

**DURAL AQUA-DAM 100 - 12/11 OZ CTG**

Version 2.0

Print Date 12/21/2013

REVISION DATE: 07/08/2012

**SECTION 1 - PRODUCT IDENTIFICATION**

Trade name : DURAL AQUA-DAM 100 - 12/11 OZ CTG  
Product code : 43F 96

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 to Yellow. 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. Repeated (21 day) oral exposure of 1,2-benzenedicarboxylic acid esters in rats led to liver disease and testicular atrophy at a dose of 2.5 g/kg/day. No testicular effects were seen in rats treated for 7 days. Diphenylmethane diisocyanate (methylene bisphenyl isocyanate) caused an increased incidence of lung tumors in experimental animals following long term inhalation at concentrations in excess of 100 times the exposure limit. 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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Polymethylene polyphenyl isocyanate	9016-87-9	15.0 - 40.0
		15.0 - 40.0
Propanoic acid ester	6846-50-0	15.0 - 40.0
4,4'-Methylene bis(phenylisocyanate)	101-68-8	7.0 - 13.0
Diisodecyl phthalate (mixed Is)	68515-49-1	7.0 - 13.0
Polyurethane Polymer	NJ TSRN# 51721300-5047P	5.0 - 10.0
Diphenylmethane diisocyanate	26447-40-5	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. 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 : > 200 °F, > 93 °C
- Method : 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.

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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. 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**

<u>Chemical Name</u>	<u>CAS Number</u>	<u>Regulation</u>	<u>Limit</u>	<u>Form</u>
4,4'-Methylene bis(phenylisocyanate)	101-68-8	ACGIH TWA:	0.005 ppm	

**SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES**

- Form : Liquid
- Color : Clear to Yellow
- Odor : Musty
- 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 : Insoluble

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Specific Gravity : 1.07  
% Volatile Weight : 9.5 %

**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**

4,4'-Methylene bis(phenylisocyanate), CAS-No.: 101-68-8  
Acute inhalation toxicity (LC-50) 0.369 mg/l for 4 h ( Rat ) 0.38 mg/l for 4 h ( Rat )

**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 : Polymethylene polyphenyl isocyanate 9016-87-9  
 4,4'-Methylene bis(phenylisocyanate) 101-68-8

SARA 311/312 Hazards : Acute Health Hazard

## OSHA Hazardous Components :

Polymethylene polyphenyl isocyanate 9016-87-9  
 4,4'-Methylene bis(phenylisocyanate) 101-68-8  
 Diisodecyl phthalate (mixed Is) 68515-49-1

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

OSHA Flammability : Not Regulated

Regulatory VOC (less water and : 102 g/l  
 exempt solvent)  
 VOC Method 310 : 9 %

**U.S. State Regulations:**

MASS RTK Components : 4,4'-Methylene bis(phenylisocyanate) 101-68-8

Penn RTK Components : Polymethylene polyphenyl isocyanate 9016-87-9

Propanoic acid ester 6846-50-0  
 4,4'-Methylene bis(phenylisocyanate) 101-68-8  
 Diisodecyl phthalate (mixed Is) 68515-49-1  
 Polyurethane Polymer NJ TSRN# 51721300-5047P  
 Diphenylmethane diisocyanate 26447-40-5

NJ RTK Components : Polymethylene polyphenyl isocyanate 9016-87-9

Propanoic acid ester 6846-50-0  
 4,4'-Methylene bis(phenylisocyanate) 101-68-8  
 Diisodecyl phthalate (mixed Is) 68515-49-1  
 Polyurethane Polymer NJ TSRN# 51721300-5047P  
 Diphenylmethane diisocyanate 26447-40-5

Components under California Proposition 65:

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

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**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

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