



EUCLID CHEMICAL

DURAL 100 CLASS D (7.65:1.81 BY WEIGHT)

Version 3.0

Print Date 12/23/2013

REVISION DATE: 07/08/2012

This is a kit that contains the following components:

DURAL 100 TYPE III - PART A

DURAL 100 TYPE III - PART B

**DURAL 100 TYPE III - PART A**Version 3.0
REVISION DATE: 07/08/2012

Print Date 12/23/2013

SECTION 1 - PRODUCT IDENTIFICATION

Trade name : DURAL 100 TYPE III - PART A
Product code : TD63323

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**

White. 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. Inhalation of crystalline silica (quartz) can cause cancer based on animal data, and IARC concludes sufficient evidence in humans (Group 1). Prolonged and repeated overexposure to free crystalline silica dust above the TLV level may cause scarring of the lungs with cough and shortness of breath. A delayed lung injury, silicosis may result from breathing free silica. 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
Calcium carbonate	471-34-1	10.0 - 30.0
Crystalline Silica (Quartz)/ Silica Sand	14808-60-7	10.0 - 30.0
Inert Filler	NJ TSRN# 51721300-5376P	1.0 - 5.0

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Titanium dioxide

13463-67-7

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 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**

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- 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

Chemical Name	CAS Number	Regulation	Limit	Form
Crystalline Silica (Quartz)/ Silica Sand	14808-60-7	OSHA TWA:	0.1 mg/m3	Respirable.
		OSHA TWA:	0.3 mg/m3	Total dust.
		OSHA PEL:	15 mg/m3	Total dust.
		OSHA PEL:	5 mg/m3	Respirable fraction.
		ACGIH TWA:	0.025 mg/m3	Respirable fraction.
Titanium dioxide	13463-67-7	ACGIH TWA:	10 mg/m3	
		OSHA PEL:	15 mg/m3	Total dust.
		OSHA TWA:	15 mg/m3	Total dust.
		OSHA TWA:	5 mg/m3	Respirable fraction.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

- Form : Liquid
- Color : White
- 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 : 1.295
- % Volatile Weight : 0.0 %

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SECTION 10 - REACTIVITY / STABILITY

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

SECTION 11 - TOXICOLOGICAL INFORMATIONCalcium carbonate, CAS-No.: 471-34-1
Acute oral toxicity (LD-50 oral) 6,450 mg/kg (Rat)**SECTION 12 - ECOLOGICAL INFORMATION**

No Data Available

SECTION 13 - DISPOSAL CONSIDERATIONSDisposal Method : Not regulated under RCRA. Dispose of in compliance with state and local regulations.
Do not incinerate.**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.

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SARA 311/312 Hazards : Acute Health Hazard
Chronic Health Hazard

OSHA Hazardous Components :

Crystalline Silica (Quartz)/ Silica Sand 14808-60-7
Titanium dioxide 13463-67-7

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

OSHA Flammability : Not Regulated

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

VOC Method 310 : 0 %

Chemical is listed as an IARC, NTP, OSHA, or ACGIH Carcinogen:

Crystalline Silica (Quartz)/ Silica Sand 14808-60-7

U.S. State Regulations:

MASS RTK Components : Calcium carbonate 471-34-1
Crystalline Silica (Quartz)/ Silica Sand 14808-60-7
Titanium dioxide 13463-67-7

Penn RTK Components : Bisphenol A Polyglycidyl Ether Resin 25068-38-6
Calcium carbonate 471-34-1
Crystalline Silica (Quartz)/ Silica Sand 14808-60-7
Titanium dioxide 13463-67-7

NJ RTK Components : Bisphenol A Polyglycidyl Ether Resin 25068-38-6
Calcium carbonate 471-34-1
Crystalline Silica (Quartz)/ Silica Sand 14808-60-7
Inert Filler NJ TSRN# 51721300-5376P
Titanium dioxide 13463-67-7

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

14808-60-7 Crystalline Silica (Quartz)/ Silica Sand

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

Health	1
Flammability	1
Reactivity	0
PPE	

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



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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

**DURAL 100 TYPE III - PART B**Version 3.0
REVISION DATE: 07/08/2012

Print Date 12/23/2013

SECTION 1 - PRODUCT IDENTIFICATION

Trade name : DURAL 100 TYPE III - PART B
Product code : TD63323

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**

Black. 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. Inhalation of crystalline silica (quartz) can cause cancer based on animal data, and IARC concludes sufficient evidence in humans (Group 1). Prolonged and repeated overexposure to free crystalline silica dust above the TLV level may cause scarring of the lungs with cough and shortness of breath. A delayed lung injury, silicosis may result from breathing free silica. 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

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Chemical Name	CAS-No.	Weight %
Polyamine	68919-79-9	40.0 - 70.0
Diethylenetriamine	111-40-0	15.0 - 40.0
Crystalline Silica (Quartz)/ Silica Sand	14808-60-7	10.0 - 30.0
Bisphenol A	80-05-7	10.0 - 30.0
Triethylenetetramine	112-24-3	7.0 - 13.0

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,

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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.

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

Chemical Name	CAS Number	Regulation	Limit	Form
Diethylenetriamine	111-40-0	ACGIH TWA:	1 ppm	
Crystalline Silica (Quartz)/ Silica Sand	14808-60-7	OSHA TWA:	0.1 mg/m3	Respirable.
		OSHA TWA:	0.3 mg/m3	Total dust.
		OSHA PEL:	15 mg/m3	Total dust.
		OSHA PEL:	5 mg/m3	Respirable fraction.
		ACGIH TWA:	0.025 mg/m3	Respirable fraction.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

- Form : Liquid solution
- Color : Black
- 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 : Not available.
- Water solubility : Not available.
- Specific Gravity : 1.045

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% Volatile Weight : 0.0 %

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.

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:**

UN2735, Amines, liquid, corrosive, n.o.s. (Triethylenetetramine), 8, PG III

TDG:

UN2735, AMINES, LIQUID, CORROSIVE, N.O.S. (Triethylenetetramine), 8, PG III

IMDG:

UN2735, AMINES, LIQUID, CORROSIVE, N.O.S. (Triethylenetetramine), 8, PG III

Further Information:

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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
Chronic Health Hazard

OSHA Hazardous Components :

Diethylenetriamine 111-40-0
Crystalline Silica (Quartz)/ Silica Sand 14808-60-7
Bisphenol A 80-05-7OSHA Status: Considered : Irritant
hazardous based on the Carcinogen
following criteria:

OSHA Flammability : Not Regulated

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

Chemical is listed as an IARC, NTP, OSHA, or ACGIH Carcinogen:

Crystalline Silica (Quartz)/ Silica Sand 14808-60-7

U.S. State Regulations:MASS RTK Components : Diethylenetriamine 111-40-0
Crystalline Silica (Quartz)/ Silica Sand 14808-60-7
Bisphenol A 80-05-7
Triethylenetetramine 112-24-3Penn RTK Components : Polyamine 68919-79-9
Diethylenetriamine 111-40-0
Crystalline Silica (Quartz)/ Silica Sand 14808-60-7
Bisphenol A 80-05-7
Triethylenetetramine 112-24-3NJ RTK Components : Polyamine 68919-79-9
Diethylenetriamine 111-40-0
Crystalline Silica (Quartz)/ Silica Sand 14808-60-7
Bisphenol A 80-05-7
Triethylenetetramine 112-24-3

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WARNING! Contains chemicals known to the State of California to cause cancer, birth defects and/or other reproductive harm:
14808-60-7 Crystalline Silica (Quartz)/ Silica Sand

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

Health	3
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**

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