



Robarb Granular

1. Product And Company Identification			
Supplier Robarb 1400 Bluegrass Lakes Parkway Alpharetta, GA 30004 United States Telephone Number: (770)521-5999 FAX Number: (770)521-5959 Web Site: www.poolspacare.com		Manufacturer Advantis Technologies, Inc. 1400 Bluegrass Lakes Parkway Alpharetta, GA 30004 United States Telephone Number: (770) 521-5999 FAX Number: (770) 521-5959 Web Site: www.poolspacare.com	
Supplier Emergency Contacts & Phone Number CHEMTREC - DAY OR NIGHT: (800) 424-9300		Manufacturer Emergency Contacts & Phone Number CHEMTREC - DAY OR NIGHT: (800) 424-9300	
Issue Date: 02/28/2006 Product Name: Robarb Granular Chemical Name: Sodium dichloroisocyanurate, dihydrate CAS Number: 51580-86-0 Chemical Family: Chloroisocyanurate Chemical Formula: NaCl ₂ (NCO) ₃ x2H ₂ O MSDS Number: 46 Synonyms Sodium Dichlor; Sodium dichloroisocyanurate, dihydrate; Sodium dichloro-s-triazinetrione dihydrate			
2. Composition/Information On Ingredients			
Ingredient Name		CAS Number	Percent Of Total Weight
SODIUMCHLORIDE		7647-14-5	
SODIUM DICHLOROISOCYANURATE, DIHYDRATE		51580-86-0	
Ingredients listed in this section have been determined to be hazardous as defined in 29CFR 1910.1200. Materials determined to be health hazards are listed if they comprise 1% or more of the composition. Materials identified as carcinogens are listed if they comprise 0.1% or more of the composition. Information on proprietary materials is available in 29CFR 1910.1200(i)(1).			
EMERGENCY OVERVIEW			
Harmful if swallowed.			
3. Hazards Identification			
Eye Hazards Severe irritation and/or burns can occur following eye exposure. Contact may cause impairment of vision and corneal damage.			
Skin Hazards Dermal exposure can cause severe irritation and/or burns characterized by redness, swelling, and scab formation. Prolonged skin exposure may cause permanent damage.			
Ingestion Hazards Irritation and/or burns can occur to the entire gastrointestinal tract, including the stomach and intestines, characterized by nausea, vomiting, diarrhea, abdominal pain, bleeding and/or tissue ulceration. Ingestion causes severe damage to the gastrointestinal tract with the potential to cause perforation.			

MATERIAL SAFETY DATA SHEET**Robarb Granular****3. Hazards Identification - Continued****Inhalation Hazards**

Irritating to the nose, mouth, throat, and lungs. It may also cause burns to the respiratory tract with the production of lung edema that can result in shortness of breath, wheezing, choking, chest pain, and impairment of lung function. Inhalation of high concentrations can result in permanent lung damage from the corrosive action of the lung.

Signs And Symptoms

Irritation of eyes and respiratory passages.

Conditions Aggravated By Exposure

Asthma, respiratory and cardiovascular disease.

First Aid (Pictograms)**4. First Aid Measures****Eye**

Holding the eyelids apart, flush eyes promptly with copious flowing water for at least 20 minutes. Get medical attention immediately.

Skin

Remove contaminated clothing. Wash skin thoroughly with mild soap and plenty of water for at least 15 minutes. Wash clothing before re-use.

Ingestion

If swallowed, wash mouth thoroughly with plenty of water and give water to drink. Get medical attention immediately. Never give an unconscious person anything to drink.

Inhalation

In case of dust inhalation or breathing fumes released from heated material, remove person to fresh air. Keep him quiet and warm. Apply artificial respiration if necessary and get medical attention immediately.

Note To Physician

Corrosive. No specific antidote. Treat symptomatically and supportively. In case of ingestion do not induce vomiting.

Fire Fighting (Pictograms)**5. Fire Fighting Measures**

Flash Point: N/A °F

Autoignition Point: N/A °F

Fire And Explosion Hazards

When heated to decomposition, may release poisonous and corrosive fumes of nitrogen trichloride, chlorine and carbon monoxide.

Extinguishing Media

Water. Do not use dry chemical extinguisher containing ammonia compounds.

Fire Fighting Instructions

Fire fighters should wear full protective clothing and self-contained breathing apparatus (SCBA) in positive pressure mode. Cool containers with water spray. On small fires, use water spray or fog. On large fires, use deluge or fog

MATERIAL SAFETY DATA SHEET**Robarb Granular****5. Fire Fighting Measures - Continued****Fire Fighting Instructions - Continued**

streams. Flooding amounts of water may be required before extinguishment can be accomplished.

6. Accidental Release Measures

For small spills in a well-ventilated area, wear a NIOSH approved half-face or full face tight fitting respirator or a loose fitting powered air purifying respirator equipped with chlorine cartridges. Chemical goggles should be worn when using a half-face respirator. In addition to respiratory protection, wear coveralls; chemical resistant gloves; chemical resistant footwear; and chemical resistant headgear for overhead exposure.

For clean up of large spills, or small dry spills in confined areas, wear full-face respirator with chlorine cartridges or a positive pressure supplied air respirator. Additionally, body protection should be impervious clothing covering the entire body to prevent personal contact with material. CAUTION - Protection concerns must also address the following: If this material becomes damp/wet or contaminated in a container, the formation of nitrogen trichloride gas may occur and an explosive condition may exist.

After Spill / leakage: Hazardous concentrations in air may be found in local spill area and immediately downwind. If spill material is still dry, do not put water directly on this product as a gas evolution may occur.

On Soil: Do not contaminate spill material with any organic materials, ammonia, ammonium salts, or urea. Clean up all spill material with clean, dry dedicated equipment and place in a clean dry container.

On Water: This material is heavier than and soluble in water. Stop flow of material into water as soon as possible. Begin monitoring for available chlorine and pH immediately.

In Air: Vapors may be suppressed by the use of water fog.

7. Handling And Storage**Handling And Storage Precautions**

Keep out of reach of children. Store material in a cool and dry place.

Handling Precautions

Do not take internally. Avoid contact with skin, eyes, clothing. Upon contact with skin, eyes, wash off with water.

Storage Precautions

Store in a cool, dry, well-ventilated area away from incompatible materials. Do not store at temperatures above 60C/140F. Product has an indefinite shelf-life limitation.

Work/Hygienic Practices

Use safe chemical handling procedures suitable for the hazards presented by this material.

Protective Clothing (Pictograms)**8. Exposure Controls/Personal Protection****Engineering Controls**

Use local exhaust ventilation to minimize dust and chlorine levels where industrial use occurs. Otherwise, ensure good general ventilation.

Eye/Face Protection

Use chemical safety glasses to avoid eye contact. Where industrial use occurs, chemical goggles maybe required.

MATERIAL SAFETY DATA SHEET**Robarb Granular****8. Exposure Controls/Personal Protection - Continued****Skin Protection**

Neoprene gloves. Impervious body covering clothes, boots, and neoprene apron.

Respiratory Protection

When dusty conditions are encountered, wear a NIOSH/OSHA full-face respirator with chlorine cartridges for protection against chlorine gas and dust/mist pre-filter. A respiratory protection program meeting OSHA 1910.134 and ANZI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use.

Other/General Protection

Safety shower and eye bath should be provided. Do not eat, drink, or smoke until after-work showering and changing clothes. Wear long sleeves.

9. Physical And Chemical Properties**Appearance**

White granular

Odor

Mild chlorine-like

Chemical Type: Mixture

Physical State: Solid

Melting Point: N/A °F

Boiling Point: N/A °F

Specific Gravity: 0.96

Molecular Weight: NOT DETERMINED

Percent Volatiles: NOT VOLATILE

Vapor Pressure: N/A

Vapor Density: N/A

pH Factor: 6-6.5 At a Concentration Of a 1% solution in water

Solubility: 25g/100ml at 30C

Evaporation Rate: N/A

Thermal Decomposition: Begins to lose 1 mole water at approximately 50C; second mole water at 95C. Decomposes at 240-250C.

10. Stability And Reactivity

Stability: STABLE

Hazardous Polymerization: WILL NOT OCCUR

Conditions To Avoid (Stability)

Do not package in paper or cardboard. Do not heat above 240C (464F).

Incompatible Materials

Organic materials, reducing agents, nitrogen containing materials, other oxidizers, acids, bases, oils, grease, sawdust, dry fire extinguishers containing monoammonium compounds.

Hazardous Decomposition Products

Nitrogen trichloride, chlorine, carbon monoxide.

11. Toxicological Information**Acute Studies**

Rat Oral LD50	735 mg/kg
Rabbit Dermal LD50	>2000 mg/kg
Rat Inhalation LC50	>50 mg/m ³ /1hour
Eye Irritation (rabbit)	Corrosive
Dermal Irritation (rabbit)	Corrosive

MATERIAL SAFETY DATA SHEET**Robarb Granular****11. Toxicological Information - Continued****Acute Studies - Continued**

Dermal Sensitization (guinea pig) Not a sensitizer

Acute Oral Effects

LD50 mg/kg Rat \geq 910gr/kg

Subchronic (Target Organ Effects)

This product is corrosive to all tissues contacted and upon inhalation, may cause irritation to mucous membranes and respiratory tract. There are no known or reported effects from repeated exposure. Toxicological investigation indicates it does not produce significant effects from chronic exposure.

Chronic/Carcinogenicity

Chronic inhalation exposure may cause impairment of lung function and permanent lung damage.

Teratogenicity (Birth Defects)

Sodium dichloroisocyanuric acid when given orally to pregnant mice from day 6 to day 15 of gestation, did not induce any significant teratogenic effects.

Mutagenicity (Genetic Effects)

Not mutagenic in five Salmonella strains with or without metabolic activation.

Conditions Aggravated By Overexposure

Asthma, respiratory and cardiovascular disease.

12. Ecological Information**Acute Toxicity - Fish And Invertebrates**

96 hour - LC50 - Fish 0.22 mg/l (Rainbow Trout)
0.28 mg/l (bluegill sunfish)
48 hour - LC50 - Daphnia magna 0.2 mg/l

Acute And Dietary Toxicity - Birds

Bobwhite quail, acute oral LD50 730 mg/kg
Mallard duck, acute oral LD50 3300 mg/kg
Mallard duck, dietary LC50 >10,000 ppm
Bobwhite quail, dietary LC50 >10,000 ppm

13. Disposal Considerations

Refer to applicable local, state and federal regulations as well as industry standards.

14. Transport Information**Proper Shipping Name**

NOT REGULATED

Hazard Class

NOT REGULATED

DOT Identification Number

NONE

15. Regulatory Information**U.S. Regulatory Information**

Reported in the EPA TSCA Inventory

SARA Hazard Classes

Acute Health Hazard
Fire Hazard

MATERIAL SAFETY DATA SHEET

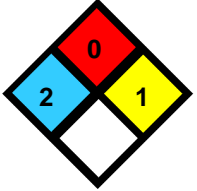
Robarb Granular

15. Regulatory Information - Continued

SARA Hazard Classes - Continued

SARA Section 313 Notification

This product does not contain a chemical listed at or above de minimis concentrations.

NFPA	HMIS								
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FLAMMABILITY	0								
REACTIVITY	1								
PERSONAL PROTECTION	H								

16. Other Information

Revision/Preparer Information

MSDS Preparer: JHW

This MSDS Superceeds A Previous MSDS Dated: 07/26/2000

Disclaimer

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