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FOR ALL TRANSPORTATION ACCIDENTS, CALL CHEMTREC®: 1-800-424-9300 (OUTSIDE USA: 1-703-527-3887)
FOR ALL SDS QUESTIONS & REQUESTS, CALL: 1-800-511-MSDS (OUTSIDE USA: 1-423-780-2347)

PRODUCT NAME: POOLIFE CALCIUM PLUS

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION


Arch Chemicals, Inc. 1200 Bluegrass Lakes Parkway Alpharetta, GA 30004	REVISION DATE:	05/27/2015
	SUPERCEDES:	11/11/2013
	MSDS Number:	000000023039
	SYNONYMS:	Calcium Plus, Calcium Adjuster, Hardness Adjuster, Calcium Chloride
	CHEMICAL FAMILY:	Alkaline salts
	DESCRIPTION / USE	Hardness increaser for swimming pools
	FORMULA:	CaCl ₂

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification

Acute toxicity (Oral) : Category 4
Skin irritation : Category 2
Eye irritation : Category 2A
Specific target organ toxicity - single exposure : Category 3 (Respiratory system)

GHS Label element

Hazard pictograms : 

Signal word : Warning

Hazard statements : H302 Harmful if swallowed.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.



Precautionary statements : **Prevention:**
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 eye protection/ face protection.
P280 Wear protective gloves.
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 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312 Call a POISON CENTER or doctor/ physician if you feel unwell.
P332 + P313 If skin irritation occurs: Get medical advice/ attention.
P337 + P313 If eye irritation persists: Get medical advice/ attention.
P362 Take off contaminated clothing and wash before reuse.
Storage:
P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
P405 Store locked up.
Disposal:
P501 Dispose of contents/ container to an approved waste disposal plant.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

<u>CAS OR CHEMICAL NAME</u>	<u>CAS #</u>	<u>% RANGE</u>
CALCIUM CHLORIDE	10043-52-4	90 - 95
Water	7732-18-5	2 - 4
SODIUM CHLORIDE	7647-14-5	1 - 2
POTASSIUM CHLORIDE (KCL)	7447-40-7	1 - 2
Magnesium Chloride	7786-30-3	1 - 2



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. If not breathing, give artificial respiration. Call for medical assistance.
Skin Contact:	IF ON SKIN: Immediately flush skin with plenty of water for 15 minutes. If clothing comes in contact with the product, the clothing should be removed immediately and laundered before re-use. Seek medical attention.
Eye Contact:	IF IN EYES: Immediately flush eyes with plenty of water for at least 15 minutes. Seek medical attention immediately.
Ingestion:	IF SWALLOWED: Call a physician immediately. DO NOT induce vomiting unless directed to do so by a physician. Never give anything by mouth to an unconscious person.

SECTION 5. FIREFIGHTING MEASURES

Flammability Summary (OSHA): Product is not known to be flammable, combustible, pyrophoric or explosive.

Flammable Properties

Flash Point:	Not applicable
Autoignition Temperature:	Not applicable
Fire / Explosion Hazards:	If the product is involved in a fire, toxic smokes could develop.
Extinguishing Media:	Choose extinguishing media suitable for surrounding materials.
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:	Carbon monoxide, Carbon dioxide
Upper Flammable / Explosive Limit, % in air:	Not applicable
Lower Flammable / Explosive Limit, % in air:	Not applicable

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Protection for Emergency Situations: Additional protective clothing must be worn to prevent personal contact with this material. Those items include but are not limited to boots, impervious gloves, hard hat, splash-proof goggles, impervious clothing, i.e., chemically impermeable suit, self-contained breathing apparatus.

Spill Mitigation Procedures

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Air Release: Vapors may be suppressed by the use of water fog.
Water Release: This material is soluble in water. Notify all downstream users of possible contamination. Divert water flow around spill if possible and safe to do so.
Land Release: Sweep up and place in suitable clean, dry containers for reclamation or later disposal.
Additional Spill Information : Remove all sources of ignition. 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. Upon contact with skin or eyes, wash off with water. Avoid breathing dust from this material.
Storage: Store in a cool, dry and well ventilated place. Material is hygroscopic. Protect from moisture-laden air.
Incompatible Materials for Storage: Refer to Section 10, "Incompatible Materials."

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ventilation: Local exhaust ventilation is recommended if significant dusting occurs. Otherwise use general exhaust ventilation.

Protective Equipment for Routine Use of Product

Respiratory Protection : Respiratory protection not normally needed. Wear a NIOSH approved respirator if dusts are created.
Respirator Type : Wear a NIOSH approved N95 respirator.
Skin Protection : Wear impervious gloves to avoid skin contact. 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: Impervious

Components with workplace control parameters

no data available

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State: solid
Form: Flakes
Color: White
Odor: None



Molecular Weight:	111.00 g/mol
pH :	7.0 - 9.0 @ 5% aqueous solution
Boiling Point:	Not applicable Not applicable
Density:	42.0000 - 51.0000lb/ft ³
Vapor Pressure:	No data
Vapor Density:	Not applicable
Viscosity:	No data
Fat Solubility:	No data
Solubility in Water:	soluble
Partition coefficient n-octanol/water:	Not applicable
Evaporation Rate:	Not applicable
Oxidizing:	No data
Volatiles, % by vol.:	No data
VOC Content	This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCM I 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. Product will not undergo hazardous polymerization.
Conditions to Avoid:	Sparks, open flame, other ignition sources, and elevated temperatures., Exposure to moist air or water
Chemical Incompatibility:	metals, water
Hazardous Decomposition Products:	Chlorine
Decomposition Temperature:	Not applicable

SECTION 11. TOXICOLOGICAL INFORMATION

Component Animal Toxicology

Oral LD50 value:

CALCIUM CHLORIDE	LD50 = 1,000 mg/kg	Rat
SODIUM CHLORIDE	LD50 = 3,000 mg/kg	Rat
POTASSIUM CHLORIDE (KCL)	LD50 = 2,600 mg/kg	Rat
Magnesium Chloride	LD50 = 2,800 mg/kg	Rat

Component Animal Toxicology

Dermal LD50 value:

CALCIUM CHLORIDE	LD50 = 2,630 mg/kg	Rat
SODIUM CHLORIDE	LD50 > 10,000 mg/kg	Rabbit



POTASSIUM CHLORIDE (KCL) No data
Magnesium Chloride No data

Component Animal Toxicology

Inhalation LC50 value:

CALCIUM CHLORIDE No data

SODIUM CHLORIDE Inhalation LC50 1 h > 42 mg/l Rat

POTASSIUM CHLORIDE (KCL) No data
Magnesium Chloride No data

Product Animal Toxicity

Oral LD50 value: LD50 Believed to be, Approximately 1,000 mg/kg Rat

Dermal LD50 value: LD50 Believed to be > 2,000 mg/kg Rat

Inhalation LC50 value: No data

Skin Irritation: This material is expected to be slightly irritating.

Eye Irritation: Moderate to Severe Eye Irritant

Skin Sensitization: This material is not known or reported to be a skin or respiratory sensitizer.

Acute Toxicity: Powder can cause irritation to eyes, skin & respiratory tract. Liquid solution can cause burns to the skin and eyes.

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

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

CALCIUM CHLORIDE Not known or reported to cause reproductive or developmental toxicity.

Mutagenicity: Not known or reported to be mutagenic.

CALCIUM CHLORIDE 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.

POTASSIUM CHLORIDE (KCL) This product has been tested for mutagenicity. Tests revealed both positive and negative results.

Carcinogenicity: This product is not known or reported to be carcinogenic by any reference source including IARC, OSHA, NTP or EPA.

CALCIUM CHLORIDE 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: No data for product. Individual constituents are as follows:

Ecological Toxicity Values for: CALCIUM CHLORIDE

	Bluegill	- (nominal, static). 96 h LC50 = 10,650 mg/l
Mosquito fish		- (nominal, static). 96 h LC50 = 13,400 mg/l
Pimephales promelas (fathead minnow)		- (nominal, static). 96 h LC50 = 4,630 mg/l
	Daphnia magna,	- (nominal, static). 48 h LC50= 2,770 mg/l
Ceriodaphnia dubia		- (nominal, static). 48 h LC50= 1,830 mg/l
	Nitzschia linearis (diatom)	- (nominal, static). 5 day LC50 = 3,130 mg/l

Ecological Toxicity Values for: POTASSIUM CHLORIDE (KCL)

Gambusia affinis (Mosquito fish)	- static test 96 h LC50 = 920 mg/l
Lepomis macrochirus (Bluegill sunfish)	- static test 96 h LC50 = 2,010 mg/l
Daphnia magna (Water flea)	- 48 h EC50= 825 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 will be a nonhazardous waste according to U.S. RCRA regulations. Dispose of in accordance with all Local, State, Federal, and Provincial Environmental Regulations.

Disposal Methods : As a nonhazardous waste, it should be disposed of in accordance with local, state and federal regulations.

Potential US EPA Waste Codes : Not applicable

SECTION 14. TRANSPORT INFORMATION

DOT
Not dangerous goods



TDG

Not dangerous goods

IATA

Not dangerous goods

IMDG-CODE

Not dangerous goods

SECTION 15. REGULATORY INFORMATION

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

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 SOCM I Intermediate or Final VOC's (40 CFR 60.489).

Clean Water Act

This product does not contain any Hazardous Substances listed under the U.S. CleanWater Act, Section 311, Table 116.4A.

This product does not contain any Hazardous Chemicals listed under the U.S. CleanWater Act, Section 311, Table 117.3.

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

No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know

Calcium chloride 10043-52-4

New Jersey Right To Know

Calcium chloride 10043-52-4
Magnesium chloride 7786-30-3

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 : 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), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines), TSCA (USA)

SECTION 16. OTHER INFORMATION

SECTIONS REVISED: 1
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. .