**EUCO 452 MV CLEAR PART A**Version 1  
REVISION DATE: 07/01/2005

Print Date 09/08/2006

**SECTION 1 - PRODUCT IDENTIFICATION**

Trade name : EUCO 452 MV CLEAR PART A  
 Product code : 222M 01

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

**SECTION 4 - FIRST AID MEASURES**

Get immediate medical attention for any significant overexposure.



The Euclid Chemical Company

**EUCO 452 MV CLEAR PART A**Version 1  
REVISION DATE: 07/01/2005

Print Date 09/08/2006

- 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**

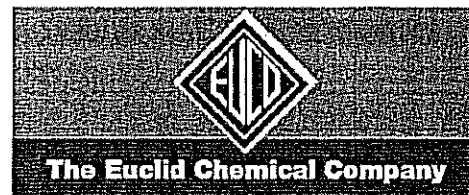
Stop flow. Contain spill. Keep out of water courses. Absorb spill in sand, earth or other suitable material. Transfer to appropriate container for disposal.

**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.



**EUCO 452 MV CLEAR PART A**

Version 1  
 REVISION DATE: 07/01/2005

Print Date 09/08/2008

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 : Epoxy

pH : Not available.

Vapour pressure : Not available.

Vapor density : Heavier than air

Melting point/range : Not available.

Freezing point : Not available.

Boiling point/range : > 500 °F, > 260 °C

Water solubility : Miscible

Specific Gravity : 1.07

% 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.



**EUCO 452 MV CLEAR PART A**

Version 1  
 REVISION DATE: 07/01/2005

Print Date 09/08/2006

**SECTION 14 - TRANSPORTATION / SHIPPING DATA**

**TDG / DOT Shipping Description:**  
 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 :**

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

OSHA Flammability : Not Regulated

Regulatory VOC (less water and : 0 g/l  
 exempt solvent)  
 VOC Method 310 : 0 %

**U.S. State Regulations:**

Penn RTK Components : Epichlorohydrin polymer 25068-38-6

NJ RTK Components : Epichlorohydrin polymer 25068-38-6

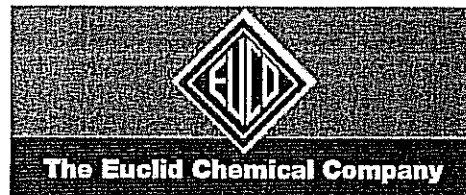
Chemicals known to the State of California to cause cancer birth defects and/or other reproductive harm:  
 None known.

**SECTION 16 - OTHER INFORMATION**

**HMIS Rating :**

Health	1
Flammability	2
Reactivity	0
PPE	

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



**EUCO 452 MV CLEAR PART A**

Version 1  
REVISION DATE: 07/01/2005

Print Date 09/08/2006

**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                         | 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                         |
| HMS - 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                           |  |





**EUCO 452 MV CLEAR PART B**

Version 1  
 REVISION DATE: 07/01/2005

Print Date 09/08/2006

**SECTION 1 - PRODUCT IDENTIFICATION**

Trade name : EUCO 452 MV CLEAR PART B  
 Product code : 222M 01

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 : Curative

**SECTION 2 - HAZARDS IDENTIFICATION**

Emergency Overview

Gray. Liquid solution. 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 : Vapors or liquid may cause tearing, blurred vision, severe irritation, and possible chemical burns.  
 Ingestion : May cause irritation to the mouth, throat and stomach. May cause chemical burns to stomach, mouth, nose, and throat.  
 Skin : May cause moderate irritation. May cause sensitization resulting in irritation, itching and redness.

Aggravated Medical Conditions

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

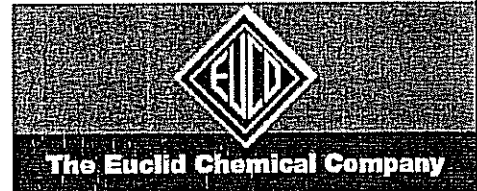
Chronic Health Effects

Prolonged and repeated overexposure to amines may cause liver and kidney damage based on animal studies. 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.

Target Organs: Skin, Eye, Lung

**SECTION 3 - PRODUCT COMPOSITION**

Chemical Name	CAS-No.	Weight %
Epoxy curing agent	NJ TSRN# 51721300-5477P	40.0 - 70.0
Modified aliphatic amine	NJ TSRN# 51721300-5810P	15.0 - 40.0



**EUCO 452 MV CLEAR PART B**

Version 1  
 REVISION DATE: 07/01/2005

Print Date 09/08/2006

4-tert-Butylphenol	98-54-4	15.0 - 40.0
Bisphenol A	80-05-7	1.0 - 5.0
Tetraethylene pentamine	112-57-2	1.0 - 5.0

**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 : Do not induce vomiting unless advised by a physician. Call nearest Poison Control Center or Physician immediately.

**SECTION 5 - FIRE FIGHTING MEASURES**

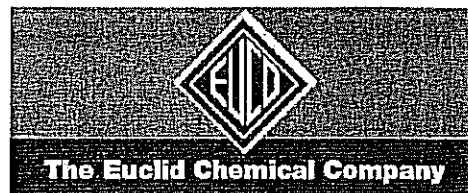
- Flash point : 200 °F, 93 °C
- Method : Setaflash Closed Cup
- Lower explosion limit : Not available.
- Upper explosion limit : Not available.
- Autoignition temperature : Not available.
- Extinguishing media : If water fog is ineffective, use carbon dioxide, dry chemical or foam.
- Hazardous combustion products : Carbon monoxide, carbon dioxide, and nitrogen oxides.
- 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.

**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**

Store under normal warehouse conditions in sealed containers. 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. Change soiled work clothes frequently. Clean hands thoroughly after handling. 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. Handle in compliance with common hygienic practices. Clean hands thoroughly after handling.

**EUCO 452 MV CLEAR PART B**

Version 1  
REVISION DATE: 07/01/2005

Print Date 09/08/2006

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

- Respiratory protection : Use full engineering controls before relying on personal protective equipment. Wear NIOSH/MSHA approved vapor respirator with appropriate cartridge when the vapor concentration is expected to exceed exposure limits indicated on the MSDS. Follow manufacturer's directions for respirator use.
- Hand protection : Protect hands with impervious gloves.
- 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.
- Engineering measures : Use local exhaust when the general ventilation is inadequate.

**Exposure Limits**

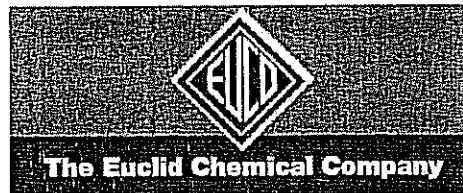
No known components with exposure limits.

**SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES**

- Form : Liquid solution
- Color : Gray
- Odor : Amine
- pH : Not available.
- Vapour pressure : Not available.
- Vapor density : Not available.
- Melting point/range : Not available.
- Freezing point : Not available.
- Boiling point/range : > 500 °F, > 260 °C
- Water solubility : Not available.
- Specific Gravity : 1.0
- % Volatile Weight : 0 %

**SECTION 10 - REACTIVITY / STABILITY**

- Substances to avoid : Acids.
- Stability : Stable under normal conditions. Avoid welding arcs, flames or other high temperature sources.
- Hazardous polymerization : Will not occur under normal conditions.



**EUCO 452 MV CLEAR PART B**

Version 1  
 REVISION DATE: 07/01/2005

Print Date 09/08/2006

**SECTION 11 - TOXICOLOGICAL INFORMATION**

Bisphenol A, CAS-No.: 80-05-7  
 Acute oral toxicity (LD-50 oral) 3,300 mg/kg ( Rat )

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 )

**SECTION 12 - ECOLOGICAL INFORMATION**

No Data Available

**SECTION 13 - DISPOSAL CONSIDERATIONS**

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:  
 CORROSIVE LIQUID, N.O.S. (Contains Diethylenetriamine), 8, UN1760, PG II

**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 : Bisphenol A 80-05-7

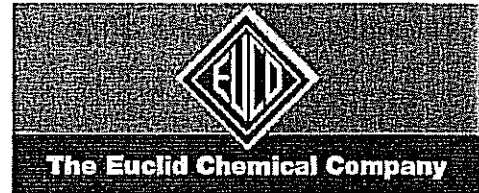
SARA 311/312 Hazards : Acute Health Hazard

OSHA Hazardous Components :  
 Bisphenol A 80-05-7

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

OSHA Flammability : Not Regulated

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



**EUCO 452 MV CLEAR PART B**

Version 1  
 REVISION DATE: 07/01/2005

Print Date 09/08/2006

0.0000 g/l

**U.S. State Regulations:**

MASS RTK Components	:	Bisphenol A	80-05-7
		Tetraethylene pentamine	112-57-2
Penn RTK Components	:	Epoxy curing agent	NJ TSRN# 51721300-5477P
		Modified aliphatic amine	NJ TSRN# 51721300-5810P
		4-tert-Butylphenol	98-54-4
		Bisphenol A	80-05-7
		Tetraethylene pentamine	112-57-2
NJ RTK Components	:	Epoxy curing agent	NJ TSRN# 51721300-5477P
		Modified aliphatic amine	NJ TSRN# 51721300-5810P
		4-tert-Butylphenol	98-54-4
		Bisphenol A	80-05-7
		Tetraethylene pentamine	112-57-2

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	1
Flammability	2
Reactivity	0
PPE	

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

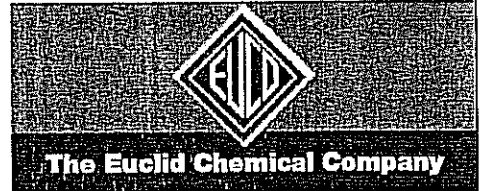
**Further information:**

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
- GERCLA - 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
- 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



**EUCO 452 MV CLEAR PART B**

Version 1  
REVISION DATE: 07/01/2005

Print Date 09/08/2006

OSHA - Occupational Safety and Health Administration