

MATERIAL SAFETY DATA SHEET

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.
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

Eyes. Skin. Gastrointestinal tract. Respiratory system.

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

Components	CAS #	Percent
Polyester Resin	N/A	60 - 65
Styrene	100-42-5	35 - 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 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

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 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.

Storage

Follow rules for flammable liquids. 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****US. ACGIH Threshold Limit Values**

Components	Type	Value
Styrene (100-42-5)	TWA	20 ppm
	STEL	40 ppm

US. OSHA Table Z-2 (29 CFR 1910.1000)

Components	Type	Value
Styrene (100-42-5)	TWA	100 ppm
	Ceiling	200 ppm

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

Components	Type	Value
Styrene (100-42-5)	STEL	170 mg/m ³
	TWA	20 ppm
	STEL	40 ppm
	TWA	85 mg/m ³

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

Components	Type	Value
Styrene (100-42-5)	TWA	50 ppm
	STEL	75 ppm

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

Components	Type	Value
Styrene (100-42-5)	STEL	100 ppm
	TWA	35 ppm

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

Components	Type	Value
Styrene (100-42-5)	STEL	100 ppm
	TWA	213 mg/m ³
	STEL	426 mg/m ³
	TWA	50 ppm

Mexico. Occupational Exposure Limit Values

Components	Type	Value
Styrene (100-42-5)	STEL	100 ppm
	TWA	215 mg/m ³
	STEL	425 mg/m ³
	TWA	50 ppm

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.
Incompatible materials	Strong oxidizing agents. Can form explosive peroxides.
Hazardous decomposition products	Styrene oxide.
Possibility of hazardous reactions	High temperatures. May polymerize resulting in fire and explosion.

11. Toxicological Information

Toxicological data

Components

Test Results

Styrene (100-42-5)

Acute Inhalation LC50 Rat: 2770 mg/l 4 Hours

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	
Styrene (CAS 100-42-5)	A4 Not classifiable as a human carcinogen.
IARC Monographs. Overall Evaluation of Carcinogenicity	
Styrene (CAS 100-42-5)	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

Ecotoxicological data

Components

Test Results

Styrene (100-42-5)

EC50 Water flea (*Daphnia magna*): 3.3 - 7.4 mg/l 48 hours
LC50 Fathead minnow (*Pimephales promelas*): 3.241 - 4.991 mg/l 96 hours

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	UN1866
Proper shipping name	Resin solution, flammable
Hazard class	3
Packing group	III
Environmental hazards	
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	
Marine pollutant	No
Additional information:	
ERG code	3L

IMDG

Basic shipping requirements:

UN number	1866
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Proper shipping name RESIN SOLUTION flammable
Hazard class 3
Packing group III
Environmental hazards
Marine pollutant No
EmS No. F-E, S-E*

TDG

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

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

Country(s) or region	Inventory name	On inventory (yes/no)*
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
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 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