



EUCLID CHEMICAL

DURAL 1004C CLEAR 1:3

Version 3.0

Print Date 12/05/2013

REVISION DATE: 07/08/2012

This is a kit that contains the following components:

DURAL 1004-C 1:3 PART A

DURAL 1004-C B CLEAR

**DURAL 1004-C 1:3 PART A**Version 3.0
REVISION DATE: 07/08/2012

Print Date 12/05/2013

SECTION 1 - PRODUCT IDENTIFICATION

Trade name : DURAL 1004-C 1:3 PART A
Product code : TD2441404000

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 : 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. Fillers are encapsulated and not expected to be released from product under normal conditions of use.

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

SECTION 3 - PRODUCT COMPOSITION

| Chemical Name | CAS-No. | Weight % |
|---------------|---------|----------|
|---------------|---------|----------|

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Homopolymer of HDI

28182-81-2

> 60.0

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 : 385 °F, 196 °C
- Method : Tag 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.

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

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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 : Wear appropriate, properly fitted NIOSH/MSHA approved respirator when airborne contaminant level(s) are expected to exceed exposure limits indicated on the MSDS. Select positive pressure supplied air respirator (TC19C or equivalent) for isocyanates.
- 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

No known components with exposure limits.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

- Form : Liquid
- Color : Clear
- Odor : Solvent
- 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 : Negligible
- Specific Gravity : 1.13
- % Volatile Weight : 0.7 %

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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

No Data Available

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:**

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.

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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 : IIIB

When appropriately mixed with the other part, product has a VOC less water and exempt solvent of: 340 g/l

U.S. State Regulations:

Penn RTK Components : Homopolymer of HDI 28182-81-2

NJ RTK Components : Homopolymer of HDI 28182-81-2

WARNING! Contains 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 | 1 |
| 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

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



The Euclid Chemical Company

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NIOSH - National Institute for Occupational Safety and Health

NTP - National Toxicology Program

OSHA - Occupational Safety and Health Administration

VOC - Volatile Organic Compound

WHMIS - Workplace Hazardous Materials Information System

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Product code : TD2441404000

COMPANY : Euclid Chemical Company
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Telephone : 1-800-321-7628
Emergency Phone: : U.S. only: 1-800-424-9300
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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 % |
|------------------------------|-------------------------|-------------|
| 1-Methoxy-2-propanol acetate | 108-65-6 | 40.0 - 70.0 |
| Polyester Polyol | NJ TSNR# 51721300-5821P | 40.0 - 70.0 |
| Xylene | 1330-20-7 | 7.0 - 13.0 |
| Polyester Polyol | 67815-82-1 | 7.0 - 13.0 |
| Ethylbenzene | 100-41-4 | 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. 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 : 79 °F, 26 °C
- Method : Tag Closed Cup
- Lower explosion limit : 1.1 %(V) Solvent
- Upper explosion limit : 6.1 %(V) Solvent
- Autoignition temperature : 450 °F, 232 °C
- 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 : Wear appropriate, properly fitted NIOSH/MSHA approved respirator when airborne contaminant level(s) are expected to exceed exposure limits indicated on the MSDS. Select positive pressure supplied air respirator (TC19C or equivalent) for isocyanates.
- 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

| Chemical Name | CAS Number | Regulation | Limit | Form |
|----------------------|-------------------|--|---------------------------------|-------------|
| Xylene | 1330-20-7 | ACGIH TWA: ACGIH STEL: OSHA PEL: | 100 ppm 150 ppm 435 mg/m3 | |
| Ethylbenzene | 100-41-4 | ACGIH TWA: ACGIH STEL: OSHA PEL: | 100 ppm 125 ppm 435 mg/m3 | |

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SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

| | |
|---------------------|------------------------------|
| Form | : Liquid |
| Color | : Clear |
| Odor | : Solvent |
| pH | : Not available. |
| Vapour pressure | : 3.64 mmHg at 68 °F |
| Vapor density | : Heavier than air |
| Melting point/range | : Not available. |
| Freezing point | : Not available. |
| Boiling point/range | : 300 - 390 °F, 149 - 199 °C |
| Water solubility | : Negligible |
| Specific Gravity | : 0.9 |
| % Volatile Weight | : 51.4 % |

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

| | |
|--------------------------------------|---|
| Xylene, CAS-No.: 1330-20-7 | |
| Acute oral toxicity (LD-50 oral) | 4,300 mg/kg (Rat) 1,590 mg/kg (Mouse) 6,670 mg/kg (Rat) 3,523 - 8,600 mg/kg (Rat) 5,627 mg/kg (Mouse) |
| Acute inhalation toxicity (LC-50) | 6,350 mg/l for 4 h (Rat) 3,907 mg/l for 6 h (Mouse) 8,000 mg/l for 4 h (Rat) |
| Ethylbenzene, CAS-No.: 100-41-4 | |
| Acute oral toxicity (LD-50 oral) | 5,460 mg/kg (Rat) 3,500 mg/kg (Rat) |
| Acute dermal toxicity (LD-50 dermal) | 17,800 mg/kg (Rabbit) |

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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**CFR / DOT:**

UN1993, Flammable liquids, n.o.s. (Xylene), 3, PG III

TDG:

UN1993, FLAMMABLE LIQUID, N.O.S. (Xylene), 3, PG III

IMDG:

UN1993, FLAMMABLE LIQUID, N.O.S. (Xylene), 3, PG III

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 | : | Xylene | 1330-20-7 |
| | | Ethylbenzene | 100-41-4 |

| | | |
|----------------------|---|---------------------|
| SARA 311/312 Hazards | : | Acute Health Hazard |
| | | Fire Hazard |

| | |
|-----------------------------|-----------|
| OSHA Hazardous Components : | |
| Xylene | 1330-20-7 |

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Ethylbenzene 100-41-4

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

OSHA Flammability : IC

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

U.S. State Regulations:

MASS RTK Components : Xylene 1330-20-7
Ethylbenzene 100-41-4

Penn RTK Components : 1-Methoxy-2-propanol acetate 108-65-6
Polyester Polyol NJ TSRN# 51721300-5821P
Xylene 1330-20-7
Polyester Polyol 67815-82-1
Ethylbenzene 100-41-4

NJ RTK Components : 1-Methoxy-2-propanol acetate 108-65-6
Polyester Polyol NJ TSRN# 51721300-5821P
Xylene 1330-20-7
Polyester Polyol 67815-82-1
Ethylbenzene 100-41-4

WARNING! Contains chemicals known to the State of California to cause cancer, birth defects and/or other reproductive harm:

100-41-4 Ethylbenzene
108-88-3 Toluene

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

| | |
|--------------|---|
| Health | 2 |
| Flammability | 3 |
| 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
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

