



EUCOTHANE CLEAR - 3 GAL UNIT

Version 1
REVISION DATE: 05/02/2005

Print Date 07/13/2007

This is a kit that contains the following components:

Eucothane Clear Part A
Eucothane Clear Part B

**Eucothane Clear Part A**Version 1
REVISION DATE: 05/02/2005

Print Date 07/13/2007

SECTION 1 - PRODUCT IDENTIFICATION

Trade name : Eucothane Clear Part A
Product code : 154M 03

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. May cause drowsiness, weakness, and fatigue. Vapor and/or mist may irritate nose and throat. May cause moderate irritation to the respiratory system. May cause allergic respiratory sensitization. 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 drowsiness, weakness, and fatigue. Vapor and/or mist may irritate nose and throat. May cause moderate irritation to the respiratory system. May cause allergic respiratory sensitization.

Eyes : Vapor and/or mist may cause eye irritation.

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

Overexposure may cause dermatitis, asthma, skin and respiratory sensitization and decreased lung function. Repeated overexposure to vapors and/or material may injure the liver, kidneys and respiratory system unless suitable engineering controls and/or personal protective equipment are used. 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. The International Agency for Research on Cancer (IARC) has evaluated ethylbenzene and classified it as a possible human carcinogen (Group 2B) based on sufficient evidence for carcinogenicity in experimental animals, but inadequate evidence for cancer in exposed humans. Fillers are encapsulated and not expected to be released from product under normal conditions of use.

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

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SECTION 3 - PRODUCT COMPOSITION

Chemical Name	CAS-No.	Weight %
Saturated Polyester Polyol	NJ TSRN# 51721300-5622P	15.0 - 40.0
Methyl n-amyl ketone	110-43-0	15.0 - 40.0
1-Methoxy-2-propanol acetate	108-65-6	15.0 - 40.0
Ethyl 3-ethoxypropionate	763-69-9	15.0 - 40.0
Ethylbenzene	100-41-4	- <1.0

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	:	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	:	100 °F, 38 °C
Method	:	Setaflash 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	:	Carbon monoxide and carbon dioxide can form. Smoke, fumes. Hydrocyanic acid and nitrogen oxides can form.
Protective equipment for firefighters	:	Use accepted fire fighting techniques. Wear full firefighting protective clothing, including self-contained breathing apparatus (SCBA).
Fire and explosion conditions	:	Product may ignite if heated in excess of its flash point. Closed container, may burst when exposed to extreme heat. Empty containers may contain ignitable vapors. Vapors may travel to sources of ignition and flashback.

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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. Change soiled work clothes frequently. Clean hands thoroughly after handling. Do not smoke, weld, generate sparks, or use flame near container. 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. Store under dry warehouse conditions away from heat and all ignition sources.

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

- Respiratory protection : Use self-contained breathing apparatus (SCBA) or positive pressure air supplied respirator with full face mask to reduce exposure to isocyanate vapors below the exposure limits on the MSDS.
- 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.
- Skin and body protection : Prevent contact with shoes and clothing.
- 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 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>
Methyl n-amyl ketone	110-43-0	ACGIH TWA: OSHA PEL:	50 ppm 465 mg/m3	
Ethylbenzene	100-41-4	ACGIH TWA: ACGIH STEL: OSHA PEL:	100 ppm 125 ppm 435 mg/m3	

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Form : Liquid

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Color	: Clear
Odor	: Fruity ester
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 - 329 °F, 137 - 165 °C
Water solubility	: Negligible
Specific Gravity	: 1.2
% Volatile Weight	: 25 %

SECTION 10 - REACTIVITY / STABILITY

Substances to avoid	: Strong acids.Strong bases.Amines.Water or moisture.Alcohols.
Stability	: Material is stable under normal storage, handling, and use.
Hazardous polymerization	: Will not occur under normal conditions.

SECTION 11 - TOXICOLOGICAL INFORMATION

Methyl n-amyl ketone, CAS-No.: 110-43-0	
Acute oral toxicity (LD-50 oral)	1,670 mg/kg (Rat)
Acute inhalation toxicity (LC-50)	4,000 mg/l (Rat)
Acute dermal toxicity (LD-50 dermal)	13,000 mg/kg (Rabbit)
Ethylbenzene, CAS-No.: 100-41-4	
Acute oral toxicity (LD-50 oral)	3,500 mg/kg (Rat)
Acute dermal toxicity (LD-50 dermal)	17,800 mg/kg (Rabbit)

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. Dispose of in a contained chemical landfill in compliance with federal, state and local regulations.



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SECTION 14 - TRANSPORTATION / SHIPPING DATA

TDG / DOT Shipping Description:

FLAMMABLE LIQUID, N.O.S. (Contains Xylene, Butylacetate), 3, UN1993, 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 : Ethylbenzene 100-41-4

SARA 311/312 Hazards : Acute Health Hazard
 Fire Hazard

OSHA Hazardous Components :

Methyl n-amyl ketone 110-43-0
 Ethylbenzene 100-41-4

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

OSHA Flammability : IC

Regulatory VOC (less water and
 exempt solvent) : 311 g/l
 VOC Method 310 : 25 %

U.S. State Regulations:

MASS RTK Components : Methyl n-amyl ketone 110-43-0

Penn RTK Components : Saturated Polyester Polyol NJ TSRN# 51721300-5622P
 Methyl n-amyl ketone 110-43-0
 1-Methoxy-2-propanol acetate 108-65-6
 Ethyl 3-ethoxypropionate 763-69-9

NJ RTK Components : Saturated Polyester Polyol NJ TSRN# 51721300-5622P
 Methyl n-amyl ketone 110-43-0
 1-Methoxy-2-propanol acetate 108-65-6
 Ethyl 3-ethoxypropionate 763-69-9

Chemicals known to the State of California to cause cancer birth defects and/or other reproductive harm:
 100-41-4 Ethylbenzene



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Canadian Regulations:

WHMIS Classification : B3, D2B

This is a "controlled product" under the Canadian Workplace Hazardous Materials Information System (WHMIS).

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

**Eucothane Clear Part B**Version 1
REVISION DATE: 05/02/2005

Print Date 07/13/2007

SECTION 1 - PRODUCT IDENTIFICATION

Trade name : Eucothane Clear Part B
Product code : 154M 03

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**

Tan. Liquid. 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

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. Repeated and prolonged butyl acetate overexposure may result in permanent central nervous system damage. Chronic skin contact may cause dermatitis. N-butyl acetate aerosol in excess of 200 ppm causes lung damage in experimental animals. 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

SECTION 3 - PRODUCT COMPOSITION

**Eucothane Clear Part B**

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Chemical Name	CAS-No.	Weight %
Homopolymer of HDI	28182-81-2	> 60.0
Xylene	1330-20-7	10.0 - 30.0
Butyl acetate	123-86-4	10.0 - 30.0

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 : 90.5 °F, 33 °C
- Method : Setaflash 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. 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.

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.

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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.

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	
Butyl acetate	123-86-4	ACGIH TWA: ACGIH STEL: OSHA PEL:	150 ppm 200 ppm 710 mg/m3	

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

- Form : Liquid
- Color : Tan
- Odor : Ester
- pH : Not available.



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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 : 1.100
 % Volatile Weight : 12 %

SECTION 10 - REACTIVITY / STABILITY

Substances to avoid : Oxidizing agents.Epoxies.Isocyanates.Acids.
 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)
 Butyl acetate, CAS-No.: 123-86-4
 Acute oral toxicity (LD-50 oral) 14,130 mg/kg (Rat)
 Acute inhalation toxicity (LC-50) 160 mg/l (Wistar 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.
 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:

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FLAMMABLE LIQUID, N.O.S. (Contains Xylene, Butylacetate), 3, UN1993, 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

Butyl acetate 123-86-4

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

OSHA Flammability : IC

Regulatory VOC (less water and : 135 g/l
exempt solvent)

VOC Method 310 : 12 %

U.S. State Regulations:MASS RTK Components : Xylene 1330-20-7
Butyl acetate 123-86-4Penn RTK Components : Homopolymer of HDI 28182-81-2
Xylene 1330-20-7
Butyl acetate 123-86-4NJ RTK Components : Homopolymer of HDI 28182-81-2
Xylene 1330-20-7
Butyl acetate 123-86-4Chemicals known to the State of California to cause cancer birth defects and/or other reproductive harm:
None known.**Canadian Regulations:**

B2, D1B

This is a "controlled product" under the Canadian Workplace Hazardous Materials Information System (WHMIS).



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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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- 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