



FOR ANY EMERGENCY, 24 HOURS / 7 DAYS, CALL:	1-800-654-6911 (OUTSIDE USA: 1-423-780-2970)
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: **BAQUACIL Oxidizer**

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Arch Chemicals, Inc. 1200 Bluegrass Lakes Parkway Alpharetta, GA 30004	REVISION DATE:	05/27/2015
	SUPERCEDES:	09/22/2010
	MSDS Number:	000000022731
	SYNONYMS:	Dihydrogen dioxide (solution)
	CHEMICAL FAMILY:	Hydrogen peroxide
	DESCRIPTION / USE	Swimming pool oxidizer
	FORMULA:	None established

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification

Oxidizing liquids	:	Category 1
Skin irritation	:	Category 2
Serious eye damage	:	Category 1
Specific target organ toxicity - single exposure	:	Category 3 (Respiratory system)

GHS Label element

Hazard pictograms	:	  
-------------------	---	--

Signal word	:	Danger
-------------	---	--------

Hazard statements	:	H271 May cause fire or explosion; strong oxidiser. H315 Causes skin irritation. H318 Causes serious eye damage. 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.
- P271 Use only outdoors or in a well-ventilated area.
- P280 Wear protective gloves/ eye protection/ face protection.
- P283 Wear fire/ flame resistant/ retardant clothing.

Response:

- 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.
- P306 + P360 IF ON CLOTHING: rinse immediately contaminated clothing and skin with plenty of water before removing clothes.
- P312 Call a POISON CENTER or doctor/ physician if you feel unwell.
- 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.
- P371 + P380 + P375 In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.

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>
Water	7732-18-5	72.50
HYDROGEN PEROXIDE (H ₂ O ₂)	7722-84-1	27.50



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: 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: 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: Material will not ignite or burn. Oxygen is a decomposition product of hydrogen peroxide. The generation of oxygen will increase the burning rate or ignitable materials.

Extinguishing Media: Water spray

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: Oxygen

Upper Flammable / Explosive Limit, % in air: No data

Lower Flammable / Explosive Limit, % in air: No data

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Protection for Emergency Situations: Use the personal protective equipment recommended in Section 8 and a NIOSH approved self-contained breathing apparatus.

Spill Mitigation Procedures

Air Release: Vapors may be suppressed by the use of water fog. Contain all liquid for treatment and/or disposal as a (potential) hazardous waste.

Water Release: This material is heavier than water. 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: Contain spilled liquid with sand or earth. DO NOT use combustible materials such as sawdust. Dilute spilled material with large amounts of water. Do not place spill materials back in their original containers. Place in containers compatible for this material in a liquid form. After removal, flush contaminated area thoroughly with water.

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.

SECTION 7. HANDLING AND STORAGE

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

Storage: 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.

Incompatible Materials for Storage: Violent, catalytic decomposition will occur in contact with certain metals, such as iron, copper, chromium, brass, bronze, lead, silver, manganese, or their salts. Decomposed by alkalis and even ordinary dust or rust., Bases, Reducing agents, alcohols, Permanganates

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. NIOSH approved full-face positive pressure supplied-air respirator

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 and a faceshield. Emergency eyewash should be provided in the immediate work area.

Protective Clothing Type: Butyl rubber, Natural rubber, Nitrile, VitonTM

Components with workplace control parameters

Components (CAS-No.)	Value	Control parameters	Basis (Update)
----------------------	-------	--------------------	----------------



HYDROGEN PEROXIDE (H ₂ O ₂) (7722-84-1)	TWA	1 ppm	ACGIH (02 2014)
--	-----	-------	-----------------

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	liquid
Form	liquid
Color:	colorless
Odor:	None
Molecular Weight:	34.00 g/mol
pH :	2.7
Boiling Point:	No data
Density:	No data.
Vapor Pressure:	186.70000000 hPa
Vapor Density:	No data
Viscosity:	No data
Fat Solubility:	No data
Solubility in Water:	soluble
Partition coefficient n-octanol/water:	Not applicable
Evaporation Rate:	No data
Oxidizing:	Oxidizer
Volatiles, % by vol.:	100.000%
VOC Content	This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCM 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:	May become unstable at elevated temperatures and/or pressure. Not sensitive to mechanical shock. Not sensitive to static discharge.
Conditions to Avoid:	Contamination, Avoid concentrating the hydrogen peroxide. Concentrated hydrogen peroxide solutions are reactive, often violently, with a wide range of inorganic and organic chemicals., Sparks, open flame, other ignition sources, and elevated temperatures.
Chemical Incompatibility:	strong reducing agents, Contact with combustible materials may cause a fire., copper & copper alloys, ferrous metals, brass, Bases
Hazardous Decomposition Products:	Oxygen is a decomposition product of hydrogen peroxide. The generation of oxygen will increase the burning rate or ignitable materials.
Decomposition Temperature:	No data



SECTION 11. TOXICOLOGICAL INFORMATION

Component Animal Toxicology

Oral LD50 value:

HYDROGEN PEROXIDE (H2O2) LD50 (35% Hydrogen Peroxide) = 1,232 mg/kg Rat

Component Animal Toxicology

Dermal LD50 value:

HYDROGEN PEROXIDE (H2O2) LD50 (35% Hydrogen Peroxide) > 2,000 mg/kg Rabbit

Component Animal Toxicology

Inhalation LC50 value:

HYDROGEN PEROXIDE (H2O2) Inhalation LC50 8 h (90% Hydrogen Peroxide) > 2000 ppm Rat
Inhalation LC50 4 h (50% Hydrogen Peroxide) > 0.17 mg/l Rat

Product Animal Toxicity

Oral LD50 value: LD50 Believed to be, 3 - 4 g/kg Rat

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

Inhalation LC50 No data.

value:

Skin Irritation: Moderate Skin Irritant

Eye Irritation: Corrosive to eyes.

Skin Sensitization: Not a Skin Sensitizer

Acute Toxicity: Irritating to skin and corrosive to eyes, respiratory tract and gastrointestinal tract.

Subchronic / Chronic Toxicity: There are no known or reported effects from chronic exposure.

Reproductive and Developmental Toxicity: This chemical is not known or reported to affect reproductive function or fetal development.

HYDROGEN PEROXIDE (H2O2) Not known or reported to cause reproductive or developmental toxicity.

Mutagenicity: 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.

HYDROGEN PEROXIDE (H2O2) 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.

Carcinogenicity: 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.

HYDROGEN PEROXIDE (H₂O₂)

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. The FDA determined that this product is not carcinogenic in laboratory animals.

SECTION 12. ECOLOGICAL INFORMATION

Overview: Moderately toxic to fish and other aquatic organisms.

Ecological Toxicity Values for: HYDROGEN PEROXIDE (H₂O₂)

Pimephales promelas (fathead minnow)	-	96 h LC50 = 16.4 mg/l
Channel Catfish (Ictalurus punctatus rafinesque),	-	96 h LC50 = 37.4 mg/l
Rainbow trout (Salmo gairdneri),	-	48 h Lethal > 40 mg/l
Daphnia magna,	-	24 h EC50= 7.7 mg/l
Daphnia pulex	-	48 h LC50= 2.4 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.

Disposal Methods : As a hazardous liquid waste, it must be disposed of in accordance with local, state and federal regulations in a permitted hazardous waste treatment, storage and disposal facility by treatment or incineration.

Potential US EPA Waste Codes : D001



SECTION 14. TRANSPORT INFORMATION

DOT

UN number : 2014
Description of the goods : Hydrogen peroxide, aqueous solutions
Class : 5.1
Packing group : II
Labels : 5.1 (8)
Emergency Response : 140
Guidebook Number

TDG

UN number : 2014
Description of the goods : HYDROGEN PEROXIDE, AQUEOUS SOLUTION
Class : 5.1
Packing group : II
Labels : 5.1 (8)

IATA

UN number : 2014
Description of the goods : Hydrogen peroxide, aqueous solution
Class : 5.1
Packing group : II
Labels : 5.1 (8)
Packing instruction (cargo aircraft) : 554
Packing instruction (passenger aircraft) : 550
Packing instruction (passenger aircraft) : Y540

IMDG-CODE

UN number : 2014
Description of the goods : HYDROGEN PEROXIDE, AQUEOUS SOLUTION
Class : 5.1
Packing group : II
Labels : 5.1 (8)
EmS Number 1 : F-H
EmS Number 2 : S-Q

SECTION 15. REGULATORY INFORMATION

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

SARA 302



The following components are subject to reporting levels established by SARA Title III, Section 302:

Hydrogen peroxide	7722-84-1
-------------------	-----------

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).

US State Regulations

Massachusetts Right To Know

Hydrogen peroxide	7722-84-1
-------------------	-----------

Pennsylvania Right To Know

Hydrogen peroxide	7722-84-1
-------------------	-----------

New Jersey Right To Know

Hydrogen peroxide	7722-84-1
-------------------	-----------

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)



**Arch
Chemicals,
Inc.**

SAFETY DATA SHEET

SECTION 16. OTHER INFORMATION

SECTIONS REVISED: 8
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. .