SAFETY DATA SHEET

ROBARB POOL SPECIALTIES EZ FILTER CLEANER

REVISION DATE: 05/27/2015
SUPERCEDES: 05/14/2009
MSDS Number: 000000024439
SYNONYMS: None
CHEMICAL FAMILY: None
DESCRIPTION / USE: None established
FORMULA: None established

PRODUCT NAME: ROBARB POOL SPECIALTIES EZ FILTER CLEANER

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Supplier
Robarb
1400 Bluegrass Lakes Parkway, Alpharetta, GA, 30004, USA
Telephone: +17705215999
Telefax: +17705215959
Web: www.poolspacare.com

Manufacturer
Advantis Technologies
1200 Bluegrass Lakes Parkway
Alpharetta, GA 30004
United States of America

REVISION DATE: 05/27/2015

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification
Flammable liquids : Category 4
Eye irritation : Category 2A

GHS Label element
Hazard pictograms :

Signal word : Warning
Hazard statements: H227 Combustible liquid. H319 Causes serious eye irritation.

Precautionary statements:


Response: P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P332 + P313 If skin irritation occurs: Get medical advice/ attention. P337 + P313 If eye irritation persists: Get medical advice/ attention. P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

Storage: P403 + P235 Store in a well-ventilated place. Keep cool.

Disposal: P501 Dispose of contents/ container to an approved waste disposal plant.

Other hazards None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>CAS OR CHEMICAL NAME</th>
<th>CAS #</th>
<th>% RANGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>sodium (2-butoxyethoxy)acetate</td>
<td>67990-17-4</td>
<td>12 - 22</td>
</tr>
<tr>
<td>Tetrasodium EDTA</td>
<td>64-02-8</td>
<td>8 - 17</td>
</tr>
<tr>
<td>Unknown</td>
<td></td>
<td>4 - 14</td>
</tr>
<tr>
<td>Butoxyethanol</td>
<td>111-76-2</td>
<td>0 - 6</td>
</tr>
<tr>
<td>Trisodium nitrilotriacetate</td>
<td>5064-31-3</td>
<td>0 - 5</td>
</tr>
</tbody>
</table>

SECTION 4. FIRST AID MEASURES

Inhalation: IF INHALED: Remove individual to fresh air. Seek medical attention if breathing becomes difficult or if respiratory irritation develops.
Skin Contact:  IF ON SKIN: Flush skin with water for 15 minutes. Take off all contaminated clothing. Seek medical attention if irritation develops.

Eye Contact:  IF IN EYES: Immediately flush eyes with plenty of water for at least 15 minutes. Seek medical attention immediately.

Ingestion:  IF SWALLOWED: Immediately drink water to dilute. Seek medical attention if symptoms develop. Never give anything by mouth to an unconscious person.

SECTION 5. FIREFIGHTING MEASURES

Flammability Summary (OSHA):  The product is not flammable., Not combustible., The substance or mixture is not classified as pyrophoric., Not explosive

Flammable Properties

Fire / Explosion Hazards:  Material will not ignite or burn. Reacts with most metals to form flammable hydrogen gas.

Extinguishing Media:
- Water spray
- Foam
- Dry powder
- Carbon dioxide (CO2)

Fire Fighting Instructions:  In case of fire, use normal fire-fighting equipment and the personal protective equipment recommended in Section 8 to include a NIOSH approved self-contained breathing apparatus. Use water to cool containers.

Hazardous Combustion Products:  During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Protection for Emergency Situations:  Use the personal protective equipment recommended in Section 8 and a NIOSH approved full-face positive pressure supplied-air respirator.

Spill Mitigation Procedures

Air Release:  Hazardous concentrations in air may be found in local spill area and immediately downwind. Vapors may be suppressed by the use of water fog.

Water Release:  Notify all downstream users of possible contamination. Divert water flow around spill if possible and safe to do so.

Land Release:  Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13). After removal, flush contaminated area thoroughly with water. Avoid runoff into storm sewers and ditches which lead to waterways.

Additional Spill Information:  Stop source of spill as soon as possible and notify appropriate personnel. Utilize emergency response personal protection equipment prior to the start of any response. Evacuate all non-essential personnel. Dispose of spill residues per guidelines under Section 13, Disposal Consideration.
SECTION 7. HANDLING AND STORAGE

Handling: 
Do not take internally. Avoid contact with skin, eyes and clothing by wearing proper protective equipment. Upon contact with skin or eyes, wash off with water. Avoid breathing mist or vapor.

Storage: 
Store in a cool, dry and well ventilated place. Keep containers tightly closed when not in use.

Incompatible Materials for Storage: Refer to Section 10, "Incompatible Materials."

SECTION 8. EXPOSURE CONTROLS/PERSOINAL PROTECTION

Ventilation: 
Local exhaust ventilation or other engineering controls are normally required when handling or using this product to keep airborne exposures below the TLV, PEL or other recommended exposure limit.

Protective Equipment for Routine Use of Product

Respiratory Protection: 
Wear a NIOSH approved respirator if levels above the exposure limits are possible., A NIOSH approved full-face or half-face respirator in combination with chemical goggles., A NIOSH approved air purifying respirator with organic vapor cartridge and N95 particulate filter. Air purifying respirators should not be used in oxygen deficient or IDLH atmospheres or if exposure concentrations exceed ten (10) times the published limit.

Skin Protection: 
Wear impervious gloves to avoid skin contact.

Eye Protection: 
Use chemical goggles.

Protective Clothing Type: 
impervious clothing

General Protective Measures:
Ensure that eyewash stations and safety showers are close to the workstation location.

Components with workplace control parameters

<table>
<thead>
<tr>
<th>Components (CAS-No.)</th>
<th>Value</th>
<th>Control parameters</th>
<th>Basis (Update)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Butoxyethanol (111-76-2)</td>
<td>TWA</td>
<td>20 ppm</td>
<td>ACGIH (02 2014)</td>
</tr>
</tbody>
</table>

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State: liquid
Form: No data.
Color: No data.
Odor: No data.
Molecular Weight: None established
pH: 12.0 - 13.0
Boiling Point: no data available
Melting point/freezing point: No data
Bulk Density: ()
Vapor Pressure: no data available
Vapor Density: no data available
Viscosity: no data available
Solubility in Water: completely miscible
Partition coefficient n-octanol/water: No data.
Evaporation Rate: no data available
Oxidizing: None established
Volatile, % by vol.: no data available
VOC Content: This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCMI Intermediate or Final VOC’s (40 CFR 60.489). This product does not contain any VOC exemptions listed under the U.S. Clean Air Act Section 450.
HAP Content: Not applicable

SECTION 10. STABILITY AND REACTIVITY

Stability and Reactivity Summary: Stable under normal conditions.
Conditions to Avoid: Heat
Chemical Incompatibility: Strong acids, Oxidizing agents, Aluminium, Zinc
Hazardous Decomposition Products: Carbon oxides, Ammonia, Nitrogen oxides (NOx)
Decomposition Temperature: No data

SECTION 11. TOXICOLOGICAL INFORMATION

Component Animal Toxicology

Oral LD50 value:
Tetrasodium EDTA LD50 1,700 - 2,000 mg/kg Rat
Butoxyethanol LD50 = 1,590 mg/kg Rat
Trisodium nitrilotriacetate > 1,100.0 mg/kg Rat

Dermal LD50 value:
Tetrasodium EDTA No data
Butoxyethanol LD50 = 580 mg/kg Rabbit

Inhalation LC50 value:
Tetrasodium EDTA Rats exposed for 8 hours to an unknown concentration of the test substance resulted in no deaths and no clinical signs of toxicity observed in the animals.
Butoxyethanol LC50 4 h = 486 ppm Rat male
LC50 4 h = 450 ppm  Rat female

Trisodium nitrilotriacetate

Product Animal Toxicity

Oral LD50 value: LD50 Believed to be > 5,000 mg/kg  Rat
Dermal LD50 value: no data available
Inhalation LC50 value: no data available

Skin Irritation: May cause mild skin irritation.
Eye Irritation: This material is expected to be severely irritating.
Skin Sensitization: This material is not known or reported to be a skin or respiratory sensitizer. The active ingredient in this product tested negative for skin sensitization in laboratory animals.

Tetrasodium EDTA

Negative skin sensitizer, guinea pig - Magnusson-Kligman method.

Trisodium nitrilotriacetate

Acute Toxicity: May cause mild skin irritation and severe eye irritation. Inhalation of mist/vapors may cause mucous membrane irritation (includes upper respiratory tract). Ingestion may cause gastrointestinal discomfort. May cause central nervous system (CNS) depression.

Subchronic / Chronic Toxicity: Not known or reported to cause subchronic or chronic toxicity.

Tetrasodium EDTA

This product has not been tested. However, chronic (repeated) exposures to a similarly structured product revealed no substance related toxic effects.

Reproductive and Developmental Toxicity: Not known or reported to cause reproductive or developmental toxicity.

Tetrasodium EDTA

EDTA and its sodium salts have been shown to cause birth defects in laboratory animals only at relatively high oral dose levels that were maternally toxic. These effects are likely associated with zinc deficiency due to metal chelation.

Butoxyethanol

High dose levels of this chemical produced maternal toxicity, and embryolethality and fetal malformations.

Mutagenicity: Not known or reported to be mutagenic.

Tetrasodium EDTA

This product has been tested for mutagenicity. Tests revealed both positive and negative results. Based on the weight of evidence, we judge this product NOT to be a mutagenic hazard.

Butoxyethanol

This material has been shown to be non-mutagenic in
the majority of a battery of assays. Not expected to be a mutagenic hazard.

Carcinogenicity: The International Agency for Research on Cancer (IARC) has classified this product or a component of this product as a Group 2B substance, Possibly Carcinogenic to Humans.

Tetrasodium EDTA This product is not known or reported to be carcinogenic by any reference source including IARC, OSHA, NTP or EPA. Chemicals of similar structure have been shown not to cause cancer in laboratory animals.

Butoxyethanol This material has been classified by the U.S. EPA as a "Group C" carcinogen (Suggestive Human Carcinogen), based on equivocal and limited evidence in laboratory animals. The International Agency for Research on Cancer (IARC) has classified this product or a component of this product as a Group 3 substance, Unclassifiable as to Its Carcinogenicity to Humans.

Trisodium nitrilotriacetate The International Agency for Research on Cancer (IARC) has classified this product or a component of this product as a Group 2B substance, Possibly Carcinogenic to Humans.

SECTION 12. ECOLOGICAL INFORMATION

Overview: Slightly toxic to fish and other aquatic organisms.

Ecological Toxicity Values - Product:
- LC50 Believed to be approximately 71 mg/l (calculated)

Ecological Toxicity Values for: Tetrasodium EDTA
- Bluegill (nominal, static). 96 h LC50 = 486 mg/l
- Daphnia magna, (measured) 24 h EC50= 610 mg/l
- Daphnia magna, (nominal, static). 24 h EC50= 1,033 mg/l
- Green algae (Scenedesmus quadricauda), (nominal, static). 7 day toxicity threshold (population growth) 11 mg/l

Ecological Toxicity Values for: Butoxyethanol
- Lepomis macrochirus (Bluegill sunfish) static test 96 h LC50 = 1,490 mg/l
- Brine shrimp static test 24 h LC50= 1,000 mg/l
- Daphnia magna (Water flea) static test 48 h EC50> 1,000 mg/l
- Crangon crangon (shrimp) 48 h LC50= 800 mg/l

Ecological Toxicity Values for: Trisodium nitrilotriacetate
- Lepomis macrochirus (Bluegill sunfish) 96 h LC50 = 198 mg/l
SECTION 13. DISPOSAL CONSIDERATIONS

CARE MUST BE TAKEN TO PREVENT ENVIRONMENTAL CONTAMINATION FROM THE USE OF THE MATERIAL. THE USER OF THE MATERIAL HAS THE RESPONSIBILITY TO DISPOSE OF UNUSED MATERIAL, RESIDUES AND CONTAINERS IN COMPLIANCE WITH ALL RELEVANT LOCAL, STATE AND FEDERAL LAWS AND REGULATIONS REGARDING TREATMENT, STORAGE AND DISPOSAL FOR HAZARDOUS AND NONHAZARDOUS WASTES.

Waste Disposal Summary: If this product becomes a waste, it meets the criteria of a hazardous waste as defined under 40 CFR 261 and would have the following EPA hazardous waste number: D002.

SECTION 14. TRANSPORT INFORMATION

DOT
Not dangerous goods

TDG
UN number: 3267
Description of the goods: CORROSION LIQUID, BASIC, ORGANIC, N.O.S. (Tetrasodium ethylenediaminetetraacetate, Trisodium nitrilotriacetate)
Class: 8
Packing group: II
Labels: 8

IATA
UN number: 3267
Description of the goods: Corrosive liquid, basic, organic, n.o.s. (Tetrasodium ethylenediaminetetraacetate, Trisodium nitrilotriacetate)
Class: 8
Packing group: II
Labels: 8
Packing instruction (cargo aircraft): 855
Packing instruction: 851
(passenger aircraft)
Packing instruction : Y840
(passenger aircraft)

**IMDG-CODE**

UN number : 3267
Description of the goods : CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (Tetrasodium ethylenediaminetetraacetate, Trisodium nitrilotriacetate)

Class : 8
Packing group : II
Labels : 8
EmS Number 1 : F-A
EmS Number 2 : S-B

**SECTION 15. REGULATORY INFORMATION**

**EPCRA - Emergency Planning and Community Right-to-Know Act**

**CERCLA Reportable Quantity**

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Component RQ (lbs)</th>
<th>Calculated product RQ (lbs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium hydroxide</td>
<td>1310-73-2</td>
<td>1000</td>
<td></td>
</tr>
</tbody>
</table>

**SARA 302**

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**SARA 313**

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

**Clean Air Act**

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 12 (40 CFR 61).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCMI Intermediate or Final VOC's (40 CFR 60.489).

**Clean Water Act**
The following Hazardous Substances are listed under the U.S. CleanWater Act, Section 311, Table 116.4A:

Sodium hydroxide  
1310-73-2  
0.6599 %

The following Hazardous Chemicals are listed under the U.S. CleanWater Act, Section 311, Table 117.3:

Sodium hydroxide  
1310-73-2  
0.6599 %

This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307.

US State Regulations

Massachusetts Right To Know

2-Butoxyethanol  
111-76-2  
Trisodium nitrilotriacetate  
5064-31-3

Pennsylvania Right To Know

Sodium (2-butoxyethoxy)acetate  
67990-17-4  
Tetrasodium  
ethylenediaminetetraacetate  
2-Butoxyethanol  
111-76-2  
Trisodium nitrilotriacetate  
5064-31-3

New Jersey Right To Know

Sodium (2-butoxyethoxy)acetate  
67990-17-4  
Tetrasodium  
ethylenediaminetetraacetate  
2-Butoxyethanol  
111-76-2  
Trisodium nitrilotriacetate  
5064-31-3

California Prop 65

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

The components of this product are reported in the following inventories:

TSCA : THIS PRODUCT CONTAINS ONE OR MORE COMPONENTS WHICH WERE NOT FOUND ON THE TSCA INVENTORY.

dye Pylaklor Tang Orange

water/inerts

TSCA : The components of this product are listed on the TSCA Inventory of Existing Chemical Substances.
Inventories
AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECl (Korea), NZIoC (New Zealand), PICCS (Philippines), TSCA (USA)

SECTION 16. OTHER INFORMATION

SECTIONS REVISED: First formulated version in SAP.
Major References: Available upon request.

THIS MATERIAL SAFETY DATA SHEET (MSDS) HAS BEEN PREPARED IN COMPLIANCE WITH THE FEDERAL OSHA HAZARD COMMUNICATION STANDARD, 29 CFR 1910.1200. THE INFORMATION IN THIS MSDS SHOULD BE PROVIDED TO ALL WHO WILL USE, HANDLE, STORE, TRANSPORT, OR OTHERWISE BE EXPOSED TO THIS PRODUCT. THIS INFORMATION HAS BEEN PREPARED FOR THE GUIDANCE OF PLANT ENGINEERING, OPERATIONS AND MANAGEMENT AND FOR PERSONS WORKING WITH OR HANDLING THIS PRODUCT. ARCH CHEMICALS BELIEVES THIS INFORMATION TO BE RELIABLE AND UP TO DATE AS OF THE DATE OF PUBLICATION BUT, MAKES NO WARRANTY THAT IT IS. ADDITIONALLY, IF THIS MSDS IS MORE THAN THREE YEARS OLD, YOU SHOULD CONTACT ARCH CHEMICALS MSDS CONTROL AT THE PHONE NUMBER ON THE FRONT PAGE TO MAKE CERTAIN THAT THIS DOCUMENT IS CURRENT.