1. Product and Company Identification

- **Material name**: Castin' Craft Catalyst
- **Revision date**: 11-25-2014
- **Version #**: 01
- **CAS #**: Mixture
- **Product code**: 46361, 46388, 46392, 56362, 34016, 34032, 34128, MICHAELS SKUs:558155
- **MSDS Number**: 7806910
- **Product use**: Casting Resin Catalyst Agent
- **Manufacturer/Supplier**: Environmental Technology, Inc.
  300 S. Bay Depot Road
  Fields Landing
  CA 95537
  eti@eti-usa.com
  Telephone number 707-443-9323
  Contact Person: Technical Director

2. Hazards Identification

- **Physical state**: Liquid.
- **Appearance**: Water white liquid.
- **Emergency overview**: DANGER
  Contains an organic peroxide and strong oxidizer. Contact with other materials may cause fire. Heat may cause containers to explode. Causes severe 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 severe eye irritation. Permanent eye damage or blindness could result.
    - **Skin**: Causes severe skin irritation. May cause redness and pain.
    - **Inhalation**: May cause respiratory tract irritation.
    - **Ingestion**: May cause nausea, vomiting and gastrointestinal burns.

- **Target organs**: Eyes. Skin. Gastrointestinal tract. Respiratory system.

- **Signs and symptoms**: Contact with this material will cause burns to the skin, eyes and mucous membranes.

- **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

- **Components**
  - **Dimethyl Phthalate**: CAS # 131-11-3, Percent < 50
  - **Methyl Ethyl Ketone Peroxide**: CAS # 1338-23-4, Percent < 40

- **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 immediately.
  - **Skin contact**: Remove and isolate contaminated clothing and shoes. Immediately flush with plenty of water for at least 15 minutes. Get medical attention immediately.
  - **Inhalation**: Move to fresh air. 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.

Notes to physician

Treat symptomatically.

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 not flammable. Contains an organic peroxide. Strong oxidizer - contact with other material may cause fire. Heat may cause the containers to explode.

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

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.

Hazardous combustion products

The heat of decomposition of the peroxides adds to the heat of the fire. Dry chemical fire extinguishing agent may catalyze the decomposition.

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. Runoff from fire control or dilution water may be corrosive and/or toxic and cause pollution.

Methods for cleaning up

Should not be released into the environment.

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.

Never return spills in original containers for re-use. Clean up in accordance with all applicable regulations. This material and its container must be disposed of as hazardous waste.

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 all ignition sources including heat, sparks and flame. When using spray equipment, never spray raw MEKP into curing or in to raw resin of flues. Good personal hygiene is necessary. Wash hands and contaminated areas with water and soap before leaving the work site. Observe good industrial hygiene practices.

Storage

Store in tightly closed original container in a dry, cool and well-ventilated place. Protect from direct sunlight. Store away from incompatible materials.

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>
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</table>
US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

<table>
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Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2)

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| Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended)

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Canada. Ontario OELs. (Ministry of Labor - Control of Exposure to Biological or Chemical Agents)

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Canada. Quebec OELS. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment)

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Mexico. Occupational Exposure Limit Values

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<tbody>
<tr>
<td>Dimethyl Phthalate (131-11-3)</td>
<td>STEL</td>
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Exposure guidelines
Use personal protective equipment as required. Keep working clothes separately.

Engineering controls
Provide adequate ventilation 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
Water white liquid.

Color
White.

Odor
Slight.

Odor threshold
Not available.

Physical state
Liquid.
Form  Liquid.

pH  Not available.

Melting point  Not available.

Freezing point  Not available.

Boiling point  Not available.

Flash point  > 200 °F (> 93.3 °C)

Evaporation rate  Not available.

Flammability limits in air, upper, % by volume  Not available.

Flammability limits in air, lower, % by volume  Not available.

Vapor pressure  Not available.

Vapor density  > 1

Specific gravity  1.1

Solubility (water)  Slightly soluble in water.

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

Auto-ignition temperature  Not available.

Decomposition temperature  Not available.

10. Chemical Stability & Reactivity Information

Chemical stability  Stable under normal temperature conditions and recommended use.

Conditions to avoid  Heat, sparks, flames, elevated temperatures. Protect against direct sunlight.


Hazardous decomposition products  When heated to decomposition the product emits acrid smoke and irritating fumes.

Possibility of hazardous reactions  Hazardous polymerization does not occur.

11. Toxicological Information

Toxicological data

Components  Test Results

Dimethyl Phthalate (131-11-3)  Acute Dermal LD50 Rat: 38000 mg/kg

Methyl Ethyl Ketone Peroxide (1338-23-4)  Acute Oral LD50 Rat: 2400 mg/kg  Acute Inhalation LC50 Rat: 200 mg/l 4 Hours  Acute Oral LD50 Rat: 6.86 ml/kg

Acute effects  May cause discomfort if swallowed.

Local effects  Causes severe skin and eye irritation. Vapors and mist may irritate throat and respiratory system and cause coughing.

Sensitization  No data available.

Chronic effects  Prolonged exposure may cause chronic effects.

Carcinogenicity  This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

Epidemiology  No epidemiological data is available for this product.

Mutagenicity  No data available.

Reproductive effects  No data available.

Symptoms and target organs  Contact with this material will cause burns to the skin, eyes and mucous membranes.
12. Ecological Information

Ecotoxicological data

<table>
<thead>
<tr>
<th>Components</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimethyl Phthalate (131-11-3)</td>
<td>EC50 Water flea (Daphnia magna): 45.9 mg/l 48 hours</td>
</tr>
<tr>
<td></td>
<td>LC50 Sheepshead minnow (Cyprinodon variegatus): 29 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
This substance has very low solubility in water and low mobility in the environment.

13. Disposal Considerations

Waste codes
U160: Waste Methyl ethyl ketone peroxide

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: UN3105
- Proper shipping name: Organic peroxide type D, liquid (Methyl Ethyl Ketone Peroxide <40%)
- Hazard class: 5.2
- Packing group: II
- Environmental hazards: Marine pollutant: No
- Labels required: 5.2

Additional information:
- Packaging exceptions: 152
- Packaging non bulk: 225
- Packaging bulk: None

IATA

Basic shipping requirements:
- UN number: 3105
- Proper shipping name: Organic peroxide type D, liquid (Methyl Ethyl Ketone Peroxide <40%)
- Hazard class: 5.2
- Environmental hazards: Marine pollutant: No

Additional information:
- ERG code: 5L

IMDG

Basic shipping requirements:
- UN number: 3105
- Proper shipping name: ORGANIC PEROXIDE TYPE D, LIQUID (Methyl Ethyl Ketone Peroxide <40%)
- Hazard class: 5.2
Environmental hazards
Marine pollutant No
EmS No. F-J, S-R

TDG
Basic shipping requirements:
Proper shipping name ORGANIC PEROXIDE TYPE D, LIQUID (Methyl Ethyl Ketone Peroxide <40%)
Hazard class 5.2
UN number UN3105
Packing group II
Marine pollutant No

Additional information:
Special provisions 16, 38

15. Regulatory Information

US federal regulations
This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
All components are on the U.S. EPA TSCA Inventory List.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)
Not regulated.

USCAA Section 112 Hazardous Air Pollutants (HAPs) List
DIMETHYL PHTHALATE (CAS 131-11-3)

US EPCRA (SARA Title III) Section 313 - Toxic Chemical: De minimis concentration
Dimethyl Phthalate (CAS 131-11-3) 1.0 %

US EPCRA (SARA Title III) Section 313 - Toxic Chemical: Listed substance
Dimethyl Phthalate (CAS 131-11-3) Listed.

CERCLA (Superfund) reportable quantity (lbs) (40 CFR 302.4)
Dimethyl Phthalate: 5000
Methyl Ethyl Ketone Peroxide: 10

Superfund Amendments and Reauthorization Act of 1986 (SARA)

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

Section 302 extremely hazardous substance (40 CRF 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
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>China</td>
<td>Inventory of Existing Chemical Substances in China (IECSC)</td>
<td>Yes</td>
</tr>
</tbody>
</table>
Country(s) or region | Inventory name                                                                 | On inventory (yes/no)*
---------------------|-------------------------------------------------------------------------------|------------------------
Europe              | European Inventory of Existing Commercial Chemical Substances (EINECS)        | Yes                    
Europe              | European List of Notified Chemical Substances (ELINCS)                        | No                     
Japan               | Inventory of Existing and New Chemical Substances (ENCS)                      | Yes                    
Korea               | Existing Chemicals List (ECL)                                                | Yes                    
New Zealand         | New Zealand Inventory                                                         | Yes                    
Philippines         | Philippine Inventory of Chemicals and Chemical Substances (PICCS)             | Yes                    
United States & Puerto Rico | Toxic Substances Control Act (TSCA) Inventory                                | Yes                    

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

State regulations
This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

US - California Hazardous Substances (Director's): Listed substance
- Dimethyl Phthalate (CAS 131-11-3) Listed.
- Methyl Ethyl Ketone Peroxide (CAS 1338-23-4) Listed.

US - Massachusetts RTK - Substance: Listed substance
- Dimethyl Phthalate (CAS 131-11-3) Listed.
- Methyl Ethyl Ketone Peroxide (CAS 1338-23-4) Listed.

US - New Jersey Community RTK (EHS Survey): Reportable threshold
- Dimethyl Phthalate (CAS 131-11-3) 500 LBS

US - New Jersey RTK - Substances: Listed substance
- Dimethyl Phthalate (CAS 131-11-3) Listed.
- Methyl Ethyl Ketone Peroxide (CAS 1338-23-4) Listed.

US - Pennsylvania RTK - Hazardous Substances: Listed substance
- Dimethyl Phthalate (CAS 131-11-3) Listed.
- Methyl Ethyl Ketone Peroxide (CAS 1338-23-4) 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: 3*
Flammability: 2
Physical hazard: 2

NFPA ratings
Health: 3
Flammability: 2
Instability: 2

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

Issue date
08-22-2011