

Safety Data Sheet


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

Revision: August 22, 2020

1 Identification

- **Product identifier**
- **Trade name: Ammonium Thioglycolate Buffer**
- **Product code:** AT6200SS
- **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:**
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 H301 Toxic if swallowed.
Acute Tox. 4 H312 Harmful in contact with skin.
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.
Skin Sens. 1 H317 May cause an allergic skin reaction.
- **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.

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H301+H331 Toxic if swallowed or if inhaled.

H312 Harmful in contact with skin.

H314 Causes severe skin burns and eye damage.

H317 May cause an allergic skin reaction.

Precautionary statements:

P234 Keep only in original container.

P260 Do not breathe mist/vapors/spray.

P264 Wash thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

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

P272 Contaminated work clothing must not be allowed out of the workplace.

P280 Wear protective gloves and eye protection.

P301+P310 If swallowed: Immediately call a poison center/doctor.

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.

P311 Call a poison center/doctor.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P321 Specific treatment (see on this label).

P312 Call a poison center/doctor if you feel unwell.

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

P333+P313 If skin irritation or rash occurs: Get medical advice/attention.

P363 Wash contaminated clothing 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.

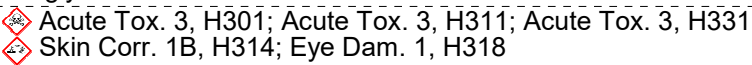
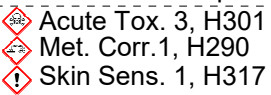
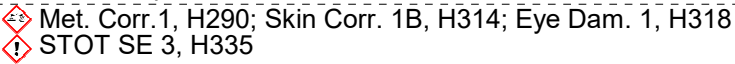
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

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

3 Composition/information on ingredients

Chemical characterization: Mixtures

Components:

68-11-1	thioglycolic acid 	40-60%
5421-46-5	ammonium mercaptoacetate 	20-40%
1336-21-6	Ammonia, aqueous solution 	<1.0%
7732-18-5	Water	10-20%

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· **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.

Immediately call a poison center/doctor.

Provide oxygen treatment if affected person has difficulty breathing.

In case of unconsciousness place patient stably in side position for transportation.

· After skin contact:

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 several 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

Strong caustic effect on skin and mucous membranes.

Gastric or intestinal disorders when ingested.

Nausea in case of ingestion.

· Danger:

May cause sensitization by skin contact.

Danger of gastric perforation.

Danger of impaired breathing.

Causes serious eye damage.

Toxic if swallowed.

Toxic if inhaled.

Harmful in contact with skin.

· 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**

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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**
Wear protective equipment. Keep unprotected persons away.
Suitable respiratory protective device recommended.
Ensure adequate ventilation.
- **Environmental precautions**
Do not allow to enter sewers/ surface or ground water.
Inform respective authorities in case of seepage into water course or sewage system.
- **Methods and material for containment and cleaning up**
Ensure adequate ventilation.
Towel or mop up material and collect in a suitable container.
For larger spills, add non-combustible inert binding material, then sweep up and discard.
Dispose of the collected material according to regulations.
- **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:**
Keep respiratory protective device available.
- **Conditions for safe storage, including any incompatibilities**
- **Requirements to be met by storerooms and receptacles:**
Store in cool, dry conditions in well sealed receptacles.
- **Information about storage in one common storage facility:**
Store away from foodstuffs.
Store away from metals.
Store away from oxidizing agents.
Do not store together with alkalis (caustic solutions).
- **Further information about storage conditions:**
Keep containers tightly sealed.
Store in cool, dry conditions in well sealed receptacles.
- **Specific end use(s)** No relevant information available.

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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.

68-11-1 thioglycolic acid

REL (USA)	Long-term value: 4 mg/m ³ , 1 ppm Skin
TLV (USA)	Long-term value: 3.8 mg/m ³ , 1 ppm and salts, Skin, DSEN
EL (Canada)	Long-term value: 1 ppm Skin; S(D)
EV (Canada)	Long-term value: 3.8 mg/m ³ , 1 ppm Skin
LMPE (Mexico)	Long-term value: 1 ppm PIEL

- **Exposure controls**

- **Engineering measures** Provide adequate ventilation.

- **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing.
Wash hands before breaks and at the end of work.
Store protective clothing separately.
Do not inhale gases / fumes / aerosols.
Avoid contact with the eyes and skin.

- **Engineering controls:** No relevant information available.

- **Breathing equipment:**

NIOSH or EN approved organic vapor respirator equipped with a dust/mist prefilter should be used.

- **Protection of hands:**



Protective gloves

- **Material of gloves**

Neoprene gloves
Butyl rubber, BR
Fluorocarbon rubber (Viton)

- **Eye protection:**

Contact lenses should not be worn.



Safety glasses

Face protection

Follow relevant national guidelines concerning the use of protective eyewear.

- **Body protection:** Impervious protective clothing

- **Limitation and supervision of exposure into the environment**

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No relevant information available.

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9 Physical and chemical properties

· Information on basic physical and chemical properties

· Appearance:

Form: Liquid

Color: Clear

· Odor: Unpleasant

· Odor threshold: Not determined.

· pH-value: Not determined.

· Melting point/Melting range: Not determined.

· Boiling point/Boiling range: Not determined.

· Flash point: The product is not flammable.

· 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: 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.

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- **Possibility of hazardous reactions**
Toxic fumes may be released if heated above the decomposition point.
Reacts with oxidizing agents.
Reacts with alkali (lyes).
- **Conditions to avoid** Excessive heat.
- **Incompatible materials**
Metals.
Oxidizing agents.
Alkalis.
- **Hazardous decomposition products**
Under fire conditions only:
Carbon monoxide and carbon dioxide
Hydrogen sulfide
Sulfur oxides (SOx)
Nitrogen oxides (NOx)

11 Toxicological information

- **Information on toxicological effects**

- **Acute toxicity:**

Toxic if swallowed or if inhaled.
Harmful in contact with skin.

- **LD/LC50 values that are relevant for classification:**

Oral	LD50	100-150 mg/kg (rat)
Dermal	LD50	1500-1800 mg/kg (rat)
Inhalative	LC50/4h	5-7 mg/l (rat)

68-11-1 thioglycolic acid

Oral	LD50	114 mg/kg (rat)
Dermal	LD50	848 mg/kg (rabbit)
Inhalative	LC50/4h	210 mg/m ³ (rat)

- **Primary irritant effect:**
- **On the skin:** Strong caustic effect on skin and mucous membranes.
- **On the eye:** Strong caustic effect.
- **Sensitization:** Sensitization possible through skin contact.

- **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.

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- **Acute effects (acute toxicity, irritation and corrosivity):**
Causes severe skin burns and eye damage.
Toxic if swallowed or if inhaled.
Harmful in contact with skin.
- **Repeated dose toxicity:** May cause sensitization by skin contact.
- **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.

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 product to reach ground water, water course or sewage system.
Due to available data on eliminability/decomposition and bioaccumulation potential prolonged term damage of the environment can not be excluded.
- **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 | UN1940 |
| · UN proper shipping name | |
| · DOT | Thioglycolic acid |
| · ADR/RID/ADN, IMDG, IATA | THIOGLYCOLIC ACID |
| · Transport hazard class(es) | |

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· DOT



· Class 8
· Label 8

· ADR/RID/ADN



· Class 8 (C1)
· Label 8

· IMDG, IATA



· Class 8
· Label 8

· Packing group

· DOT, ADR/RID/ADN, IMDG, IATA II

· Environmental hazards Not applicable.

· Special precautions for user Warning: Corrosive substances

· Hazard identification number (Kemler code): 886

· EMS Number: F-A,S-B

· Segregation groups Acids, alkalis

· 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):

1336-21-6 Ammonia, aqueous solution

· TSCA (Toxic Substances Control Act)

All ingredients are listed or exempt.

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· **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

Acute Tox. 4: Acute toxicity – Category 4

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

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

Skin Sens. 1: Skin sensitisation – 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/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., Klaassen, Curtis D., ed., ISBN: 978-0-07-176923-5.

Safety Data Sheets, Individual Manufacturers

SDS Prepared by:

ChemTel

1305 North Florida Avenue

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