



FLEXOLITH 1:1

Version 3.0
REVISION DATE: 07/08/2012

Print Date 12/05/2013

This is a kit that contains the following components:

FLEXOLITH 1:1 A
FLEXOLITH 216 PART B

**FLEXOLITH 1:1 A**Version 3.0
REVISION DATE: 07/08/2012

Print Date 12/05/2013

SECTION 1 - PRODUCT IDENTIFICATION

Trade name : FLEXOLITH 1:1 A
 Product code : TD4332104

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

Telephone : 1-800-321-7628
 Emergency Phone: : U.S. only: 1-800-424-9300
 International Users Call Collect: 1-703-527-3887

SECTION 2 - HAZARDS IDENTIFICATION**Emergency Overview**

Clear to Yellow. 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 %
Bisphenol A Polyglycidyl Ether Resin	25068-38-6	> 60.0
Aliphatic glycidyl ether	2461-15-6	10.0 - 30.0

SECTION 4 - FIRST AID MEASURES

Get immediate medical attention for any significant overexposure.

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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 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	:	Not available.
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.

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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 to Yellow
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 : Not available.
Water solubility : Miscible
Specific Gravity : 1.13
% Volatile Weight : 0.0 %

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.



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SECTION 14 - TRANSPORTATION / SHIPPING DATA

CFR / DOT:

Not Regulated

TDG:

Not Regulated

IMDG:

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 : Based on an evaluation of the components used, this product does not contain hazardous ingredients identified as per 29 CFR 1910.1200

OSHA Hazardous Components :

OSHA Flammability : Not Regulated

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

U.S. State Regulations:

Penn RTK Components : Bisphenol A Polyglycidyl Ether Resin 25068-38-6
Aliphatic glycidyl ether 2461-15-6

NJ RTK Components : Bisphenol A Polyglycidyl Ether Resin 25068-38-6
Aliphatic glycidyl ether 2461-15-6

WARNING! Contains chemicals known to the State of California to cause cancer, birth defects and/or other reproductive harm:
None known.



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SECTION 16 - OTHER INFORMATION

HMIS Rating :

Health	0
Flammability	1
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



FLEXOLITH 216 PART B

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SECTION 1 - PRODUCT IDENTIFICATION

Trade name	:	FLEXOLITH 216 PART B
Product code	:	TD4332104
COMPANY	:	Euclid Chemical Company 19218 Redwood Road Cleveland, OH 44110
Telephone	:	1-800-321-7628
Emergency Phone:	:	U.S. only: 1-800-424-9300 International Users Call Collect: 1-703-527-3887
Product use	:	Curative

SECTION 2 - HAZARDS IDENTIFICATION

Emergency Overview

Amber. Liquid. May cause slight irritation to the respiratory system. Move to fresh air. If required, artificial respiration or administration of oxygen can be performed by trained personnel.

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 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. Repeated inhalation of nonyl phenol may cause lung damage. Repeated skin contact with nonyl phenol may cause skin irritation and dermatitis. Fillers are encapsulated and not expected to be released from product under normal conditions of use.

SECTION 3 - PRODUCT COMPOSITION



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Chemical Name	CAS-No.	Weight %
4-Nonylphenol	84852-15-3	40.0 - 70.0
Epoxy curing agent	NJ TSRN# 51721300-5477P	15.0 - 40.0
Poly(oxypropylene) diamine	9046-10-0	10.0 - 30.0
Diethylenetriamine	111-40-0	7.0 - 13.0
Bisphenol A	80-05-7	3.0 - 7.0
Tris(dimethylaminomethyl)phenol	90-72-2	3.0 - 7.0

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.
- 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 : 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. 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.

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. 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>
Diethylenetriamine	111-40-0	ACGIH TWA:	1 ppm	

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

- Form : Liquid
- Color : Amber
- 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 : Not available.

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Water solubility : Negligible
 Specific Gravity : 1.20
 % Volatile Weight : 47.4 %

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

Diethylenetriamine, CAS-No.: 111-40-0
 Acute oral toxicity (LD-50 oral) 1,080 mg/kg (Rat) 2,330 mg/kg (Rat)

Bisphenol A, CAS-No.: 80-05-7
 Acute oral toxicity (LD-50 oral) 4,100 mg/kg (Rat) 3,300 mg/kg (Rat) 5,280 mg/kg (Mouse)
 4,100 mg/kg (Mouse) 2,500 mg/kg (Mouse)

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**CFR / DOT:**

UN1760, Corrosive liquids, n.o.s. (Aliphatic Amine), 8, PG III

TDG:

UN1760, CORROSIVE LIQUID, N.O.S. (Aliphatic Amine), 8, PG III

IMDG:

UN1760, CORROSIVE LIQUID, N.O.S. (Aliphatic Amine, Nonylphenol), 8, PG III, MARINE POLLUTANT



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Further Information:

The above shipping description may not be accurate for all container sizes and all modes of transportation. Please refer to Bill of Lading.

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 :

Diethylenetriamine 111-40-0
 Bisphenol A 80-05-7

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

OSHA Flammability : Not Regulated

Regulatory VOC (less water and : 569 g/l
 exempt solvent)
 VOC Method 310 : 47 %

U.S. State Regulations:

MASS RTK Components : Diethylenetriamine 111-40-0
 Bisphenol A 80-05-7

Penn RTK Components : 4-Nonylphenol 84852-15-3
 Epoxy curing agent NJ TSRN# 51721300-5477P
 Poly(oxypropylene) diamine 9046-10-0
 Diethylenetriamine 111-40-0
 Bisphenol A 80-05-7
 Tris(dimethylaminomethyl)phenol 90-72-2

NJ RTK Components : 4-Nonylphenol 84852-15-3
 Epoxy curing agent NJ TSRN# 51721300-5477P
 Poly(oxypropylene) diamine 9046-10-0
 Diethylenetriamine 111-40-0
 Bisphenol A 80-05-7

WARNING! Contains chemicals known to the State of California to cause cancer, birth defects and/or other reproductive harm:
 None known.

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SECTION 16 - OTHER INFORMATION**HMIS Rating :**

Health	2
Flammability	1
Reactivity	1
PPE	

0 = Minimum
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 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