



# SAFETY DATA SHEET

## 1. Identification

**Material name:** DURAL 50 LM 2:1 PART B

**Material:** TB53333505

### Recommended use and restriction on use

**Recommended use:** Curative

**Restrictions on use:** Not known.

### Manufacturer/Importer/Supplier/Distributor Information

EUCLID CHEMICAL COMPANY

19218 REDWOOD ROAD

CLEVELAND OH 44110

US

### Contact person:

EH&S Department

### Telephone:

216-531-9222

### Emergency telephone number:

1-800-424-9300 (US); 1-613-996-6666 (Canada)

## 2. Hazard(s) identification

### Hazard Classification

#### Health Hazards

Skin Corrosion/Irritation	Category 1A
Serious Eye Damage/Eye Irritation	Category 1
Skin sensitizer	Category 1
Toxic to reproduction	Category 2

#### Unknown toxicity - Health

Acute toxicity, oral	0.3 %
Acute toxicity, dermal	18.4 %
Acute toxicity, inhalation, vapor	99.99 %
Acute toxicity, inhalation, dust or mist	75.53 %

#### Environmental Hazards

Acute hazards to the aquatic environment	Category 2
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#### Unknown toxicity - Environment

Acute hazards to the aquatic environment	47.19 %
Chronic hazards to the aquatic environment	100 %

### Label Elements

**Hazard Symbol:**



<b>Signal Word:</b>	Danger
<b>Hazard Statement:</b>	Causes severe skin burns and eye damage. May cause an allergic skin reaction. Suspected of damaging fertility or the unborn child. Toxic to aquatic life.
<b>Precautionary Statement:</b>	
<b>Prevention:</b>	Do not breathe dust or mists. Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection. Contaminated work clothing must not be allowed out of the workplace. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required.
<b>Response:</b>	IF INHALED: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation or rash occurs: Get medical advice/attention. If swallowed: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER/doctor. Specific treatment (see this label). Wash contaminated clothing before reuse.
<b>Storage:</b>	Store locked up.
<b>Disposal:</b>	Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.
<b>Other hazards which do not result in GHS classification:</b>	None.

### 3. Composition/information on ingredients

#### Mixtures

Chemical Identity	CAS number	Content in percent (%)*
Poly(oxypropylene) diamine	9046-10-0	30 - 60%
Benzyl alcohol	100-51-6	15 - 40%
Diethylenetriamine	111-40-0	7 - 13%
4-Nonylphenol	84852-15-3	7 - 13%
N Amino ethyl piperazine	140-31-8	5 - 10%
Bisphenol A	80-05-7	3 - 7%
1,2-Cyclohexanediamine	694-83-7	3 - 7%

\* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

**4. First-aid measures**

<b>Ingestion:</b>	Rinse mouth. Call a physician or poison control center immediately. Never give liquid to an unconscious person. Do not induce vomiting without advice from poison control center.
<b>Inhalation:</b>	Call a physician or poison control center immediately. If breathing stops, provide artificial respiration. Move to fresh air. If breathing is difficult, give oxygen.
<b>Skin Contact:</b>	Call a physician or poison control center immediately. Destroy or thoroughly clean contaminated shoes. Immediately remove contaminated clothing and shoes and wash skin with soap and plenty of water. If skin irritation or an allergic skin reaction develops, get medical attention.
<b>Eye contact:</b>	Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Call a physician or poison control center immediately.

**Most important symptoms/effects, acute and delayed**

<b>Symptoms:</b>	Prolonged or repeated contact with skin may cause redness, itching, irritation and eczema/chapping. Extreme irritation of eyes and mucous membranes, including burning and tearing.
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**Indication of immediate medical attention and special treatment needed**

<b>Treatment:</b>	Symptoms may be delayed.
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**5. Fire-fighting measures**

<b>General Fire Hazards:</b>	No unusual fire or explosion hazards noted.
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**Suitable (and unsuitable) extinguishing media**

<b>Suitable extinguishing media:</b>	Use fire-extinguishing media appropriate for surrounding materials.
<b>Unsuitable extinguishing media:</b>	Do not use water jet as an extinguisher, as this will spread the fire.

<b>Specific hazards arising from the chemical:</b>	During fire, gases hazardous to health may be formed.
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**Special protective equipment and precautions for firefighters**

<b>Special fire fighting procedures:</b>	No data available.
<b>Special protective equipment for fire-fighters:</b>	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

**6. Accidental release measures**

<b>Personal precautions, protective equipment and emergency procedures:</b>	See Section 8 of the SDS for Personal Protective Equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep unauthorized personnel away.
<b>Methods and material for containment and cleaning up:</b>	Dam and absorb spillages with sand, earth or other non-combustible material. Collect spillage in containers, seal securely and deliver for disposal according to local regulations.
<b>Notification Procedures:</b>	In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations.
<b>Environmental Precautions:</b>	Do not contaminate water sources or sewer. Prevent further leakage or spillage if safe to do so. Avoid release to the environment.

**7. Handling and storage**

<b>Precautions for safe handling:</b>	Wash hands thoroughly after handling. Do not get in eyes. Do not handle until all safety precautions have been read and understood. Obtain special instructions before use. Use personal protective equipment as required. Do not get in eyes, on skin, on clothing. Avoid contact with eyes, skin, and clothing. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.
<b>Conditions for safe storage, including any incompatibilities:</b>	Store locked up.

**8. Exposure controls/personal protection****Control Parameters****Occupational Exposure Limits**

Chemical Identity	type	Exposure Limit Values	Source
Diethylenetriamine	TWA	1 ppm	US. ACGIH Threshold Limit Values (2011)

Chemical name	type	Exposure Limit Values	Source
Diethylenetriamine	TWA	1 ppm	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Diethylenetriamine	TWAEV	1 ppm	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)
Diethylenetriamine	TWA	1 ppm 4.2 mg/m <sup>3</sup>	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008)



**Appropriate Engineering Controls** Observe good industrial hygiene practices. Observe occupational exposure limits and minimize the risk of inhalation of vapors and mist. Mechanical ventilation or local exhaust ventilation may be required.

**Individual protection measures, such as personal protective equipment**

**General information:** Provide easy access to water supply and eye wash facilities. Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

**Eye/face protection:** Wear a full-face respirator, if needed. Wear safety glasses with side shields (or goggles) and a face shield.

**Skin Protection**

**Hand Protection:** Use suitable protective gloves if risk of skin contact.

**Other:** Wear suitable protective clothing. Wear chemical-resistant gloves, footwear, and protective clothing appropriate for the risk of exposure. Contact health and safety professional or manufacturer for specific information.

**Respiratory Protection:** In case of inadequate ventilation use suitable respirator. Seek advice from local supervisor.

**Hygiene measures:** Observe good industrial hygiene practices. Do not get in eyes. Do not handle until all safety precautions have been read and understood. Obtain special instructions before use. Wash contaminated clothing before reuse. Do not get this material in contact with skin. Wash hands before breaks and immediately after handling the product. Contaminated work clothing should not be allowed out of the workplace. Avoid contact with skin.

**9. Physical and chemical properties**

**Appearance**

<b>Physical state:</b>	liquid
<b>Form:</b>	liquid
<b>Color:</b>	Amber
<b>Odor:</b>	Mild pungent
<b>Odor threshold:</b>	No data available.
<b>pH:</b>	No data available.
<b>Melting point/freezing point:</b>	No data available.
<b>Initial boiling point and boiling range:</b>	No data available.
<b>Flash Point:</b>	> 93 °C > 200 °F (Setaflash Closed Cup)
<b>Evaporation rate:</b>	Slower than Ether
<b>Flammability (solid, gas):</b>	No
<b>Upper/lower limit on flammability or explosive limits</b>	
<b>Flammability limit - upper (%):</b>	No data available.
<b>Flammability limit - lower (%):</b>	No data available.



<b>Explosive limit - upper (%):</b>	No data available.
<b>Explosive limit - lower (%):</b>	No data available.
<b>Vapor pressure:</b>	No data available.
<b>Vapor density:</b>	Vapors are heavier than air and may travel along the floor and in the bottom of containers.
<b>Relative density:</b>	1.01
<b>Solubility(ies)</b>	
<b>Solubility in water:</b>	Practically Insoluble
<b>Solubility (other):</b>	No data available.
<b>Partition coefficient (n-octanol/water):</b>	No data available.
<b>Auto-ignition temperature:</b>	No data available.
<b>Decomposition temperature:</b>	No data available.
<b>Viscosity:</b>	No data available.

## 10. Stability and reactivity

<b>Reactivity:</b>	No data available.
<b>Chemical Stability:</b>	Material is stable under normal conditions.
<b>Possibility of Hazardous Reactions:</b>	No data available.
<b>Conditions to Avoid:</b>	Avoid heat or contamination.
<b>Incompatible Materials:</b>	Avoid contact with acids.
<b>Hazardous Decomposition Products:</b>	Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors.

## 11. Toxicological information

### Information on likely routes of exposure

<b>Ingestion:</b>	May be harmful if swallowed.
<b>Inhalation:</b>	In high concentrations, vapors, fumes or mists may irritate nose, throat and mucus membranes.
<b>Skin Contact:</b>	May be harmful in contact with skin. Causes severe skin burns. May cause an allergic skin reaction.
<b>Eye contact:</b>	Causes serious eye damage.

### Information on toxicological effects

#### Acute toxicity (list all possible routes of exposure)

<b>Oral Product:</b>	ATEmix: 2,135.49 mg/kg
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#### Dermal



**Product:** ATEmix: 2,451.07 mg/kg

**Inhalation Product:** No data available.

**Repeated dose toxicity Product:** No data available.

**Skin Corrosion/Irritation Product:** No data available.

**Serious Eye Damage/Eye Irritation Product:** No data available.

**Specified substance(s):**

Poly(oxypropylene) diamine	in vivo (Rabbit, 24 hrs): Corrosive
Benzyl alcohol	in vivo (Rabbit, 1 - 72 hrs): Irritating
Diethylenetriamine	in vivo (Rabbit, 1 - 48 hrs): Corrosive
4-Nonylphenol	in vivo (Rabbit, 24 - 72 hrs): Corrosive
N Amino ethyl piperazine	in vivo (Rabbit, 24 hrs): Highly irritating
Bisphenol A	in vivo (Rabbit, 24 hrs): Not classified as an Irritant

**Respiratory or Skin Sensitization Product:** No data available.

**Carcinogenicity Product:** No data available.

**IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:**  
No carcinogenic components identified

**US. National Toxicology Program (NTP) Report on Carcinogens:**  
No carcinogenic components identified

**US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050):**  
No carcinogenic components identified

**Germ Cell Mutagenicity**

**In vitro**  
**Product:** No data available.

**In vivo**  
**Product:** No data available.

**Reproductive toxicity**

**Product:** Suspected of damaging fertility or the unborn child.

**Specific Target Organ Toxicity - Single Exposure**

**Product:** No data available.

**Specific Target Organ Toxicity - Repeated Exposure**

**Product:** No data available.

**Aspiration Hazard**

**Product:** No data available.

**Other effects:** No data available.

**12. Ecological information****Ecotoxicity:****Acute hazards to the aquatic environment:****Fish**

**Product:** No data available.

**Specified substance(s):**

Benzyl alcohol LC 50 (Fathead minnow (*Pimephales promelas*), 96 h): 460 mg/l Mortality

Diethylenetriamine LC 50 (Guppy (*Poecilia reticulata*), 96 h): 1,014 mg/l Mortality

4-Nonylphenol LC 50 (Fathead minnow (*Pimephales promelas*), 96 h): 0.13825 mg/l Mortality

N Amino ethyl piperazine LC 50 (Fathead minnow (*Pimephales promelas*), 96 h): 1,950 - 2,460 mg/l Mortality

Bisphenol A LC 50 (Fathead minnow (*Pimephales promelas*), 96 h): 4 - 5.5 mg/l Mortality

**Aquatic Invertebrates**

**Product:** No data available.

**Specified substance(s):**

Diethylenetriamine LC 50 (Water flea (*Daphnia magna*), 48 h): 53.5 mg/l Intoxication

4-Nonylphenol LC 50 (Amphipod (*Leptocheirus plumulosus*), 144 h): +/- 0.05 mg/l Mortality





EC 50 (Clam (*Mulinia lateralis*), 24 h): +/- +/- 0.05 mg/l Mortality  
 LC 50 (Marsh grass shrimp (*Palaemonetes vulgaris*), 72 h): > 0.05 - 0.1 mg/l Mortality  
 LC 50 (Amphipod (*Leptocheirus plumulosus*), 72 h): > 0.05 - 0.1 mg/l Mortality  
 LC 50 (American lobster (*Homarus americanus*), 48 h): > 0.1 - 0.15 mg/l Mortality

Bisphenol A LC 50 (Hydra (*Hydra vulgaris*), 24 h): 10.9 - 14 mg/l Mortality

**Chronic hazards to the aquatic environment:**

**Fish**

**Product:** No data available.

**Specified substance(s):**

Diethylenetriamine NOAEL (*Gasterosteus aculeatus*, 28 d): > 10 mg/l experimental result  
 4-Nonylphenol LOAEL (*Lepomis macrochirus*, 28 d): 0.126 mg/l experimental result  
 Bisphenol A NOAEL (*Oncorhynchus mykiss*, 28 d): 3.64 mg/l experimental result

**Aquatic Invertebrates**

**Product:** No data available.

**Toxicity to Aquatic Plants**

**Product:** No data available.

**Persistence and Degradability**

**Biodegradation**

**Product:** No data available.

**BOD/COD Ratio**

**Product:** No data available.

**Bioaccumulative Potential**

**Bioconcentration Factor (BCF)**

**Product:** No data available.

**Specified substance(s):**

4-Nonylphenol Fathead minnow (*Pimephales promelas*), Bioconcentration Factor (BCF): 498 (Flow through)  
 Bisphenol A Rainbow trout, donaldson trout (*Oncorhynchus mykiss*), Bioconcentration Factor (BCF): 10.8 (Flow through)

**Partition Coefficient n-octanol / water (log Kow)**

**Product:** No data available.

**Specified substance(s):**



Benzyl alcohol                      Log Kow: 1.10

Bisphenol A                         Log Kow: 3.32

**Mobility in Soil:**                      No data available.

**Other Adverse Effects:**                Toxic to aquatic organisms.

**13. Disposal considerations**

**Disposal instructions:**                Dispose of waste at an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

**Contaminated Packaging:**                No data available.

**14. Transport information**

**TDG:**

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

**CFR / DOT:**

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

**IMDG:**

UN1760, CORROSIVE LIQUID, N.O.S. (Alkaline Amine), 8, 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.

**15. Regulatory information**

**US Federal Regulations**

**TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**

<u>Chemical Identity</u>	<u>Reportable quantity</u>
**	De minimis concentration: 1.0% One-Time Export Notification only.
4-Nonylphenol	De minimis concentration: 1.0% One-Time Export Notification only.

**US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)**

None present or none present in regulated quantities.

**CERCLA Hazardous Substance List (40 CFR 302.4):**

<u>Chemical Identity</u>	<u>Reportable quantity</u>
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**Superfund Amendments and Reauthorization Act of 1986 (SARA)****Hazard categories**

Immediate (Acute) Health Hazards  
Delayed (Chronic) Health Hazard

**SARA 302 Extremely Hazardous Substance**

None present or none present in regulated quantities.

**SARA 304 Emergency Release Notification**

<u>Chemical Identity</u>	<u>Reportable quantity</u>
Bisphenol A	

**SARA 311/312 Hazardous Chemical**

<u>Chemical Identity</u>	<u>Threshold Planning Quantity</u>
Poly(oxypropylene) diamine	500 lbs
Benzyl alcohol	500 lbs
Diethylenetriamine	500 lbs
4-Nonylphenol	500 lbs
N Amino ethyl piperazine	500 lbs
Bisphenol A	500 lbs
1,2-Cyclohexanediamine	500 lbs

**SARA 313 (TRI Reporting)**

<u>Chemical Identity</u>
Bisphenol A

**Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3)**

None present or none present in regulated quantities.

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130):**

None present or none present in regulated quantities.

**US State Regulations****US. California Proposition 65**

No ingredient regulated by CA Prop 65 present.

**US. New Jersey Worker and Community Right-to-Know Act**

<u>Chemical Identity</u>
Diethylenetriamine
N Amino ethyl piperazine
Bisphenol A

**US. Massachusetts RTK - Substance List**

<u>Chemical Identity</u>
Benzyl alcohol
Diethylenetriamine
4-Nonylphenol
N Amino ethyl piperazine
Bisphenol A

**US. Pennsylvania RTK - Hazardous Substances****Chemical Identity**

Benzyl alcohol  
Diethylenetriamine  
4-Nonylphenol  
N Amino ethyl piperazine  
Bisphenol A

**US. Rhode Island RTK****Chemical Identity**

Bisphenol A

**Other Regulations:**

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

**Inventory Status:**

Australia AICS:	One or more components in this product are not listed on or exempt from the Inventory.
Canada DSL Inventory List:	One or more components in this product are not listed on or exempt from the Inventory.
EINECS, ELINCS or NLP:	One or more components in this product are not listed on or exempt from the Inventory.
Japan (ENCS) List:	One or more components in this product are not listed on or exempt from the Inventory.
China Inv. Existing Chemical Substances:	One or more components in this product are not listed on or exempt from the Inventory.
Korea Existing Chemicals Inv. (KECI):	One or more components in this product are not listed on or exempt from the Inventory.
Canada NDSL Inventory:	One or more components in this product are not listed on or exempt from the Inventory.
Philippines PICCS:	One or more components in this product are not listed on or exempt from the Inventory.
US TSCA Inventory:	One or more components in this product are not listed on or exempt from the Inventory.
New Zealand Inventory of Chemicals:	One or more components in this product are not listed on or exempt from the Inventory.



Japan ISHL Listing: One or more components in this product are not listed on or exempt from the Inventory.

Japan Pharmacopoeia Listing: One or more components in this product are not listed on or exempt from the Inventory.

**16. Other information, including date of preparation or last revision**

**Revision Date:** 07/29/2015

**Version #:** 1.0

**Further Information:** No data available.

**Disclaimer:** 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.

