according to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Revision: August 22, 2020

1 Identification

· Product identifier

· Trade name: <u>Hypochlorite A</u> · Product code: HR8939

· Recommended use and restriction on use

· Recommended use: Laboratory chemicals

Restrictions on use: No relevant information available.

Details of the supplier of the Safety Data Sheet

· Manufacturer/Supplier:

AguaPhoenix Scientific, Inc.

860 Gitts Run Road

Hanover, PA 17331 USA

Tel +1 (717)632-1291

Toll-Free: (866)632-1291

info@aquaphoenixsci.com

Distributor:

AquaPhoenix Scientific

860 Gitts Run Road,

Hanover, PA 17331

(717) 632-1291

· Emergency telephone number:

ChemTel Inc.

(800)255-3924 (North America)

+1 (813)248-0585 (International)

2 Hazard(s) identification

· Classification of the substance or mixture

Met. Corr.1 H290 May be corrosive to metals.

Skin Corr. 1B H314 Causes severe skin burns and eye damage.

Eye Dam. 1 H318 Causes serious eye damage.

· Label elements

· GHS label elements

The product is classified and labeled according to the Globally Harmonized System (GHS).

· Hazard pictograms:



GHS05

· Signal word: Danger · Hazard statements:

H290 May be corrosive to metals.

H314 Causes severe skin burns and eye damage.

· Precautionary statements:

P234 Keep only in original container.
P260 Do not breathe mist/vapors/spray.
P264 Wash thoroughly after handling.

(Cont'd. on page 2)

according to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Revision: August 22, 2020

Trade name: Hypochlorite A

(Cont'd. of page 1)
P280 Wear protective gloves and eye protection.

P301+P330+P331 If swallowed: Rinse mouth. Do NOT induce vomiting.

P303+P361+P353 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with

water/shower.

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P305+P351+P338 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. Wash contaminated clothing before reuse. Absorb spillage to prevent material damage.

P405 Store locked up.

P406 Store in corrosive resistant container with a resistant inner liner.

P501 Dispose of contents/container in accordance with local/regional/national/international

regulations.

Other hazards There are no other hazards not otherwise classified that have been identified.

3 Composition/information on ingredients

· Chemical characterization: Mixtures

· Components:

P310

P363 P390

64-19-7 Acetic acid

25%

Flam. Liq. 3, H226

🔖 Met. Corr.1, H290; Skin Corr. 1A, H314

Additional information: For the wording of the listed Hazard Statements, refer to section 16.

4 First-aid measures

- Description of first aid measures
- · After inhalation: Supply fresh air; consult doctor in case of complaints.
- · After skin contact:

Immediately rinse with water.

If skin irritation continues, consult a doctor.

Seek immediate help for blistering or open wounds.

· After eye contact:

Protect unharmed eye.

Remove contact lenses if worn.

Rinse opened eye for 15 to 20 minutes under running water. Then consult a doctor.

After swallowing:

Rinse out mouth and then drink plenty of water.

Do not induce vomiting; immediately call for medical help.

· Most important symptoms and effects, both acute and delayed:

Eye damage.

Strong caustic effect on skin and mucous membranes.

Gastric or intestinal disorders when ingested.

· Danger:

Causes severe skin burns and eye damage.

Danger of gastric perforation.

· Indication of any immediate medical attention and special treatment needed:

(Cont'd. on page 3)

according to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Revision: August 22, 2020

Trade name: Hypochlorite A

(Cont'd. of page 2)

Medical supervision for at least 48 hours.

If medical advice is needed, have product container or label at hand.

5 Fire-fighting measures

- Extinguishing media
- · Suitable extinguishing agents: Use fire fighting measures that suit the environment.
- For safety reasons unsuitable extinguishing agents: No relevant information available.
- · Special hazards arising from the substance or mixture

Formation of toxic gases is possible during heating or in case of fire.

- Advice for firefighters
- Protective equipment:

Wear self-contained respiratory protective device.

Wear fully protective suit.

6 Accidental release measures

Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation.

For large spills, use respiratory protective device against the effects of fumes/dust/aerosol.

· Environmental precautions

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

Methods and material for containment and cleaning up

Use calcium oxide as a neutralizing agent.

Pick up mechanically.

Send for recovery or disposal in suitable receptacles.

Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

7 Handling and storage

- · Handling
- · Precautions for safe handling:

Prevent formation of aerosols.

Avoid splashes or spray in enclosed areas.

Use only in well ventilated areas.

- · Information about protection against explosions and fires: The product is not flammable.
- · Conditions for safe storage, including any incompatibilities
- Requirements to be met by storerooms and receptacles:

Store only in the original receptacle.

Store in a well-ventilated place. Keep cool.

Information about storage in one common storage facility:

(Cont'd. on page 4)

(Cont'd. of page 3)

Safety Data Sheet

according to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Revision: August 22, 2020

Trade name: Hypochlorite A

Store away from metals.

Do not store together with alkalis (caustic solutions).

Store away from oxidizing agents.

Store away from foodstuffs.

- · Further information about storage conditions: Keep containers tightly sealed.
- · Specific end use(s) No relevant information available.

8 Exposure controls/personal protection

· Control parameters

· Components with limit values that require monitoring at the workplace:					
64-19-7 Acetic acid					
PEL (USA)	Long-term value: 25 mg/m³, 10 ppm				
REL (USA)	Short-term value: 37 mg/m³, 15 ppm Long-term value: 25 mg/m³, 10 ppm				
TLV (USA)	Short-term value: 37 mg/m³, 15 ppm Long-term value: 25 mg/m³, 10 ppm				
EL (Canada)	Short-term value: 15 ppm Long-term value: 10 ppm				
EV (Canada)	Short-term value: 37 mg/m³, 15 ppm Long-term value: 25 mg/m³, 10 ppm				
LMPE (Mexico	Short-term value: 15 ppm Long-term value: 10 ppm				

- Exposure controls
- · General protective and hygienic measures:

The usual precautionary measures for handling chemicals should be followed.

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

- · Engineering controls: Provide adequate ventilation.
- · Breathing equipment: In case of inadequate ventilation wear respiratory protection.
- Protection of hands:



Protective gloves

Material of gloves

Nitrile rubber, NBR

Natural rubber. NR

Sensibilization by the components in the glove materials is possible.

· Eye protection:



Safety glasses

Follow relevant national guidelines concerning the use of protective eyewear.

(Cont'd. on page 5)

according to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Revision: August 22, 2020

Trade name: Hypochlorite A

(Cont'd. of page 4)

- · Body protection: Protective work clothing
- · Limitation and supervision of exposure into the environment

No relevant information available.

Risk management measures No relevant information available.

9 Physical and chemical properties

· Information	on basic	nhysical	and ch	nemical	nronerties
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· Appearance:

Form:
Color:
Clear
Odor:
Vinegar-like.
Odor threshold:
Not determined.

rpH-value:
Not determined.

Melting point/Melting range:
 Boiling point/Boiling range:
 Flash point:
 Not determined.
 Not applicable.

· Flammability (solid, gaseous): Not applicable.

· Auto-ignition temperature: Not determined.

Decomposition temperature: Not determined.

• Danger of explosion: Product does not present an explosion hazard.

Explosion limits

Lower: Not determined.
Upper: Not determined.
Oxidizing properties: Non-oxidizing.

· Vapor pressure: Not determined.

· Density:

Relative density:
Vapor density:
Not determined.
Evaporation rate:
Not determined.

· Solubility in / Miscibility with

Water: Fully miscible.

· Partition coefficient (n-octanol/water): Not determined.

· Viscosity

Dynamic: Not determined. **Kinematic:** Not determined.

Other informationNo relevant information available.

10 Stability and reactivity

· **Reactivity:** No relevant information available.

(Cont'd. on page 6)

according to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Revision: August 22, 2020

Trade name: Hypochlorite A

(Cont'd. of page 5)

- · Chemical stability: Stable under normal temperatures and pressures.
- Thermal decomposition / conditions to be avoided:

No decomposition if used and stored according to specifications.

- · Possibility of hazardous reactions No dangerous reactions known.
- · Conditions to avoid Excessive heat.
- Incompatible materials

Metals.

Alkalis.

Oxidizing agents.

Hazardous decomposition products

Under fire conditions only:

Carbon monoxide and carbon dioxide

11 Toxicological information

- Information on toxicological effects
- · Acute toxicity: Based on available data, the classification criteria are not met.
- · LD/LC50 values that are relevant for classification:

ATE (Acute Toxicity Estimate)

Oral LD50 13240 mg/kg (rat)

64-19-7 Acetic acid

Oral LD50 3310 mg/kg (rat)

- · Primary irritant effect:
- · On the skin: Strong caustic effect on skin and mucous membranes.
- · On the eye: Strong caustic effect.
- · Sensitization: Based on available data, the classification criteria are not met.
- IARC (International Agency for Research on Cancer):

None of the ingredients are listed.

· NTP (National Toxicology Program):

None of the ingredients are listed.

· OSHA-Ca (Occupational Safety & Health Administration):

None of the ingredients are listed.

· Probable route(s) of exposure:

Ingestion.

Inhalation.

Eye contact.

Skin contact.

- · Acute effects (acute toxicity, irritation and corrosivity): Causes severe skin burns and eye damage.
- · Germ cell mutagenicity: Based on available data, the classification criteria are not met.
- · Carcinogenicity: Based on available data, the classification criteria are not met.
- · Reproductive toxicity: Based on available data, the classification criteria are not met.
- · STOT-single exposure: Based on available data, the classification criteria are not met.
- · STOT-repeated exposure: Based on available data, the classification criteria are not met.
- · Aspiration hazard: Based on available data, the classification criteria are not met.

Page: 7/9

Safety Data Sheet

according to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Revision: August 22, 2020

Trade name: Hypochlorite A

(Cont'd. of page 6)

(Cont'd. on page 8)

12 Ecological information

- ·Toxicity
- · Aquatic toxicity No relevant information available.
- · Persistence and degradability No relevant information available.
- · Bioaccumulative potential: No relevant information available.
- Mobility in soil: No relevant information available.
- Additional ecological information
- · General notes:

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

Must not reach bodies of water or drainage ditch undiluted or unneutralized.

Rinse off of bigger amounts into drains or the aquatic environment may lead to decreased pH-values. A low pH-value harms aquatic organisms. If the dilution of the use-level pH-value is considerably increased after use, the aqueous waste, emptied into drains, is only low water-dangerous.

· Other adverse effects No relevant information available.

13 Disposal considerations

- · Waste treatment methods
- · Recommendation:

The user of this 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.

- Uncleaned packagings
- · **Recommendation:** Disposal must be made according to official regulations.

14 Transport information					
· UN-Number · DOT, ADR/RID/ADN, IMDG, IATA	UN2790				
· UN proper shipping name · DOT · ADR/RID/ADN, IMDG, IATA	Acetic acid solution, 25% Acid ACETIC ACID SOLUTION, 25% Acid				
· Transport hazard class(es)					
· DOT					
· Class · Label	8 8				

Page: 8/9

Safety Data Sheet

according to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Revision: August 22, 2020

Trade name: Hypochlorite A

(Cont'd. of page 7)

· ADR/RID/ADN



· Class 8 (C3) · Label 8

· IMDG. IATA



· Class 8 · Label 8

· Packing group

· DOT, ADR/RID/ADN, IMDG, IATA

• Environmental hazards Not applicable.

• Special precautions for user Warning: Corrosive substances

Hazard identification number (Kemler code): 80
 EMS Number: F-A,S-B
 Segregation groups Acids

Transport in bulk according to Annex II of

MARPOL73/78 and the IBC Code Not applicable.

15 Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture

Ш

- · United States (USA)
- ·SARA
- Section 302 (extremely hazardous substances):

None of the ingredients are listed.

Section 313 (Specific toxic chemical listings):

None of the ingredients are listed.

· TSCA (Toxic Substances Control Act)

All ingredients are listed or exempt.

- · Proposition 65 (California)
- · Chemicals known to cause cancer:

None of the ingredients are listed.

· Chemicals known to cause developmental toxicity for females:

None of the ingredients are listed.

(Cont'd. on page 9)

Page: 9/9

Safety Data Sheet

according to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Revision: August 22, 2020

Trade name: Hypochlorite A

(Cont'd. of page 8)

· Chemicals known to cause developmental toxicity for males:

None of the ingredients are listed.

· Chemicals known to cause developmental toxicity:

None of the ingredients are listed.

· EPA (Environmental Protection Agency):

None of the ingredients are listed.

IARC (International Agency for Research on Cancer):

None of the ingredients are listed.

· Canadian Domestic Substances List (DSL):

All ingredients listed on DSL or NDSL.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· Abbreviations and acronyms:

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

OSHA: Occupational Safety & Health Administration

Flam. Liq. 3: Flammable liquids – Category 3

Met. Corr.1: Corrosive to metals – Category 1

Skin Corr. 1A: Skin corrosion/irritation – Category 1A

Skin Corr. 1B: Skin corrosion/irritation - Category 1B

Eye Dam. 1: Serious eye damage/eye irritation - Category 1

· Sources

Website, European Chemicals Agency (echa.europa.eu)

Website, US EPA Substance Registry Services (ofmpub.epa.gov/sor internet/registry/substreg/home/overview/home.do)

Website, Chemical Abstracts Registry, American Chemical Society (www.cas.org)

Patty's Industrial Hygiene, 6th ed., Rose, Vernon, ed. ISBN: 978-0-470-07488-6

Casarett and Doull's Toxicology: The Basic Science of Poisons, 8th Ed., Klaasen, Curtis D., ed., ISBN: 978-0-07-176923-5.

Safety Data Sheets, Individual Manufacturers

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