



EUCO # 452 EPOXY SYSTEM GEL

Version 1

Print Date 10/22/2008

REVISION DATE: 06/13/2005

This is a kit that contains the following components:

EUCO 452 GEL PART A

EUCO 452 GEL PART B



EUCO 452 GEL PART A

Version 1
 REVISION DATE: 06/13/2005

Print Date 10/22/2008

SECTION 1 - PRODUCT IDENTIFICATION

Trade name : EUCO 452 GEL PART A
 Product code :
 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

Gray. 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
Clay	1332-58-7	15.0 - 40.0
Siloxanes and Silicones	67762-90-7	3.0 - 7.0
Water	7732-18-5	0.5 - 1.5



EUCO 452 GEL PART A

Version 1
REVISION DATE: 06/13/2005

Print Date 10/22/2008

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 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 : Setaflash Closed Cup
- Lower explosion limit : 1.40 %(V) Solvent
- 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

**EUCO 452 GEL PART A**

Version 1

Print Date 10/22/2008

REVISION DATE: 06/13/2005

- 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.
- Protective measures : Use professional judgment in the selection, care, and use. Other equipment not normally required.
- Engineering measures : General ventilation is sufficient.

Exposure Limits

<u>Chemical Name</u>	<u>CAS Number</u>	<u>Regulation</u>	<u>Limit</u>	<u>Form</u>
Clay	1332-58-7	ACGIH TWA:	2 mg/m ³	Respirable fraction.
		OSHA PEL:	15 mg/m ³	Total dust.
		OSHA PEL:	5 mg/m ³	Respirable fraction.
		OSHA TWA:	15 mg/m ³	Total dust.
		OSHA TWA:	5 mg/m ³	Respirable fraction.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

- Form : Liquid
- Color : Gray
- 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 : 0.98
- % Volatile Weight : 1 %

SECTION 10 - REACTIVITY / STABILITY

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



EUCO 452 GEL PART A

Version 1
 REVISION DATE: 06/13/2005

Print Date 10/22/2008

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.

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 :

Clay 1332-58-7

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:
 0.0000 g/l

U.S. State Regulations:

MASS RTK Components : Clay 1332-58-7

Penn RTK Components : Epichlorohydrin polymer 25068-38-6
 Clay 1332-58-7



EUCO 452 GEL PART A

Version 1
 REVISION DATE: 06/13/2005

Print Date 10/22/2008

	Siloxanes and Silicones	67762-90-7
NJ RTK Components	: Epichlorohydrin polymer	25068-38-6
	Clay	1332-58-7
	Siloxanes and Silicones	67762-90-7
	Water	7732-18-5

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

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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 | |

**EUCO 452 GEL PART B**Version 1
REVISION DATE: 06/13/2005

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SECTION 1 - PRODUCT IDENTIFICATION

Trade name : EUCO 452 GEL PART B
Product code :

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. Severely irritating to the respiratory tract. May cause chemical burns to the respiratory system. May cause coughing and wheezing. May cause nausea, headaches, and dizziness. Move to fresh air. If required, artificial respiration or administration of oxygen can be performed by trained personnel. Remove to fresh air. Get immediate medical attention.

Acute Potential Health Effects/ Routes of Entry

Inhalation : Severely irritating to the respiratory tract. May cause chemical burns to the respiratory system. May cause coughing and wheezing. May cause nausea, headaches, and dizziness.

Eyes : Vapors or liquid may cause tearing, blurred vision, severe irritation, and possible chemical burns.

Ingestion : May cause gastrointestinal irritation, nausea, and vomiting. May cause chemical burns to stomach, mouth, nose, and throat.

Skin : May cause itching, reddening, inflammation. May cause severe burns, blistering and skin damage. May cause sensitization resulting in irritation, itching and redness. May cause a rash.

Aggravated Medical Conditions

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

Chronic Health Effects

May cause sensitization by contact. Prolonged skin contact may cause irritation, burns or dermatitis. 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. May aggravate persons sensitized to amines 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.

**EUCO 452 GEL PART B**Version 1
REVISION DATE: 06/13/2005

Print Date 10/22/2008

SECTION 3 - PRODUCT COMPOSITION

Chemical Name	CAS-No.	Weight %
Clay	1332-58-7	30.0 - 60.0
Epoxy curing agent	NJ TSRN# 51721300-5477P	15.0 - 40.0
Modified aliphatic amine	NJ TSRN# 51721300-5810P	15.0 - 40.0
4-tert-Butylphenol	98-54-4	10.0 - 30.0
Siloxanes and Silicones	67762-90-7	5.0 - 10.0
Bisphenol A	80-05-7	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. Remove to fresh air. Get immediate 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	:	> 200 °F, > 93 °C
Method	:	Setaflash Closed Cup
Lower explosion limit	:	1.40 %(V) Solvent
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. 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. Vapors may travel to sources of ignition and flashback. Vapor concentrations in enclosed areas may ignite explosively. Empty containers may contain ignitable vapors.



EUCO 452 GEL PART B

Version 1
 REVISION DATE: 06/13/2005

Print Date 10/22/2008

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. Do not smoke, weld, generate sparks, or use flame near container. Do not use in confined or poorly ventilated areas. Personal protective equipment must be worn during maintenance or repair of contaminated mixer, reactor, or other equipment. Store under dry warehouse conditions away from heat and all ignition sources.

SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Personal protection equipment

- Respiratory protection : 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 : Use suitable impervious nitrile or neoprene gloves and protective apparel to reduce exposure.
- 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 : Inspect and replace equipment at regular intervals. 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>
Clay	1332-58-7	ACGIH TWA:	2 mg/m3	Respirable fraction.
		OSHA PEL:	15 mg/m3	Total dust.
		OSHA PEL:	5 mg/m3	Respirable fraction.
		OSHA TWA:	15 mg/m3	Total dust.
		OSHA TWA:	5 mg/m3	Respirable fraction.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

- Form : Liquid
- Color : Gray

**EUCO 452 GEL PART B**Version 1
REVISION DATE: 06/13/2005

Print Date 10/22/2008

Odor	: Amine
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	: Negligible
Specific Gravity	: 0.98
% Volatile Weight	: 1 %

SECTION 10 - REACTIVITY / STABILITY

Substances to avoid	: Oxidizing agents.Epoxies.Isocyanates.Acids.
Stability	: Material is stable under normal storage, handling, and use.
Hazardous polymerization	: Will not occur under normal conditions.

SECTION 11 - TOXICOLOGICAL INFORMATION

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

SECTION 12 - ECOLOGICAL INFORMATION

No Data Available

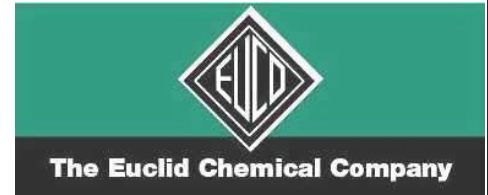
SECTION 13 - DISPOSAL CONSIDERATIONS

Disposal Method	: Dispose of hazardous waste according to all local, state, federal and provincial regulations.
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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:**



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Version 1
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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 :

Clay 1332-58-7

Bisphenol A 80-05-7

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:
 0.0000 g/l

U.S. State Regulations:

MASS RTK Components : Clay 1332-58-7
 Bisphenol A 80-05-7

Penn RTK Components : Clay 1332-58-7
 Epoxy curing agent NJ TSRN# 51721300-5477P
 Modified aliphatic amine NJ TSRN# 51721300-5810P
 4-tert-Butylphenol 98-54-4
 Siloxanes and Silicones 67762-90-7
 Bisphenol A 80-05-7

NJ RTK Components : Clay 1332-58-7
 Epoxy curing agent NJ TSRN# 51721300-5477P
 Modified aliphatic amine NJ TSRN# 51721300-5810P
 4-tert-Butylphenol 98-54-4
 Siloxanes and Silicones 67762-90-7

Chemicals known to the State of California to cause cancer birth defects and/or other reproductive harm:
 1333-86-4 Carbon Black



EUCO 452 GEL PART B

Version 1
 REVISION DATE: 06/13/2005

Print Date 10/22/2008

SECTION 16 - OTHER INFORMATION

HMIS Rating :

Health	2
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
 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