

Safety Data Sheet



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OPTOCAST 3410

And all products containing OPTOCAST 3410 variations in the trade name, including viscosity variations, Gen2, -XTP, -VM and others.

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: OPTOCAST 3410, And all products containing OPTOCAST 3410 variations in the trade name, including viscosity variations, Gen2, and others.

GENERAL USE: Adhesive

CHEMICAL FAMILY: Mixture

MANUFACTURER

Electronic Materials, Inc.

1814 Airport Road

Breckenridge, CO 80424

Emergency Contact: (970)547-0807

COMMENTS: To the best of our knowledge, this Safety Data Sheet conforms to the requirements of US OSHA 29 CFR1910.1200, 91/155/EEC and Canadian Hazardous Products Act.

2. HAZARDS IDENTIFICATION

Hazard Classification	Signal Word	Hazard Statement	Pictogram
Skin Sensitizer 1	Warning	H315 H319	
Eye Irritant 2 Skin Sensitizer 1 Aquatic Acute 1	Warning	H319 H317 H400	
Skin Irritant 2 Skin Sensitizer 1 Eye Irritant 2 Aquatic Chronic 2	Warning	H315 H317 H319 H411	

PHYSICAL APPEARANCE:

Thin to thick liquid

COLOR:

White

EMERGENCY OVERVIEW:

May cause moderate eye and skin irritation.

POTENTIAL HEALTH EFFECTS

EYES:

Mild irritation, redness, corneal scratches.

SKIN:

Mild irritation, redness, rash, blistering

INGESTION:

Stomach upset, bad taste.

INHALATION:

Minor irritation

CHRONIC EXPOSURE:

Repeated exposure to skin can cause sensitization.

CHEMICALS LISTED AS

None

CARCINOGEN OR POTENTIAL:

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3. COMPOSITION / INFORMATION ON INGREDIENTS

Name:	CAS	% Composition
Epoxy Resin	2386-87-0	10-25%
Photoinitiator	108-32-7, 71449-78-0, 89452-37-9	1-2.5%
Epoxy Resin	25085-99-8	5-10%



4. FIRST AID MEASURES

EYES:	Immediately flush eyes with plenty of water for two to three minutes. Remove any contact lenses and continue flushing for 15 minutes. Get immediate medical attention.
SKIN:	Remove contaminated clothing including shoes and immediately wash affected area with plenty of soap and water. Seek immediate medical attention. Wash contaminated clothing and shoes before reuse.
INGESTION:	Wash out mouth with water, keep at rest. Seek immediate medical attention. Do NOT induce vomiting unless directed to do so by medical personnel.
INHALATION:	Remove from further exposure. Keep warm and at rest. If not breathing, give artificial respiration. If breathing is difficult, trained personnel should administer oxygen. Seek immediate medical attention.
Notes to Physician:	No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

5. FIRE FIGHTING MEASURES

FLASHPOINT AND METHOD:	Not Tested
FLAMMABLE LIMITS:	Not Available
AUTOIGNITION TEMPERATURE:	Not Tested
FLAMMABLE CLASS:	Nonflammable
FLAME PROPAGATION OR BURNING RATE OF SOLIDS:	Unknown
GENERAL HAZARD:	Evacuate personnel downwind of fire to avoid inhalation of irritating and/or harmful fumes and smoke.
EXTINGUISHING MEDIA:	Alcohol resistant foam, CO2 (Carbon Dioxide), Dry Chemical, Water Fog. Do not use direct water stream.
HAZARDOUS COMBUSTION PRODUCTS:	May include, but are not limited to: Carbon monoxide, carbon dioxide, small amounts of hydrogen fluoride.

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**FIRE FIGHTING
PROCEDURES:**

**FIRE FIGHTING
EQUIPMENT:**

**SENSITIVE TO STATIC
DISCHARGE:**

SENSITIVITY TO IMPACT: Not Available

This product is a nonflammable substance. However, hazardous decomposition and combustion products may be formed in a fire situation. Cool exposed containers with water spray to prevent overheating. Respiratory and eye protection are required for fire fighting personnel. Full protective equipment (Bunker Gear) and self contained breathing apparatus (SCBA) should be used for all indoor fires and any significant outdoor fires. For small outdoor fires, which may easily be extinguished with a portable fire extinguisher, use of a SCBA may not be required.

No.

6. ACCIDENTAL RELEASE MEASURES

SMALL SPILL:

Wearing the appropriate personal protective equipment designated in Section 8, move the leaking container to a containment area or rotate the container so that the opening is above the liquid level.

LARGE SPILL:

Construct temporary dikes of dirt, sand, or any appropriate readily available material to prevent spreading of the material.

Wearing the appropriate personal protective equipment designated in Section 8, close or cap valves and/or block or plug hole in leaking container and transfer to another container.

Contain material as described above and call the local fire or police department for immediate emergency assistance.

ENVIRONMENTAL PRECAUTIONS

WATER SPILL:

Use appropriate containment to avoid runoff or release to sewer or waterways.

LAND SPILL:

Use appropriate containment to avoid runoff or release to ground.

GENERAL

PROCEDURES:

Remove containers of strong oxidizers and strong bases from release area.

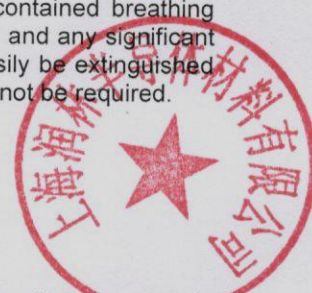
RELEASE NOTES:

If spill could potentially enter any waterway, including intermittent dry creeks, contact the local authorities. If in the U.S. contact the US COAST GUARD NATIONAL RESPONSE CENTER toll free number 800-424-8802.

COMMENTS:

In case of accident or road spill notify: CHEMTREC in USA at 800-424-9300 CANUTEC in Canada at 613-996-6666 CHEMTREC, other countries, at (International code)+1 703 527 3887

COMMENTS: See Section 13 for disposal information and Section 15 for regulatory requirements. Large and small spills may have a broad definition depending on the user's handling system. Therefore, the spill category must be defined at the point of release by technically qualified personnel.



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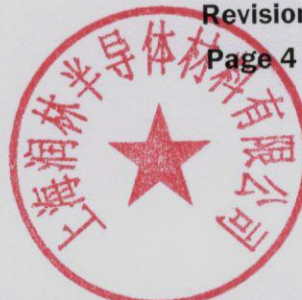
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7. HANDLING AND STORAGE

HANDLING: Use appropriate personal protective equipment as specified in Section 8. Handle in a well-ventilated area.

Handle and use in a manner consistent with good industrial/manufacturing techniques and practices.

STORAGE: Store in unopened containers under cool and dry conditions. Do not store with, or close to oxidizers and bases.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE GUIDELINES

OSHA HAZARDOUS COMPONENTS (29 CFR1910.1200)

EXPOSURE LIMITS: None Established

ENGINEERING CONTROLS: If dust, vapors, or mists are generated, provide local exhaust ventilation to control airborne levels below the exposure limit.

PERSONAL PROTECTIVE EQUIPMENT

EYES AND FACE: Wear chemical splash goggles and face shield when eye and face contact is possible due to splashing or spraying of material.



Safety Glasses



Splash Goggles

SKIN:

SKIN: Where contact is likely, wear neoprene chemical resistant gloves, a chemical suit, rubber boots, chemical safety goggles and a face shield.



Gloves



Protective Apron

RESPIRATORY:

RESPIRATORY: Always wear NIOSH approved respiratory protective equipment when vapor or mists may exceed applicable concentration limits.

WORK HYGIENIC PRACTICES:

WORK HYGIENIC PRACTICES: Facilities storing or using this material should be equipped with an eyewash facility and a safety shower. Good personal hygiene practices should always be followed.

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COMMENTS:

COMMENTS: No PEL's, TLV's or OEL's for this product or it's ingredients are listed in the current issue of ACGIH's Guide to Occupational Exposure Values nor have they been determined by the manufacturer.

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE:	Liquid
ODOR:	Characteristic
COLOR:	white
pH:	Not Available
VAPOR PRESSURE:	Not Available
VAPOR DENSITY:	Not Available
BOILING POINT:	> 200°C (392°F)
FREEZING POINT:	Not Available
MELTING POINT:	Not Applicable
FLASHPOINT AND METHOD:	Not tested.
EVAPORATION RATE:	Not Available
DENSITY:	1.8-1.9
COEFF. OIL/WATER:	Not Available

10. STABILITY AND REACTIVITY

STABLE:	Yes
HAZARDOUS POLYMERIZATION:	Will not occur in quantities less than 500 g.
STABILITY:	The product is stable under recommended storage conditions.
CONDITIONS TO AVOID:	Heat, temperatures above 200°C. UV light below 500 nm.
HAZARDOUS DECOMPOSITION PRODUCTS:	Decomposition products depend upon temperature, air supply and the presence of other materials. Uncontrolled exothermic reaction of epoxy resins release phenolics, carbon monoxide, carbon dioxide and water.
INCOMPATIBLE MATERIALS:	Avoid contact with oxidizing materials. Avoid contact with: amines, acids, strong bases, Lewis acids.

11. TOXICOLOGICAL INFORMATION

ACUTE	
EYES:	May cause eye irritation and redness.
DERMAL LD ₅₀ :	Not Available
ORAL LD ₅₀ :	Not Available
INHALATION LC ₅₀ :	Not Available
EYE EFFECTS:	Contains abrasives, corneal injury is possible, do not rub eyes.
SKIN EFFECTS:	Prolonged contact may cause redness, swelling, rash, dermatitis.
INGESTION:	Nausea, stomach upset. Harmful effects not expected from swallowing small amounts.

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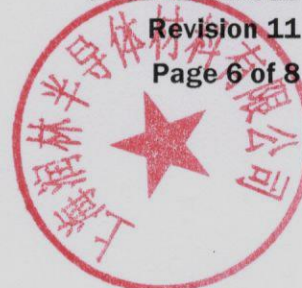
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CARCINOGENICITY

IARC: Listed by IARC - No
NTP: Listed by NTP - No
OSHA: Listed by OSHA - No
SENSITIZATION: Not Available
REPRODUCTIVE
EFFECTS: Not Available
TARGET ORGANS: Eyes
Skin
Gastrointestinal tract

TERATOGENIC EFFECTS: Not Available

MUTAGENICITY: Not Available

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL DATA: May cause adverse environmental impact if material reaches waterways.
ECOTOXICOLOGICAL
INFORMATION: Not Available
DISTRIBUTION: Not Available
CHEMICAL FATE
INFORMATION: Not Available

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: Cure to a solid and dispose of waste at an appropriate waste disposal facility according to current applicable laws and regulations.
FOR LARGE SPILLS: Contain material and call local authorities for emergency assistance. In consultation with the appropriate authorities, determine the disposal method.
PRODUCT DISPOSAL: Dispose of at a supervised incineration facility or an appropriate waste disposal facility according to current applicable laws and regulations and product characteristics at time of disposal.
EMPTY CONTAINER: Rinse drums with a suitable solvent and steam to remove vapors before disposal or reuse in accordance with applicable regulations.
GENERAL COMMENTS: Refer to Section 6, Accidental Release Measures for additional information.

14. TRANSPORT INFORMATION

DOT (DEPARTMENT OF TRANSPORTATION)

Not Regulated.

ROAD AND RAIL (ADR/RID)

Not Regulated.

AIR (ICAO/IATA)

Not Regulated.

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15. REGULATORY INFORMATION

UNITED STATES

DOT LABEL SYMBOL AND HAZARD CLASSIFICATION

Not Regulated

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)

FIRE: No ACUTE: No PRESSURE GENERATING: No REACTIVITY: No CHRONIC: No

313 REPORTABLE INGREDIENTS:

Not Applicable

TITLE III NOTES:

Not Applicable

TSCA (TOXIC SUBSTANCE CONTROL ACT)

TSCA REGULATORY: All intentional ingredients are listed on the TSCA Inventory.

CERCLA (COMPREHENSIVE RESPONSE, COMPENSATION, AND LIABILITY ACT)

CERCLA RQ: Not Applicable

REGULATIONS

STATE REGULATIONS:

Not Available

LOCAL REGULATIONS:

Not Available

NATIONAL RESPONSE

U.S. Coast Guard National Center telephone # 1-800-424-8802

CENTER:

CANADA

WHMIS HAZARD SYMBOL AND CLASSIFICATION

Not Regulated

WHMIS (WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM): This product is not WHMIS controlled.

EUROPEAN COMMUNITY

EEC LABEL SYMBOL AND CLASSIFICATION

Not Regulated

S36/39: Wear suitable protective clothing and eye/face protection.

S24/25: Avoid contact with skin or eyes.

S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S28: After contact with skin, wash immediately with plenty of soap and water.

R43: May cause sensitization by skin contact

16. OTHER INFORMATION

REASON FOR ISSUE: Update

PREPARED BY:

EMIUV

INFORMATION CONTACT:

(970) 547-0807 US

MANUFACTURER DISCLAIMER: Information given herein is offered in good faith as accurate, but without guarantee. Conditions of use and suitability of the product for particular uses are beyond our control; all risks of use of the product are therefore assumed by the user. Nothing is intended as a

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recommendation for uses which infringe valid patents or as extending license under valid patents.
Appropriate warnings and safe handling procedures should be provided to handlers and users.

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