

Safety Data Sheet (SDS)

OSHA HazCom 2012 Standard 29 CFR 1910.1200. Prepared to GHS Rev03.

Printing date 05/05/2014

Reviewed on 05/05/2014

* 1 Identification

- **Product identifier**
- **Trade name:** Buffer for Mercury Testing
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
ANDalyze, Inc.
2109 S.Oak Street
Suite 102
Champaign, IL 61820
Phone: +1 857-453-6740
Fax: +1 847-386-1277
- **Emergency telephone number:** +1 217-328-0045

2 Hazard(s) identification

- **Classification of the substance or mixture**



Flame over circle

May cause fire or explosion; strong oxidizer.



Causes skin irritation.

Causes serious eye irritation.

- **Label elements**

- **GHS label elements**

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

- **Hazard pictograms**



GHS03 GHS07

- **Signal word** Danger

- **Hazard statements**

May cause fire or explosion; strong oxidizer.

Causes skin irritation.

Causes serious eye irritation.

- **Precautionary statements**

Take any precaution to avoid mixing with combustibles.

Wear fire/flammable resistant/retardant clothing.

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

Keep/Store away from clothing/combustible materials.

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

Wash thoroughly after handling.

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

IF ON CLOTHING: rinse immediately contaminated clothing and skin with plenty of water before removing clothes.

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Specific treatment (see on this label).

In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.

Take off contaminated clothing and wash before reuse.

If skin irritation occurs: Get medical advice/attention.

If eye irritation persists: Get medical advice/attention.

In case of fire: Use for extinction: CO₂, powder or water spray.

IF ON SKIN: Wash with plenty of water.

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

· **Classification system:**

· **NFPA ratings (scale 0 - 4)**



Health = 1

Fire = 3

Reactivity = 0

The substance possesses oxidizing properties.

· **HMS-ratings (scale 0 - 4)**

HEALTH	1	Health = 1
FIRE	3	Fire = 3
REACTIVITY	0	Reactivity = 0

* 3 Composition/information on ingredients

· **Chemical characterization: Mixtures**

· **Description:** Mixture of the substances listed below with nonhazardous additions.

· **Dangerous components:**

7631-99-4	sodium nitrate, containing in the dry state more than 16,3 per cent by weight of nitrogen	15-35%
	⚠ Ox. Sol. 2, H272; ⚠ Eye Irrit. 2A, H319	
71119-22-7	MOPS sodium salt	5-10%
	⚠ Skin Irrit. 2, H315; STOT SE 3, H335; Eye Irrit. 2B, H320	
1132-61-2	4-morpholinopropanesulphonic acid	2-12%
	⚠ Skin Irrit. 2, H315; Eye Irrit. 2A, H319; STOT SE 3, H335	

4 First-aid measures

· **Description of first aid measures**

· **After inhalation:** In case of unconsciousness, place patient securely on side position for transportation.

· **After skin contact:** Immediately wash with water and soap and rinse thoroughly.

· **After eye contact:**

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

· **After swallowing:** Give large amounts of water. If symptoms persist consult doctor.

· **Most important symptoms and effects, both acute and delayed** No further relevant information available.

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

No further relevant information available.

5 Fire-fighting measures

· **Extinguishing media**

· **Suitable extinguishing agents:**

CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

· **Special hazards arising from the substance or mixture** No further relevant information available.

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- **Advice for firefighters**
- **Protective equipment:** No special measures required.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Not required.
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (ie. sand, diatomite, acid binders, universal binders, sawdust).
Ensure adequate ventilation.
- **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

- **Precautions for safe handling**
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.
- **Information about protection against explosions and fires:** Protect from heat.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**
Keep receptacle tightly sealed.
Protect from heat and direct sunlight.
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see section 7.
- **Control parameters**
- **Components with limit values that require monitoring at the workplace:**
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **Additional information:** The lists that were valid during the creation were used as basis.
- **Exposure controls**
- **Personal protective equipment:**
- **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.
Avoid contact with the eyes and skin.
- **Breathing equipment:** Not required.
- **Protection of hands:**



Protective gloves

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The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Select glove material based on penetration times, rates of diffusion and degradation.

· **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· **Penetration time of glove material**

The exact break-through time has to be determined and observed by the manufacturer of the protective gloves.

· **Eye protection:** Tightly sealed goggles

* 9 Physical and chemical properties

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

Form: Liquid

Color: Clear

· **Odor:** Odorless

· **Odor threshold:** Not determined.

· **pH-value:** Not determined.

· **Change in condition**

Melting point/Melting range: Not determined.

Boiling point/Boiling range: 100 °C (212 °F)

· **Flash point:** Not applicable.

· **Flammability (solid, gaseous):** Not applicable.

· **Ignition temperature:**

Decomposition temperature: Not determined.

· **Auto igniting:** Product is not selfigniting.

· **Danger of explosion:** Explosive when mixed with combustible material.

· **Explosion limits:**

Lower: 0.0 Vol %

Upper: 0.0 Vol %

· **Vapor pressure @ 20 °C (68 °F):** 23 hPa (17 mm Hg)

· **Density:** Not determined.

· **Relative density** Not determined.

· **Vapour 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.

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Kinematic:	Not determined.
· Solvent content:	
Organic solvents:	0.0 %
Water:	74.0 %
VOC content:	7.9 %
Solids content:	18.1 %
· Other information	No further relevant information available.

10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**

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

7631-99-4 sodium nitrate, containing in the dry state more than 16,3 per cent by weight of nitrogen

Oral LD50 3236 mg/kg (rat)

- **Primary irritant effect:**
- **on the skin:** Irritant to skin and mucous membranes.
- **on the eye:** Irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**
The product shows the following dangers according to internally approved calculation methods for preparations:
Irritant
- **Carcinogenic categories**

- **IARC (International Agency for Research on Cancer)**

7722-84-1 hydrogen peroxide solution

3

- **NTP (National Toxicology Program)**

None of the ingredients is listed.

- **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

* 12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.

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· **Additional ecological information:**

· **General notes:**

Water hazard class 1 (Self-assessment): slightly hazardous for water

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

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

· **Other adverse effects** No further relevant information available.

13 Disposal considerations

· **Waste treatment methods**

· **Recommendation:**

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

· **Uncleaned packagings:**

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

* 14 Transport information

· **UN-Number**

· **DOT, ADR, IMDG, IATA**

UN3098

· **UN proper shipping name**

· **DOT**

· **ADR**

Oxidizing liquid, corrosive, n.o.s. (Hydrogen peroxide, stabilized)
UN3098 Oxidizing liquid, corrosive, n.o.s. (Hydrogen peroxide aqueous solutions, stabilized)

· **IMDG, IATA**

OXIDIZING LIQUID, CORROSIVE, N.O.S. (HYDROGEN PEROXIDE, STABILIZED)

· **Transport hazard class(es)**

· **DOT**



· **Class**

5.1 Oxidising substances.

· **Label**

5.1+8

· **ADR**



· **Class**

5.1 (OC1) Oxidizing substances

· **Label**

5.1+8

· **IMDG, IATA**



· **Class**

5.1 Oxidising substances.

· **Label**

5.1+8

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- **Packing group**
- **DOT, ADR, IMDG, IATA** I
- **Environmental hazards:**
- **Marine pollutant:** No
- **Special precautions for user** Warning: Oxidizing substances
- **Danger code (Kemler):** -
- **EMS Number:** F-A,S-Q
- **Segregation groups** Peroxides
- **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** Not applicable.
- **UN "Model Regulation":** UN3098, Oxidizing liquid, corrosive, n.o.s. (Hydrogen peroxide aqueous solutions, stabilized), 5.1 (8), I

*15 Regulatory information

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

- **Section 355 (extremely hazardous substances):**

7722-84-1 | hydrogen peroxide solution

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

None of the ingredients is listed.

- **TSCA (Toxic Substances Control Act):**

All ingredients are listed.

- **Proposition 65**

- **Chemicals known to cause cancer:**

None of the ingredients is listed.

- **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

- **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.

- **Chemicals known to cause developmental toxicity:**

None of the ingredients is listed.

- **Carcinogenic categories**

- **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

- **TLV (Threshold Limit Value established by ACGIH)**

7722-84-1 | hydrogen peroxide solution

A3

- **NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is listed.

- **GHS label elements**

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

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· Hazard pictograms



GHS03 GHS07

· Signal word Danger

· Hazard statements

May cause fire or explosion; strong oxidizer.

Causes skin irritation.

Causes serious eye irritation.

· Precautionary statements

Take any precaution to avoid mixing with combustibles.

Wear fire/flamm resistant/retardant clothing.

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

Keep/Store away from clothing/combustible materials.

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

Wash thoroughly after handling.

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

IF ON CLOTHING: rinse immediately contaminated clothing and skin with plenty of water before removing clothes.

Specific treatment (see on this label).

In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.

Take off contaminated clothing and wash before reuse.

If skin irritation occurs: Get medical advice/attention.

If eye irritation persists: Get medical advice/attention.

In case of fire: Use for extinction: CO₂, powder or water spray.

IF ON SKIN: Wash with plenty of water.

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

· National regulations:

The product is subject to be labeled according with the prevailing version of the regulations on hazardous substances.

· State Right to Know

7631-99-4	sodium nitrate, containing in the dry state more than 16,3 per cent by weight of nitrogen	15-35%
	 Ox. Sol. 2, H272;  Eye Irrit. 2A, H319	
71119-22-7	MOPS sodium salt	5-10%
	 Skin Irrit. 2, H315; STOT SE 3, H335; Eye Irrit. 2B, H320	
1132-61-2	4-morpholinopropanesulphonic acid	2-12%
	 Skin Irrit. 2, H315; Eye Irrit. 2A, H319; STOT SE 3, H335	
7722-84-1	hydrogen peroxide solution	≤ 2.5%
	 Ox. Liq. 1, H271;  Skin Corr. 1A, H314;  Acute Tox. 4, H302; Acute Tox. 4, H332	
7732-18-5	water, distilled, conductivity or of similar purity	70-90%
All ingredients are listed.		

· Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

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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.

· **Date of preparation / last revision** 05/05/2014 / 4

· **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (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

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

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

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

Ox. Liq. 1: Oxidising Liquids, Hazard Category 1

Ox. Sol. 2: Oxidising Solids, Hazard Category 2

Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2

Eye Irrit. 2A: Serious eye damage/eye irritation, Hazard Category 2A

Eye Irrit. 2B: Serious eye damage/eye irritation, Hazard Category 2B

STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3

· *** Data compared to the previous version altered.**

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