SAFETY DATA SHEET

1. Identification

Product identifier

EasyCast Hardener

Other means of identification

7511850

SDS number

33008, 33008 MICHAELS, 33008C MICHAELS, 33010M, 33016, 33032, 33100, 33128, 33640, 33640R, 33201, 33202, 33203, 33204, 33205, MICHAELS SKUs: 408248, 408249, 408250, 408251, 408252, 408253, 408254, 408255.

Product code

Casting Epoxy.

Recommended use

Casting Epoxy.

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

707-443-9323

E-mail

mail@eti-usa.com

Contact person

Technical Director

Emergency phone number

800-424-9300 (CHEMTREC)

2. Hazard(s) identification

Physical hazards

Not classified.

Health hazards

Acute toxicity, oral 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

Environmental hazards

Not classified.

Label elements

Signal word

Danger

Hazard statement

Harmful if swallowed. Causes severe skin burns and eye damage. May cause an allergic skin reaction. Suspected of damaging fertility. Suspected of damaging the unborn child.

Precautionary statements

Prevention

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

Response

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Take off immediately all contaminated clothing and wash it before reuse. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a poison centre/doctor/. Specific treatment (see this label).
3. Composition/information on ingredients

Mixtures

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nonyl phenol</td>
<td>84852-15-3</td>
<td>30-70</td>
</tr>
<tr>
<td>Polyoxypropylenediamine</td>
<td>9046-10-0</td>
<td>&lt;40</td>
</tr>
<tr>
<td>3-Aminomethyl-3,5,5-trimethyl-cyclohexylamine</td>
<td>2855-13-2</td>
<td>&lt;25</td>
</tr>
<tr>
<td>Trimethylolpropane poly(oxypropylene)triamine</td>
<td>39423-51-3</td>
<td>&lt;25</td>
</tr>
</tbody>
</table>

Composition comments: All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

4. First-aid measures

Inhalation: If inhaled, remove to fresh air. For breathing difficulties, oxygen may be necessary. Get medical attention if symptoms occur.

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

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

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.

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: Treat symptomatically. Keep victim under observation. Symptoms may be delayed. Exposure may aggravate pre-existing skin disorders.

General information: 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. The toxicological properties of this material have not been fully investigated.

5. Fire-fighting measures

Suitable extinguishing media: Water fog. Alcohol resistant foam. Dry chemical powder. Carbon dioxide (CO2).

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, gases hazardous to health may be formed.

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: 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 out of low areas. Do not breathe mist or vapour. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. Do not get in eyes, on skin, on clothing. For personal protection, see section 8 of the SDS.

EasyCast Hardener

904006     Version #: 01     Revision date: -     Issue date: 13-July-2017
Methods and materials for containment and cleaning up

Keep unnecessary personnel away. This product is miscible in water. Prevent entry into waterways, sewer, basements or confined areas. 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.

Never return spills to original containers for re-use. Collect and dispose of spillage as indicated in section 13 of the SDS.

Environmental precautions

Contact local authorities in case of spillage to drain/aquatic environment. Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling

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. 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.

Conditions for safe storage, including any incompatibilities

Store locked up. Keep out of the reach of children. 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.

8. Exposure controls/personal protection

Occupational exposure limits

No exposure limits noted for ingredient(s).

Biological limit values

No biological exposure limits noted for the ingredient(s).

Exposure guidelines

No exposure standards allocated. Use personal protective equipment as required. Keep working clothes separately.

Appropriate engineering controls

Good general ventilation (typically 10 air changes per hour) 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. Provide adequate ventilation. Eye wash facilities and emergency shower must be available when handling this product.

Individual protection measures, such as personal protective equipment

Eye/face protection

Wear safety glasses with side shields (or goggles) and a face shield.

Skin protection

Hand protection

Chemical resistant gloves.

Other

Wear appropriate chemical resistant clothing. The most suitable glove must be chosen in consultation with the gloves supplier, who can inform about the breakthrough time of the glove material. Wear appropriate chemical resistant clothing to prevent any possibility of skin contact. Use of an impervious apron is recommended.

Respiratory protection

Not available.

Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

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.

9. Physical and chemical properties

Appearance

Viscous liquid.

Physical state

Liquid.

Form

Liquid.

Colour

Slighty yellow.

Odour

Ammonia-like.

Odour threshold

Not available.

pH

Not available.

Melting point/freezing point

Not available.

Initial boiling point and boiling range

222 °C (431.6 °F)

Flash point

100.0 °C (212.0 °F) Setaflash
<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Evaporation rate</td>
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</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not applicable.</td>
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<tr>
<td>Upper/lower flammability or explosive limits</td>
<td></td>
</tr>
<tr>
<td>Flammability limit - lower (%)</td>
<td>Not available.</td>
</tr>
<tr>
<td>Flammability limit - upper (%)</td>
<td>Not available.</td>
</tr>
<tr>
<td>Explosive limit - lower (%)</td>
<td>Not available.</td>
</tr>
<tr>
<td>Explosive limit – upper (%)</td>
<td>Not available.</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>&lt; 1 mm Hg @ 20 °C</td>
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<tr>
<td>Vapour density</td>
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</tr>
<tr>
<td>Relative density</td>
<td>0.97 (21 °C (69.8 °F))</td>
</tr>
<tr>
<td>Solubility(ies)</td>
<td></td>
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<tr>
<td>Solubility (water)</td>
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<tr>
<td>Partition coefficient (n-octanol/water)</td>
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</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>Not available.</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>Not available.</td>
</tr>
<tr>
<td>Viscosity</td>
<td>Not available.</td>
</tr>
<tr>
<td>Other information</td>
<td></td>
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<tr>
<td>Density</td>
<td>8.00 lb/gal</td>
</tr>
<tr>
<td>Explosive properties</td>
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</tr>
<tr>
<td>Oxidising properties</td>
<td>Not oxidising.</td>
</tr>
<tr>
<td>Percent volatile</td>
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</tr>
<tr>
<td>VOC</td>
<td>0</td>
</tr>
</tbody>
</table>

10. Stability and reactivity

Reactivity: The product is stable and non-reactive under normal conditions of use, storage and transport. Read and follow manufacturer’s recommendations.

Chemical stability: Stable under normal temperature conditions and recommended use.

Possibility of hazardous reactions: Hazardous polymerisation 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. Contact with incompatible materials. Avoid incompatible materials and intense heat.


Hazardous decomposition products: None expected under normal conditions of use.

11. Toxicological information

Information on likely routes of exposure

- **Inhalation**: Prolonged inhalation may be harmful. May cause irritation to the respiratory system.
- **Skin contact**: Causes severe skin burns. May be harmful in contact with skin. May cause an allergic skin reaction.
- **Eye contact**: Causes serious eye damage.
- **Ingestion**: Causes digestive tract burns. Harmful if swallowed.

Symptoms related to the physical, chemical and toxicological characteristics: Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. Dermatitis. Rash.

Information on toxicological effects

- **Acute toxicity**: Harmful if swallowed. May cause an allergic skin reaction. May cause irritation to the respiratory system.
3-Aminomethyl-3,5,5-trimethyl-cyclohexylamine (CAS 2855-13-2)

Acute
Oral
LD50 Rat 1030 mg/kg

Trimethylolpropane poly(oxypropylene)triamine (CAS 39423-51-3)

Acute
Dermal
LD50 Rabbit 610 mg/kg
Oral
LD50 Rat 220 mg/kg

Skin corrosion/irritation Causes severe skin burns.
Serious eye damage/eye irritation Causes serious eye damage.

Respiratory or skin sensitisation

Respiratory sensitisation Due to partial or complete lack of data the classification is not possible.
Skin sensitisation May cause an allergic skin reaction.
Germ cell mutagenicity No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
Carcinogenicity This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.
Reproductive toxicity Suspected of damaging the unborn child. Suspected of damaging fertility.
Specific target organ toxicity - single exposure Not classified.
Specific target organ toxicity - repeated exposure Not classified.

Aspiration hazard Due to the high viscosity the product is not an aspiration hazard.
Chronic effects The toxicological properties of this material have not been investigated.
Further information Reproductive toxicity. Symptoms may be delayed. May cause allergic respiratory and skin reactions.

12. Ecological information

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

Nonyl phenol (CAS 84852-15-3) 5.71

Persistence and degradability No data is available on the degradability of this product.
Bioaccumulative potential No data available on bioaccumulation.
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.

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). Do not allow this material to drain into sewers/water supplies.

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): 8
- Subsidiary risk: -
- Packing group: III
- Environmental hazards: Not available.
- 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): 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): 8
- Subsidiary risk: -
- Label(s): 8
- Packing group: III
- Environmental hazards: Yes
- Marine pollutant: 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 established.

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

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

*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: 13-July-2017

Version No.: 01

References
ACGIH
EPA: AQUIRE database
NLM: Hazardous Substances Data Base
US. IARC Monographs on Occupational Exposures to Chemical Agents
HSDB® - Hazardous Substances Data Bank
JIS Z 7250: 2005 Safety data sheet for chemical products-Part 1: Content and order of sections
JCIA GHS Guideline, October 2008
IARC Monographs. Overall Evaluation of Carcinogenicity
National Toxicology Program (NTP) Report on Carcinogens
ACGIH Documentation of the Threshold Limit Values and Biological Exposure Indices
Japan Society for Occupational Health, Recommendation of Occupational Exposure Limits

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