FOR ANY EMERGENCY, 24 HOURS / 7 DAYS, CALL:

FOR ALL TRANSPORTATION ACCIDENTS, CALL CHEMTREC®:

FOR ALL SDS QUESTIONS & REQUESTS, CALL:

1-800-654-6911 (OUTSIDE USA: 1-423-780-2970) 1-800-424-9300 (OUTSIDE USA: 1-703-527-3887) 1-800-511-MSDS (OUTSIDE USA: 1-423-780-2347)

PRODUCT NAME: ROBARB POOL SPECIALTIES POWER BLAST

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

<u>Supplier</u> 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: SUPERCEDES:

MSDS Number: SYNONYMS: CHEMICAL FAMILY: DESCRIPTION / USE FORMULA: 06/02/2015 05/26/2015

000000024566 None Hypochlorite Sanitizer and Oxidizer None established

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification		
Oxidizing solids	:	Category 2
Acute toxicity (Oral)	:	Category 4
Skin irritation	:	Category 2
Serious eye damage	:	Category 1
Acute toxicity (Inhalation)	:	Category 3
Specific target organ toxicity - single exposure	:	Category 3 (Respiratory system)

SAFETY DATA SHEET

GHS Label element Hazard pictograms :	
Signal word :	Danger
Hazard statements :	 H272 May intensify fire; oxidiser. H302 + H332 Harmful if swallowed or if inhaled H315 Causes skin irritation. H318 Causes serious eye damage. H331 Toxic if inhaled. H335 May cause respiratory irritation.
Precautionary statements :	 Prevention: P210 Keep away from heat. P220 Keep/Store away from clothing/ combustible materials. P221 Take any precaution to avoid mixing with combustibles. P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray. P264 Wash skin thoroughly after handling. P270 Do not eat, drink or smoke when using this product. P271 Use only outdoors or in a well-ventilated area. P280 Wear protective gloves/ eye protection/ face protection. Response: P301 + P312 + P330 IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell. Rinse mouth. P302 + P352 IF ON SKIN: Wash with plenty of soap and water. P304 + P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/ physician if you feel unwell. P305 + P351 + P338 + P310 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 or doctor/ physician. P332 + P313 If skin irritation occurs: Get medical advice/ attention. P362 Take off contaminated clothing and wash before reuse. P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish. Storage: P403 + P233 Store in a well-ventilated place. Keep container tightly closed. P405 Store locked up. P305 Store locked up. P305 Dispose of contents/ container to an approved waste disposal plant.
Other hazards	

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

CAS OR CHEMICAL NAME CALCIUM HYPOCHLORITE	<u>CAS #</u> 7778-54-3	<u>% RANGE</u> 60 - 80
SODIUM CHLORIDE	7647-14-5	10 - 20
CALCIUM CHLORATE	10137-74-3	0-5
CALCIUM CHLORIDE	10043-52-4	0-5
CALCIUM HYDROXIDE	1305-62-0	0 - 4
CALCIUM CARBONATE	471-34-1	0-5
Water	7732-18-5	5.5 - 10

SECTION 4. FIRST AID MEASURES

General Advice:	Call a poison control center or doctor for treatment advice. For 24-hour emergency medical assistance, call Arch Chemical Emergency Action Network at 1-800-654-6911. Have the product container or label with you when calling a poison control center or doctor, or going for treatment.
Inhalation:	IF INHALED: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.
Skin Contact:	IF ON SKIN OR CLOTHING: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.
Eye Contact:	IF IN EYES: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.
Ingestion:	IF SWALLOWED: Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.
Notes to Physician:	Probable mucosal damage may contraindicate the use of gastric lavage.

SECTION 5. FIREFIGHTING MEASURES

This product is chemically reactive with many substances. Any contamination of the product with other substances by spill or otherwise may result in a chemical reaction and fire., This product is a strong oxidizer which is capable of intensifying a fire once started., Product is not known to be flammable, combustible or pyrophoric.
Not applicable
Not applicable
Water only. Do not use dry extinguishers containing ammonium compounds.
Use water to cool containers exposed to fire. See Section 6 for protective equipment for fire fighting.
Not applicable
Not applicable

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Protection for Emergency Situations:	Response to a large quantity spill (100 pounds or greater) or when dusting or decomposition gas exposure could occur requires the use of a positive pressure full face supplied air repirator or self contained breathing apparatus (SCBA), chemical resistant gloves, coveralls and boots. In case of fire, this personal protective equipment should be used in addition to normal fire fighter equipment.
Spill Mitigation Procedures	
Air Release:	Vapors may be suppressed by the use of water fog. All water utilized to assist in fume suppression, decontamination or fire suppression may be contaminated and must be contained before disposal and/or treatment.
Water Release:	This product is heavier than water. This material is soluble in water. Monitor all exit water for available chlorine and pH. Advise local authorities of any contaminated water release.

Land Release:	Contact 1-800-654-6911 immediately. DANGER: All spills of this product should be treated as contaminated. Contaminated product may initiate a chemical reaction that may spontaneously ignite any combustible material present, resulting in a fire of great intensity. In case of a spill, separate all spilled product from packaging, debris and other material. Using a clean broom or shovel, place all spilled product into plastic bags, and place those bags into a clean, dry disposal container, properly marked and labeled. Disposal containers made of plastic or metal are recommended. Do not seal disposal containers tightly. Immediately remove all product in disposal containers to an isolated area outdoors. Place all damaged packaging material in a disposal container of water to assure decontamination (i.e. removal of all product) before disposal. Place all undamaged packaging in a clean, dry container properly marked and labeled. Call for disposal procedures.
Additional Spill Information :	Hazardous concentrations in air may be found in local spill area and immediately downwind. Remove all sources of ignition. Stop source of spill as soon as possible and notify appropriate personnel. Dispose of spill residues per guidelines under Section 13, Disposal Consideration. This material may be neutralized for disposal; you are requested to contact Arch Chemicals at 1-800-654-6911 before beginning any such procedure. FOR ALL TRANSPORTATION ACCIDENTS, CALL CHEMTREC: 1-800-424-9300 REPORTABLE QUANTITY: 10 lbs. (as calcium hypochlorite) per 40 CFR 302.4.

SECTION 7. HANDLING AND STORAGE

Handling:

Storage:

Shelf Life Limitations:

Avoid inhalation of dust and fumes. Do not take internally. Avoid contact with skin, eyes and clothing. Upon contact with skin or eyes, wash off with water. Remove contaminated clothing and wash before reuse.

Keep product tightly sealed in original containers. Store product in a cool, dry, well-ventilated area. Store away from combustible or flammable products. Keep product packaging clean and free of all contamination, including, e.g. other pool treatment products, acids, organic materials, nitrogen-containing compounds, dry powder fire extinguishers (containing mono-ammonium phosphate), oxidizers, all corrosive liquids, flammable or combustible materials, etc. Do not store product where the average daily temperature exceeds 95° F. Storage above this temperature may result in rapid decomposition, evolution of chlorine gas and heat sufficient to ignite combustible products. Shelf life (that is, the period of time before the product goes below stated label strength) is determined by storage time and temperatures. Store in a cool, dry and well ventilated area. Prolonged storage at elevated temperatures will significantly shorten the shelf life. Storage in a climate controlled storage area or building is recommended in those areas where extremes of high temperature occur.

Incompatible Materials for Storage:	Do not allow product to come in contact with other materials, including e.g. other pool treatment products, acids, organic materials, nitrogen-containing compounds, dry powder fire extinguishers (containing mono-ammonium phosphate), oxidizers, all corrosive liquids, flammable or combustible materials, etc. A chemical reaction with such substances can cause a fire of great intensity.
Do Not Store At temperatures Above:	Average daily temperature of 35° C / 95° F. Storage above this temperature may result in rapid decomposition, evolution of chlorine gas and heat sufficient to ignite combustible products.

SECTION 8. EXPOSURE CONTROLS/PERSONAL 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.	
Respirator Type :	A NIOSH approved full-face air purifying respirator equipped with combination chlorine/P100 cartridges. 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. A full impervious suit is recommended if exposure is possible to a large portion of the body. A safety shower should be provided in the immediate work area.	
Eye Protection:	Use chemical goggles. Emergency eyewash should be provided in the immediate work area.	
Protective Clothing Type:	Neoprene, Nitrile, Natural rubber (This includes: gloves, boots, apron, protective suit)	

Components with workplace control parameters

Components (CAS-No.)	Value	Control parameters	Basis (Update)
CALCIUM HYPOCHLORITE (7778-54-3)	TWA	1 mg/m3	ARCH OEL*
CALCIUM HYPOCHLORITE (7778-54-3)	Conc	37 - 48 mg/m3	NIOSH/GUIDE IDLH
CALCIUM HYDROXIDE (1305-62-0)	TWA	5 mg/m3	ACGIH (02 2014)

ARCH OEL: Arch Recommended Occupational Exposure Guideline.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Form Color: Odor: Molecular Weight: pH : Boiling Point:	solid Free flowing, granular white No data. (Active ingredient)143.00 g/mol 10.4 - 10.8 (1% solution in neutral, distilled water) (@ 25 Deg. C) Not applicable Not applicable
Density:	0.8g/cc
Vapor Pressure: Vapor Density: Viscosity: Fat Solubility: Solubility in Water:	 (@ 25 Deg. C) Not applicable Not applicable Not applicable No data 18 % (@ 25 Deg. C) Product also contains calcium hydroxide and calcium carbonate which will leave a residue.
Partition coefficient n- octanol/water: Evaporation Rate: Oxidizing: Volatiles, % by vol.: VOC Content HAP Content	No data Not applicable None established Not applicable Not applicable Not applicable

SECTION 10. STABILITY AND REACTIVITY

Stability and Reactivity Summary:	Product is not sensitive to mechanical shock or impact. Product is not sensitive to electrical static discharge. Product will not undergo hazardous polymerization. Product is an NFPA Class 3 oxidizer which can cause a severe increase in fire intensity. Not pyrophoric. Not an organic peroxide. If subjected to excessive temperatures, the product may undergo rapid decomposition, evolution of chlorine gas, and heat sufficient to ignite combustible substances. If product is exposed to small amounts of water, it can react violently to produce heat and toxic gases and spatter. Use copious amounts of water for fires involving this product.
Conditions to Avoid:	Do not store next to heat source, in direct sunlight, or elevated storage temperature. Do not store where the daily average temperature exceeds 95 °F. Prevent ingress of humidity and moisture into container or package. Always close the lid.
Chemical Incompatibility:	This product is chemically reactive with many substances, including, e.g., other pool treatment products, acids, organics, nitrogen-containing compounds, dry powder fire extinguishers (containing mono-ammonium phosphate), oxidizers, corrosive ,flammable or combustible materials. Do not allow product to contact any foreign matter, including other water treatment products. Contamination or improper use may cause a fire of great intensity, explosion or the release of toxic gases. If product is exposed to small amounts of water, it can react violently to produce heat and toxic gases and spatter.

Hazardous Decomposition Products:ChlorineDecomposition Temperature:170 - 180 °C - , 338 - 356 °F-

SECTION 11. TOXICOLOGICAL INFORMATION

<u>Component Animal Toxic</u> Oral LD50 value:	cology			
CALCIUM HYPOCHLORITE	LD50 (65% calcium hypochlorite) 850 mg/kg Rat			
SODIUM CHLORIDE	LD50 = 3,000 mg/kg Rat			
CALCIUM CHLORIDE	LD50 = 1,000 mg/kg Rat			
CALCIUM HYDROXIDE	LD50 = 7,340 mg/kg Rat			
<u>Component Animal Toxic</u> Dermal LD50 value:	cology			
CALCIUM HYPOCHLORITE	LD50 (65% calcium hypochlorite) > 2,000 mg/kg Rabbit			
SODIUM CHLORIDE	LD50 > 10,000 mg/kg Rabbit			
CALCIUM CHLORIDE	LD50 = 2,630 mg/kg Rat			
CALCIUM HYDROXIDE	No data			
Component Animal Toxic	cology			
Inhalation LC50 value:				
CALCIUM HYPOCHLORITE	Inhalation LC50 1 h (65% calcium hypochlorite), (Nose Only) = 2.04 mg/l Rat			
	Inhalation LC50 4 h (65% calcium hypochlorite), (Nose Only) = 0.51 mg/l Rat			
SODIUM CHLORIDE	Inhalation LC50 1 h > 42 mg/l Rat			
CALCIUM CHLORIDE No data				
CALCIUM HYDROXIDE No data				
Dermal LD50 value: Inhalation LC50	LD50 Approximately 800 mg/kg Rat LD50 > 2,000 mg/kg Rabbit Inhalation LC50 1.00 h (Nose Only) > 2.04 mg/l Rat Inhalation LC50 4 h (Nose Only) > 0.51 mg/l Rat			
	DRY MATERIAL CAUSES MODERATE SKIN IRRITATION., WET MATERIAL CAUSES SKIN BURNS.			
Eye Irritation: Corrosive to eyes.				
	This material is not known or reported to be a skin or respiratory sensitizer.			
ROBARB POOL SPECIAL REVISION DATE : 06/02	TIES POWER BLAST 2/2015 Page 8 of 13			

Acute Toxicity: Subchronic / Chronic Toxicity:	irritation to mucous men the skin. However when	is product is corrosive to all tissues contacted and upon inhalation, may cause tation to mucous membranes and respiratory tract. The dry material is irritating to skin. However when wet, it will produce burns to the skin. ere are no known or reported effects from repeated exposure except those condary to burns.		
Reproductive and Developmental Toxicity		Calcium hypochlorite has been tested for teratogenicity in laboratory animals. Results of this study have shown that calcium hypochlorite is not a teratogen.		
CALCIUM CHLORIDE		Not known or reported to cause reproductive or developmental toxicity.		
Mutagenicity:	mice, and it did nor has been reported has, however, bee animals based on frequently are inap chemicals due to a produces mutation concentrations use	ite has been tested in the Dominant lethal assay in male t induce a dominant lethal response. Calcium hypochlorite to produce mutagenic activity in two in vitro assays. It n shown to lack the capability to produce mutations in results from the micronucleus assay. In vitro assays propriate to judge the mutagenic potential of bactericidal high degree of cellular toxicity. The concentration which s in these in vitro assays is significantly greater than the ed for disinfection. Based on high cellular toxicity in in vitro ik of mutagenicity in animals, the risk of genetic damage ed not significant.		
CALCIUM CH	LORIDE	This product was determined to be non-mutagenic in the Ames assay. It was also shown to be non-clastogenic in the chromosomal aberration test.		
Carcinogenicity:	source including IA exposed dermally hypochlorite. Histo incidence of tumor reviewed studies c classified hypochlo carcinogenicity to I	known or reported to be carcinogenic by any reference ARC, OSHA, NTP or EPA. One hundred mice were 3 times a week for 18 months to a solution of calcium opathological examination failed to show an increased s. IARC (International Agency for Research on Cancer) onducted with several hypochlorite salts. IARC has brite salts as having inadequate evidence for humans and animals. IARC therefore considers to be not classifiable as to their carcinogenicity to humans ce).		
CALCIUM CH	LORIDE	This chemical is not known or reported to be carcinogenic by any reference source including IARC, OSHA, NTP, or EPA.		

SECTION 12. ECOLOGICAL INFORMATION

Overview:

Highly toxic to fish and other aquatic organisms.

Ecological Toxicity Values for: CALCIUM HYPOCHLORITE

Bluegill - (nominal, static). 96 h LC50 0.088 mg/l

Rainbow trout (Salmo gairdneri),		(nominal, static). 96 h LC50 0.16 mg/l
Daphnia magna,	-	(nominal, static). 48 h LC50 0.11 mg/l
Bobwhite quail	-	Dietary LC50 > 5,000 ppm
Mallard ducklings	-	Dietary LC50 > 5,000 ppm
Bobwhite quail	-	Oral LD50 3,474 mg/kg

Ecological Toxicity Values for: CALCIUM CHLORIDE

Bluegill Mosquito fish Pimephales promelas (fathead minnow)	-	(nominal, static). 96 h LC50 = 10,650 mg/l (nominal, static). 96 h LC50 = 13,400 mg/l (nominal, static). 96 h LC50 = 4,630 mg/l
Daphnia magna, Ceriodaphnia dubia Nitzschia linearis (diatom)	-	(nominal, static). 48 h LC50= 2,770 mg/l (nominal, static). 48 h LC50= 1,830 mg/l (nominal, static). 5 day LC50 = 3,130 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: D001.If this product becomes a waste, it will be a hazardous waste which is subject to the Land Disposal restrictions under 40 CFR 268 and must be managed accordingly.
Disposal Methods :	As a hazardous solid waste it should be disposed of in accordance with local, state and federal regulations.
Potential US EPA Waste Codes :	D001

SECTION 14. TRANSPORT INFORMATION

DOT	
UN number	: 2880
Description of the goods	: Calcium hypochlorite, hydrated mixtures
Class	: 5.1
Packing group	: 11
Labels	: 5.1
OBARB POOL SPECIAL TIES POW	ER BLAST

Emergency Response Guidebook Number	: 140
TDG UN number Description of the goods Class Packing group Labels	: 2880 : CALCIUM HYPOCHLORITE, HYDRATED MIXTURE : 5.1 : II : 5.1
IATA UN number Description of the goods Class Packing group Labels Packing instruction (cargo aircraft) Packing instruction (passenger aircraft) Packing instruction (passenger aircraft)	 2880 Calcium hypochlorite, hydrated mixture 5.1 II 5.1 562 558 Y544
IMDG-CODE UN number Description of the goods Class Packing group Labels EmS Number 1 EmS Number 2	: 2880 : CALCIUM HYPOCHLORITE, HYDRATED MIXTURE : 5.1 : II : 5.1 : F-H : S-Q
Marine pollutant	: yes

SECTION 15. REGULATORY INFORMATION

This chemical is a pesticide product registered by the United States Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels of non-pesticide chemicals.

Signal word	:	DANGER!
Hazard statements	:	Causes substantial but temporary eye injury.
		Corrosive. Causes skin burns.
		Corrosive. Causes irreversible eye damage.
		This pesticide is toxic to fish.

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

CERCLA Reportable Quantity

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
Calcium hypochlorite	7778-54-3	10	13

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.

US State Regulations

Massachusetts Right To Know

	Calcium hypochlorite Calcium chlorate Calcium dihydroxide Calcium carbonate	7778-54-3 10137-74-3 1305-62-0 471-34-1
Pennsylvania Right To Know		
	Calcium hypochlorite Sodium chloride Calcium chlorate Calcium chloride Calcium dihydroxide Calcium carbonate	7778-54-3 7647-14-5 10137-74-3 10043-52-4 1305-62-0 471-34-1
New Jersey Right To Know		
	Calcium hypochlorite Sodium chloride Calcium chlorate Calcium chloride Calcium carbonate Calcium dihydroxide	7778-54-3 7647-14-5 10137-74-3 10043-52-4 471-34-1 1305-62-0

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 is an EPA registered pesticide.

Inventories

AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIOC (New Zealand), PICCS (Philippines), TSCA (USA)

SAFETY DATA SHEET

SECTION 16. OTHER INFORMATION

SECTIONS REVISED: Major References : 1 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.