

**SECTION 1: IDENTIFICATION****1.1. PRODUCT IDENTIFIER**

Product name : Daraclean 282  
Product code : Not available

**1.2. RELEVANT IDENTIFIED USES OF THE SUBSTANCE OR MIXTURE AND USES ADVISED AGAINST**

Use of the substance/mixture : Non-Destructive Testing

**1.3. DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET**

| Manufacturer  | Distributor |
|---|-------------|
| Magnaflux<br>155 Harlem Ave.<br>Glenview, IL 60025 - USA<br>T: 847-657-5300 |             |

**1.4. EMERGENCY TELEPHONE NUMBER**

Emergency number : CHEMTREC 800-424-9300

**SECTION 2: HAZARDS IDENTIFICATION****2.1. CLASSIFICATION OF THE SUBSTANCE OR MIXTURE**

The hazards given in this SDS apply to the product at full concentration. By diluting the product, the hazards will be reduced. It is up to the employer/user to determine the proper personal protection equipment and safety precautions when using diluted product.

**GHS classification**

Skin Irrit. 2  
Eye Dam. 1  
Skin Sens. 1

**2.2. LABEL ELEMENTS****GHS labelling**

Hazard pictograms (GHS) :



Signal word (GHS) :

Danger

Hazard statements (GHS) :

Causes skin irritation. Causes serious eye damage. May cause an allergic skin reaction.

Precautionary statements (GHS) :

Wash hands thoroughly after handling. Wear protective gloves/eye protection/face protection. Avoid breathing dust/fume/gas/mist/vapors/spray. Contaminated work clothing must not be allowed out of the workplace. If on skin: Wash with plenty of water. Take off contaminated clothing and wash it before reuse. If skin irritation or rash occurs: Get medical advice/attention. 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. Dispose of contents/container in accordance with local/regional/national/international regulations.

**2.3. OTHER HAZARDS**

No additional information available

**2.4. UNKNOWN ACUTE TOXICITY (GHS)**

Not applicable

**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS****3.1. SUBSTANCE**

Not applicable

**3.2. MIXTURE**

| Name                              | Product identifier  | %    |
|-----------------------------------|---------------------|------|
| Diethylene glycol monobutyl ether | (CAS No) 112-34-5   | 3.00 |
| Triethanolamine                   | (CAS No) 102-71-6   | 1.20 |
| Potassium hydroxide               | (CAS No) 1310-58-3  | 0.90 |
| Tolyltriazole, sodium salt        | (CAS No) 64665-57-2 | 0.51 |
| Ethanolamine                      | (CAS No) 141-43-5   | 0.50 |
| D-Limonene                        | (CAS No) 5989-27-5  | 0.50 |
| Morpholine                        | (CAS No) 110-91-8   | 0.40 |
| 2-Mercaptobenzothiazole           | (CAS No) 149-30-4   | 0.20 |

**SECTION 4: FIRST AID MEASURES**
**4.1. DESCRIPTION OF FIRST AID MEASURES**

- First-aid measures after inhalation : If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention if you feel unwell.
- First-aid measures after skin contact : In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Wash clothing before reuse. Call a physician if irritation develops and persists.
- First-aid measures after eye contact : 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.
- First-aid measures after ingestion : If swallowed, do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical advice/attention if you feel unwell.

**4.2. MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED**

- Symptoms/injuries after inhalation : May cause respiratory tract irritation.
- Symptoms/injuries after skin contact : Causes skin irritation. Symptoms may include redness, edema, drying, defatting and cracking of the skin. May cause an allergic skin reaction.
- Symptoms/injuries after eye contact : 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.
- Symptoms/injuries after ingestion : May be harmful if swallowed. May cause stomach distress, nausea or vomiting.

**4.3. INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED**

Symptoms may not appear immediately. In case of accident or if you feel unwell, seek medical advice immediately (show the label or SDS where possible).

**SECTION 5: FIREFIGHTING MEASURES**
**5.1. 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.

**5.2. SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE**

- Fire hazard : Products of combustion may include, and are not limited to: oxides of carbon.

**5.3. ADVICE FOR FIREFIGHTERS**

- Protection during firefighting : 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.

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

- General measures : 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. Spills of this material are a slipping hazard.

**6.2. METHODS AND MATERIAL FOR CONTAINMENT AND CLEANING UP**

- 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. Provide ventilation.

**6.3. REFERENCE TO OTHER SECTIONS**

See section 8 for further information on protective clothing and equipment and section 13 for advice on waste disposal.

## SECTION 7: HANDLING AND STORAGE

### 7.1. PRECAUTIONS FOR SAFE HANDLING

Precautions for safe handling : Avoid contact with skin and eyes. Avoid breathing dust/fume/gas/mist/vapours/spray. Do not swallow. Handle and open container with care. When using do not eat, drink or smoke.

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

### 7.2. CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES

Storage conditions : Keep out of the reach of children. Keep container tightly closed and in a well-ventilated place.

### 7.3. SPECIFIC END USE(S)

Not available.

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1. CONTROL PARAMETERS

| Diethylene glycol monobutyl ether (112-34-5) |                 |                                       |
|--|-----------------|---------------------------------------|
| ACGIH  | ACGIH TWA (ppm) | 10 ppm (inhalable fraction and vapor) |
| OSHA   | Not applicable  |                                       |

| Triethanolamine (102-71-6) |                                |                     |
|----------------------------|--------------------------------|---------------------|
| ACGIH                      | ACGIH TWA (mg/m <sup>3</sup> ) | 5 mg/m <sup>3</sup> |
| OSHA                       | Not applicable                 |                     |

| Potassium hydroxide (1310-58-3) |  |                     |
|---------------------------------|--|---------------------|
| ACGIH                           | ACGIH Ceiling (mg/m <sup>3</sup> )       | 2 mg/m <sup>3</sup> |
| OSHA                            | Not applicable                           |                     |
| USA - NIOSH                     | NIOSH REL (ceiling) (mg/m <sup>3</sup> ) | 2 mg/m <sup>3</sup> |

| Tolyltriazole, sodium salt (64665-57-2) |                |  |
|---|----------------|--|
| ACGIH                                   | Not applicable |  |
| OSHA                                    | Not applicable |  |

| Ethanolamine (141-43-5) |                                       |                      |
|-------------------------|---------------------------------------|----------------------|
| ACGIH                   | ACGIH TWA (ppm)                       | 3 ppm                |
| ACGIH                   | ACGIH STEL (ppm)                      | 6 ppm                |
| OSHA                    | OSHA PEL (TWA) (mg/m <sup>3</sup> )   | 6 mg/m <sup>3</sup>  |
| OSHA                    | OSHA PEL (TWA) (ppm)                  | 3 ppm                |
| USA - IDLH              | US IDLH (ppm)                         | 30 ppm               |
| USA - NIOSH             | NIOSH REL (TWA) (mg/m <sup>3</sup> )  | 8 mg/m <sup>3</sup>  |
| USA - NIOSH             | NIOSH REL (TWA) (ppm)                 | 3 ppm                |
| USA - NIOSH             | NIOSH REL (STEL) (mg/m <sup>3</sup> ) | 15 mg/m <sup>3</sup> |
| USA - NIOSH             | NIOSH REL (STEL) (ppm)                | 6 ppm                |

| D-Limonene (5989-27-5) |                |  |
|------------------------|----------------|--|
| ACGIH                  | Not applicable |  |
| OSHA                   | Not applicable |  |

| Morpholine (110-91-8) |                                       |                       |
|-----------------------|---------------------------------------|-----------------------|
| ACGIH                 | ACGIH TWA (ppm)                       | 20 ppm                |
| OSHA                  | OSHA PEL (TWA) (mg/m <sup>3</sup> )   | 70 mg/m <sup>3</sup>  |
| OSHA                  | OSHA PEL (TWA) (ppm)                  | 20 ppm                |
| USA - IDLH            | US IDLH (ppm)                         | 1400 ppm (10% LEL)    |
| USA - NIOSH           | NIOSH REL (TWA) (mg/m <sup>3</sup> )  | 70 mg/m <sup>3</sup>  |
| USA - NIOSH           | NIOSH REL (TWA) (ppm)                 | 20 ppm                |
| USA - NIOSH           | NIOSH REL (STEL) (mg/m <sup>3</sup> ) | 105 mg/m <sup>3</sup> |

Prepared according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012 and the Hazardous Products Regulations (HPR) WHMIS 2015

| Morpholine (110-91-8)              |                        |        |
|------------------------------------|------------------------|--------|
| USA - NIOSH                        | NIOSH REL (STEL) (ppm) | 30 ppm |
| 2-Mercaptobenzothiazole (149-30-4) |                        |        |
| ACGIH                              | Not applicable         |        |
| OSHA                               | Not applicable         |        |

## 8.2. EXPOSURE CONTROLS

|                                  |  |
|----------------------------------|--|
| Appropriate engineering controls | : Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, etc.) below recommended exposure limits.   |
| Hand protection                  | : Wear chemically resistant protective gloves.   |
| Eye protection                   | : Wear approved eye protection (properly fitted dust- or splash-proof chemical safety goggles) and face protection (face shield).  |
| Skin and 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. |
| Environmental exposure controls  | : Maintain levels below Community environmental protection thresholds.   |
| Other information                | : Do not eat, smoke or drink where material is handled, processed or stored. Wash hands carefully before eating or smoking. Handle according to established industrial hygiene and safety practices.                                       |

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1. INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES

|  |                            |
|--|----------------------------|
| Physical state                             | : Liquid                   |
| Appearance                                 | : Thin liquid              |
| Colour                                     | : Yellow                   |
| Odour                                      | : Citrus                   |
| Odour threshold                            | : No data available        |
| pH   | : 12.5                     |
| Melting point                              | : No data available        |
| Freezing point                             | : No data available        |
| Boiling point                              | : Initial: 100 °C (212 °F) |
| Flash point                                | : No data available        |
| Relative evaporation rate (butylacetate=1) | : No data available        |
| Flammability (solid, gas)                  | : Not flammable            |
| Explosive limits                           | : No data available        |
| Explosive properties                       | : No data available        |
| Oxidising properties                       | : No data available        |
| Vapour pressure                            | : No data available        |
| Relative density                           | : 1.03                     |
| Relative vapour density at 20 °C           | : No data available        |
| Solubility                                 | : No data available        |
| Partition coefficient: n-octanol/water     | : No data available        |
| Auto-ignition temperature                  | : No data available        |
| Decomposition temperature                  | : No data available        |
| Viscosity                                  | : No data available        |
| Viscosity, kinematic                       | : No data available        |
| Viscosity, dynamic                         | : No data available        |

### 9.2. OTHER INFORMATION

|             |             |
|-------------|-------------|
| VOC content | : 42.03 g/l |
|-------------|-------------|

## 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

Strong acids. Strong bases. Strong reducing agents. Strong oxidizing agents.

### 10.6. HAZARDOUS DECOMPOSITION PRODUCTS

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

## SECTION 11: TOXICOLOGICAL INFORMATION

### 11.1. INFORMATION ON TOXICOLOGICAL EFFECTS

Acute toxicity : Not classified.

|   |   |
|---|---|
| <b>Daraclean 282</b>                                |   |
| LD50 oral rat                                       | > 2000 mg/kg (Calculated Acute Toxicity Estimate) |
| LD50 dermal rabbit                                  | > 2000 mg/kg (Calculated Acute Toxicity Estimate) |
| LC50 inhalation rat                                 | > 20 mg/l/4h (Calculated Acute Toxicity Estimate) |
| <b>Diethylene glycol monobutyl ether (112-34-5)</b> |   |
| LD50 oral rat                                       | 5660 mg/kg  |
| LD50 dermal rabbit                                  | 2700 mg/kg  |
| <b>Triethanolamine (102-71-6)</b>                   |   |
| LD50 oral rat                                       | 4190 mg/kg  |
| LD50 dermal rabbit                                  | > 20 ml/kg  |
| <b>Potassium hydroxide (1310-58-3)</b>              |   |
| LD50 oral rat                                       | 284 mg/kg   |
| <b>Ethanolamine (141-43-5)</b>                      |   |
| LD50 oral rat                                       | 1720 mg/kg  |
| LD50 dermal rabbit                                  | 1000 mg/kg  |
| <b>D-Limonene (5989-27-5)</b>                       |   |
| LD50 oral rat                                       | 4400 mg/kg  |
| LD50 dermal rabbit                                  | > 5 g/kg  |
| <b>Morpholine (110-91-8)</b>                        |   |
| LD50 oral rat                                       | 1050 mg/kg  |
| LD50 dermal rabbit                                  | 310 - 810 mg/kg                                   |
| LC50 inhalation rat                                 | 8000 ppm/8h                                       |
| <b>2-Mercaptobenzothiazole (149-30-4)</b>           |   |
| LD50 oral rat                                       | 100 mg/kg   |
| LD50 dermal rabbit                                  | > 7940 mg/kg                                      |

|                                   |   |
|-----------------------------------|---|
| Skin corrosion/irritation         | : Causes skin irritation based on test results.                     |
| Serious eye damage/irritation     | : Causes serious eye damage.  |
| Respiratory or skin sensitisation | : May cause an allergic skin reaction.                              |
| Germ cell mutagenicity            | : Based on available data, the classification criteria are not met. |
| Carcinogenicity                   | : Based on available data, the classification criteria are not met. |

Prepared according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012 and the Hazardous Products Regulations (HPR) WHMIS 2015

| Triethanolamine (102-71-6)               |                                      |
|--|--------------------------------------|
| IARC group                               | 3 - Not classifiable                 |
| D-Limonene (5989-27-5)                   |                                      |
| IARC group                               | 3 - Not classifiable                 |
| National Toxicology Program (NTP) Status | 1 - Evidence of Carcinogenicity      |
| Morpholine (110-91-8)                    |                                      |
| IARC group                               | 3 - Not classifiable                 |
| 2-Mercaptobenzothiazole (149-30-4)       |                                      |
| IARC group                               | 2A - Probably carcinogenic to humans |
| National Toxicology Program (NTP) Status | 1 - Evidence of Carcinogenicity      |

|  |  |
|--|--|
| Reproductive toxicity                              | : Based on available data, the classification criteria are not met.  |
| Specific target organ toxicity (single exposure)   | : Based on available data, the classification criteria are not met.  |
| Specific target organ toxicity (repeated exposure) | : Based on available data, the classification criteria are not met.  |
| Aspiration hazard                                  | : Based on available data, the classification criteria are not met.  |
| Symptoms/injuries after inhalation                 | : May cause respiratory tract irritation.  |
| Symptoms/injuries after skin contact               | : Causes skin irritation. Symptoms may include redness, edema, drying, defatting and cracking of the skin. May cause an allergic skin reaction.                                  |
| Symptoms/injuries after eye contact                | : 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. |
| Symptoms/injuries after ingestion                  | : May be harmful if swallowed. May cause stomach distress, nausea or vomiting.   |

## SECTION 12: ECOLOGICAL INFORMATION

### 12.1. TOXICITY

Ecology - general : May cause long-term adverse effects in the aquatic environment.

### 12.2. PERSISTENCE AND DEGRADABILITY

| Daraclean 282                 |                  |
|-------------------------------|------------------|
| Persistence and degradability | Not established. |

### 12.3. BIOACCUMULATIVE POTENTIAL

| Daraclean 282             |                  |
|---------------------------|------------------|
| Bioaccumulative potential | Not established. |

### 12.4. MOBILITY IN SOIL

No additional information available

### 12.5. OTHER ADVERSE EFFECTS

Effect on the global warming : No known effects from this product.

## SECTION 13: DISPOSAL CONSIDERATIONS

### 13.1. WASTE TREATMENT METHODS

Waste disposal recommendations : This material must be disposed of in accordance with all local, state, provincial, and federal regulations. The generation of waste should be avoided or minimized wherever possible.

## SECTION 14: TRANSPORT INFORMATION

In accordance with DOT/TDG/IATA/IMDG

|                |                               |
|----------------|-------------------------------|
| DOT (bulk)     | : Not regulated for transport |
| DOT (non-bulk) | : Not regulated for transport |
| TDG            | : Not regulated for transport |
| IATA           | : Not regulated for transport |
| IMDG           | : Not regulated for transport |

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**ADDITIONAL INFORMATION**

Other information : No supplementary information available.  
 Special transport precautions : Do not handle until all safety precautions have been read and understood.

**SECTION 15: REGULATORY INFORMATION**

**15.1. FEDERAL REGULATIONS**

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory.

All components of this product are listed, or excluded from listing, on the Canadian DSL (Domestic Substances List) and NDSL (Non-Domestic Substances List) inventories, except for:

|        |            |
|--------|------------|
| LZ-Z 1 | RR-10545-3 |
|--------|------------|

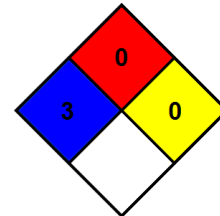
**Diethylene glycol monobutyl ether (112-34-5)**

|                          |  |
|--------------------------|--|
| EPA TSCA Regulatory Flag | T - T - indicates a substance that is the subject of a Section 4 test rule under TSCA<br>Y2 - Y2 - indicates an exempt polymer that is a polyester and is made only from reactants included in a specified list of low concern reactants that comprises one of the eligibility criteria for the exemption rule |
|--------------------------|--|

**2-Mercaptobenzothiazole (149-30-4)**

|   |       |
|---|-------|
| Subject to reporting requirements of United States SARA Section 313 |       |
| SARA Section 313 - Emission Reporting                               | 1.0 % |

NFPA health hazard : 3  
 NFPA fire hazard : 0  
 NFPA reactivity : 0



**15.2. US STATE REGULATIONS**

|                            |   |
|----------------------------|---|
| <b>Daraclean 282</b>       |   |
| State or local regulations | This product contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm. |

**SECTION 16: OTHER INFORMATION**

Date of issue : 09/01/2016  
 Revision date : 09/01/2016  
 Other information : None.

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