1. Product and Company Identification

Material name: Castin' Craft Casting Resin
Revision date: 07-22-2014
Version #: 01
CAS #: Mixture
Product code: 00175, 00183, 00191, 01600, 34016, 34032, 34128
MSDS Number: 7211750
Product use: Clear Casting Resin.
Manufacturer/Supplier: Environmental Technology, Inc.
Address: 300 S. Bay Depot Road
          Fields Landing
          CA 95537
          eti@eti-usa.com
          Telephone number: 707-443-9323
          Contact Person: Technical Director

Emergency:
CHEMTREC: 800-424-9300

2. Hazards Identification

Physical state: Liquid.
Appearance: Pink liquid
Emergency overview: WARNING
Flammable liquid and vapor.
Causes skin and eye irritation. May cause respiratory tract irritation.

OSHA regulatory status:
This product is considered hazardous under 29 CFR 1910.1200 (Hazard Communication).

Potential health effects:

Routes of exposure:
Inhalation. Ingestion. Skin contact. Eye contact.

Eyes:
Causes eye irritation. May cause redness and pain.

Skin:
Causes skin irritation. May cause allergic skin reaction.

Inhalation:
May cause respiratory tract irritation. May cause irritation of nose, throat and mucous membranes.
High vapor concentrations may cause central nervous system effects. Breathing of high concentrations may cause dizziness, light-headedness, headache, nausea and loss of coordination. Continued inhalation may result in unconsciousness.

Ingestion:
May cause discomfort if swallowed. Ingestion may cause nausea, headache and dizziness.

Target organs:

Chronic effects:
Possible cancer hazard - contains styrene which may cause cancer based on animal data. May cause central nervous system depression.

Signs and symptoms:
Skin irritation. Irritation of eyes and mucous membranes. Sensitization.

Potential environmental effects:
The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

3. Composition / Information on Ingredients

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS #</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polyester Resin</td>
<td>N/A</td>
<td>60 - 65</td>
</tr>
<tr>
<td>Styrene</td>
<td>100-42-5</td>
<td>35 - 40</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

First aid procedures

**Eye contact**
Immediately flush eyes with plenty of water for at least 15 minutes, lifting upper and lower eyelids occasionally. Continue rinsing. Get medical attention if irritation develops and persists.

**Skin contact**
Wash the skin immediately with soap and water. Remove contaminated clothing and shoes. Get medical attention promptly if symptoms persist or occur after washing.

**Inhalation**
Move to fresh air. If not breathing, give artificial respiration. Get medical attention if any discomfort continues.

**Ingestion**
Rinse mouth thoroughly with water and give large amounts of water to people not unconscious. Never give anything by mouth to a victim who is unconscious or is having convulsions. Do not induce vomiting. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration. Get medical attention if any discomfort occurs.

Notes to physician
Treat symptomatically. Symptoms may be delayed.

General advice
Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire Fighting Measures

**Flammable properties**
The product is flammable, and heating may generate vapors which may form explosive vapor/air mixtures.

**Extinguishing media**
- **Suitable extinguishing media**
  Use extinguishing agent suitable for type of surrounding fire.
- **Unsuitable extinguishing media**
  Water. Do not use water jet as an extinguisher, as this will spread the fire.

**Protection of firefighters**
- **Protective equipment and precautions for firefighters**
  Self-contained breathing apparatus and full protective clothing must be worn in case of fire. Selection of respiratory protection for fire fighting: follow the general fire precautions indicated in the workplace.

**Fire fighting equipment/instructions**
Vapors are heavier than air and may spread near ground to sources of ignition. Move container from fire area if it can be done without risk.

**Hazardous combustion products**
Carbon oxides.

6. Accidental Release Measures

**Personal precautions**
Avoid contact with skin and eyes. Wear protective clothing as described in Section 8 of this safety data sheet.

**Environmental precautions**
Avoid discharge into storm drains, water courses or onto the ground.

**Methods for cleaning up**

- **Large Spills**: 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. Prevent product from entering drains. Do not allow material to contaminate ground water system. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Following product recovery, flush area with water.

- **Small Spills**: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

**Other information**
Clean up in accordance with all applicable regulations. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal.

7. Handling and Storage

**Handling**
Provide adequate ventilation. Avoid contact with eyes, skin, and clothing. Keep away from sources of ignition - No smoking. The product is flammable, and heating may generate vapors which may form explosive vapor/air mixtures. Ground/bond container and receiving equipment. Good personal hygiene is necessary. Wash hands and contaminated areas with water and soap before leaving the work site. Observe good industrial hygiene practices.
8. Exposure Controls / Personal Protection

Occupational exposure limits

<table>
<thead>
<tr>
<th>US. ACGIH Threshold Limit Values</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Components</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Styrene (100-42-5)</td>
<td>TWA</td>
<td>20 ppm</td>
</tr>
<tr>
<td></td>
<td>STEL</td>
<td>40 ppm</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>US. OSHA Table Z-2 (29 CFR 1910.1000)</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Components</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Styrene (100-42-5)</td>
<td>TWA</td>
<td>100 ppm</td>
</tr>
<tr>
<td></td>
<td>Ceiling</td>
<td>200 ppm</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Canada. Alberta OELs (Occupational Health &amp; Safety Code, Schedule 1, Table 2)</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Components</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Styrene (100-42-5)</td>
<td>STEL</td>
<td>170 mg/m³</td>
</tr>
<tr>
<td></td>
<td>TWA</td>
<td>20 ppm</td>
</tr>
<tr>
<td></td>
<td>STEL</td>
<td>40 ppm</td>
</tr>
<tr>
<td></td>
<td>TWA</td>
<td>85 mg/m³</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended)</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Components</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Styrene (100-42-5)</td>
<td>TWA</td>
<td>50 ppm</td>
</tr>
<tr>
<td></td>
<td>STEL</td>
<td>75 ppm</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Canada. Ontario OELs. (Ministry of Labor - Control of Exposure to Biological or Chemical Agents)</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Components</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Styrene (100-42-5)</td>
<td>STEL</td>
<td>100 ppm</td>
</tr>
<tr>
<td></td>
<td>TWA</td>
<td>35 ppm</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Canada. Quebec OELS. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment)</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Components</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Styrene (100-42-5)</td>
<td>STEL</td>
<td>100 ppm</td>
</tr>
<tr>
<td></td>
<td>TWA</td>
<td>213 mg/m³</td>
</tr>
<tr>
<td></td>
<td>STEL</td>
<td>426 mg/m³</td>
</tr>
<tr>
<td></td>
<td>TWA</td>
<td>50 ppm</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Mexico. Occupational Exposure Limit Values</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Components</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Styrene (100-42-5)</td>
<td>STEL</td>
<td>100 ppm</td>
</tr>
<tr>
<td></td>
<td>TWA</td>
<td>215 mg/m³</td>
</tr>
<tr>
<td></td>
<td>STEL</td>
<td>425 mg/m³</td>
</tr>
<tr>
<td></td>
<td>TWA</td>
<td>50 ppm</td>
</tr>
</tbody>
</table>

Engineering controls

Provide adequate ventilation. Observe Occupational Exposure Limits and minimize the risk of inhalation of vapors.

Personal protective equipment

Eye / face protection

Wear splash-proof eye goggles to prevent any possibility of eye contact.

Skin protection

Wear protective 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. Wear appropriate chemical resistant clothing to prevent any possibility of skin contact.

Respiratory protection

A NIOSH- approved air purifying respirator with an organic vapor cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits.

General hygiene considerations

Wash at the end of each work shift and before eating, smoking and using the toilet. When using, do not eat, drink or smoke.

9. Physical & Chemical Properties

Appearance

Pink liquid

Color

Pink.

Odor

Styrene.

Odor threshold

Not available.
Physical state: Liquid.
Form: Liquid.

pH: Not available.
Melting point: Not available.
Freezing point: Not available.
Boiling point: 294.8 °F (146 °C)
Flash point: 87.8 °F (31 °C)
Evaporation rate: Not available.
Flammability limits in air, upper, % by volume: 6.8 % v/v
Flammability limits in air, lower, % by volume: 0.09 % v/v

Vapor pressure: 200 mm Hg
Vapor density: 4.5 mm Hg
Specific gravity: 1.05 - 1.3 (water = 1)
Solubility (water): Insoluble
Partition coefficient (n-octanol/water): Not available.
Auto-ignition temperature: 914 °F (490 °C)
Decomposition temperature: Not available.

10. Chemical Stability & Reactivity Information

Chemical stability: Stable under normal temperature conditions and recommended use.
Conditions to avoid: Avoid incompatible materials and intense heat.
Hazardous decomposition products: Styrene oxide.
Possibility of hazardous reactions: High temperatures. May polymerize resulting in fire and explosion.

11. Toxicological Information

Toxicological data

<table>
<thead>
<tr>
<th>Components</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Styrene (100-42-5)</td>
<td>Acute Inhalation LC50 Rat: 2770 mg/l 4 Hours</td>
</tr>
</tbody>
</table>

Acute effects: Breathing of high vapor concentrations may cause dizziness, light-headedness, headache, nausea and loss of coordination. Continued inhalation may result in unconsciousness.

Local effects: Causes skin and eye irritation.

Sensitization: May cause sensitization by skin contact.

Chronic effects: Prolonged exposure may cause chronic effects. May cause central nervous system depression.

Carcinogenicity: Possible cancer hazard - contains styrene which may cause cancer based on animal data.

ACGIH Carcinogens: A4 Not classifiable as a human carcinogen.

IARC Monographs. Overall Evaluation of Carcinogenicity: 2B Possibly carcinogenic to humans.

Epidemiology: No epidemiological data is available for this product.

Mutagenicity: No data available.

Reproductive effects: Contains styrene. May cause adverse effects on the male and female reproductive systems.

Symptoms and target organs: Skin irritation. Irritation of eyes and mucous membranes. Sensitization.
12. Ecological Information

<table>
<thead>
<tr>
<th>Ecotoxicological data Components</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Styrene (100-42-5)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>EC50 Water flea (Daphnia magna): 3.3 - 7.4 mg/l 48 hours</td>
</tr>
<tr>
<td></td>
<td>LC50 Fathead minnow (Pimephales promelas): 3.241 - 4.991 mg/l 96 hours</td>
</tr>
</tbody>
</table>

Ecotoxicity
The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Environmental effects
An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

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

Bioaccumulation /
Accumulation
No data available on bioaccumulation.

Partition coefficient
(n-octanol/water)
Not available.

Mobility in environmental media
The product is insoluble in water.

13. Disposal Considerations

| Waste codes | D001: Waste Flammable material with a flash point <140 °F |
| Disposal instructions | Dispose of waste material according to Local, State, Federal, and Provincial Environmental Regulations. |
| Waste from residues / unused products | Do not allow this material to drain into sewers/water supplies. Dispose of in accordance with local regulations. |
| Contaminated packaging | Since emptied containers may retain product residue, follow label warnings even after container is emptied. |

14. Transport Information

DOT
Basic shipping requirements:
UN number 1866
Proper shipping name Resin solution, flammable
Hazard class 3
Packing group III
Environmental hazards No
Marine pollutant No
Labels required 3
Additional information:
Special provisions B1, B52, IB3, T2, TP1
Packaging exceptions 150
Packaging non bulk 173
Packaging bulk 242

IATA
Basic shipping requirements:
UN number 1866
Proper shipping name Resin solution flammable
Hazard class 3
Packing group III
Environmental hazards No
Marine pollutant No
Additional information:
ERG code 3L

IMDG
Basic shipping requirements:
UN number 1866
**Basic shipping requirements:**

- **Proper shipping name:** RESIN SOLUTION, flammable
- **Hazard class:** 3
- **UN number:** UN1866
- **Packing group:** III
- **Marine pollutant:** No

**15. Regulatory Information**

**US federal regulations**

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

**TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**

Not regulated.

**US CAA Section 112 Hazardous Air Pollutants (HAPs) List**

STYRENE (CAS 100-42-5)

**US EPCRA (SARA Title III) Section 313 - Toxic Chemical: De minimis concentration**

Styrene (CAS 100-42-5) 0.1 %

**US EPCRA (SARA Title III) Section 313 - Toxic Chemical: Listed substance**

Styrene (CAS 100-42-5) Listed.

**CERCLA (Superfund) reportable quantity (lbs) (40 CFR 302.4)**

Styrene: 1000

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

**Hazard categories**

- Immediate Hazard - Yes
- Delayed Hazard - Yes
- Fire Hazard - Yes
- Pressure Hazard - No
- Reactivity Hazard - No

**Section 302 extremely hazardous substance (40 CFR 355, Appendix A)**

No

**Section 311/312 (40 CFR 370)**

Yes

**Drug Enforcement Administration (DEA) (21 CFR 1308.11-15)**

Not controlled

**Canadian regulations**

This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all the information required by the CPR.

**WHMIS status**

Controlled

**WHMIS classification**

- B2 - Flammable/Combustible
- D2A - Other Toxic Effects-VERY TOXIC
- D2B - Other Toxic Effects-TOXIC

**WHMIS labeling**

**Inventory status**

<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>
</tr>
<tr>
<td>Country(s) or region</td>
<td>Inventory name</td>
<td>On inventory (yes/no)*</td>
</tr>
<tr>
<td>------------------------------</td>
<td>-------------------------------------------------------------------------------</td>
<td>------------------------</td>
</tr>
<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>Yes</td>
</tr>
<tr>
<td>Europe</td>
<td>European List of Notified Chemical Substances (ELINCS)</td>
<td>No</td>
</tr>
<tr>
<td>Japan</td>
<td>Inventory of Existing and New Chemical Substances (ENCS)</td>
<td>Yes</td>
</tr>
<tr>
<td>Korea</td>
<td>Existing Chemicals List (ECL)</td>
<td>Yes</td>
</tr>
<tr>
<td>New Zealand</td>
<td>New Zealand Inventory</td>
<td>Yes</td>
</tr>
<tr>
<td>Philippines</td>
<td>Philippine Inventory of Chemicals and Chemical Substances (PICCS)</td>
<td>Yes</td>
</tr>
<tr>
<td>United States &amp; Puerto Rico</td>
<td>Toxic Substances Control Act (TSCA) Inventory</td>
<td>Yes</td>
</tr>
</tbody>
</table>

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)*

**State regulations**

**WARNING:** This product contains chemical(s) known to the State of California to cause cancer and birth defects or other reproductive harm.

**US - California Hazardous Substances (Director's): Listed substance**

- Styrene (CAS 100-42-5): Listed.

**US - Massachusetts RTK - Substance: Listed substance**

- Styrene (CAS 100-42-5): Listed.

**US - New Jersey Community RTK (EHS Survey): Reportable threshold**

- Styrene (CAS 100-42-5): 500 LBS

**US - New Jersey RTK - Substances: Listed substance**

- Styrene (CAS 100-42-5): Listed.

**US - Pennsylvania RTK - Hazardous Substances: Listed substance**

- Styrene (CAS 100-42-5): Listed.

**Mexico regulations**

This safety data sheet was prepared in accordance with the Official Mexican Standard (NOM-018-STPS-2000).

### 16. Other Information

**Further information**

HMIS® is a registered trade and service mark of the NPCA.

**HMIS® ratings**

- Health: 2*
- Flammability: 3
- Physical hazard: 1

**NFPA ratings**

- Health: 2
- Flammability: 3
- Instability: 1

**Disclaimer**

The information in the sheet was written based on the best knowledge and experience currently available.

**Issue date**

07-22-2014