Arch Chemicals, Inc.

MATERIAL SAFETY DATA SHEET

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 MSDS QUESTIONS & REQUESTS, CALL:	1-800-511-MSDS (OUTSIDE USA: 1-423-780-2347)

PRODUCT NAME: **HTH® PH PLUS**

1. PRODUCT AND COMPANY IDENTIFICATION

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

REVISION DATE:	10/05/2010
SUPERCEDES:	12/07/2009
MSDS Number:	100000002193
SYNONYMS:	Soda Ash
CHEMICAL FAMILY:	Carbonate
DESCRIPTION / USE	pH adjuster for pools and spas
FORMULA:	Na2CO3

2. HAZARDS IDENTIFICATION

OSHA Hazard Classification:	**Eye irritant**

Routes of Entry:	Inhalation, skin, eyes, ingestion
Chemical Interactions:	No known or reported interactions.
Medical Conditions Aggravated:	None known or reported

Human Threshold Response Data

Odor Threshold	Not established.
Irritation Threshold	Not established.

Hazardous Materials Identification System / National Fire Protection Association Classifications

Hazard Ratings :	Health	Flammability	Physical / Instability	PPI / Special hazard.
HMIS	2*	0	0	
NFPA	2	0	0	

Immediate (Acute) Health Effects

Inhalation Toxicity:	May be harmful if inhaled. Inhalation of dust may cause irritation to the mucous membranes of the respiratory tract. Any irritation would be transient with no permanent damage expected.
Skin Toxicity:	Contact with intact skin may cause slight to mild irritation consisting of reversible redness. Contact with abraded skin may cause moderate irritation consisting of transient redness and swelling. This irritant effect would not be expected to result in permanent damage. Not expected to be toxic from dermal contact.
Eye Toxicity:	Contact may cause moderate irritation consisting of transient redness, swelling, and mucous membrane discharge to the conjunctiva.
Ingestion Toxicity:	Ingestion may cause irritation of the gastrointestinal tract and gastrointestinal discomfort with any or all of the following symptoms: nausea, vomiting or diarrhea.
Acute Target Organ Toxicity:	This product is moderately irritating to the eyes and upon inhalation may cause irritation to the mucous membranes of the respiratory tract. Ingestion may cause gastrointestinal discomfort.

Prolonged (Chronic) Health Effects

Carcinogenicity:	This product is not known or reported to be carcinogenic by any reference source including IARC, OSHA, NTP or EPA.
Reproductive and Developmental Toxicity:	This chemical has been tested in laboratory animals and no evidence of teratogenicity was seen.
Inhalation:	There are no known or reported effects from chronic exposure except for effects similar to those experienced from acute exposure.
Skin Contact:	Repeated or prolonged skin exposure may cause dermatitis and possible "soda ulcers" (blistering) of the hands and wrists. This can result in secondary infections.
Ingestion:	There are no known or reported effects from chronic ingestion except for effects similar to those experienced from single exposure.
Sensitization:	This material is not known or reported to be a skin or respiratory sensitizer.
Chronic Target Organ Toxicity:	There are no known or reported effects to humans from repeated exposure to this product.
Supplemental Health Hazard Information :	No additional health information available.

3. COMPOSITION / INFORMATION ON INGREDIENTS

CAS OR CHEMICAL NAME	CAS #	% RANGE
Sodium carbonate	497-19-8	99.8 - 100.00

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: Flush eyes with plenty of water for at least 15 minutes. Seek medical attention if irritation develops.

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.

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.

Hazardous Combustion Products: Carbon monoxide, Carbon dioxide, Sodium oxide

Upper Flammable / Explosive Limit, % in air: Not applicable

Lower Flammable / Explosive Limit, % in air: Not applicable

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:	Dusting from this product could occur. Contain all solids for treatment or disposal.
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. Contain all solids for treatment or disposal.
Land Release:	Sweep up and place in suitable clean, dry containers for reclamation or later disposal. Do not place spill materials back in their original containers. After removal, flush contaminated area thoroughly with water. Contain all solids for treatment or disposal.
Additional Spill Information :	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.

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 place. Isolate from incompatible materials.
Incompatible Materials for Storage:	Refer to Section 10, "Incompatible Materials."

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. If dusting occurs, wear a NIOSH approved respirator.
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:	Natural rubber, Neoprene, Nitrile

Exposure Limit Data

CHEMICAL NAME	CAS #	Name of Limit	Exposure
No Data Found			

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	solid
Form	granular
Color:	white
Odor:	None
Molecular Weight:	105.99
Specific Gravity :	2.5090
pH :	11.4 1% solution
Boiling Point:	Decomposes
Freezing Point:	No data
Melting Point:	No data
Density:	1.0400
Vapor Pressure:	Not applicable
Vapor Density:	Not applicable
Viscosity:	Not applicable
Fat Solubility:	No data
Solubility in Water:	33.2% max.
Partition coefficient n-octanol/water:	Not applicable
Evaporation Rate:	Not applicable
Oxidizing:	No data
Volatiles, % by vol.:	Not applicable
VOC Content	No data
HAP Content	No data

10. STABILITY AND REACTIVITY

Stability and Reactivity Summary:	Stable under normal conditions. Not sensitive to mechanical shock. Not sensitive to static discharge. Product will not undergo hazardous polymerization.
Conditions to Avoid:	High temperatures, Contact with incompatible substances
Chemical Incompatibility:	Aluminum powder, acids, Fluorine, Molten lithium
Hazardous Decomposition Products:	Carbon monoxide, Carbon dioxide, Sodium oxide
Decomposition Temperature:	851°C

11. TOXICOLOGICAL INFORMATION

Component Animal Toxicology
Oral LD50 value:
Sodium carbonate LD50 = 4,090 mg/kg rat

Component Animal Toxicology
Dermal LD50 value:
Sodium carbonate LD50 Believed to be > 2,000 mg/kg rabbit

Component Animal Toxicology
Inhalation LC50 value:
Sodium carbonate LC50 1 h = 4.6 MG/L rat

Product Animal Toxicity

Oral LD50 value:	LD50 = 4,090 mg/kg Rat
Dermal LD50 value:	LD50 Believed to be > 2,000 mg/kg Rabbit
Inhalation LC50 value:	Inhalation LC50 1 h = 4.6 MG/L Rat
Skin Irritation:	May cause mild skin irritation.
Eye Irritation:	Moderate eye irritant
Skin Sensitization:	This material is not known or reported to be a skin or respiratory sensitizer.
Acute Toxicity:	Contact with the eyes and mucous membranes causes transient irritation. Minor corneal involvement may occur if product is not rinsed immediately from the eyes. Inhalation may cause irritation. Contact with skin causes irritation.
Subchronic / Chronic Toxicity:	Damage to lungs has been observed in laboratory animals from repeated inhalation of high concentrations (70 mg/m3). This damage is characterized by thickening of the walls of the air sacs and a low grade of pulmonary inflammation. The risk to human health is low due to the high concentration required to produce the effect., Repeated or prolonged skin contact with this product may cause dermatitis and blistering.

Sodium carbonate	Male rats were exposed to an aerosol of 2% aqueous solution of this chemical, 4 hr.day, 5 days/week for 3-1/2 months. No effect was observed at a concentration of 10 or 20 mg/cubic meter. At 70 mg/cubic meter weight gain was decreased and the lungs showed thickening of the intra-alveolar walls, hyperemia, and lymphoid infiltration., Repeated or prolonged skin contact with this product may cause dermatitis and blistering.

Reproductive and Developmental Toxicity:	This chemical has been tested in laboratory animals and no evidence of teratogenicity was seen.
Sodium carbonate	This chemical has been tested in laboratory animals and no evidence of teratogenicity was seen.
Mutagenicity:	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.
Sodium carbonate	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:	This product is not known or reported to be carcinogenic by any reference source including IARC, OSHA, NTP or EPA.

12. ECOLOGICAL INFORMATION

Overview: Practically non- toxic to fish and other aquatic organisms.

Ecological Toxicity Values for: **Sodium carbonate**

Fathead minnow (Pimephales promelas),	-	(nominal, static). 96 h LC50 < 850 mg/l
Bluegill	-	(nominal, static). 96 h LC50 = 320 mg/l
Mosquito fish	-	(nominal, static). 96 h LC50 = 740 mg/l
Daphnia magna,	-	(nominal, static). 48 h LC50= 265 mg/l
Ceriodaphnia dubia	-	(nominal) 48 h EC50= 199.82 mg/l
Navicula seminulum (diatom)	-	(nominal, static). 96 h EC50 = 242 mg/l

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 DOES NOT meet the criteria of a hazardous waste as defined under 40 CFR 261, in that it does not exhibit the characteristics of hazardous waste of Subpart C, nor is it listed as a hazardous waste under Subpart D.
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

14. TRANSPORT INFORMATION

Land (US DOT): NOT REGULATED AS A DOT HAZARDOUS MATERIAL
Water (IMDG): NOT REGULATED AS A HAZARDOUS MATERIAL,

Flash Point: Not applicable
Air (IATA): NOT REGULATED AS A HAZARDOUS MATERIAL,
Emergency Response Guide Number: Not applicable

Transportation Notes**:** 1) Inhalation toxicity data indicates product to be toxic by inhalation, however, diameter of over 90% of granules well exceed 10 micron limit. Particles cannot be inhaled through lungs. Inhalation is not a normal route of absorption relative to transportation. According to TDG (Canadian Transport Regulations), this product is not regulated as a hazardous material.

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:	None established
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, Delayed (Chronic) Health Hazard
Physical	None

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

Extremely Hazardous Substance Section 302 - Threshold Planning Quantity:

ZUS_SAR302	TPQ (threshold planning quantity)	None established

Reportable Quantity (49 CFR 172.101, Appendix):

ZUS_CERCLA	Reportable quantity	None established
ZUS_SAR302	Reportable quantity	None established

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

ZUS_SAR313	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:

ZUS_CAAHAP	None established
ZUS_CAAHRP	None established
CAA AP	None established

State Right-to-Know Regulations Status of Ingredients

Pennsylvania:

CAS #	COMPONENT NAME
ZUSPA_RTK	None established

New Jersey:

CAS #	COMPONENT NAME
ZUSNJ_RTK	None established

Massachusetts:

CAS #	COMPONENT NAME
ZUSMA_RTK	None established

California Proposition 65:

CAS #	COMPONENT NAME
ZUSCA_P65	None established

WHMIS Hazard Classification:

D2B: Toxic Material Causing Other Toxic Effects

D1B: Toxic Material Causing Immediate and Serious Toxic Effects : : :

Eye irritant

This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.
None established

16. OTHER INFORMATION

MSDS REVISION STATUS :
SECTIONS REVISED: 15
Major References : Available upon request.