

## DARACLEAN 236

### Section 1: IDENTIFICATION

#### 1.1 PRODUCT IDENTIFIER

**Product Name:** Daraclean 236

**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:** February 5, 2015      **Version #:** 1.0

### Section 2: HAZARD(S) IDENTIFICATION

#### 2.1 CLASSIFICATION OF THE CHEMICAL ACCORDING TO OSHA HAZCOM 2012

##### Hazard class

Skin Corrosion 1B

Eye Damage 1

#### 2.2 LABEL ELEMENTS ACCORDING TO OSHA HAZCOM 2012

**Hazard Pictogram:**



|                          |   |
|--------------------------|---|
| <b>Signal Word:</b>      | Danger  |
| <b>Hazard Statement:</b> | Causes severe skin burns and eye damage.  |
| <b>Prevention:</b>       | Do not breathe dusts or mists. Wash hands thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection.   |
| <b>Response:</b>         | If swallowed: Rinse mouth. Do NOT induce vomiting. Immediately call a poison center/doctor. 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 inhaled: Remove person to fresh air and keep comfortable for breathing. 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. |
| <b>Storage:</b>          | Store locked up.  |
| <b>Disposal:</b>         | Dispose of contents/container in accordance with local/regional/national/international regulations.   |

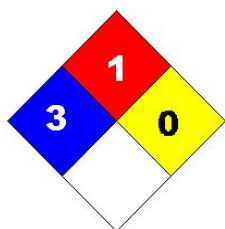
### 2.3 ADDITIONAL INFORMATION

**Hazards not otherwise classified:** Not applicable.

9 % 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. %   |
|---|----------------|----------------|-----------|---------|
| Nonanoic acid                           | Not available. | Not available. | 112-05-0  | 1 - 5   |
| Triethanolamine                         | Not available. | Not available. | 102-71-6  | 1 - 5   |
| Tetrasodium ethylenediaminetetraacetate | Not available. | Not available. | 64-02-8   | 1 - 5   |
| Sodium hydroxide                        | UN1824         | 3/0/1          | 1310-73-2 | 0.1 - 1 |
| Diethanolamine                          | Not available. | Not available. | 111-42-2  | < 0.1   |
| Ethylene oxide                          | UN1040         | 3/4/3          | 75-21-8   | < 0.1   |
| 1,4-Dioxane                             | UN1165         | 2/3/1          | 123-91-1  | < 0.1   |

The 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.

**Inhalation:** May cause respiratory tract irritation.

**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:** Carbon dioxide, dry chemical, foam.

**Unsuitable Extinguishing Media:** Water.

#### 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).

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### Section 6: ACCIDENTAL RELEASE MEASURES

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#### 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.

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### Section 7: HANDLING AND STORAGE

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#### 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 at temperatures between 4 - 38° C (40 - 100° F). Store locked up. (See section 10)

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### Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

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#### 8.1 CONTROL PARAMETERS

##### Exposure Guidelines

| Occupational Exposure Limits            |                     |                              |
|---|---------------------|------------------------------|
| Ingredient                              | OSHA-PEL            | ACGIH-TLV                    |
| Nonanoic acid                           | Not available.      | Not available.               |
| Triethanolamine                         | Not available.      | 5 mg/m <sup>3</sup>          |
| Tetrasodium ethylenediaminetetraacetate | Not available.      | Not available.               |
| Sodium hydroxide                        | 2 mg/m <sup>3</sup> | 2 mg/m <sup>3</sup>          |
| Diethanolamine                          | Not available.      | 1 mg/m <sup>3</sup> (vapour) |
| Ethylene oxide                          | Not available.      | 1 ppm                        |
| 1,4-Dioxane                             | Not available.      | 20 ppm                       |

## 8.2 EXPOSURE CONTROLS

**Engineering Controls:** Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapour, 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 chemically resistant protective 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:** Slightly hazy.

**Color:** Colorless to pale yellow.

**Odor:** Not available.

|   |                        |
|---|------------------------|
| <b>Odor Threshold:</b>                          | Not available.         |
| <b>Physical State:</b>                          | Liquid.                |
| <b>pH:</b>                                      | 7.5                    |
| <b>Melting Point/Freezing Point:</b>            | Not available.         |
| <b>Initial Boiling Point and Boiling Range:</b> | Not available.         |
| <b>Flash Point:</b>                             | None.                  |
| <b>Evaporation Rate:</b>                        | 1.0 (water = 1.0)      |
| <b>Flammability:</b>                            | Not flammable.         |
| <b>Lower Flammability/Explosive Limit:</b>      | Not available.         |
| <b>Upper Flammability/Explosive Limit:</b>      | Not available.         |
| <b>Vapor Pressure:</b>                          | 19 mmHg @ 20°C (68° F) |
| <b>Vapor Density:</b>                           | Not available.         |
| <b>Relative Density/Specific Gravity:</b>       | ~ 1.0                  |
| <b>Solubility:</b>                              | Soluble in water.      |
| <b>Partition coefficient: n-octanol/water:</b>  | Not available.         |
| <b>Auto-ignition Temperature:</b>               | Not available.         |
| <b>Decomposition Temperature:</b>               | Not available.         |
| <b>Viscosity:</b>                               | Not available.         |
| <b>Oxidizing Properties:</b>                    | Not available.         |
| <b>Explosive Properties:</b>                    | 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.

**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.

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

**Inhalation:** May cause respiratory tract irritation.

**Acute Toxicity:**

| Ingredient                              | IDLH                 | LC50                          | LD50  |
|---|----------------------|-------------------------------|---|
| Nonanoic acid                           | Not available.       | Not available.                | Not available.                                    |
| Triethanolamine                         | Not available.       | Not available.                | Oral 4190 mg/kg, rat<br>Dermal >20 mL/kg, rabbit  |
| Tetrasodium ethylenediaminetetraacetate | Not available.       | Not available.                | Oral 1658 mg/kg, rat                              |
| Sodium hydroxide                        | 10 mg/m <sup>3</sup> | Not available.                | Dermal 1350 mg/kg                                 |
| Diethanolamine                          | Not available.       | Inhalation 800 ppm 4 h, rat   | Oral 72 mg/kg, rat                                |
| Ethylene oxide                          | Ca [800 ppm]         | Inhalation 48.5 mg/l/4 h, rat | Oral 4200 mg/kg, rat<br>Dermal 7600 mg/kg, rabbit |



|             |              |                |  |
|-------------|--------------|----------------|--|
| 1,4-Dioxane | Ca [500 ppm] | Not available. | Oral 620 µL/kg, rat<br>Dermal 7640 µL/kg, rabbit |
|-------------|--------------|----------------|--|

| Calculated overall Chemical Acute Toxicity Values |                   |                      |
|---|-------------------|----------------------|
| LC50 (inhalation)                                 | LD50 (oral)       | LD50 (dermal)        |
| Not available.                                    | > 2000 mg/kg, rat | > 2000 mg/kg, rabbit |

| Ingredient                              | Chemical Listed as Carcinogen or Potential Carcinogen (NTP, IARC, OSHA, ACGIH, CP65)* |
|---|---|
| Nonanoic acid                           | Not listed.   |
| Triethanolamine                         | I-3   |
| Tetrasodium ethylenediaminetetraacetate | Not listed.   |
| Sodium hydroxide                        | Not listed.   |
| Diethanolamine                          | G-A3, I-2B, CP65  |
| Ethylene oxide                          | O, G-A2, I-1, N-1, CP65   |
| 1,4-Dioxane                             | 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

|                                       |   |
|---------------------------------------|---|
| <b>Skin Corrosion/Irritation:</b>     | Causes severe skin burns.   |
| <b>Serious Eye Damage/Irritation:</b> | Causes serious eye damage.  |
| <b>Respiratory Sensitization:</b>     | Based on available data, the classification criteria are not met. |
| <b>Skin Sensitization:</b>            | Based on available data, the classification criteria are not met. |
| <b>STOT-Single Exposure:</b>          | Based on available data, the classification criteria are not met. |
| <b>Chronic Health Effects:</b>        |   |
| <b>Carcinogenicity:</b>               | Based on available data, the classification criteria are not met. |
| <b>Germ Cell Mutagenicity:</b>        | Based on available data, the classification criteria are not met. |
| <b>Reproductive Toxicity:</b>         |   |
| <b>Developmental:</b>                 | Based on available data, the classification criteria are not met. |
| <b>Teratogenicity:</b>                | Based on available data, the classification criteria are not met. |
| <b>Embryotoxicity:</b>                | Based on available data, the classification criteria are not met. |
| <b>Fertility:</b>                     | 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.

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**Section 12: ECOLOGICAL INFORMATION**

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**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.

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**Section 13: DISPOSAL CONSIDERATIONS**

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**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.

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**Section 14: TRANSPORT INFORMATION**

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**14.1 UN NUMBER**

| DOT    | TDG    | NOM-004-SCT2-1994 |
|--------|--------|-------------------|
| UN1760 | UN1760 | UN1760            |

**14.2 UN PROPER SHIPPING NAME**

**DOT**  
Corrosive liquids, n.o.s.  
(Nonanoic acid, Sodium hydroxide)

**TDG**  
Corrosive liquids, n.o.s.  
(Nonanoic acid, Sodium hydroxide)

**NOM-004-SCT2-1994**  
Corrosive liquids, n.o.s.  
(Nonanoic acid, Sodium hydroxide)

#### 14.3 TRANSPORT HAZARD CLASS (ES)

**DOT**  
8

**TDG**  
8

**NOM-004-SCT2-1994**  
8

#### 14.4 PACKING GROUP

**DOT**  
II

**TDG**  
II

**NOM-004-SCT2-1994**  
II

#### 14.5 ENVIRONMENTAL HAZARDS

Not available.

#### 14.6 TRANSPORT IN BULK ACCORDING TO ANNEX II OF MARPOL 73/78 AND THE IBC CODE

Not available.

#### 14.7 SPECIAL PRECAUTIONS FOR USER

Do not handle until all safety precautions have been read and understood.

### 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)<br>TPQ (lbs.) | Section 304 EHS<br>RQ (lbs.) | CERCLA RQ<br>(lbs.) | Section 313 |
| Nonanoic acid   | Not listed.                     | Not listed.                  | Not listed.         | Not listed. |
| Triethanolamine | Not listed.                     | Not listed.                  | Not listed.         | Not listed. |

|   |             |             |             |             |
|---|-------------|-------------|-------------|-------------|
| Tetrasodium ethylenediaminetetraacetate | Not listed. | Not listed. | Not listed. | Not listed. |
| Sodium hydroxide                        | Not listed. | Not listed. | 1000        | Not listed. |
| Diethanolamine                          | Not listed. | Not listed. | 100         | 313         |
| Ethylene oxide                          | 1000        | 10          | 10          | 313         |
| 1,4-Dioxane                             | Not listed. | Not listed. | 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<br>DSL/NDSL | USA<br>TSCA |
|---|--------------------|-------------|
| Nonanoic acid                           | DSL                | Yes.        |
| Triethanolamine                         | DSL                | Yes.        |
| Tetrasodium ethylenediaminetetraacetate | DSL                | Yes.        |
| Sodium hydroxide                        | DSL                | Yes.        |
| Diethanolamine                          | DSL                | Yes.        |
| Ethylene oxide                          | DSL                | Yes.        |
| 1,4-Dioxane                             | DSL                | Yes.        |

**NFPA-National Fire Protection Association:**

|                    |   |
|--------------------|---|
| <b>Health:</b>     | 3 |
| <b>Fire:</b>       | 1 |
| <b>Reactivity:</b> | 0 |

**HMIS-Hazardous Materials Identification System:**

|                         |   |
|-------------------------|---|
| <b>Health:</b>          | 3 |
| <b>Fire:</b>            | 1 |
| <b>Physical Hazard:</b> | 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:** February 5, 2015

**Expiry Date:** February 5, 2018

**Version:** 1.0

**Revision Date:** February 5, 2015

**Disclaimer:** We believe the statements, technical information and recommendations contained herein are reliable, but they are given without warranty or guarantee of any kind. The information contained in this document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. It is the user's responsibility to satisfy oneself as to the suitability and completeness of this information for the user's own particular use.

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**Prepared for:** Magnaflux

Conforms to OSHA HazCom 2012, CPR & NOM-018-STPS-2000 Standard

**End of Safety Data Sheet**