



TUFLOAT VOX CLEAR - 5 GAL UNIT

Version 1
REVISION DATE: 07/05/2005

Print Date 07/13/2007

This is a kit that contains the following components:

EUCOPOXY TUFLOAT VOX CLEAR PART A
EUCOPOXY TUFLOAT VOX CLEAR PART B

**EUCOPOXY TUFCOAT VOX CLEAR PART A**Version 1
REVISION DATE: 07/05/2005

Print Date 07/13/2007

SECTION 1 - PRODUCT IDENTIFICATION

Trade name : EUCOPOXY TUFCOAT VOX CLEAR PART A
 Product code : 139M 05

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**

Amber. Liquid. No serious effects anticipated under normal conditions of use. Leave area to breathe fresh air. Avoid further overexposure. If symptoms persist, get medical attention.

Acute Potential Health Effects/ Routes of Entry

Inhalation : No serious effects anticipated under normal conditions of use.
 Eyes : Direct contact may cause mild irritation.
 Ingestion : May cause gastrointestinal irritation, nausea, and vomiting.
 Skin : May cause mild irritation.

Aggravated Medical Conditions

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

Chronic Health Effects

Overexposure to 1-methoxy-2-propanol may cause olfactory tumors, general anesthesia, and nausea, and is an experimental teratogen. Many glycol ethers have been shown to have adverse human reproductive effects. As a by product of curing, acetic acid is produced. Acetic acid is a severe eye, skin and mucus membrane irritant and may cause burns with repeated or prolonged contact. Chronic exposure can cause bronchitis and pharyngeal edema. Acetic acid may cause tooth erosion from tooling. Diethylenetriamine is a skin and eye irritant. Prolonged and repeated exposure can cause skin sensitization, dermatitis, asthma. Fillers are encapsulated and not expected to be released from product under normal conditions of use.

SECTION 3 - PRODUCT COMPOSITION

Chemical Name	CAS-No.	Weight %
Water	7732-18-5	40.0 - 70.0
Petaethylene hexamine	4067-16-7	10.0 - 30.0
Tetraethylene pentamine	112-57-2	10.0 - 30.0

**EUCOPOXY TUF COAT VOX CLEAR PART A**

Version 1

Print Date 07/13/2007

REVISION DATE: 07/05/2005

Diethylenetriamine	NJ TSN# 51721300-5334P	10.0 - 30.0
1-Methoxy-2-Propanol	107-98-2	10.0 - 30.0
Ethylene diamine	107-15-3	10.0 - 30.0
Acetic acid	64-19-7	3.0 - 7.0

SECTION 4 - FIRST AID MEASURES

Get immediate medical attention for any significant overexposure.

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	:	Get medical attention. Do not induce vomiting.
Notes to physician	:	Not applicable.

SECTION 5 - FIRE FIGHTING MEASURES

Flash point	:	> 200 °F, > 93 °C
Method	:	Setaflash Closed Cup
Lower explosion limit	:	Not available.
Upper explosion limit	:	Not available.
Autoignition temperature	:	Not available.
Extinguishing media	:	This product is not expected to burn under normal conditions of use.
Hazardous combustion products	:	Carbon monoxide and carbon dioxide can form. Smoke, fumes.
Protective equipment for firefighters	:	Use accepted fire fighting techniques. Wear full firefighting protective clothing, including self-contained breathing apparatus (SCBA).
Fire and explosion conditions	:	This product not expected to ignite under normal conditions of use.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Transfer to appropriate container for disposal. Stop flow. Contain spill. Keep out of water courses. Absorb spill in sand, earth or other suitable material. Transfer to appropriate container for disposal. Use appropriate protective equipment. Avoid contact with material.

SECTION 7 - HANDLING AND STORAGE

Handle in compliance with common hygienic practices. Clean hands thoroughly after handling. Keep from freezing. Do not use in confined or poorly ventilated areas. Prevent inhalation of vapor, ingestion, and contact with skin eyes and clothing. Keep container closed when not in use. Precautions also apply to emptied

**EUCOPOXY TUF COAT VOX CLEAR PART A**

Version 1

Print Date 07/13/2007

REVISION DATE: 07/05/2005

containers. Store in sealed containers in a dry, ventilated warehouse location above freezing.

SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION**Personal protection equipment**

- Respiratory protection : Not required under normal conditions of use. Wear appropriate, NIOSH/MSHA approved respirator with combination particulate filter and vapor/gas removing cartridge when the ventilation is not adequate or if it is necessary to abrade or grind surfaces coated with this product.
- Hand protection : Use suitable impervious rubber or vinyl 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.
- Skin and body protection : Prevent contact with shoes and clothing. Use rubber apron and overshoes.
- Protective measures : Other equipment not normally required. Use professional judgment in the selection, care, and use.
- Engineering measures : Not required under normal conditions of use. Use local exhaust when the general ventilation is inadequate.

Exposure Limits

Chemical Name	CAS Number	Regulation	Limit	Form
Ethylene diamine	107-15-3	ACGIH TWA: OSHA PEL:	10 ppm 25 mg/m3	
1-Methoxy-2-Propanol	107-98-2	ACGIH TWA: ACGIH STEL:	100 ppm 150 ppm	
Diethylenetriamine	111-40-0	ACGIH TWA:	1 ppm	
Acetic acid	64-19-7	ACGIH TWA: ACGIH STEL: OSHA PEL:	10 ppm 15 ppm 25 mg/m3	

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

- Form : Liquid
- Color : Amber
- Odor : Amine
- pH : 9.0 - 9.4
- Vapour pressure : Not available.
- Vapor density : Heavier than air

**EUCOPOXY TUFLOAT VOX CLEAR PART A**

Version 1

Print Date 07/13/2007

REVISION DATE: 07/05/2005

Melting point/range	: Not available.
Freezing point	: Not available.
Boiling point/range	: 212 °F, 100 °C
Water solubility	: Soluble
Specific Gravity	: 1.0
% Volatile Weight	: 54 %

SECTION 10 - REACTIVITY / STABILITY

Substances to avoid	: Strong acids.Strong bases.
Stability	: Stable
Hazardous polymerization	: Will not occur.

SECTION 11 - TOXICOLOGICAL INFORMATION

Tetraethylene pentamine, CAS-No.: 112-57-2	
Acute oral toxicity (LD-50 oral)	2,100 mg/kg (Rat)
Acute dermal toxicity (LD-50 dermal)	660 mg/kg (Rabbit)
Diethylenetriamine, CAS-No.: 111-40-0	
Acute oral toxicity (LD-50 oral)	1,080 mg/kg (Rat)
Ethylene diamine, CAS-No.: 107-15-3	
Acute oral toxicity (LD-50 oral)	500 mg/kg (Rat)
Acute dermal toxicity (LD-50 dermal)	730 mg/kg (Rabbit)
Acetic acid, CAS-No.: 64-19-7	
Acute oral toxicity (LD-50 oral)	3,530 mg/kg (Rat)
Acute inhalation toxicity (LC-50)	5,000 mg/l (Mouse)

SECTION 12 - ECOLOGICAL INFORMATION

No Data Available

SECTION 13 - DISPOSAL CONSIDERATIONS

Disposal Method : Waste not regulated under RCRA. Incinerate at EPA approved facility or dispose of waste in compliance with state and local regulations.

SECTION 14 - TRANSPORTATION / SHIPPING DATA

TDG / DOT Shipping Description:



EUCOPOXY TUF COAT VOX CLEAR PART A

Version 1
 REVISION DATE: 07/05/2005

Print Date 07/13/2007

NOT REGULATED

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 : None present or none present in regulated quantities.

SARA 311/312 Hazards : Acute Health Hazard

OSHA Hazardous Components :

Ethylene diamine	107-15-3
1-Methoxy-2-Propanol	107-98-2
Diethylenetriamine	NJ TSRN# 51721300-5334P
Acetic acid	64-19-7

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

OSHA Flammability : Not Regulated

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

U.S. State Regulations:

MASS RTK Components	:	Tetraethylene pentamine	112-57-2
		Diethylenetriamine	NJ TSRN# 51721300-5334P
		1-Methoxy-2-Propanol	107-98-2
		Ethylene diamine	107-15-3
		Acetic acid	64-19-7

Penn RTK Components	:	Water	7732-18-5
		Petaethylene hexamine	4067-16-7
		Tetraethylene pentamine	112-57-2
		Diethylenetriamine	NJ TSRN# 51721300-5334P
		1-Methoxy-2-Propanol	107-98-2
		Ethylene diamine	107-15-3
	Acetic acid	64-19-7	

NJ RTK Components	:	Water	7732-18-5
		Petaethylene hexamine	4067-16-7
		Tetraethylene pentamine	112-57-2
		Diethylenetriamine	NJ TSRN# 51721300-5334P
		1-Methoxy-2-Propanol	107-98-2
		Ethylene diamine	107-15-3
	Acetic acid	64-19-7	



EUCOPOXY TUF COAT VOX CLEAR PART A

Version 1
 REVISION DATE: 07/05/2005

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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	2
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 VOX CLEAR PART B**Version 1
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SECTION 1 - PRODUCT IDENTIFICATION

Trade name : EUCOPOXY TUFCOAT VOX CLEAR PART B
 Product code : 139M 05

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**

Clear. Liquid. May cause slight irritation to the respiratory system. 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 slight irritation to the respiratory system.
 Eyes : Slightly irritating.
 Ingestion : May cause gastrointestinal irritation, nausea, and vomiting.
 Skin : May cause sensitization.

Aggravated Medical Conditions

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

Chronic Health Effects

May cause sensitization by contact. Prolonged or repeated exposure to epoxy resin can cause irritation to skin, eyes, skin sensitization, temporary eye injury. Certain epoxy resins are reported to be mutagenic in some laboratory tests. Fillers are encapsulated and not expected to be released from product under normal conditions of use.

Target Organs: Skin, Eye, Ingestion

SECTION 3 - PRODUCT COMPOSITION

Chemical Name	CAS-No.	Weight %
Epichlorohydrin polymer	25068-38-6	> 60.0
Alkyl glycidyl ether	68609-97-2	10.0 - 30.0

SECTION 4 - FIRST AID MEASURES

Get immediate medical attention for any significant overexposure.



EUCOPOXY TUFLOAT VOX CLEAR PART B

Version 1
 REVISION DATE: 07/05/2005

Print Date 07/13/2007

- 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 with 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 : 200 °F, 93 °C
- Method : Setflash Closed Cup
- Lower explosion limit : Not available.
- Upper explosion limit : Not available.
- Autoignition temperature : Not available.
- Extinguishing media : This product is not expected to burn under normal conditions of use.
- Hazardous combustion products : Smoke, fumes.
- Protective equipment for firefighters : Use accepted fire fighting techniques. Wear full firefighting protective clothing, including self-contained breathing apparatus (SCBA).
- Fire and explosion conditions : This product not expected to ignite under normal conditions of use.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Stop flow. Contain spill. Keep out of water courses. Absorb spill in sand, earth or other suitable material. Transfer to appropriate container for disposal.

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. Store in sealed containers in a dry, ventilated warehouse location above freezing.

SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Personal protection equipment

- Respiratory protection : Not required under normal conditions of use.
- Hand protection : Use suitable impervious rubber or vinyl gloves and protective apparel to reduce exposure.
- Eye protection : Wear appropriate eye protection.
- Skin and body protection : Not required.



EUCOPOXY TUF COAT VOX CLEAR PART B

Version 1
REVISION DATE: 07/05/2005

Print Date 07/13/2007

Protective measures : Use professional judgment in the selection, care, and use. Other equipment not normally required.

Engineering measures : General ventilation is sufficient.

Exposure Limits

No known components with exposure limits.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Form : Liquid
Color : Clear
Odor : Aromatic
pH : Not available.
Vapour pressure : Not available.
Vapor density : Heavier than air
Melting point/range : Not available.
Freezing point : Not available.
Boiling point/range : 200 °F, 93 °C
Water solubility : Miscible
Specific Gravity : 1.1
% Volatile Weight : 0 %

SECTION 10 - REACTIVITY / STABILITY

Substances to avoid : Acids and bases. Amines. Epoxy curing agents.

SECTION 11 - TOXICOLOGICAL INFORMATION

No Data Available

SECTION 12 - ECOLOGICAL INFORMATION

No Data Available

SECTION 13 - DISPOSAL CONSIDERATIONS

Disposal Method : Not regulated under RCRA. Dispose of in compliance with state and local regulations. Do not incinerate.



EUCOPOXY TUFCOAT VOX CLEAR PART B

Version 1
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SECTION 14 - TRANSPORTATION / SHIPPING DATA

TDG / DOT Shipping Description:

NOT REGULATED

SECTION 15 - REGULATORY INFORMATION

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U.S. Federal Regulations:

None present or none present in regulated quantities.

SARA 311/312 Hazards : Acute Health Hazard

OSHA Hazardous Components :

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

OSHA Flammability : Not Regulated

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

U.S. State Regulations:

Penn RTK Components : Epichlorohydrin polymer 25068-38-6
Alkyl glycidyl ether 68609-97-2

NJ RTK Components : Epichlorohydrin polymer 25068-38-6
Alkyl glycidyl ether 68609-97-2

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



EUCOPOXY TUF COAT VOX CLEAR PART B

Version 1
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SECTION 16 - OTHER INFORMATION

HMIS Rating :

Health	1
Flammability	2
Reactivity	0
PPE	

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

Further information:

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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