SAFETY DATA SHEET
according to US Regulation 29 CFR 1910.1200 and the Canadian HPA

90 Years of HTH Perfect Pools pre-measured water soluble Pods pH Down

SECTION 1. IDENTIFICATION

Product name: 90 Years of HTH Perfect Pools pre-measured water soluble Pods pH Down

Manufacturer or supplier's details
Company: Arch Chemicals, Inc.
1200 Bluegrass Lakes Parkway
Alpharetta, GA
30004
United States of America (USA)

E-mail address: sds@lonza.com


Recommended use of the chemical and restrictions on use
Recommended use: Water treatment chemical pH-regulating agents

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification
Serious eye damage: Category 1

GHS label elements
Hazard pictograms:

Signal word: Danger

Hazard statements: H318 Causes serious eye damage.

Precautionary statements: Prevention:
P280 Wear eye protection/ face protection.
P264 Wash skin thoroughly after handling.

Response:
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/doctor.

Other hazards
None known.
SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature : Mixture

Hazardous components

<table>
<thead>
<tr>
<th>Chemical name / Synonyms</th>
<th>CAS-No.</th>
<th>Concentration (% w/w)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium hydrosulphate</td>
<td>7681-38-1</td>
<td>&gt; 90</td>
</tr>
</tbody>
</table>

SECTION 4. FIRST AID MEASURES

If inhaled : Remove to fresh air. If breathing is irregular or stopped, administer artificial respiration.

In case of skin contact : After contact with skin, wash immediately with plenty of soap and water. Consult a physician.

In case of eye contact : In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Call a physician immediately.

If swallowed : Call a physician immediately. Clean mouth with water and drink afterwards plenty of water. Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person.

Most important symptoms and effects, both acute and delayed : No information available.

Notes to physician : No information available.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media : Choose extinguishing media suitable for surrounding materials.

Specific hazards during firefighting : Heating or fire can release toxic gas.

Further information : Use water spray to cool unopened containers.

Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures : Avoid dust formation. Use personal protective equipment. 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.

Environmental precautions: If the product contaminates rivers and lakes or drains inform respective authorities.

Methods and materials for containment and cleaning up: Sweep up and shovel into suitable containers for disposal. Do not flush into surface water or sanitary sewer system. Avoid dust formation.

SECTION 7. HANDLING AND STORAGE

Advice on protection against fire and explosion: Avoid dust formation. Take precautionary measures against static discharges.

Advice on safe handling: Do not take internally. Avoid contact with skin, eyes and clothing. Upon contact with skin or eyes, wash off with water. Avoid creating dusts.

Conditions for safe storage: Store in a cool, dry and well ventilated place. Keep tightly closed. Avoid contact with water, or moist air.

Materials to avoid: Refer to Section 10, "Incompatible Materials."

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters
Contains no substances with occupational exposure limit values.

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

Personal protective equipment
Respiratory protection: If dusting occurs, wear a NIOSH approved respirator.

Filter type: Wear a NIOSH approved N95 respirator.

Hand protection

Remarks: Wear suitable gloves. Take note of the information given by the producer concerning permeability and break through times, and of special workplace conditions (mechanical strain, duration of contact).

Eye protection: Use chemical goggles.
90 Years of HTH Perfect Pools pre-measured water soluble Pods pH Down

Skin and body protection : butyl-rubber
Neoprene

Hygiene measures : Avoid contact with skin, eyes and clothing.
Wash hands before breaks and immediately after handling the product.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : granular
Colour : off-white
Odour : pungent
Odour Threshold : no data available
pH : < 1
Concentration: 50 g/l
Melting point/freezing point : no data available
Decomposition temperature : 351 °F / 177 °C
Flash point : Not applicable
Evaporation rate : Not applicable
Flammability (solid, gas) : Product is not known to be flammable, combustible or pyrophoric.
Flammability (liquids) : no data available
Self-ignition : Not applicable
Upper explosion limit : no data available
Lower explosion limit : no data available
Vapour pressure : Not applicable
Relative vapour density : Not applicable
Relative density : no data available
Density : no data available
Bulk density : no data available
Water solubility : 1,080 g/l (68 °F / 20 °C)
Partition coefficient: n-octanol/water : Not applicable
Auto-ignition temperature : no data available
Decomposition temperature : 599 °F / 315 °C
Viscosity, dynamic : no data available
Viscosity, kinematic : no data available
Oxidizing properties : Not applicable
Oxidizing potential : Not relevant
Molecular weight : 120 g/mol

SECTION 10. STABILITY AND REACTIVITY

Reactivity : Stable under recommended storage conditions.
Chemical stability : Stable under normal conditions.
Possibility of hazardous reactions : Stable under normal conditions. Product will not undergo hazardous polymerization.
Conditions to avoid : High temperatures
Incompatible materials : Strong oxidizing agents Bases
Hazardous decomposition products : Oxides of sulfur

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity
Acute oral toxicity : Acute toxicity estimate: > 3,000 mg/kg
      Acute toxicity estimate: 2,630 mg/kg Method: Calculation method
Acute inhalation toxicity : Remarks: no data available
Acute dermal toxicity : Acute toxicity estimate: > 2,000 mg/kg

Skin corrosion/irritation
Remarks: Prolonged skin contact may cause skin irritation.

Serious eye damage/eye irritation
Remarks: Causes serious eye damage.

Respiratory or skin sensitisation
Remarks: Not believed to be sensitising to skin.

Carcinogenicity
SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity
Toxicity to fish : Remarks: no data available

Persistence and degradability
Biodegradability : Result: no data available

Bioaccumulative potential
Bioaccumulation : Remarks: no data available

Mobility in soil
Distribution among environmental compartments : Remarks: no data available

Other adverse effects
Ozone-Depletion Potential : Regulation: US. EPA Clean Air Act (CAA) Section 602 Ozone-Depleting Substances (40 CFR 82, Subpt. A, App A & B)
Remarks: This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

Additional ecological information : Slightly toxic to fish and other aquatic organisms.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods
Waste from residues : If this product becomes a waste, it will be a nonhazardous waste.
As a nonhazardous solid waste it should be disposed of in accordance with local, state and federal regulations.

SECTION 14. TRANSPORT INFORMATION
90 Years of HTH Perfect Pools pre-measured water soluble Pods pH Down

DOT

: Not dangerous goods

UN number

: Not applicable
Proper shipping name

: Not applicable
Transport hazard class

: Not applicable
Packing group

: Not applicable

TDG

: Not dangerous goods

UN number

: Not applicable
Proper shipping name

: Not applicable
Transport hazard class

: Not applicable
Packing group

: Not applicable

IATA

: Not dangerous goods

UN number

: Not applicable
Proper shipping name

: Not applicable
Transport hazard class

: Not applicable
Packing group

: Not applicable

IMDG

: Not dangerous goods

UN number

: Not applicable
Proper shipping name

: Not applicable
Transport hazard class

: Not applicable
Packing group

: Not applicable

ADR

: Not dangerous goods

UN number

: Not applicable
Proper shipping name

: Not applicable
Transport hazard class

: Not applicable
Packing group

: Not applicable

RID

: Not dangerous goods

UN number

: Not applicable
Proper shipping name

: Not applicable
Transport hazard class

: Not applicable
Packing group

: Not applicable

Special precautions for user

: none

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

: Not applicable

SECTION 15. REGULATORY INFORMATION
**EPCRA - Emergency Planning and Community Right-to-Know Act**

**CERCLA Reportable Quantity**
This material does not contain any components with a CERCLA RQ.

**SARA 304 Extremely Hazardous Substances Reportable Quantity**
This material does not contain any components with a section 304 EHS RQ.

**SARA 311/312 Hazards**
See above: SECTION 2. Hazard Identification-GHS Classification

**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 neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accident 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 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.

**Clean Water Act**
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 Hazardous Substances listed under the U.S. CleanWater Act, Section 311, Table 116.4A.

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**

<table>
<thead>
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<tbody>
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**Pennsylvania Right To Know**

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New Jersey Right To Know

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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.

Canadian lists

NPRI

Canadian National Pollutant Release Inventory (NPRI): No component is listed on NPRI.

SECTION 16. OTHER INFORMATION

Full text of other abbreviations

AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50% of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - Quantitative Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

Revision Date : 2019.01.16
The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

Date format : yyyy/mm/dd
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