SECTION 1. IDENTIFICATION

Product name : HTH Calcium Hardness Increaser

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
Emergency telephone number : In case of emergency call CHEMTREC US: 1-800-424-9300,
CHEMTREC WORLD-WIDE: +1-703-527-3887.

Recommended use of the chemical and restrictions on use

Recommended use : Water treatment chemical

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 elements

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/doctor 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/doctor 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/doctor 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

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>Calcium chloride</td>
<td>10043-52-4</td>
<td>90 - 95</td>
</tr>
</tbody>
</table>

SECTION 4. FIRST AID MEASURES

Most important symptoms and effects, both acute and delayed : None known.

SECTION 5. FIREFIGHTING MEASURES

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

Specific hazards during firefighting : If the product is involved in a fire, toxic smokes could develop.

Further information : 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.
SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:

- 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.

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 safe 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.

Conditions for safe storage:

- Store in a cool, dry and well ventilated place.
- Material is hygroscopic. Protect from moisture-laden air.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Engineering measures:

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

Personal protective equipment

Hand protection

Remarks:

- 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.

Skin and body protection:

- Impervious
SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : flakes
Colour : white
Odour : none
Odour Threshold : no data available
pH : 7.0 - 9.0
Concentration: 5 %
(as aqueous solution)
Melting point/freezing point : Not applicable
Boiling point/boiling range : no data available
Flash point : no data available
Evaporation rate : Not applicable
Flammability (solid, gas) : Product is not known to be flammable, combustible, pyrophoric or explosive.
Flammability (liquids) : no data available
Upper explosion limit : Not applicable
Lower explosion limit : Not applicable
Vapour pressure : no data available
Relative vapour density : no data available
Relative density : 2.15
Water solubility : soluble
Partition coefficient: n-octanol/water : no data available
Auto-ignition temperature : no data available
Decomposition temperature : no data available
Viscosity, dynamic : no data available
Viscosity, kinematic : no data available
Oxidizing properties : no data available
Molecular weight : 111.00 g/mol

SECTION 10. STABILITY AND REACTIVITY

Conditions to avoid : Sparks, open flame, other ignition sources, and elevated tem-
HTH Calcium Hardness Increaser

Incompatible materials: Metals
Water

Hazardous decomposition products: Chlorine

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure: Inhalation, skin, eyes, ingestion

**Acute toxicity**

Acute oral toxicity: LD50 (Rat): Believed to be approximately 1,000 mg/kg

Acute inhalation toxicity: Remarks: no data available

Acute dermal toxicity: LD50 (Rat): Believed to be > 2,000 mg/kg

**Skin corrosion/irritation**

Assessment: Skin irritation

**Serious eye damage/eye irritation**

Result: Eye irritation

**Respiratory or skin sensitisation**

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

Carcinogenicity

**IARC**

No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

**OSHA**

No component of this product present at levels greater than or equal to 0.1% is on OSHA’s list of regulated carcinogens.

**NTP**

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

**ACGIH**

No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

SECTION 12. ECOLOGICAL INFORMATION

**Ecotoxicity**

No data available

**Persistence and degradability**

No data available
Bioaccumulative potential
no data available

Mobility in soil
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:
There is no data available for this product.

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

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
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 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 SOCMI Intermediate or Final VOC's (40 CFR 60.489).
HTH Calcium Hardness Increaser

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

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

Pennsylvania Right To Know

<table>
<thead>
<tr>
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<tr>
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New Jersey Right To Know

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<tbody>
<tr>
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<td>10043-52-4</td>
</tr>
<tr>
<td>Magnesium chloride</td>
<td>7786-30-3</td>
</tr>
<tr>
<td>Sodium chloride</td>
<td>7647-14-5</td>
</tr>
<tr>
<td>Potassium chloride</td>
<td>7447-40-7</td>
</tr>
</tbody>
</table>

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.

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.

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
HTH Calcium Hardness Increaser

Revision Date : 2019.02.26

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

US / EN