MARINE TEX CATALYST JELLY

This product appears in the following stock number(s):
3001C 3001U 3003C 3003U 3005C 3005U 3007C 3007U
3011C 3011U 3013C 3013U 3015C 3015U 3017C 3017U

Last revised: 07/24/03
Printed: 9/30/2005

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Tradename: MARINE TEX CATALYST JELLY

General use: The following data pertain to the hardener only; properly mixed and cured epoxies are not hazardous.

Chemical family: Modified aliphatic polyamine

MANUFACTURER
ITW Philadelphia Resins
130 Commerce Dr.
Montgomeryville, PA 18936

EMERGENCY INFORMATION
Emergency telephone number
(CHEMTREC): (800) 424-9300
Other Calls: (215) 855-8450

2. COMPOSITION/INFORMATION ON INGREDIENTS

HAZARDOUS CONSTITUENTS **Exposure limits**

Constituent	Abbr.	CAS No.	Weight percent	ACGIH TLV	OSHA PEL	Other Limits
Diethylenetriamine	DETA	111400	30-40	1 ppm	1 ppm	1ppm (Canada)
Polyamide of C18 fatty acid dimers and TETA		68410231	60-70	n/e	n/e	n/e

"TLV" means the Threshold Limit Value exposure (eight-hour, time-weighted average, unless otherwise noted) established by the American Conference of Governmental Industrial Hygienists. "STEL" indicates a short-term exposure limit. "PEL" indicates the OSHA Permissible Exposure Limit."n/e" indicates that no exposure limit has been established. An asterisk (*) indicates a substance whose identity is a trade secret of our supplier and unknown to us.

3. HAZARDS IDENTIFICATION

Emergency Overview

Appearance, form, odor: Amber gel with mild ammonia-like odor.

DANGER! Corrosive. Causes eye and skin burns. Eye, skin and respiratory irritant. Toxic by skin absorption. May cause skin sensitization.

Potential health effects

Primary routes of exposure: ☒ Skin contact ☒ Skin absorption ☒ Eye contact ☒ Inhalation ☐ Ingestion

Symptoms of acute overexposure:

Skin: Corrosive. Severe irritation (defatting, itching, redness, blistering), pain, burns and permanent damage. Product is absorbed through the skin and may cause nausea, general discomfort, injury and death unless treated promptly. Potential sensitizer.

Eyes: Corrosive. Severe irritation (redness, swelling), pain or burns; may cause permanent eye injury (including

blindness). Vapors can cause lacrimation, conjunctivitis, and corneal edema.

Inhalation:

Corrosive. Can cause irritation of respiratory tract and mucous membranes (nasal discharge, coughing, discomfort). Over exposure to fumes or vapors may cause lung injury. May cause nausea and vomiting. Inhalation of aerosols and mists may severely damage contacted tissue and produce scarring.

Ingestion:

May cause burns of mouth, throat and stomach with abdominal and chest pain, nausea, vomiting, diarrhea, thirst, weakness and collapse.

Effects of chronic overexposure:

Repeated skin contact or inhalation may cause sensitization / dermatitis, with allergic symptoms on subsequent exposure (rash, defatting, nausea, headaches). Repeated or prolonged exposure may cause adverse respiratory effects (cough, tightness of chest, shortness of breath, dryness of nasal passages), eye effects (conjunctivitis, corneal damage), or skin effects (rash, irritation, corrosion). Repeated inhalation may cause lung damage. Repeated oral exposures may cause kidney and liver changes.

Carcinogenicity -- OSHA regulated: No **ACGIH: No** **National Toxicology Program: No**

International Agency for Research on Cancer: No

Cancer-suspect constituent(s) : None

Medical conditions which may be aggravated by exposure:

May aggravate existing skin disorders and allergies, eye disease, and respiratory conditions (i.e. bronchitis, emphysema).

Other effects:

Inhalation of ethyleneamines may cause sensitization of the respiratory tract and the development of an asthmatic reaction on further exposure. There may be susceptible individuals who develop long-term hyperreactive airways, asthma, and other respiratory injury following exposure to extremely low concentrations of ethyleneamines, even below the irritation threshold. Skin contact may cause sensitization and an allergic skin reaction. Cross-sensitization may occur by skin contact with this material and other amines. Exposure to vapor may also cause minor transient edema of the corneal epithelium (blue-haze). This effect produces a blurring of vision against a general bluish haze and the appearance of halos around bright objects. The effect disappears spontaneously within a few hours of the end of exposure and leaves no sequelae.

4. FIRST AID MEASURES

First aid for eyes:

Immediately flush with clean water for at least 15 minutes holding eyelids open. Get medical help immediately.

First aid for skin:

Remove contaminated clothing, wipe off affected area. Flush with water for 15 minutes. Wash with soap & warm water. See doctor if irritation develops.

First aid for inhalation:

Remove patient to fresh air. Give oxygen or artificial respiration if needed. See a doctor if symptoms persist. Prevent aspiration of vomit. Turn victims head to side.

First aid for ingestion:

Corrosive--do not induce vomiting. If patient is conscious, dilute with milk or water. Get immediate medical help. Never give anything by mouth to an unconscious person.

5. FIRE FIGHTING MEASURES

Extinguishing media:

☒ Water ☒ Carbon dioxide ☒ Dry chemical ☒ Foam ☐ Alcohol foam

Flash Point (°F): >200 **Method:** estimate

Explosive limits in air (percent) -- **Lower:** n/d **Upper:** n/d

Special firefighting procedures:

Firefighters should wear self-contained breathing apparatus and full protective gear. Keep containers cool with water spray.

Unusual fire and explosion hazards:

Personnel in vicinity and downwind should be evacuated. Sudden reaction and fire may result if mixed with oxidizing agent.

Hazardous products of combustion:

Oxides of carbon, oxides of nitrogen, ammonia. Toxic smoke and vapors may form during combustion.

6. ACCIDENTAL RELEASE MEASURES

Spill control:

Avoid personal contact. Eliminate ignition sources. Ventilate area.

Containment:

Dike, contain and absorb with clay, sand or other suitable material.

Cleanup:

For large spills, pump to storage/salvage vessels. Soak up residue with an absorbent such as clay, sand, or other suitable material and dispose of properly. Flush area with water to remove trace residue. Clean-up personnel must be equipped with self contained breathing apparatus and butyl rubber protective clothing.

Special procedures:

Prevent spill from entering drainage/sewer systems, waterways, and surface waters.

7. HANDLING AND STORAGE

Handling precautions:

Avoid contact with skin, eyes, or clothing. Wash thoroughly with soap and water after using and particularly before eating, drinking, smoking, applying cosmetics, or using toilet facilities. Avoid breathing vapors. Handle in well ventilated work area.
Launder contaminated clothing and protective gear before reuse. Discard contaminated leather articles.
Handle mixed resin and hardener in accordance with the potential hazard of the curing agent used. Provide appropriate ventilation/respiratory protection against decomposition products (see Section 10) during welding/flame cutting operations and to protect against nuisance dust during sanding/grinding of cured product. Do not use sodium nitrite or other nitrosating agents in formulations containing this product, cancer-causing nitrosamines could be formed.

Storage:

Keep away from acids and oxidizers. Store in a cool, dry, ventilated area in closed containers. Keep away from high temperatures (<100 F) and flames. Do not store in reactive metal containers.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering controls

Ventilation :

General mechanical ventilation is adequate for occasional use. For prolonged or repeated use or in confined areas, local exhaust is recommended.

Other engineering controls :

Have emergency shower and eye wash stations available.

Personal protective equipment

Eye and face protection:
Splashproof chemical goggles

Skin protection:
Chemical-resistant rubber (i.e. butyl rubber, neoprene) gloves and other protective gear as needed to prevent skin contact

Respiratory protection:
None needed in normal use with proper ventilation. In poorly ventilated areas, use NIOSH approved organic vapor masks.

9. PHYSICAL AND CHEMICAL PROPERTIES

Specific gravity:	0.99	**Boiling point (°F):**	>400
Melting point (°F):	n/d	**Vapor density (air = 1):**	>1
Vapor pressure (mmHg):	<1 at 68 °F	**Evaporation rate (butyl acetate = 1):**	<<1
VOC (grams/liter):	0	**Solubility in water:**	Miscible
Percent volatile by volume:	0	**pH (5% solution or slurry in water):**	10.5-11.5
Percent solids by weight:	100		

10. STABILITY AND REACTIVITY

This material is chemically stable. Hazardous polymerization will not occur.

Conditions to avoid :
Extreme heat or open flame. Product slowly corrodes copper, aluminum, zinc and galvanized surfaces.

Incompatible materials:
Oxidizers, acids, reactive metals. Sodium or calcium hypochlorite. Nitrous acid, nitrites, nitrous oxide atm. Peroxides.

Hazardous products of decomposition:
Acrid and toxic fumes including organic amines, ammonia, oxides of nitrogen (highly toxic) and carbon, nitric acid, nitrosamines.

Conditions under which hazardous polymerization may occur:
Heat is generated when this hardener reacts with acids and epoxy resins. Mix only as instructed.

11. TOXICOLOGICAL INFORMATION

Acute oral effects: LD50 (rat): > 1000 mg/kg (estimate)

Acute dermal effects: LD50 (rabbit): Not available.
DETA: Corrosive, sensitizer.

Acute inhalation effects: LC50 (rat): Not available. Exposure: hours.

Eye irritation:
DETA: Corrosive

Subchronic effects:
DETA may cause respiratory sensitization in susceptible individuals.

Carcinogenicity, teratogenicity, and mutagenicity:
DETA: Did not cause cancer in long-term animal studies. Teratology: No relevant information found. Reproductive effects: In an oral gavage screening study, DETA has been toxic to the fetus in laboratory animal tests.

Other chronic effects:
DETA has caused liver and kidney damage in laboratory animals.

Toxicological information on hazardous chemical constituents of this product:

Constituent	Oral LD50 (rat)	Dermal LD50 (rabbit)	Inhalation LC50 4hr, (rat)
Diethylenetriamine	1080 mg/kg	1090 mg/kg	n/d
Polyamide of C18 fatty acid dimers and TETA	>8000 mg/kg	>8000 mg/kg	n/d

'n/d' = 'not determined'

12 ECOLOGICAL INFORMATION

Ecotoxicity:
DETA: Acute LC50 for water flea (Daphnia magna) is 17 mg/l; DETA: Acute LC50 for fathead minnow (Pimephales promelas) is 332 mg/L . DETA: Acute LC50 for brine shrimp (Artemia salina) is 710 mg/L.

Mobility and persistence:
Not available.

Environmental fate:
Not available.

13. DISPOSAL CONSIDERATIONS

Please see also Section 15, Regulatory Information.

Waste management recommendations:
If this material becomes a waste, it would not be a hazardous waste by RCRA criteria (40CFR 261). Dispose of according to applicable federal, state, and local regulations.

14. TRANSPORT INFORMATION

Proper shipping name: Corrosive liquid, basic, organic, n.o.s.
Technical name : Diethylenetriamine
Hazard class : 8
UN number: 3267
Packing group: III
Emergency Response Guide no.: 153
IMDG page number: N/A
Other:

15. REGULATORY INFORMATION

U.S. Federal Regulations

TSCA
All ingredients of this product are listed, or are exempt from listing, on the TSCA inventory.

The following RCRA code(s) applies to this material if it becomes waste:
None

Regulatory status of hazardous chemical constituents of this product:

Constituent	Extremely Hazardous*	Toxic Chemical**	CERCLA RQ (lbs)	TSCA 12B Export Notification
Diethylenetriamine	No	No	0.0	Required
Polyamide of C18 fatty acid dimers and TETA	No	No	0.0	Not required

*Consult the appropriate regulations for emergency planning and release reporting requirements for substances on the SARA Section 301 Extremely Hazardous Substance list.

**Substances for which the "Toxic Chemical" column is marked "Yes" are on the SARA Section 313 list of Toxic Chemicals, for which release reporting may be required. For specific requirements, consult the appropriate regulations.

For purposes of SARA Section 312 hazardous materials inventory reporting, the following hazard classes apply to this material: - Immediate health hazard -- Delayed health hazard -

Canadian regulations

WHMIS hazard class(es) : D2B; E
All components of this product are on the Domestic Substances List.

16. OTHER INFORMATION

Hazardous Materials Identification System (HMIS) ratings:	Health	Flammability	Reactivity
	3*	1	0

The information and recommendations in this document are based on the best information available to us at the time of preparation, but we make no other warranty, express or implied, as to its correctness or completeness, or as to the results of reliance on this document.

MARINE TEX WHITE RESIN

This product appears in the following stock number(s):
3011C 3011U 3013C 3013U 3015C 3015U 3017C 3017U

Last revised: 09/29/05
Printed: 9/30/2005

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Tradename: MARINE TEX WHITE RESIN

General use: This information applies to the resin component of the two-part kit; handle freshly-mixed resin and hardener as recommended for the hardener. After curing, the product is not hazardous.

Chemical family: Epoxy resin

MANUFACTURER

ITW Philadelphia Resins
130 Commerce Dr.
Montgomeryville, PA 18936

EMERGENCY INFORMATION

Emergency telephone number
(CHEMTREC): (800) 424-9300
Other Calls: (215) 855-8450

2. COMPOSITION/INFORMATION ON INGREDIENTS

HAZARDOUS CONSTITUENTS **Exposure limits**

Constituent	Abbr.	CAS No.	Weight percent	ACGIH TLV	OSHA PEL	Other Limits
Crystalline silica		14808607	< 1	0.05 mg/m3	4/(%Q+2)ppm	0.10 mg/m^3 (Canada)
Cresyl glycidyl ether		2210799	< 5	n/e	n/e	n/e
Bisphenol A diglycidyl ether resin	DGEBPA	25068386	30-60	n/e	n/e	n/e

"TLV" means the Threshold Limit Value exposure (eight-hour, time-weighted average, unless otherwise noted) established by the American Conference of Governmental Industrial Hygienists. "STEL" indicates a short-term exposure limit. "PEL" indicates the OSHA Permissible Exposure Limit."n/e" indicates that no exposure limit has been established. An asterisk (*) indicates a substance whose identity is a trade secret of our supplier and unknown to us.

3. HAZARDS IDENTIFICATION

Emergency Overview

Appearance, form, odor: Grey viscous liquid with little odor.

WARNING! Eye and skin irritant. Potential skin sensitizer.

Potential health effects

Primary routes of exposure: ☒ Skin contact ☐ Skin absorption ☒ Eye contact ☐ Inhalation ☐ Ingestion

Symptoms of acute overexposure:

Skin: Moderate irritant. Contact at elevated temperatures can cause thermal burns. May cause skin sensitization (rashes, hives).

Eyes: Moderate to severe irritant. May cause corneal damage. Contact at elevated temperatures can cause thermal burns.

Inhalation:
The low vapor vapor pressure of the resin makes inhalation unlikely in normal use.

Ingestion:
Acute oral toxicity is low. May cause gastric distress. May cause depression and slight difficulty breathing.

Effects of chronic overexposure:
Prolonged or repeated skin contact may cause sensitization, with itching, swelling, or rashes on later exposure. Studies have shown bisphenol A diglycidyl ether resin to to be a sensitizing agent causing allergic contact dermititis.

Carcinogenicity -- OSHA regulated: No **ACGIH: No** **National Toxicology Program: Yes**
International Agency for Research on Cancer: Yes
Cancer-suspect constituent(s) : Respirable crystalline silica

Medical conditions which may be aggravated by exposure:
Preexisting eye and skin disorders. Development of preexisting skin or lung allergy symptoms may increase.

Other effects:
See section 11.

4. FIRST AID MEASURES

First aid for eyes:
Flush eye with clean water for at least 15 minutes while gently holding eyelids open. Get immediate medical attention.

First aid for skin:
Immediately remove contaminated clothing and excess contaminant. Flush skin with water. Wash thoroughly with soap and warm water. Consult a physician if irritation develops.

First aid for inhalation:
Remove patient to fresh air. Administer oxygen if breathing is difficult. Get medical attention.

First aid for ingestion:
Do NOT induce vomiting. Give two glasses of water to dilute if patient is conscious. Get medical attention.

5. FIRE FIGHTING MEASURES

Extinguishing media:
☐ Water ☒ Carbon dioxide ☒ Dry chemical ☒ Foam ☐ Alcohol foam

Flash Point (°F): > 400 **Method:** estimate

Explosive limits in air (percent) -- Lower: n/d **Upper:** n/d

Special firefighting procedures:
Firefighters should wear self-contained breathing apparatus and protective clothing. Cool fire exposed containers with water.

Unusual fire and explosion hazards:
Heating above 300 deg F in the presence of air may cause slow oxidative decomposition and above 500 deg F may cause polymerization. Personnel in vicinity and downwind should be evacuated.

Hazardous products of combustion:
When heated to decomposition it emits fumes of Cl- , carbon monoxide, other fumes and vapors varying in composition and toxicity.

6. ACCIDENTAL RELEASE MEASURES

Spill control:

Avoid personal contact. Eliminate ignition sources. Ventilate area.

Containment:

Dike, contain and absorb with clay, sand or other suitable material.

Cleanup:

For large spills, pump to storage/salvage vessels. Soak up residue with an absorbent such as clay, sand, or other suitable material and dispose of properly. Flush area with water to remove trace residue.

Special procedures:

Prevent spill from entering drainage/sewer systems, waterways, and surface waters.

7. HANDLING AND STORAGE

Handling precautions:

Avoid contact with skin, eyes, or clothing. Wash thoroughly with soap and water after using and particularly before eating, drinking, smoking, applying cosmetics, or using toilet facilities. Launder contaminated clothing and protective gear before reuse. Discard contaminated leather articles.
Handle mixed resin and hardener in accordance with the potential hazard of the curing agent used. Provide appropriate ventilation/respiratory protection against decomposition products (see Section 10) during welding/flame cutting operations and to protect against nuisance dust during sanding/grinding of cured product.

Storage:

Store in a cool, dry area away from high temperatures and flames. Keep containers closed when not in use.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering controls

Ventilation :

Local exhaust ventilation is preferred although good general mechanical ventilation is usually adequate for most industrial applications. Local exhaust is recommended for confined areas.

Other engineering controls :

Have emergency shower and eye wash available.

Personal protective equipment

Eye and face protection:

Safety glasses with side shields.

Skin protection:

Chemical-resistant gloves and other gear as required to prevent skin contact.

Respiratory protection:

None needed in normal use with proper ventilation. In poorly ventilated areas use NIOSH approved organic vapor cartidge respirator for uncured resin, dust/particle respirator during grinding/sanding operations for cured resin, or fresh airline respirator as exposure levels dictate (see OSHA 1910.134).

9. PHYSICAL AND CHEMICAL PROPERTIES

Specific gravity:	1.7	**Boiling point (°F):**	>500
Melting point (°F):	n/d	**Vapor density (air = 1):**	>1
Vapor pressure (mmHg):	0.03 mm Hg at 171 °F	**Evaporation rate (butyl acetate = 1):**	<<1
VOC (grams/liter):	0	**Solubility in water:**	Negligible
Percent volatile by volume:	0	**pH (5% solution or slurry in water):**	neutral
Percent solids by weight:	100		

10. STABILITY AND REACTIVITY

This material is chemically stable. Hazardous polymerization will not occur.

Conditions to avoid :
Open flame and extreme heat

Incompatible materials:
Strong Lewis or mineral acids, strong oxidizing agents, strong mineral and organic bases (especially primary and secondary aliphatic amines).

Hazardous products of decomposition:
Oxides of carbon; aldehydes, acids and other organic substances may be formed during combustion or elevated temperature (>500 deg F) degradation.

Conditions under which hazardous polymerization may occur:
Heat is generated when resin is mixed with curing agents; Run-a-way cure reactions may char and decompose the resin, generating unidentified fumes and vapors which may be toxic.

11. TOXICOLOGICAL INFORMATION

Acute oral effects: LD50 (rat): Not available.

Acute dermal effects: LD50 (rabbit): Not available.

Acute inhalation effects: LC50 (rat): Not available. Exposure: 8 hours.

Subchronic effects:
Not available.

Carcinogenicity, teratogenicity, and mutagenicity:
1) MUTAGENICITY: Liquid resins based on diglycidyl ether of Bisphenol A (DGEBPA), have proved to be inactive when tested by in vivo mutagenicity assays. These resins have shown activity in in vitro microbial mutagenicity screening and have produced chromosomal aberrations in cultured rat liver cells. The significance of these tests to man is unknown. 2) CARCINOGENICITY: Recent 2-year bioassays in rats and mice exposed by the dermal route to DGEBPA yielded no evidence of carcinogenicy to the skin or any other organs. This study clarifies prior equivocal

results from a 2-year mouse skin painting study, which were suggestive, but not conclusive, for weak carcinogenic activity. 3) The International Agency for Research on Cancer (IARC) concluded that DGEBPA is not classifiable as a carcinogen (IARC group 3), that is human and animal evidence of carcinogenicity is inadequate. Crystalline silica has been shown to exhibit in vitro mutagenic effects in non-human mammalian cells and in human cells.

Other chronic effects:

Prolonged or repeated skin contact may cause sensitization, with itching, swelling, or rashes on later exposure. Studies have shown bisphenol A diglycidyl ether resin to cause allergic contact dermititis. Respirable crystalline quartz may cause chronic lung injury (silicosis). Acute or rapid silicosis may occur in a short period of time in heavy exposure in certain occupations such as sandblasters. Silicosis is a form of disabling pulmonary fibrosis which can be progressive and may lead to death. Pulmonary function may be reduced by inhalation of respirable crystalline silica. It may produce lung scarring which may lead to a progressive massive fibrosis, increasing susceptibility to pulmonary tuberculosis. Progressive massive fibrosis may be accompanied by right heart enlargement, heart failure, and pulmonary failure. Smoking aggravates the effects of exposure.

Toxicological information on hazardous chemical constituents of this product:

Constituent	Oral LD50 (rat)	Dermal LD50 (rabbit)	Inhalation LC50 4hr, (rat)
Crystalline silica	n/d	n/d	n/d
Cresyl glycidyl ether	2500 mg/kg	> 2300 mg/kg	6100 mg/l
Bisphenol A diglycidyl ether resin	11.4 g/kg	>20 ml/kg	no deaths

'n/d' = 'not determined'

12 ECOLOGICAL INFORMATION

Ecotoxicity:

No data available.

Mobility and persistence:

No data available.

Environmental fate:

No data available.

13. DISPOSAL CONSIDERATIONS

Please see also Section 15, Regulatory Information.

Waste management recommendations:

If this resin becomes a waste, it would not be a hazardous waste by RCRA criteria (40CFR 261). Dispose of according to applicable federal, state, and local regulations.

14. TRANSPORT INFORMATION

Proper shipping name: Non-regulated
Technical name : N/A
Hazard class : N/A
UN number: N/A
Packing group: N/A
Emergency Response Guide no.: N/A
IMDG page number: N/A
Other: N/A

15. REGULATORY INFORMATION

U.S. Federal Regulations

TSCA
All ingredients of this product are listed, or are exempt from listing, on the TSCA inventory.

The following RCRA code(s) applies to this material if it becomes waste:
None

Regulatory status of hazardous chemical constituents of this product:

Constituent	Extremely Hazardous*	Toxic Chemical**	CERCLA RQ (lbs)	TSCA 12B Export Notification
Crystalline silica	No	No	0.0	Not required
Cresyl glycidyl ether	No	No	0.0	Required
Bisphenol A diglycidyl ether resin	No	No	0.0	Not required

*Consult the appropriate regulations for emergency planning and release reporting requirements for substances on the SARA Section 301 Extremely Hazardous Substance list.

**Substances for which the "Toxic Chemical" column is marked "Yes" are on the SARA Section 313 list of Toxic Chemicals, for which release reporting may be required. For specific requirements, consult the appropriate regulations.

For purposes of SARA Section 312 hazardous materials inventory reporting, the following hazard classes apply to this material: - Immediate health hazard -- Delayed health hazard -

Canadian regulations

WHMIS hazard class(es) : D2B; D2A

16. OTHER INFORMATION

Hazardous Materials Identification System (HMIS) ratings:	Health	Flammability	Reactivity
	2*	1	1

The information and recommendations in this document are based on the best information available to us at the time of preparation, but we make no other warranty, express or implied, as to its correctness or completeness, or as to the results of reliance on this document.