SECTION I: Identification of the Substance/Mixture and of the Company/Undertaking

1.1 Product Identifier

Product name: Desaltus 2.0

1.2 Relevant identified uses of the substance or mixture and uses advised against

Use: Soil conditioner

1.3 Details of the supplier of the safety data sheet

Company: Aquatrols Corporation of America
1273 Imperial Way
Paulsboro, NJ 08066

Website: www.aquatrols.com

Phone number: (856) 537-6003

Email: jyichye@aquatrols.com

1.4 Emergency telephone

Phone number: CHEMTEL - (800) 255-3924
CHEMTEL INTERNATIONAL- +1-813-248-0585

SECTION II: Hazards Identification

2.1 Classification of the substance or mixture

Product description: Mixture

Classification according to GHS

Met. Corr. 1: H290
Eye Irrit. 2A: H319
Skin Irrit. 2: H315
Skin Sens. 1: H317

For full text of Hazard Statements: See Section XVI
2.2 GHS label elements

Hazard Pictogram (CLP):

Signal Word: DANGER

Hazard Statement:
H290: May be corrosive to metals
H319: Causes serious eye irritation
H315: Causes skin irritation
H317: May cause an allergic skin reaction

Precautionary Statements:
P261: Avoid breathing mist/vapors/spray
P264: Wash contaminated skin thoroughly after handling
P272: Contaminated work clothing should not be allowed out of the workplace
P280: Wear protective gloves/goggles
P303+P361+P352: IF ON SKIN: Remove immediately all contaminated clothing. Rinse skin with water/shower.
P305+P351+P338: IF IN EYES: Rinse cautiously with water for 20 minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P333+P313: If skin irritation or a rash occurs: Get medical attention/advice.
P337+P313: If eye irritation persists: Get medical attention/advice.
P363: Wash contaminated clothing before reuse.
P501: Dispose of contents/container in accordance with all applicable local/regional/national regulations.

2.3 Other hazards which do not result in classification

No information available

<table>
<thead>
<tr>
<th>SECTION III: COMPOSITION/INFORMATION ON INGREDIENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.1 Substance/Mixture: Mixture</td>
</tr>
<tr>
<td>3.2 Hazardous ingredients</td>
</tr>
</tbody>
</table>
SECTION IV: FIRST AID MEASURES

4.1 Description of first aid measures

General advice: Show this SDS to the doctor in attendance. First responder needs to protect himself. Place affected apparel in a sealed bag for subsequent decontamination.

Inhalation: Provide fresh air, warmth and rest, preferably in a comfortable upright sitting position. If person has stopped breathing, administer artificial respiration. If cough or other symptoms persist, call doctor/poison center immediately. Get medical attention if any discomfort continues.

Skin contact: Immediately remove contaminated clothing. Rinse immediately with plenty of water. Continue rinsing for at least 15 minutes. Get medical attention if irritation persists after washing.

3.3 Non-hazardous ingredients and impurities

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No.</th>
<th>Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polymaleic Acid [2-Butenoic Acid (2)-Homopolymer]</td>
<td>26099-09-2</td>
<td>Met. Corr. 1, Eye Irrit. 2A, Skin Irrit. 2, Skin Sens. 1</td>
<td>43.5%</td>
</tr>
<tr>
<td>Alkyl(C8-C10)polyglycoside</td>
<td>68515-73-1</td>
<td>Eye Irrit. 2A</td>
<td>5.8%</td>
</tr>
<tr>
<td>Oxirane-methyleneoxirane polymer</td>
<td>9003-11-6</td>
<td>Not classified</td>
<td>5.0%</td>
</tr>
<tr>
<td>Water</td>
<td>7732-18-5</td>
<td>Not classified</td>
<td>45.7%</td>
</tr>
</tbody>
</table>
Prolonged or repeated contact may cause an allergic skin reaction.

**Eye contact:**
Remove victim immediately from source of exposure. Immediately flush with plenty of water for up to 15 minutes. Remove any contact lenses and open eyes wide apart. Get medical attention promptly if symptoms occur after washing.

**Ingestion:**
Rinse mouth thoroughly. Never give liquid to an unconscious person. Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention.

### 4.2 Most important symptoms and effects, both acute and delayed.

**Symptoms after inhalation:**
No specific symptoms noted. Irritation of nose, throat and airway.

**Symptoms after ingestion:**
No specific symptoms noted. May cause discomfort if swallowed. May cause stomach pain or vomiting.

**Symptoms after eye contact:**
Irritation of eyes and mucous membranes. Profuse watering of the eyes.

**Symptoms after skin contact:**
No specific symptoms noted. Prolonged skin contact may cause redness and irritation.

### 4.3 Indication of any immediate medical attention and special treatment needed

**Note to physician:**
All treatments should be based on observed signs and symptoms of distress to the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

Treat symptomatically. There is no specific antidote available.

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**SECTION V: FIREFIGHTING MEASURES**
5.1 Extinguishing media

Suitable extinguishing media: Dry chemical, CO₂, foam, water spray.

Unsuitable extinguishing media: High power water jet.

5.2 Special hazards arising from the substance or mixture

Specific hazards during firefighting: Under fire conditions, will burn.

Hazardous decomposition products: Carbon oxides and other hazardous compounds.

5.3 Advice for firefighters

Special protective equipment: Firefighters should wear approved self-contained breathing apparatus and full protective clothing.

Further information: Standard procedure for chemical fires. Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

SECTION VI: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures.

Contain material by diking the area around the spill. Soak up using a suitable inert absorbent material, then shovel into recovery drums.

6.2 Environmental precautions

Do not flush into surface water or sanitary sewer system. Take all necessary measures to avoid accidental discharge of products into drains and waterways due to the rupture of containers or transfer systems. Spills should be reported to local agencies.

6.3 Methods and materials for containment and cleanup

Methods of containment: Stop leak if safe to do so.

Dam up with sand or inert earth (do not use combustible materials).

Recovery: Soak up with inert absorbent materials.
Shovel or sweep up.  
Keep in suitable, closed container for disposal.  
Never return spills to original containers for re-use.

Decontamination/cleaning:  
Clean contaminated surface thoroughly.  
Wash non-recoverable remainder with large amounts of water.  
Recover the cleaning water for subsequent disposal.  
Decontaminate tools, equipment and personal protective equipment in a segregated area.

Disposal:  
Dispose of in accordance with local regulations.

6.4 Reference to other sections
See Section VII for Handling and Storage.

SECTION VII: HANDLING AND STORAGE

7.1 Precautions for safe handling of the substance/mixture.

Technical measures:  
Provide adequate ventilation.

Advice on safe handling and usage:  
Avoid inhalation of vapor or mist.  
Avoid contact with skin and eyes.

Hygiene measures:  
Personal hygiene is an important workplace practice exposure control measure and the following general measures should be taken when working with or handling this material:
1) Do not store, use, and/or consume foods, beverages, tobacco products, or cosmetics in areas where this material is stored.
2) Wash hands and face carefully before eating, drinking, using tobacco, applying cosmetics, or using the toilet.
3) Wash exposed skin promptly to remove accidental splashes or contact with material.

7.2 Conditions for safe storage, including any incompatibilities
Storage conditions

Recommended: Store in tightly closed original container in a dry cool place. Keep away from incompatible materials and extreme temperatures. Store in accordance with all applicable local, state and federal guidelines.

To be avoided: Keep away from open flames, hot surfaces and sources of ignition. Do not store together with sulfite, nitrites and bases.

Storage stability

Storage temperature: No data available.

7.3 Specific end use(s)

See Section I

SECTION VIII: EXPOSURE CONTROLS/PERSONAL PROTECTION

General comments

These recommendations provide general guidance for handling this product. Because specific work environments and material handling practices vary, safety procedures should be developed for each intended application. Assistance with selection, use and maintenance of worker protection equipment is generally available from equipment manufacturers.

8.1 Control parameters

Contains no substances with occupational exposure limit values.

8.2 Exposure controls

Exposure limits: Not established

Protective measures: Ensure that eyewash stations and safety showers are close to workstation. Emergency equipment immediately accessible, with instructions for use. Selection of appropriate personal protective equipment should be based on an evaluation of the performance characteristics of the protective equipment relative to the task(s) to be performed, conditions present,
duration of use, and the potential hazards, and/or risks that may occur during use.

**Respiratory protection:** Not normally required under typical use conditions. If exposure levels are exceeded a respirator must be used. If needed, use a MSHA/NIOSH approved respirator. Seek professional advice prior to respirator selection and use. Follow are requirements of OSHA respirator guidelines (29 CFR 1910.134).

**Hand protection:** PVC or butyl rubber gloves.

**Eye protection:** Tightly sealed goggles according to OSHA Standard 29 CFR 1910.133 or ANSI Z87.1-2010.

**Body protection:** Wear acid-resistant protective clothing. Protective gloves (chemically resistant) according to OSHA Standard 29 CFR 1910.138

**Hygiene measures:** Personal hygiene is an important workplace practice exposure control measure and the following general measures should be taken when working with or handling this material:

1) Do not store, use, and/or consume foods, beverages, tobacco products, or cosmetics in areas where this material is stored.

2) Wash hands and face carefully before eating, drinking, using tobacco, applying cosmetics, or using the toilet.

3) Wash exposed skin promptly to remove accidental splashes or contact with material.

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**SECTION IX: CHEMICAL AND PHYSICAL PROPERTIES**

**9.1 Information on basic physical and chemical properties**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state:</td>
<td>Liquid</td>
</tr>
<tr>
<td>Form:</td>
<td>Liquid</td>
</tr>
<tr>
<td>Color:</td>
<td>Light yellow to amber liquid</td>
</tr>
<tr>
<td>Odor:</td>
<td>No data available</td>
</tr>
<tr>
<td>Odor threshold:</td>
<td>No data available</td>
</tr>
<tr>
<td>pH:</td>
<td>1-2 (1% sol’n in water)</td>
</tr>
</tbody>
</table>
Section X: Stability and Reactivity

10.1 Reactivity
No data available

10.2 Chemical stability
Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions
No data available.

10.4 Conditions to avoid
Avoid temperature extremes. Protect from freezing. Exothermic reactions with bases. Contact with nitrites liberates nitrogen dioxide (NO₂). Contact with sulfites liberates sulfur dioxide (SO₂).

10.5 Incompatible materials
Bases, sulfites, nitrites, strong oxidizing agents.

10.6 Hazardous decomposition products
Thermal decomposition may yield maleic monomer and other hydrocarbons. In the event of fires, oxides of carbon (CO₂) and other toxic compounds may be released.
11.1 Information on toxicological effects

**Acute toxicity**

**Acute oral toxicity:** Polymaleic acid LD50 12,500 mg/kg – Rat  
Maleic acid LD50 708 mg/kg – Rat  
Remarks:  
Behavioral – Convulsions or effect on seizure threshold.  
Muscle weakness.  
Gastrointestinal – Ulceration or bleeding from stomach.

**Acute inhalation toxicity:** LC50 – 1 h - > 720 mg/m³ - Rat

**Acute dermal toxicity:** LD50 – 1,560 mg/kg – Rabbit  
Remarks:  
Behavioral - Tremor

**Acute toxicity (other routes of administration):** No data available

**Skin corrosion/irritation**

Skin irritation: Mild skin irritation – 24 h – Rabbit

**Serious eye damage/eye irritation**

Eye irritation: Severe eye irritation – Rabbit

**Respiratory or skin sensitization**

Sensitization: No data available

**Mutagenicity**

Genotoxicity in vitro: No data available  
Genotoxicity in vivo: No data available

**Carcinogenicity**

Carcinogenicity: IARC – No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH – No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
NTP – No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA – No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

**Toxicity for reproduction and development**
Toxicity to reproduction/fertility: No data available
Developmental toxicity/teratogenicity: No data available

**Specific target organ toxicity – single exposure**
May cause respiratory irritation

**Specific target organ toxicity – repeated exposure**
No data available

**Potential health effects**
Inhalation: May be harmful if inhaled. Causes respiratory tract irritation.
Ingestion: Harmful if swallowed.
Skin: Harmful if absorbed through skin. Causes skin irritation.
Eyes: Causes eye irritation.

**SECTION XII: ECOLOGICAL INFORMATION**

**12.1 Toxicity**
Acute aquatic toxicity: Polymaleic acid
Fish - LC50 96 hours >100 mg/L – Oncorhyncus mykiss
Daphnia – EC50 48 hours > 1000 mg/L – Daphnia magna
Respiratory inhibition test, applied on activated sludge: IC 50 > 1000 mg/L

Maleic acid
Fish – LC50 96 hours – 5 mg/L – Pimephales promelas
Daphnia – EC50 48 hours – 316.2 mg/L

Chronic aquatic toxicity: No data available.

**12.2 Persistence and degradability**
Polymaleic acid: Zahn-Wellens test – 18%/35 days (OECD 302B)
Maleic acid: Biodegradation – 92%/20 days

12.3 Bioaccumulative potential
Polymaleic acid: Bioaccumulation is unlikely
Maleic acid: Product is readily biodegradable

12.4 Mobility in soil
No data available

12.5 Results of PBT and vPvB assessment
No data available

12.6 Other adverse effects
No data available

SECTION XIII: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods
Advice on disposal: Chemical additions, processing or otherwise altering this material may make the waste management information presented in this SDS incomplete, inaccurate or otherwise inappropriate. Please be advised that local requirements for waste disposal may be more restrictive or otherwise different from federal laws and regulations. Consult local regulations regarding proper disposal of this material.

Contaminated containers: Rinse with appropriate solvent. Dispose of contents/container in accordance with local regulations.

SECTION XIV: TRANSPORT INFORMATION

In accordance with the provisions of ADR/RID/ADNR/IMDG/ICAO/IATA

14.1 UN Number
DOT: 3265
IATA: 3265
IMDG: 3265

14.2 Shipping name UN Model
DOT: CORROSIVE LIQUID, ACIDIC, ORGANIC N.O.S. (Homopolymer of maleic acid)
IATA: CORROSIVE LIQUID, ACIDIC, ORGANIC N.O.S. (Homopolymer of maleic acid)
IMDG:  CORROSIVE LIQUID, ACIDIC, ORGANIC N.O.S. (Homopolymer of maleic acid)

14.3 Transport hazard class
DOT:  8
IATA:  8
IMDG:  8

14.4 Packing group
DOT:  III
IATA:  III
IMDG:  III

14.5 Environmental hazards
No additional information available

14.6 Special precautions for use
No additional information available

14.6.1 Ground transport
No additional information available

14.6.2 Sea transport
No additional information available

14.6.3 Air transport
No additional information available

14.7 Transport in bulk according to Annex II of Marpol 73/78 and IBC Code
No additional information available

SECTION XV: REGULATORY INFORMATION

15.1 Safety legislation specific for the substance or mixture

US Federal Regulations
TSCA Registered:  Yes
SARA Title III Section 313:  Unknown
R&D Exemption:  Unknown

15.2 Chemical safety assessment
No information available.

SECTION XVI: OTHER INFORMATION
More information

Abbreviations

ADR: European Agreement Concerning the International Carriage of Dangerous Goods by Road
IMDG: International Maritime Code for Dangerous Goods
LC50: Lethal Concentration 50%
LD50: Lethal Dose 50%
EC50: Effective Dose 50%
CLP: Classification, Labelling and Packaging
CAS: Chemical Abstract Service
RID: Regulations concerning the International Carriage of Dangerous Goods by Rail
IATA-DGR: International Air Transport Association Dangerous Goods Regulations
GHS: Globally Harmonized System (GHS) of Labelling Chemical Products
Hazard Statements: H315: Causes skin irritation
                                 H319: Causes serious eye irritation

Version: 1.0
Previous version: Not applicable
Reason for revision: New SDS

The information in this SDS, to our knowledge, is accurate at the data of publication. This information is intended as a guide for safe handling, use, processing, storage, transportation, disposal and release, and is not to be considered a guarantee or indication of quality. The information relates only to the specific material and may not be valid in combination with other products or used in any process, unless specified in the text.