

Safety Data Sheet

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

Revision: March 09, 2021

1 Identification

- **Product identifier**
- **Trade name:** BTOP Buffer
- **Product code:** BT1200SS
- **Recommended use and restriction on use**
- **Recommended use:** Laboratory chemicals
- **Restrictions on use:**
No relevant information available.
Contact manufacturer/supplier
- **Details of the supplier of the Safety Data Sheet**
- **Manufacturer/Supplier:**
AquaPhoenix 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.
Acute Tox. 3 H331 Toxic if inhaled.
Skin Corr. 1B H314 Causes severe skin burns and eye damage.
Eye Dam. 1 H318 Causes serious eye damage.
STOT SE 3 H335 May cause respiratory irritation.

- **Label elements**

- **GHS label elements**

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

- **Hazard pictograms:**



GHS05 GHS06 GHS07

- **Signal word:** Danger
- **Hazard statements:**
H290 May be corrosive to metals.
H331 Toxic if inhaled.

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H314 Causes severe skin burns and eye damage.

H335 May cause respiratory irritation.

Precautionary statements:

P234 Keep only in original container.

P260 Do not breathe mist/vapors/spray.

P264 Wash thoroughly after handling.

P271 Use only outdoors or in a well-ventilated area.

P280 Wear protective gloves/protective clothing/eye protection/face 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.

P310 Immediately call a poison center/doctor.

P321 Specific treatment - See Section 4 of this Safety Data Sheet.

P362+P364 Take off contaminated clothing and wash it before reuse.

P390 Absorb spillage to prevent material damage.

P403+P233 Store in a well-ventilated place. Keep container tightly closed.

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:

| | | |
|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|
| 7732-18-5 | Water | 85.4% |
| 79-11-8 | chloroacetic acid | 10.0% |
| |  Acute Tox. 3, H301; Acute Tox. 3, H311; Acute Tox. 3, H331  Met. Corr. 1, H290; Skin Corr. 1B, H314; Eye Dam. 1, H318  STOT SE 3, H335 | |
| 6131-90-4 | sodium acetate trihydrate | 4.6% |

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

4 First-aid measures

Description of first aid measures

General information: Take affected persons out into the fresh air.

After inhalation:

Supply fresh air.

Seek immediate medical advice.

Provide oxygen treatment if affected person has difficulty breathing.

If experiencing respiratory symptoms: Call a poison center/doctor.

After skin contact:

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- Immediately remove any clothing soiled by the product.
- 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:**
 - Breathing difficulty
 - Coughing
 - Danger of severe eye injury.
 - Strong caustic effect on skin and mucous membranes.
 - May cause respiratory irritation.
 - Gastric or intestinal disorders when ingested.
- **Danger:**
 - Danger of gastric perforation.
 - Danger of impaired breathing.
 - Causes severe skin burns and eye damage.
 - Toxic if inhaled.
- **Indication of any immediate medical attention and special treatment needed:**
 - Medical supervision for at least 48 hours.
 - If necessary oxygen respiration treatment.
 - Later observation for pneumonia and pulmonary edema.
 - 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**
 - During heating or in case of fire poisonous gases are produced.
- **Advice for firefighters**
- **Protective equipment:**
 - Wear self-contained respiratory protective device.
 - Wear fully protective suit.
- **Additional information:** Cool endangered containers with water fog.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
 - Isolate area and prevent access.
 - Wear protective equipment. Keep unprotected persons away.
 - Ensure adequate ventilation.
 - Use respiratory protective device against the effects of fumes/dust/aerosol.

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- **Environmental precautions** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up**
Absorb material with inert substance (clay, sawdust, kaolin) and sweep up. Wash away remainder with plenty of water.
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:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Requirements to be met by storerooms and receptacles:**
Avoid storage near extreme heat.
Store only in the original receptacle.
- **Information about storage in one common storage facility:**
Store away from foodstuffs.
Do not store together with alkalis (caustic solutions).
Store away from oxidizing agents.
Do not store together with strong acids.
Store away from metals.
- **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:**
The following constituent is the only constituent of the product which has a PEL, TLV or other recommended exposure limit.

79-11-8 chloroacetic acid

| | |
|-------------|-------------------------------------------------------------------------------------------|
| TLV (USA) | Long-term value: 2* mg/m ³ , 0.5* ppm Skin;*as inhalable fraction and vapor |
| WEEL (USA) | Long-term value: 0.5 ppm Skin |
| EL (Canada) | Long-term value: 0.3 ppm Skin |
| EV (Canada) | Long-term value: 0.5 ppm inhalable, vapour and aerosol, Skin |

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| | |
|---------------|-------------------------------------------|
| LMPE (Mexico) | Long-term value: 0.5 ppm A4, PIEL, IFV |
|---------------|-------------------------------------------|

- **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.
Do not inhale gases / fumes / aerosols.
Avoid contact with the eyes and skin.
- **Engineering controls:** Provide adequate ventilation.
- **Breathing equipment:**



Combined Organic Vapor and Particulate Respirator is recommended for use during all processing activities.

- **Protection of hands:**



Protective gloves

- **Material of gloves**

A recommendation for a suitable glove material is not available. Testing will be required to determine the suitability of any potential glove materials.

- **Eye protection:**



Safety glasses

Follow relevant national guidelines concerning the use of protective eyewear.

- **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 physical and chemical properties**

- **Appearance:**

| | |
|--------|------------------------------------|
| Form: | Liquid |
| Color: | According to product specification |

- **Odor:** Characteristic
- **Odor threshold:** Not determined.

- **pH-value:** Strongly acidic
- **Melting point/Melting range:** Not determined.
- **Boiling point/Boiling range:** Not determined.

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| | |
|---------------------------------------------------|-----------------------------------------------|
| · Flash point: | Not applicable. |
| · Flammability (solid, gaseous): | Not applicable. |
| · Auto-ignition temperature: | >260 °C (>500 °F) |
| · 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: | Not determined. |
| 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 information | No relevant information available. |

10 Stability and reactivity

- **Reactivity:** No relevant information available.
- **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**
Reacts with alkali (lyes).
Reacts with certain metals.
Reacts with strong acids.
Reacts with oxidizing agents.
Toxic fumes may be released if heated above the decomposition point.
- **Conditions to avoid** No relevant information available.
- **Incompatible materials**
Alkalis
Oxidizing agents.
Metals.
Strong acids
- **Hazardous decomposition products**
Under fire conditions only:

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Carbon monoxide and carbon dioxide
Chlorine compounds

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11 Toxicological information

· Information on toxicological effects

· **Acute toxicity:** Toxic if inhaled.

· LD/LC50 values that are relevant for classification:

ATE (Acute Toxicity Estimate)

| | | |
|------------|---------|------------------|
| Oral | LD50 | 5800 mg/kg (rat) |
| Dermal | LD50 | 3050 mg/kg (rat) |
| Inhalative | LC50/4h | 1.8 mg/l (rat) |

79-11-8 chloroacetic acid

| | | |
|------------|---------|-----------------|
| Oral | LD50 | 580 mg/kg (rat) |
| Dermal | LD50 | 305 mg/kg (rat) |
| Inhalative | LC50/4h | 0.18 mg/l (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.

May cause respiratory irritation.

Toxic if inhaled.

· **Repeated dose toxicity:** No relevant information available.

· **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:** May cause respiratory irritation.

· **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.

12 Ecological information

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· Toxicity

· Aquatic toxicity

79-11-8 chloroacetic acid

EC50 | 0.028 mg/l (Desmodesmus subspicatus)

- **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:** Must not reach bodies of water or drainage ditch undiluted or unneutralized.
- **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. Residual materials should be treated as hazardous.

· Uncleaned packagings

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

14 Transport information

· UN-Number

· DOT, ADR/RID/ADN, IMDG, IATA UN1750

· UN proper shipping name

· DOT Chloroacetic acid, solution mixture
 · ADR/RID/ADN CHLOROACETIC ACID SOLUTION mixture, ENVIRONMENTALLY HAZARDOUS
 · IMDG CHLOROACETIC ACID SOLUTION mixture, MARINE POLLUTANT
 · IATA CHLOROACETIC ACID SOLUTION mixture

· Transport hazard class(es)

· DOT



· Class

6.1

· Label

6.1, 8

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· **ADR/RID/ADN**



· **Class** 6.1 (TC1)
 · **Label** 6.1+8

· **IMDG**



· **Class** 6.1
 · **Label** 6.1/8

· **IATA**



· **Class** 6.1
 · **Label** 6.1 (8)

· **Packing group**

· **DOT, ADR/RID/ADN, IMDG, IATA** II

· **Environmental hazards**

Product contains environmentally hazardous substances: chloroacetic acid

· **Marine pollutant:**

Yes (DOT)
 Symbol (fish and tree)

· **Special precautions for user**

Warning: Toxic substances

· **Hazard identification number (Kemler code):**

68

· **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**

· **United States (USA)**

· **SARA**

· **Section 302 (extremely hazardous substances):**

None of the ingredients are listed.

· **Section 313 (Specific toxic chemical listings):**

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79-11-8 | chloroacetic acid

· **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.

· **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

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

Acute Tox. 3: Acute toxicity – Category 3

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

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

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

· **Sources**

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

Website, US EPA Substance Registry Services (ofmpub.epa.gov/sorinternet/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