
 Hazardous to the Environment – Acute Hazard Category 1
 Hazardous to the Environment – Chronic Hazard Category 1

Label Elements: Danger



Hazard Phrases

H302 Harmful if swallowed.
 H314 Causes severe skin burns and eye damage.
 H317 May cause an allergic skin reaction.
 H318 Causes serious eye damage.
 H361 Suspected of damaging fertility or the unborn child.
 H400 Very toxic to aquatic life.
 H410 Very toxic to aquatic life with long lasting effects.

Precautionary Phrases

P203 Obtain, read, and follow all safety instructions before use.
 P260 Do not breathe fumes, vapors, or mists.
 P270 Do not eat, drink, or smoke when using this product.
 P273 Avoid release to the environment.
 P280 Wear protective gloves, protective clothing, and eye protection.
 P301+P317 IF SWALLOWED: Get medical help.
 P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
 P302+P352 IF ON SKIN: Wash with plenty of water.
 P302+P361+P354 IF ON SKIN: Take off immediately all contaminated clothing. Immediately rinse with water for several minutes.
 P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 P305+P354+P338 IF IN EYES: Immediately rinse with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P318 IF exposed or concerned, get medical advice.
 P333+P317 If skin irritation or rash occurs: Get medical help.
 P363 Wash contaminated clothing before reuse.
 P391 Collect spillage.
 P405 Store locked up.
 P501 Dispose of contents and container in accordance with local, regional, and national regulations.

Supplemental Information: This is one part of a two-part system. Read and understand the hazard information on the resin before use.

3. Composition/Information on Ingredients

Chemical Name	CAS #	%
Phenol, 4-nonyl, branched	Proprietary	45-55
Polyoxypropylene Amine Compounds	Proprietary	30-40
N-Aminoethylpiperzaine	Proprietary	0-5
Other ingredients are not classified as health, physical or environmental hazards, or are below cut-off/concentration limits.		

4. First-Aid Measures

Eye Contact: Rinse thoroughly with water for at least 15 minutes, holding the eyelids open to be sure the material is washed out. Remove contact lenses if present and easy to do. Get medical attention immediately.

Skin Contact: Remove contaminated clothing. Wash contact area thoroughly with soap and water. Get medical attention immediately. Launder clothing before reuse. Discard items that cannot be decontaminated.

Inhalation: If inhaled, remove to fresh air. Give artificial respiration if needed. If breathing is difficult, oxygen should be administered by qualified personnel. Get medical attention if symptoms develop or persist.

Ingestion: Rinse mouth. Do not induce vomiting. Get medical attention immediately.

Most Important Symptoms/Effects: Causes severe skin burns and eye damage. May cause an allergic skin reaction.

Indication of Immediate Medical Attention/Special Treatment: Get immediate emergency medical help if on skin, in eyes or ingested.

5. Fire-Fighting Measures

Extinguishing Media: Use water fog, foam, carbon dioxide or dry chemical. Do not use solid water stream. Solid stream of water into hot product may cause violent steam generation or eruption.

Specific Hazards: Not classified as flammable or combustible. Product will burn under fire conditions.

Special Protective Equipment & Precautions for Fire-Fighters: Wear positive pressure, self-contained breathing apparatus, and full-body protective clothing. Cool fire-exposed containers with water.

6. Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency

Procedures: Clear non-emergency personnel from the area. Wear appropriate protective clothing to prevent eye and skin contact and avoid breathing fumes or vapors.

Methods and Materials for Containment and Cleanup: Cover with an inert absorbent material and collect into an appropriate container for disposal. Avoid releases to the environment.

7. Handling and Storage

Safe Handling: Do not handle until all safety precautions have been read and understood. Do not breathe fume, vapor, or mist. Do not get this material in your eyes, on your skin, or on your clothing. Avoid contact during pregnancy/while nursing. Provide adequate ventilation. Use personal protective equipment as required. Wash contaminated clothing before reuse. When using, do not eat, drink, or smoke. Wash hands thoroughly after handling. Avoid release to the environment. Avoid prolonged exposure. Keep out of reach of children.

Safe Storage: Keep out of 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.

8. Exposure Controls/Personal Protection

Occupational Exposure Limits: None established.

Ventilation: Use with adequate general or local exhaust ventilation to minimize exposure levels.

Respiratory Protection: If ventilation is inadequate, use a properly fitted, NIOSH-approved, air-purifying respirator with organic vapor cartridges. For higher exposures or in an emergency, use a supplied-air respirator. Use respirators in accordance with OSHA's Respiratory Protection Standard (29 CFR 1910.134).

Skin Protection: Wear impervious gloves, such as butyl rubber or nitrile rubber.

Eye Protection: Wear chemical safety glasses or goggles.

Other Protective Measures: An eye wash facility and washing facility should be available in the work area. Avoid skin contact. Follow good Industrial Hygiene practices.

9. Physical and Chemical Properties

Appearance: Liquid, slight yellow to clear

Odor: Ammonia-like

Odor Threshold: No data available

pH: No data available

Melting Point: No data available

Boiling Point: 431.6°F (222.0°C)

Flash Point: 212°F (100°C)

Evap. Rate: No data available

Flamm. Limits: No data available

Vapor Pressure: < 1 mm Hg

Vapor Density: No data available

Relative Density: 0.97

Solubility: Slightly soluble

Partition Coefficient: n-octanol/Water: No data available

Auto-Ignition Temp: No data available

Decomposition Temp: No data available

Viscosity: No data available

10. Stability and Reactivity

Reactivity: Not normally reactive.

Chemical Stability: Stable under recommended conditions.

Possibility of Hazardous Reactions: Hazardous polymerization does not occur.

Conditions to Avoid: Avoid temperatures exceeding the flash point. Reacts violently with strong acids. This product may react with oxidizing agents. Do not mix with other chemicals. Avoid incompatible materials and intense heat.

Incompatible Materials: Avoid acids and strong oxidizing agents

Hazardous Decomposition Products: None expected under normal conditions of use.

11. Toxicological Information

Eye Contact: Causes serious eye damage.

Skin Contact: Causes skin burns and eye damage. May cause allergic reaction to skin.

Inhalation: Prolonged inhalation may be harmful. May cause irritation to the respiratory system.

Ingestion: Harmful if swallowed.

Chronic Health Effects: May cause allergic skin reaction.

Acute Toxicity Values: Components are acutely hazardous.

Respiratory Sensitization: Components are not respiratory sensitizers.

Skin Sensitization: Components are skin sensitizers.

Germ Cell Mutagenicity: Components are not known mutagens.

Carcinogenicity: Components are not designated as carcinogens by NTP, IARC, or OSHA.

Reproductive Toxicity: This product is suspected of damaging fertility or the unborn child.

Specific Target Organ Toxicity: No data available.

12. Ecological Information

Ecotoxicity: Toxic to aquatic life with long lasting effects. Avoid release to the environment.

Persistence and Degradability: Not readily biodegradable.

Bioaccumulative Potential: Low potential for bioaccumulation.

Mobility in Soil: No data available.

13. Disposal Considerations

Minimize waste generation. Dispose of with a licensed waste disposal contractor. Do not dispose of down the drain. Dispose according to local, state, and federal regulations.

14. Transport Information

U.S.: UN1760, Corrosive liquid, n.o.s (nonyl phenol, n-aminoethylpiperazine), 8, III. LTD QTY if shipped in quantities of 5L (1.32 gal) or less.

IMDG & IATA: UN1760, Corrosive liquids, n.o.s (nonyl phenol, n-aminoethylpiperazine), 8, III, MARINE POLLUTANT.

Emergency Shipping Information: Call CHEMTREC, 800-424-9300 or +1-703-527-3887.

15. Regulatory Information

U.S. FEDERAL REGULATIONS:

CERCLA 103 Reportable Quantity: This product is not subject to these reporting requirements. Some states have more strict reporting requirements.

SARA TITLE III Section 311/312: Acute/Chronic Health

Section 313 Toxic Chemicals: This product contains chemicals subject to SARA Title III Section 313 reporting requirements:

4-nonyl phenol, branched 40-50%

Section 302 Extremely Hazardous Substances (TPQ): None

EPA Toxic Substances Control Act (TSCA) Status: Components in this product are listed on TSCA.

STATE REGULATIONS:

California Proposition 65: WARNING: This product can expose you to methyloxirane, a chemical known to the State of California to cause cancer. www.P65Warnings.ca.gov

16. Other Information

Training Advice: All personnel using/handling this product should be trained in proper chemical handling and the need for and use of engineering controls and protective equipment.

Recommended Uses and Restrictions: This product is intended for industrial/professional use only.

SDS Revision Notes: Update GHS format: November 17, 2020

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