

SECTION I: Identification of the Substance/Mixture and of the Company/Undertaking**1.1 Product Identifier**

Product name: Desaltus

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 sheetCompany: Aquatrols Corporation of America
1273 Imperial Way
Paulsboro, NJ 08066Website: www.aquatrols.com

Phone number: (856) 537-6003

Email: jyichye@aquatrols.com**1.4 Emergency telephone**

Phone number: CHEMTREC - (800) 424-9300

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

SECTION III: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substance/Mixture:

Mixture

3.2 Hazardous ingredients

Chemical Name	CAS No.	Classification	Concentration
Polymaleic Acid [2-Butendoic Acid (2)-Homopolymer]	26099-09-2	Met. Corr. 1 Eye Irrit. 2A Skin Irrit. 2 Skin Sens. 1	50%

3.3 Non-hazardous ingredients and impurities

Chemical Name	CAS No.	Classification	Concentration
Water	7732-18-5	Not classified	50%

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.
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.
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Treat symptomatically. There is no specific antidote available.

SECTION V: FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media:	Dry chemical, CO ₂ , foam, water spray.
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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
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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: <ol style="list-style-type: none">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
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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
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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: <ol style="list-style-type: none">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.

SECTION IX: CHEMICAL AND PHYSICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Physical state:	Liquid
Form:	Liquid
Color:	Light yellow to amber liquid
Odor:	No data available
Odor threshold:	No data available
pH:	1-2 (1% sol'n in water)
Initial boiling point:	100-102°C (760 mm Hg)
Melting point:	6.8°F
Freezing point:	6.8°F

Flashpoint:	No data available
Evaporation rate:	Not determined
Flammability:	Will burn
Upper explosive limit:	No data available
Lower explosive limit:	No data available
Vapor pressure:	No data available
Relative density:	1.18 g/mL (68°F (20°C))
Solubility:	Completely miscible in water
Partition n-octanol/water:	No data available
Autoignition temperature:	No data available
Thermal decomposition:	No data available
Viscosity:	< 6 cP (25°C)
Explosive properties:	No data available
Oxidizing properties:	No data available

9.2 Other information

Not applicable

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 avoidAvoid 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 productsThermal decomposition may yield maleic monomer and other hydrocarbons. In the event of fires, oxides of carbon (CO_x) and other toxic compounds may be released.**SECTION XI: TOXICOLOGICAL INFORMATION**

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 – *Oncorhynchus 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.