Arch Chemicals, Inc.

MATERIAL SAFETY DATA SHEET

FOR ANY EMERGENCY, 24 HOURS / 7 DAYS, CALL:	1-800-654-6911
FOR ALL TRANSPORTATION ACCIDENTS, CALL CHEMTREC®:	1-800-424-9300
FOR ALL MSDS QUESTIONS & REQUESTS, CALL:	1-800-511-MSDS

PRODUCT NAME: **BAQUACIL Oxidizer**
EPA Registration Number: NOT APPLICABLE

1. PRODUCT AND COMPANY IDENTIFICATION

Arch Chemicals, Inc.
501 Merritt 7 PO Box 5204
Norwalk, CT 06856-5204

REVISION DATE:	12/13/2005
SUPERCEDES:	12/13/2005
MSDS Number:	000000001740
SYNONYMS:	Dihydrogen dioxide (solution)
CHEMICAL FAMILY:	Hydrogen peroxide
DESCRIPTION / USE:	Swimming pool oxidizer
FORMULA:	None established

2. HAZARDS IDENTIFICATION

OSHA Hazard Classification:	**Oxidizer, Corrosive to eyes., Corrosive to respiratory tract., Corrosive to gastrointestinal tract, Skin irritant**

Routes of Entry:	Inhalation, skin, eyes, ingestion
Chemical Interactions:	Oxidizer and will react with many substances in the body.
Medical Conditions Aggravated:	Pre-existing eye disease, Respiratory diseases including asthma and bronchitis, Dermatitis may be aggravated following exposure.

Human Threshold Response Data

Odor Threshold
HYDROGEN PEROXIDE (H2O2) Not established.

Irritation Threshold
HYDROGEN PEROXIDE (H2O2) 150 mg/m3

Hazardous Materials Identification System / National Fire Protection Association Classifications

Hazard Ratings :	Health	Flammability	Physical / Instability	PPI / Special hazard.
HMIS	3	0	1	
NFPA	3	0	1	Oxidizer

Immediate (Acute) Health Effects

Inhalation Toxicity:	Inhalation of mist or vapor may cause irritation and/or burns to the mucous membranes of the respiratory tract.
Skin Toxicity:	Not expected to be absorbed through the skin. Moderate Skin Irritant

Eye Toxicity:	Corrosive. Burns can occur following exposure. Direct contact may cause impairment of vision, corneal damage and/or blindness. Rinsing of the eye should take place immediately.
Ingestion Toxicity:	Harmful if swallowed. 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 may cause severe damage to the gastrointestinal tract with the potential to cause perforation. May cause rapid release of oxygen which may expand the esophagus or stomach resulting in severe damage.
Acute Target Organ Toxicity:	Eyes, Skin, Digestive Tract, Respiratory Tract

Prolonged (Chronic) Health Effects

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.
Reproductive and Developmental Toxicity:	Not known or reported to cause reproductive or developmental toxicity.
Inhalation:	There are no known or reported effects from chronic exposure except for effects similar to those experienced from acute exposure.
Skin Contact:	There are no known or reported effects from chronic exposure except for effects (if any) similar to those experienced from acute exposure.
Ingestion:	There are no known or reported effects from chronic ingestion except for effects similar to those experienced from single exposure.
Sensitization:	This product has not been tested. However based on similar structured materials, this product is not expected to cause allergic skin sensitization.
Chronic Target Organ Toxicity:	Eyes
Supplemental Health Hazard Information :	No additional health information available.

3. COMPOSITION / INFORMATION ON INGREDIENTS

CAS OR CHEMICAL NAME	CAS #	% RANGE
Water	7732-18-5	72.50 -
HYDROGEN PEROXIDE (H2O2)	7722-84-1	27.50 -

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.

5. FIRE FIGHTING 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

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.

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 pacakging 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 alkalies and even ordinary dust or rust. Bases Reducing agents alcohols Permanganates
Empty Container Warning:	Empty containers retain product residue (liquid and/or vapor) and can be dangerous.

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.
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

Exposure Limit Data

CHEMICAL NAME	CAS #	Name of Limit	Exposure
HYDROGEN PEROXIDE (H2O2)	7722-84-1	ACGIH	1 ppm TWA
HYDROGEN PEROXIDE (H2O2)	7722-84-1	OSHA Z1	1 ppm PEL 1.4 mg/m3 PEL
HYDROGEN PEROXIDE (H2O2)	7722-84-1	NIOSH-IDLH	75 ppm

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	liquid,
Form	liquid

Color:	colorless
Odor:	None
Molecular Weight:	34.00
Specific Gravity :	1.1000
pH :	2.7
Boiling Point:	104 °C / 219 °F
Freezing Point:	-26 °C / -14 °F
Melting Point:	-40 °C / -40 °F
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	Not applicable
HAP Content	Not applicable

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

11. TOXICOLOGICAL INFORMATION

Component Animal Toxicology

Oral LD50 value:

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

Dermal LD50 value:

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

Inhalation LC50 value:

HYDROGEN PEROXIDE (H2O2)	Inhalation LC50 8 HOUR (90% Hydrogen Peroxide) > 2,000 ppm Rat

HYDROGEN PEROXIDE (H2O2) Inhalation LC50 4 HOUR (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 value:	No data.
Skin Irritation:	Moderate Skin Irritant
Eye Irritation:	Corrosive to eyes.
Skin Sensitization:	Not a Skin Senstizer
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.

12. ECOLOGICAL INFORMATION

Overview: Moderately toxic to fish and other aquatic organisms.

Ecological Toxicity Values for: **HYDROGEN PEROXIDE (H2O2)**

Fathead minnow (Pimephales promelas),	-	96 HOUR LC50 = 16.4 mgl
Channel Catfish (Ictalurus punctatus rafinesque),	-	96 HOUR LC50 = 37.4 mgl
Rainbow trout (Salmo gairdneri),	-	48 HOUR Lethal > 40 mgl
Daphnia magna,	-	24 HOUR EC50= 7.7 mgl
Daphnia pulex	-	48 HOUR LC50= 2.4 mgl

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

14. TRANSPORT INFORMATION

Land (US DOT): UN2014 HYDROGEN PEROXIDE, AQUEOUS SOLUTION 5.1 8 II
Water (IMDG): UN2014 HYDROGEN PEROXIDE, AQUEOUS SOLUTION, 5.1 8 II

Flash Point: Not applicable
Air (IATA): UN2014 HYDROGEN PEROXIDE, AQUEOUS SOLUTION, 5.1 8 II
Emergency Response Guide Number: ERG # 140

15. REGULATORY INFORMATION

UNITED STATES:

Toxic Substances Control Act (TSCA):	The components of this product are listed on the TSCA Inventory of Existing Chemical Substances.
EPA Pesticide Registration Number:	NOT APPLICABLE
FIFRA Listing of Pesticide Chemicals (40 CFR 180):	Not registered in the US under FIFRA.

Superfund Amendments and Reauthorization Act (SARA) Title III:

Hazard Categories Sections 311 / 312 (40 CFR 370.2):

Health	Immediate (Acute) Health Hazard
Physical	Fire Hazard

Emergency Planning & Community Right to Know (40 CFR 355, App. A):

Extremely Hazardous Substance Section 302 - Threshold Planning Quantity:

SARA III Threshold Planning Quantity: HYDROGEN PEROXIDE (CONC >52%)
Value: 1,000lbs

Reportable Quantity (49 CFR 172.101, Appendix):

CERCLA		None established
SARA III	Reportable quantity:	HYDROGEN PEROXIDE (CONC >52%) Value: 1,000lbs

Supplier Notification Requirements (40 CFR 372.45), 313 Reportable Components

SARA III	De minimis concentration:	None established

Clean Air Act Toxic ARP Section 112r:

CAA 112R	None established

Clean Air Act Socmi:

HON SOC	None established

Clean Air Act VOC Section 111:

CAA 111	None established

Clean Air Act Haz. Air Pollutants Section 112:

CAA	None established
CAA 112I	None established
CAA AP	None established

State Right-to-Know Regulations Status of Ingredients

Pennsylvania:

CAS #	COMPONENT NAME
7722-84-1	HYDROGEN PEROXIDE (H2O2)

PENN RTK

US. Pennsylvania Worker and Community Right-to-Know Law (34 Pa. Code Chap. 301-323)
PENN RTK
08 1989
HYDROGEN PEROXIDE (CONC > 52 PERCENT)

New Jersey:

CAS #	COMPONENT NAME
7722-84-1	HYDROGEN PEROXIDE (H2O2)

NJ RTK

US. New Jersey Community Right-To-Know Survey, Table A: NJ Environmental Hazardous Substances [EHS] List (N.J. Admin. Code Title 7 Section 1G-2.1)
NJ RTK
2001
Substance no. 1015
HYDROGEN PEROXIDE (> 52% CONCENTRATION)

Massachusetts:

CAS #	COMPONENT NAME

7722-84-1	HYDROGEN PEROXIDE (H2O2)

MASS RTK

US. Massachusetts Commonwealth's Right-to-Know Law (Appendix A to 105 Code of Massachusetts Regulations Section 670.000)

MASS RTK
04 1993
HYDROGEN PEROXIDE

California Proposition 65:

CAS #	COMPONENT NAME

US CA CRT None established

US CA65CRT None established

WHMIS Hazard Classification:

WHMIS

Canada. Canadian Environmental Protection Act (CEPA). WHMIS Ingredient Disclosure List (Can. Gaz., Part II, Vol. 122, No. 2)

WHMIS
01 1988
Threshold limits: 1%
English List no. 849
HYDROGEN PEROXIDE

16. OTHER INFORMATION

MSDS REVISION STATUS : Revised to meet the ANSI standard of 16 sections
Major References : Available upon request.