

DARACLEAN 282

Section 1: IDENTIFICATION

1.1 PRODUCT IDENTIFIER

Product Name: Daraclean 282

Product Code: Not available.

1.2 RECOMMENDED USE OF CHEMICAL AND RESTRICTIONS ON USE

Use: Non-Destructive Testing.

1.3 DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET

Name/Address: Magnaflux
155 Harlem Avenue,
Glenview, Illinois
60025

Telephone Number: 847-657-5300

1.4 EMERGENCY TELEPHONE NUMBER

Emergency Telephone Number: CHEMTREC 800-424-9300

Date of Preparation: December 2, 2014 **Version #:**1.2

Section 2: HAZARD(S) IDENTIFICATION

2.1 CLASSIFICATION OF THE CHEMICAL ACCORDING TO OSHA HAZCOM 2012

Hazard class

Skin corrosion 1C

Serious eye damage 1

Skin Sensitization 1

2.2 LABEL ELEMENTS ACCORDING TO OSHA HAZCOM 2012

Hazard Pictogram:



Signal Word:	Danger
Hazard Statement:	Causes severe skin burns and eye damage. May cause an allergic skin reaction.
Prevention:	Do not breathe dust/fume/gas/mist/vapours/spray. Wash hands thoroughly after handling. Wear protective gloves/protective clothing/ eye protection/face protection. Contaminated work clothing must not be allowed out of the workplace.
Response:	<p>If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. Immediately call a poison center/doctor. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center/doctor. If swallowed: Rinse mouth. Do NOT induce vomiting.</p> <p>Immediately call a poison center/doctor. If inhaled: Remove person to fresh air and keep comfortable for breathing. Immediately call a poison center/doctor.</p>
Storage:	Store locked up.
Disposal:	Dispose of contents and container in accordance with all local, regional, national and international regulations.

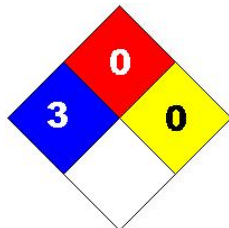
2.3 ADDITIONAL INFORMATION

Hazards not otherwise classified: Not applicable.

5 % of the mixture consists of ingredient(s) of unknown acute toxicity.

This product is a hazardous chemical as defined by NOM-018-STPS-2000.

Mexico Classification:



Blue = Health Red = Flammability Yellow = Reactivity White = Special

Hazard Rating: 0 = minimal, 1 = slight, 2 = moderate, 3 = severe, 4 = extreme

WHMIS Classification(s):

Class E - Corrosive Material

WHMIS Hazard Symbols:



WHMIS Signal Word: DANGER

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 MIXTURES

Ingredient	UN #	H / F/ R / *	CAS No	Wt. %
Nonylphenol ethoxylate	Not available.	Not available.	9016-45-9	1 - 5
Diethylene glycol monobutyl ether	Not available.	Not available.	112-34-5	1 - 5
Alcohols, C8-10, ethoxylated propoxylated	Not available.	Not available.	68603-25-8	1 - 5
Carboxylic acid amine salt	Not available.	Not available.	RR-10545-3	0.5 - 1.5
Potassium hydroxide	UN1814	3/0/1	1310-58-3	0.5 - 1.5
1H-Benzotriazole, 4(or 5)-methyl-, sodium salt	Not available.	Not available.	64665-57-2	0.1 - 1
Citrus extracts (citrus terpenes)	Not available.	Not available.	94266-47-4	0.1 - 1
Monoethanolamine	UN2491	3/2/0	141-43-5	0.1 - 1
Morpholine	UN2054	3/3/0	110-91-8	0.1 - 1
Benzothiazole-2-thiol	Not available.	Not available.	149-30-4	0.1 - 1
1,4-Dioxane	UN1165	2/3/1	123-91-1	< 0.1
Ethylene oxide	UN1040	3/4/3	75-21-8	< 0.1
Propylene oxide	UN1280	3/4/2	75-56-9	< 0.1

The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200.

* Per NOM-018-STPS-2000

Section 4: FIRST- AID MEASURES

4.1 DESCRIPTION OF THE FIRST AID MEASURE

- Eye:** In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. If easy to do, remove contact lenses, if worn. Get medical attention immediately.
- Skin:** In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Wash clothing before reuse. Get medical attention immediately.
- Inhalation:** If inhaled, remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention immediately.
- Ingestion:** Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention immediately.

4.2 MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED

- Eye:** Causes serious eye damage. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva. May cause burns.
- Skin:** Causes severe skin burns. Symptoms may include irritation, redness, pain, blisters, serious skin burns. May cause sensitization by skin contact.
- Inhalation:** Irritating to respiratory system.
- Ingestion:** May be harmful if swallowed. May cause stomach distress, nausea or vomiting. May cause burns.

4.3 INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENTS NEEDED

- Note to Physicians:** Symptoms may not appear immediately.
- Specific Treatments:** In case of accident or if you feel unwell, seek medical advice immediately (show the label or SDS where possible).

Section 5: FIRE-FIGHTING MEASURES

5.1 FLAMMABILITY

Flammability: Not flammable by WHMIS/OSHA/NOM-018-STPS-2000 criteria.

5.2 EXTINGUISHING MEDIA

Suitable Extinguishing Media: Powder, water spray, foam, carbon dioxide.

Unsuitable Extinguishing Media: Do not use a solid water stream as it may scatter and spread fire.

5.3 SPECIAL HAZARDS ARISING FROM THE CHEMICAL

Products of Combustion: May include, and are not limited to: oxides of carbon, oxides of nitrogen.

Explosion Data:

Sensitivity to Mechanical Impact: Not available.

Sensitivity to Static Discharge: Not available.

5.4 SPECIAL PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIRE FIGHTERS

Keep upwind of fire. Wear full fire fighting turn-out gear (full Bunker gear) and respiratory protection (SCBA). Use water spray to keep fire-exposed containers cool. Floor will become slippery if material is released.

Section 6: ACCIDENTAL RELEASE MEASURES**6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES**

Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Avoid contact with skin and eyes.

6.2 METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING - UP

Methods for Containment: Contain and/or absorb spill with inert material (e.g. sand, vermiculite), then place in a suitable container. Do not flush to sewer or allow to enter waterways. Use appropriate Personal Protective Equipment (PPE).

Methods for Cleaning-Up: Scoop up material and place in a disposal container. Spilled material may present a slipping hazard. Provide ventilation.

Section 7: HANDLING AND STORAGE**7.1 PRECAUTIONS FOR SAFE HANDLING**

Handling: Do not get in eyes, on skin, or on clothing. Do not swallow. Do not

breathe dust/fume/gas/mist/vapours/spray. Use only in well-ventilated areas. Handle and open container with care. Do not eat, drink or smoke when using this product. (See section 8)

General Hygiene Advice: Launder contaminated clothing before reuse. Wash hands before eating, drinking, or smoking.

7.2 CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES

Storage: Keep out of the reach of children. Keep container tightly closed and in a well-ventilated place. Store locked up. Store between 4 °C (40 °F) and 38 °C (100 °F). (See section 10)

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 CONTROL PARAMETERS

Exposure Guidelines

Occupational Exposure Limits		
Ingredient	OSHA-PEL	ACGIH-TLV
Nonylphenol ethoxylate	Not available.	Not available.
Diethylene glycol monobutyl ether	Not available.	10 ppm (inhalable fraction and vapour)
Alcohols, C8-10, ethoxylated propoxylated	Not available.	Not available.
Carboxylic acid amine salt	Not available.	Not available.
Potassium hydroxide	2 mg/m ³	2 mg/m ³
1H-Benzotriazole, 4(or 5)-methyl-, sodium salt	Not available.	Not available.
Citrus extracts (citrus terpenes)	Not available.	Not available.
Monoethanolamine	3 ppm	3 ppm
Morpholine	20 ppm; 70 mg/m ³	20 ppm
Benzothiazole-2-thiol	Not available.	Not available.
1,4-Dioxane	100 ppm	20 ppm
Ethylene oxide	1 ppm	1 ppm
Propylene oxide	100 ppm; 240 mg/m ³	2 ppm

8.2 EXPOSURE CONTROLS

Engineering Controls: Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, etc.) below recommended exposure limits.

8.3 INDIVIDUAL PROTECTIVE MEASURES

Personal Protective Equipment:

Eye/Face Protection: Wear approved eye protection (properly fitted dust- or splash-proof chemical safety goggles) and face protection (face shield).

Skin Protection:

Hand Protection: Wear chemical resistant gloves.

Body Protection: Wear suitable protective clothing.

Respiratory Protection: In case of insufficient ventilation, wear suitable respiratory equipment. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

General Health and Safety Measures: Do not eat, smoke or drink where material is handled, processed or stored. Wash hands carefully before eating or smoking.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES**9.1 INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES**

Appearance:	Thin liquid.
Color:	Yellow.
Odor:	Not available.
Odor Threshold:	Not available.
Physical State:	Liquid.
pH:	12.5
Melting Point/Freezing Point:	Not available.
Initial Boiling Point and Boiling Range:	~ 100 °C (~ 212 °F)
Flash Point:	None.
Evaporation Rate:	1.0 (Water = 1)
Flammability:	Not flammable.
Lower Flammability/Explosive Limit:	Not available.
Upper Flammability/Explosive Limit:	Not available.

Vapor Pressure:	19 mmHg @ 20 °C (68 °F)
Vapor Density:	Not available.
Relative Density/Specific Gravity:	~ 1.0
Solubility:	Complete.
Partition coefficient: n-octanol/water:	Not available.
Auto-ignition Temperature:	Not available.
Decomposition Temperature:	Not available.
Viscosity:	Not available.
Oxidizing Properties:	Not available.
Explosive Properties:	Not available.

Section 10: STABILITY AND REACTIVITY

10.1 REACTIVITY

No dangerous reaction known under conditions of normal use.

10.2 CHEMICAL STABILITY

Stable under normal storage conditions.

10.3 POSSIBILITY OF HAZARDOUS REACTIONS

No dangerous reaction known under conditions of normal use.

10.4 CONDITIONS TO AVOID

Heat. Incompatible materials.

10.5 INCOMPATIBLE MATERIALS

Nitrites. Acids. Bases. Strong oxidizing agents. Strong reducing agents.

10.6 HAZARDOUS DECOMPOSITION PRODUCTS

May include, and are not limited to: oxides of carbon, oxides of nitrogen.

Section 11: TOXICOLOGICAL INFORMATION

11.1 INFORMATION ON TOXICOLOGICAL EFFECTS

Likely Routes of Exposure: Skin contact, skin absorption, eye contact, inhalation, and

ingestion.

Symptoms related to physical/chemical/toxicological characteristics:

Eye: Causes serious eye damage. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva. May cause burns.

Skin: Causes severe skin burns. Symptoms may include irritation, redness, pain, blisters, serious skin burns. May cause sensitization by skin contact.

Ingestion: May be harmful if swallowed. May cause stomach distress, nausea or vomiting. May cause burns.

Inhalation: Irritating to respiratory system.

Acute Toxicity:

Ingredient	IDLH	LC50	LD50
Nonylphenol ethoxylate	Not available.	Not available.	Oral 1310 mg/kg, rat Dermal 2 mL/kg, rabbit
Diethylene glycol monobutyl ether	Not available.	Not available.	Oral 3384 mg/kg, rat Dermal 2700 mg/kg, rabbit
Alcohols, C8-10, ethoxylated propoxylated	Not available.	Not available.	Not available.
Carboxylic acid amine salt	Not available.	Not available.	Not available.
Potassium hydroxide	Not available.	Not available.	Oral 214 mg/kg, rat
1H-Benzotriazole, 4(or 5)-methyl-, sodium salt	Not available.	Not available.	Oral 735 mg/kg, rat Dermal > 2000 mg/kg, rabbit
Citrus extracts (citrus terpenes)	Not available.	Not available.	Not available.
Monoethanolamine	30 ppm	Not available.	Oral 1720 mg/kg, rat
Morpholine	1400 ppm [10%LEL]	Inhalation 8000 ppm 8h, rat	Oral 1050 mg/kg, rat Dermal 310 mg/kg, rabbit Dermal 500 uL/kg, rabbit
Benzothiazole-2-thiol	Not available.	Not available.	Dermal >7940 mg/kg, rabbit
1,4-Dioxane	Ca [500 ppm]	Inhalation	Oral 4200 mg/kg, rat

		48.5 mg/L 4h, rat	Dermal 7600 mg/kg, rabbit
Ethylene oxide	Ca [800 ppm]	Inhalation 800 ppm 4h, rat	Oral 72 mg/kg, rat
Propylene oxide	Ca [400 ppm]	Inhalation 4000 ppm 4h, rat; 1740 ppm 4h, mouse	Oral 380 mg/kg, rat; Dermal 1244 mg/kg, rabbit

Calculated overall Chemical Acute Toxicity Values		
LC50 (inhalation)	LD50 (oral)	LD50 (dermal)
> 20 mg/L 4h, rat	> 2000 mg/kg, rat	> 2000 mg/kg, rabbit

Ingredient	Chemical Listed as Carcinogen or Potential Carcinogen (NTP, IARC, OSHA, ACGIH, CP65)*
Nonylphenol ethoxylate	Not listed.
Diethylene glycol monobutyl ether	Not listed.
Alcohols, C8-10, ethoxylated propoxylated	Not listed.
Carboxylic acid amine salt	Not listed.
Potassium hydroxide	Not listed.
1H-Benzotriazole, 4(or 5)-methyl-, sodium salt	Not listed.
Citrus extracts (citrus terpenes)	Not listed.
Monoethanolamine	Not listed.
Morpholine	G-A4, I-3
Benzothiazole-2-thiol	Not listed.
1,4-Dioxane	G-A3, I-2B, N-2, CP65
Ethylene oxide	O, G-A2, I-1, N-1, CP65
Propylene oxide	G-A3, I-2B, N-2, CP65

* See Section 15 for more information.

11.2 DELAYED, IMMEDIATE, AND CHRONIC EFFECTS OF SHORT- AND LONG-TERM EXPOSURE

- Skin Corrosion/Irritation:** Causes severe skin burns.
- Serious Eye Damage/Irritation:** Causes serious eye damage.
- Respiratory Sensitization:** Based on available data, the classification criteria are not met.
- Skin Sensitization:** May cause an allergic skin reaction.
- STOT-Single Exposure:** Based on available data, the classification criteria are not met.
- Chronic Health Effects:**

Carcinogenicity: Based on available data, the classification criteria are not met.

Germ Cell Mutagenicity: Based on available data, the classification criteria are not met.

Reproductive Toxicity:

Developmental: Based on available data, the classification criteria are not met.

Teratogenicity: Based on available data, the classification criteria are not met.

Embryotoxicity: Based on available data, the classification criteria are not met.

Fertility: Based on available data, the classification criteria are not met.

STOT-Repeated Exposure: Based on available data, the classification criteria are not met.

Aspiration Hazard: Based on available data, the classification criteria are not met.

Toxicologically Synergistic Materials: Not available.

Other Information: Not available.

Section 12: ECOLOGICAL INFORMATION

12.1 ECOTOXICITY

Acute/Chronic Toxicity: May cause long-term adverse effects in the aquatic environment.

12.2 PERSISTENCE AND DEGRADABILITY

Biodegradable.

12.3 BIOACCUMULATIVE POTENTIAL

Bioaccumulation: Not available.

12.4 MOBILITY IN SOIL

Not available.

12.5 OTHER ADVERSE EFFECTS

Not available.

Section 13: DISPOSAL CONSIDERATIONS

13.1 WASTE TREATMENT METHODS

Disposal Method: This material must be disposed of in accordance with all

local, state, provincial, and federal regulations.

Other disposal recommendations: Not available.

Section 14: TRANSPORT INFORMATION

DOT	UN1760, Corrosive liquids, n.o.s.(Potassium hydroxide; Monoethanolamine), 8, III
IATA	Prohibited
IMDG	UN1760, Corrosive liquids, n.o.s.(Potassium hydroxide; Monoethanolamine), 8, III

Section 15: REGULATORY INFORMATION

15.1 SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS/ LEGISLATIONS SPECIFIC FOR THE CHEMICAL

Canada: This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations.

US: SDS prepared pursuant to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012

Mexico: SDS prepared pursuant to NOM-018-STPS-2000.

SARA Title III				
Ingredient	Section 302 (EHS) TPQ (lbs.)	Section 304 EHS RQ (lbs.)	CERCLA RQ (lbs.)	Section 313
Nonylphenol ethoxylate	Not listed.	Not listed.	Not listed.	Not listed.
Diethylene glycol monobutyl ether	Not listed.	Not listed.	Not listed.	Not listed.
Alcohols, C8-10, ethoxylated propoxylated	Not listed.	Not listed.	Not listed.	Not listed.
Carboxylic acid amine salt	Not listed.	Not listed.	Not listed.	Not listed.
Potassium hydroxide	Not listed.	Not listed.	1,000	Not listed.
1H-Benzotriazole, 4(or 5)-methyl-, sodium salt	Not listed.	Not listed.	Not listed.	Not listed.
Citrus extracts (citrus terpenes)	Not listed.	Not listed.	Not listed.	Not listed.
Monoethanolamine	Not listed.	Not listed.	Not listed.	Not listed.
Morpholine	Not listed.	Not listed.	Not listed.	Not listed.
Benzothiazole-2-thiol	Not listed.	Not listed.	Not listed.	313
1,4-Dioxane	Not listed.	Not listed.	100	313
Ethylene oxide	1,000	10	10	313
Propylene oxide	10,000	100	100	313

State Regulations
California Proposition 65:

This product contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

Global Inventories:

Ingredient	Canada DSL/NDL	USA TSCA
Nonylphenol ethoxylate	DSL	Yes.
Diethylene glycol monobutyl ether	DSL	Yes.
Alcohols, C8-10, ethoxylated propoxylated	DSL	Yes.
Carboxylic acid amine salt	DSL	Yes.
Potassium hydroxide	DSL	Yes.
1H-Benzotriazole, 4(or 5)-methyl-, sodium salt	DSL	Yes.
Citrus extracts (citrus terpenes)	DSL	Yes.
Monoethanolamine	DSL	Yes.
Morpholine	DSL	Yes.
Benzothiazole-2-thiol	DSL	Yes.
1,4-Dioxane	DSL	Yes.
Ethylene oxide	DSL	Yes.
Propylene oxide	DSL	Yes.

NFPA-National Fire Protection Association:

Health:	3
Fire:	0
Reactivity:	0

HMIS-Hazardous Materials Identification System:

Health:	3*
Fire:	0
Physical Hazard:	0

Hazard Rating: 0 = minimal, 1 = slight, 2 = moderate, 3 = severe, 4 = extreme

SOURCE AGENCY CARCINOGEN CLASSIFICATIONS:

CP65 California Proposition 65

OSHA (O) Occupational Safety and Health Administration.

ACGIH (G) American Conference of Governmental Industrial Hygienists.

A1 - Confirmed human carcinogen.

- A2 - Suspected human carcinogen.
- A3 - Animal carcinogen.
- A4 - Not classifiable as a human carcinogen.
- A5 - Not suspected as a human carcinogen.

IARC (I) International Agency for Research on Cancer.

- 1 - The agent (mixture) is carcinogenic to humans.
- 2A - The agent (mixture) is probably carcinogenic to humans; there is limited evidence of carcinogenicity in humans and sufficient evidence of carcinogenicity in experimental animals.
- 2B - The agent (mixture) is possibly carcinogenic to humans; there is limited evidence of carcinogenicity in humans in the absence of sufficient evidence of carcinogenicity in experimental animals.
- 3 - The agent (mixture, exposure circumstance) is not classifiable as to its carcinogenicity to humans.
- 4 - The agent (mixture, exposure circumstance) is probably not carcinogenic to humans.

NTP (N) National Toxicology Program.

- 1 - Known to be carcinogens.
- 2 - Reasonably anticipated to be carcinogens.

Section 16: OTHER INFORMATION

Date of Preparation: December 2, 2014

Expiry Date: December 2, 2017

Version: 1.2

Revision Date: June 9, 2015

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End of Safety Data Sheet