



TUFLOAT CLEAR - 2 GAL UNIT

Version 1
REVISION DATE: 07/20/2005

Print Date 07/13/2007

This is a kit that contains the following components:

- EUCOPOXY TUFLOAT CLEAR PART A
- EUCOPOXY TUFLOAT CLEAR PART B

**EUCOPOXY TUFCOAT CLEAR PART A**Version 1
REVISION DATE: 07/20/2005

Print Date 07/13/2007

SECTION 1 - PRODUCT IDENTIFICATION

Trade name : EUCOPOXY TUFCOAT CLEAR PART A
 Product code : 138M 02

COMPANY : Euclid Chemical Company
 19218 Redwood Road
 Cleveland, OH 44110

Telephone : 1-800-321-7628
 Emergency Phone: : U.S. only: 1-800-255-3924
 International Users Call Collect: 1-813-248-0585

SECTION 2 - HAZARDS IDENTIFICATION**Emergency Overview**

Yellow. Liquid solution. Vapor may irritate respiratory tract. May cause nausea, headaches, and dizziness. Leave area to breathe fresh air. Avoid further overexposure. If symptoms persist, get medical attention.

Acute Potential Health Effects/ Routes of Entry

Inhalation : Vapor may irritate respiratory tract. May cause nausea, headaches, and dizziness.
 Eyes : Direct contact may cause mild irritation. May cause temporary injury.
 Ingestion : May cause gastrointestinal irritation, nausea, and vomiting.
 Skin : May cause sensitization resulting in irritation, itching and redness.

Aggravated Medical Conditions

Pre-existing eye, skin, liver, kidney, and respiratory disorders may be aggravated by exposure.

Chronic Health Effects

Prolonged or repeated exposure to xylene may cause defatting, drying, and irritation of the skin, dermatitis, central nervous system (CNS) effects, heart muscle sensitization and arrhythmia, hearing loss, and brain, liver, kidney damage. Xylene overexposure may affect fetal development. Fillers are encapsulated and not expected to be released from product under normal conditions of use.

Target Organs: Skin, Eye, Ingestion, Lung

SECTION 3 - PRODUCT COMPOSITION

Chemical Name	CAS-No.	Weight %
Epoxy resin	25036-25-3	> 60.0
Xylene	1330-20-7	30.0 - 60.0

SECTION 4 - FIRST AID MEASURES

Get immediate medical attention for any significant overexposure.



The Euclid Chemical Company

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- Inhalation : Leave area to breathe fresh air. Avoid further overexposure. If symptoms persist, get medical attention.
- Eye contact : Flush with water for 15 minutes. If irritation persists, get medical attention.
- Skin contact : Wash area of contact thoroughly with hand cleaner followed by soap and water. If irritation, rash or other disorders develop, get medical attention immediately.
- Ingestion : Do not induce vomiting unless advised by a physician. Call nearest Poison Control Center or Physician immediately.

SECTION 5 - FIRE FIGHTING MEASURES

- Flash point : 77 °F, 25 °C
- Method : Setflash Closed Cup
- Lower explosion limit : Not available.
- Upper explosion limit : Not available.
- Autoignition temperature : Not available.
- Extinguishing media : If water fog is ineffective, use carbon dioxide, dry chemical or foam.
- Hazardous combustion products : Smoke, fumes. Carbon monoxide and carbon dioxide can form.
- Protective equipment for firefighters : Water may be used to cool containers to minimize pressure build-up. Use accepted fire fighting techniques. Wear full firefighting protective clothing, including self-contained breathing apparatus (SCBA).
- Fire and explosion conditions : Closed container, may burst when exposed to extreme heat. Empty containers may contain ignitable vapors. Vapor concentrations in enclosed areas may ignite explosively. Vapors may travel to sources of ignition and flashback.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Use appropriate protective equipment. Avoid contact with material. Remove sources of ignition immediately. Stop flow of material if safe to do so. Contain spill and keep out of water courses. Ventilate area.

SECTION 7 - HANDLING AND STORAGE

Store under dry warehouse conditions away from heat and all ignition sources. Store in a cool, well ventilated area. Prevent inhalation of vapor, ingestion, and contact with skin eyes and clothing. Keep container closed when not in use. Precautions also apply to emptied containers. Do not smoke, weld, generate sparks, or use flame near container. Change soiled work clothes frequently. Clean hands thoroughly after handling.

SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Personal protection equipment



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- Respiratory protection : Wear appropriate, properly fitted NIOSH/MSHA approved organic vapor or supplied air respirator when airborne contaminant level(s) are expected to exceed exposure limits indicated on the MSDS. Follow manufacturer's directions for respirator use.
- Hand protection : Use suitable impervious nitrile or neoprene gloves and protective apparel to reduce exposure.
- Eye protection : Chemical splash goggles.
- Protective measures : Use professional judgment in the selection, care, and use.
- Engineering measures : Use only in well ventilated areas. Provide maximum ventilation in enclosed areas. Use general ventilation and/ or local exhaust to reduce the airborne contaminant concentration below the exposure limit listed in the MSDS

Exposure Limits

<u>Chemical Name</u>	<u>CAS Number</u>	<u>Regulation</u>	<u>Limit</u>	<u>Form</u>
Xylene	1330-20-7	ACGIH TWA: ACGIH STEL: OSHA PEL:	100 ppm 150 ppm 435 mg/m3	

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

- Form : Liquid solution
- Color : Yellow
- Odor : Solvent
- pH : Not available.
- Vapour pressure : Not available.
- Vapor density : Heavier than air
- Melting point/range : Not available.
- Freezing point : Not available.
- Boiling point/range : 279 °F, 137 °C
- Water solubility : Negligible
- Specific Gravity : 1.0
- % Volatile Weight : 38 %

SECTION 10 - REACTIVITY / STABILITY

- Substances to avoid : Epoxy curing agents. Amines and oxidizing agents.
- Stability : Material is stable under normal storage, handling, and use.
- Hazardous polymerization : Will not occur.



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SECTION 11 - TOXICOLOGICAL INFORMATION

Xylene, CAS-No.: 1330-20-7
 Acute oral toxicity (LD-50 oral) 3,523 - 8,600 mg/kg (Rat)
 Acute inhalation toxicity (LC-50) 6,350 mg/l (Rat)

SECTION 12 - ECOLOGICAL INFORMATION

No Data Available

SECTION 13 - DISPOSAL CONSIDERATIONS

RCRA Class : D001: Reportable Quantity = 100 lbs. (Characteristic of ignitability)
 This classification applies only to the material as it was originally produced.

SECTION 14 - TRANSPORTATION / SHIPPING DATA

TDG / DOT Shipping Description:
 RESIN SOLUTION, 3, UN1866, PG III

SECTION 15 - REGULATORY INFORMATION

North American Inventories:
 All components are listed or exempt from the TSCA inventory.
 This product or its components are listed on, or exempt from the Canadian Domestic Substances List.

U.S. Federal Regulations:
 SARA 313 Components : Xylene 1330-20-7
 SARA 311/312 Hazards : Acute Health Hazard
 Fire Hazard

OSHA Hazardous Components :
 Xylene 1330-20-7

OSHA Status: Considered : Irritant
 hazardous based on the
 following criteria:

OSHA Flammability : IC

When appropriately mixed with the other part, product has a VOC less water and exempt solvent of:
 418.2 g/l



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U.S. State Regulations:

MASS RTK Components	:	Xylene	1330-20-7
Penn RTK Components	:	Epoxy resin	25036-25-3
		Xylene	1330-20-7
NJ RTK Components	:	Epoxy resin	25036-25-3
		Xylene	1330-20-7

Chemicals known to the State of California to cause cancer birth defects and/or other reproductive harm:
 None known.

SECTION 16 - OTHER INFORMATION

HMIS Rating :

Health	2
Flammability	3
Reactivity	1
PPE	

0 = Minimum
 1 = Slight
 2 = Moderate
 3 = Serious
 4 = Severe

Further information:

For Industrial Use Only. Keep out of Reach of Children. The hazard information herein is offered solely for the consideration of the user, subject to their own investigation of compliance with applicable regulations, including the safe use of the product under every foreseeable condition.

Prepared by: Rich Mikol

Legend

ACGIH - American Conference of Governmental Hygienists
 CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act
 DOT - Department of Transportation
 DSL - Domestic Substance List
 EPA - Environmental Protection Agency
 HMIS - Hazardous Materials Information System
 IARC - International Agency for Research on Cancer
 MSHA - Mine Safety Health Administration
 NDSL - Non-Domestic Substance List
 NIOSH - National Institute for Occupational Safety and Health
 NTP - National Toxicology Program
 OSHA - Occupational Safety and Health Administration

PEL - Permissible Exposure Limit
 RCRA - Resource Conservation and Recovery Act
 RTK - Right To Know
 SARA - Superfund Amendments and Reauthorization Act
 STEL - Short Term Exposure Limit
 TLV - Threshold Limit Value
 TSCA - Toxic Substances Control Act
 TWA - Time Weighted Average
 V - Volume
 VOC - Volatile Organic Compound
 WHMIS - Workplace Hazardous Materials Information System

**EUCOPOXY TUFCOAT CLEAR PART B**Version 1
REVISION DATE: 07/20/2005

Print Date 07/13/2007

SECTION 1 - PRODUCT IDENTIFICATION

Trade name : EUCOPOXY TUFCOAT CLEAR PART B
Product code : 138M 02

COMPANY : Euclid Chemical Company
19218 Redwood Road
Cleveland, OH 44110

Telephone : 1-800-321-7628
Emergency Phone: : U.S. only: 1-800-255-3924
International Users Call Collect: 1-813-248-0585

Product use : Coating

SECTION 2 - HAZARDS IDENTIFICATION**Emergency Overview**

Clear. Liquid solution. May cause moderate irritation to the respiratory system. May cause nausea, headaches, and dizziness. May cause drowsiness, weakness, and fatigue. Move to fresh air. If required, artificial respiration or administration of oxygen can be performed by trained personnel. Leave area to breathe fresh air. Avoid further overexposure. If symptoms persist, get medical attention.

Acute Potential Health Effects/ Routes of Entry

Inhalation : May cause moderate irritation to the respiratory system. May cause nausea, headaches, and dizziness. May cause drowsiness, weakness, and fatigue.

Eyes : Vapor and/or mist may cause eye irritation. Direct contact may cause temporary redness and discomfort.

Ingestion : May cause irritation to the mouth, throat and stomach. May cause gastrointestinal irritation, nausea, and vomiting.

Skin : May cause moderate irritation.

Aggravated Medical Conditions

Pre-existing eye, skin, liver, kidney, and respiratory disorders may be aggravated by exposure.

Chronic Health Effects

Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling contents may be harmful or fatal. Prolonged or repeated exposure to xylene may cause defatting, drying, and irritation of the skin, dermatitis, central nervous system (CNS) effects, heart muscle sensitization and arrhythmia, hearing loss, and brain, liver, kidney damage. Xylene overexposure may affect fetal development. Overexposure to n-butyl alcohol caused anemia, liver abnormalities, eye, kidney and lung damage in experimental animals. Can cause eye damage in humans and effect hearing if exposed to vapor concentrations of over 50 ppm. Polymeric amido amine may cause chemical eye burn with irreversible damage. Sensitizer. May cause allergic skin and respiratory reaction. Fillers are encapsulated and not expected to be released from product under normal conditions of use.

Target Organs: Skin, Eye, Lung, Liver, Kidney, Nerve, Reproductive

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SECTION 3 - PRODUCT COMPOSITION

Chemical Name	CAS-No.	Weight %
Polyamide resin	68082-29-1	40.0 - 70.0
Xylene	1330-20-7	30.0 - 60.0
n-Butanol	71-36-3	15.0 - 40.0
Tris(dimethylaminomethyl)phenol	90-72-2	5.0 - 10.0
Dimethylaminomethylphenol	25338-55-0	5.0 - 10.0
Triethylenetetramine	112-24-3	1.0 - 5.0

SECTION 4 - FIRST AID MEASURES

Get immediate medical attention for any significant overexposure.

Inhalation	:	Move to fresh air. If required, artificial respiration or administration of oxygen can be performed by trained personnel. Leave area to breathe fresh air. Avoid further overexposure. If symptoms persist, get medical attention.
Eye contact	:	Flush with water for at least 15 minutes while holding eye lids apart. Get medical attention immediately.
Skin contact	:	Clean area of contact thoroughly using soap and water. If irritation, rash or other disorders develop, get medical attention immediately.
Ingestion	:	Do not induce vomiting unless advised by a physician. Call nearest Poison Control Center or Physician immediately.

SECTION 5 - FIRE FIGHTING MEASURES

Flash point	:	79 °F, 26 °C
Method	:	Setaflash Closed Cup
Lower explosion limit	:	1.4 %(V) Solvent
Upper explosion limit	:	11.2 %(V) Solvent
Autoignition temperature	:	Not available.
Extinguishing media	:	If water fog is ineffective, use carbon dioxide, dry chemical or foam.
Hazardous combustion products	:	Smoke, fumes. Carbon monoxide and carbon dioxide can form. Nitrogen oxides can form.
Protective equipment for firefighters	:	Use accepted fire fighting techniques. Wear full firefighting protective clothing, including self-contained breathing apparatus (SCBA). Water may be used to cool containers to minimize pressure build-up.
Fire and explosion conditions	:	Vapor concentrations in enclosed areas may ignite explosively. Product may ignite if heated in excess of its flash point. Vapors may travel to sources of ignition and flashback. Closed container, may burst when exposed to extreme heat. Empty containers may contain ignitable vapors.



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SECTION 6 - ACCIDENTAL RELEASE MEASURES

Use appropriate protective equipment. Avoid contact with material. Remove sources of ignition immediately. Stop flow of material if safe to do so. Contain spill and keep out of water courses. Ventilate area.

SECTION 7 - HANDLING AND STORAGE

Prevent inhalation of vapor, ingestion, and contact with skin eyes and clothing. Keep container closed when not in use. Precautions also apply to emptied containers. To prevent generation of static discharges, use bonding/grounding connection when pouring liquid. Extinguish all ignition sources including pilot lights, non-explosion proof motors and electrical equipment until vapors dissipate. Personal protective equipment must be worn during maintenance or repair of contaminated mixer, reactor, or other equipment. Keep container closed when not in use. Vapor may migrate to sources of ignition. Do not smoke, weld, generate sparks, or use flame near container. Store in sealed containers in a cool, dry, ventilated warehouse location.

SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Personal protection equipment

- Respiratory protection : Wear appropriate, properly fitted NIOSH/MSHA approved organic vapor or supplied air respirator when airborne contaminant level(s) are expected to exceed exposure limits indicated on the MSDS. Follow manufacturer's directions for respirator use.
- Hand protection : Use suitable impervious nitrile or neoprene gloves and protective apparel to reduce exposure.
- Eye protection : Wear appropriate eye protection. Wear chemical safety goggles and/or face shield to prevent eye contact. Do not wear contact lenses. Do not touch eyes with contaminated body parts or materials. Have eye washing facilities readily available.
- Protective measures : Use professional judgment in the selection, care, and use. Inspect and replace equipment at regular intervals.
- Engineering measures : Use only in well ventilated areas. Provide maximum ventilation in enclosed areas. Use local exhaust when the general ventilation is inadequate.

Exposure Limits

<u>Chemical Name</u>	<u>CAS Number</u>	<u>Regulation</u>	<u>Limit</u>	<u>Form</u>
Xylene	1330-20-7	ACGIH TWA: ACGIH STEL: OSHA PEL:	100 ppm 150 ppm 435 mg/m3	
n-Butanol	71-36-3	ACGIH TWA: OSHA PEL:	20 ppm 300 mg/m3	

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SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Form	: Liquid solution
Color	: Clear
Odor	: Solvent
pH	: Not available.
Vapour pressure	: 30 hPa
Vapor density	: Heavier than air
Melting point/range	: Not available.
Freezing point	: Not available.
Boiling point/range	: > 114 °F, > 46 °C
Water solubility	: Negligible
Specific Gravity	: 0.95
% Volatile Weight	: 47 %

SECTION 10 - REACTIVITY / STABILITY

Substances to avoid	: Oxidizing agents.Strong acids.Strong bases.
Stability	: Stable under normal conditions. Avoid welding arcs, flames or other high temperature sources.
Hazardous polymerization	: Will not occur.

SECTION 11 - TOXICOLOGICAL INFORMATION

Xylene, CAS-No.: 1330-20-7	
Acute oral toxicity (LD-50 oral)	3,523 - 8,600 mg/kg (Rat)
Acute inhalation toxicity (LC-50)	6,350 mg/l (Rat)
n-Butanol, CAS-No.: 71-36-3	
Acute oral toxicity (LD-50 oral)	790 mg/kg (Rat)
Acute inhalation toxicity (LC-50)	8,000 mg/l (Rat)
Acute dermal toxicity (LD-50 dermal)	3,400 mg/kg (Rabbit)



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SECTION 12 - ECOLOGICAL INFORMATION

No Data Available

SECTION 13 - DISPOSAL CONSIDERATIONS

RCRA Class : D001: Reportable Quantity = 100 lbs. (Characteristic of ignitability)
 This classification applies only to the material as it was originally produced.

Disposal Method : Subject to hazardous waste treatment, storage, and disposal requirements under RCRA. Recycle or incinerate waste at EPA approved facility or dispose of in compliance with federal, state and local regulations.

SECTION 14 - TRANSPORTATION / SHIPPING DATA

TDG / DOT Shipping Description:

RESIN SOLUTION, 3, UN1866, PG III

SECTION 15 - REGULATORY INFORMATION

North American Inventories:

All components are listed or exempt from the TSCA inventory.
 This product or its components are listed on, or exempt from the Canadian Domestic Substances List.

U.S. Federal Regulations:

SARA 313 Components : Xylene 1330-20-7
 n-Butanol 71-36-3

SARA 311/312 Hazards : Acute Health Hazard
 Fire Hazard

OSHA Hazardous Components :
 Xylene 1330-20-7
 n-Butanol 71-36-3

OSHA Status: Considered : Irritant
 hazardous based on the
 following criteria:

OSHA Flammability : IC

When appropriately mixed with the other part, product has a VOC less water and exempt solvent of:
 418 g/l

U.S. State Regulations:

MASS RTK Components : Xylene 1330-20-7
 n-Butanol 71-36-3



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	Triethylenetetramine	112-24-3
Penn RTK Components	: Polyamide resin	68082-29-1
	Xylene	1330-20-7
	n-Butanol	71-36-3
	Tris(dimethylaminomethyl)phenol	90-72-2
	Dimethylaminomethylphenol	25338-55-0
	Triethylenetetramine	112-24-3
NJ RTK Components	: Polyamide resin	68082-29-1
	Xylene	1330-20-7
	n-Butanol	71-36-3
	Tris(dimethylaminomethyl)phenol	90-72-2
	Dimethylaminomethylphenol	25338-55-0
	Triethylenetetramine	112-24-3

Chemicals known to the State of California to cause cancer birth defects and/or other reproductive harm:
 None known.

SECTION 16 - OTHER INFORMATION

HMIS Rating :

Health	2
Flammability	3
Reactivity	1
PPE	

- 0 = Minimum
- 1 = Slight
- 2 = Moderate
- 3 = Serious
- 4 = Severe

Further information:

For Industrial Use Only. Keep out of Reach of Children. The hazard information herein is offered solely for the consideration of the user, subject to their own investigation of compliance with applicable regulations, including the safe use of the product under every foreseeable condition.

Prepared by: Rich Mikol

Legend

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| ACGIH - American Conference of Governmental Hygienists | PEL - Permissible Exposure Limit |
| CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act | RCRA - Resource Conservation and Recovery Act |
| DOT - Department of Transportation | RTK - Right To Know |
| DSL - Domestic Substance List | SARA - Superfund Amendments and Reauthorization Act |
| EPA - Environmental Protection Agency | STEL - Short Term Exposure Limit |
| HMIS - Hazardous Materials Information System | TLV - Threshold Limit Value |
| IARC - International Agency for Research on Cancer | TSCA - Toxic Substances Control Act |
| MSHA - Mine Safety Health Administration | TWA - Time Weighted Average |
| NDSL - Non-Domestic Substance List | V - Volume |
| NIOSH - National Institute for Occupational Safety and Health | VOC - Volatile Organic Compound |
| NTP - National Toxicology Program | WHMIS - Workplace Hazardous Materials Information System |
| OSHA - Occupational Safety and Health Administration | |



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