

# Reagent A (RED)

## Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations And According To The Hazardous Products Regulation (February 11, 2015).  
Date of Issue: 08/30/2021 Version: 1.0

### SECTION 1: IDENTIFICATION

#### 1.1. Product Identifier

**Product Form:** Mixture

**Product Name:** Reagent A (RED)

**Product Code:** RG6000SS

#### 1.2. Intended Use of the Product

Laboratory

#### 1.3. Name, Address, and Telephone of the Responsible Party

##### Company

AquaPhoenix Scientific, Inc.

860 Gitts Run Road

Hanover, PA 17331 USA

Tel +1 (717)632-1291

Toll-Free: (866)632-1291

tech@aquaphoenixsci.com

#### 1.4. Emergency Telephone Number

**Emergency Number** : ChemTel LLC

(800)255-3924 (North America)

+1 (813)248-0585 (International)

### SECTION 2: HAZARDS IDENTIFICATION

#### 2.1. Classification of the Substance or Mixture

##### GHS-US/CA Classification

Aquatic Acute 2 H401

Aquatic Chronic 2 H411

Full text of hazard classes and H-statements : see section 16

#### 2.2. Label Elements

##### GHS-US/CA Labeling

**Hazard Pictograms (GHS-US/CA)** :



**Hazard Statements (GHS-US/CA)** :

H401 - Toxic to aquatic life.

H411 - Toxic to aquatic life with long lasting effects.

**Precautionary Statements (GHS-US/CA)** :

P273 - Avoid release to the environment.

P391 - Collect spillage.

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

#### 2.3. Other Hazards

Exposure may aggravate pre-existing eye, skin, or respiratory conditions.

#### 2.4. Unknown Acute Toxicity (GHS-US/CA)

No data available

### SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

#### 3.1. Substance

Not applicable

#### 3.2. Mixture

Name	Synonyms	Product Identifier	% *	GHS Ingredient Classification
Water	AQUA / water	(CAS-No.) 7732-18-5	89.3	Not classified
Sodium tartrate dihydrate	Butanedioic acid, 2,3-dihydroxy- [R-(R*,R*)]-,	(CAS-No.) 6106-24-7	6.2	Not classified

# Reagent A (RED)

## Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations And According To The Hazardous Products Regulation (February 11, 2015).

	disodium salt, dihydrate / Butanedioic acid, 2,3-dihydroxy- (2R,3R)-, disodium salt, dihydrate / Butanedioic acid, 2,3-dihydroxy- (2R,3R)-, sodium salt, hydrate (1:2:2) / Disodium tartrate dihydrate / Disodium 2,3-dihydroxysuccinate dihydrate / Disodium L-tartrate / sodium tartrate dihydrate			
Sodium hydroxide	Caustic soda / Sodium hydroxide (Na(OH)) / SODIUM HYDROXIDE / LYE	(CAS-No.) 1310-73-2	4	Met. Corr. 1, H290 Acute Tox. 4 (Oral), H302 Skin Corr. 1A, H314 Eye Dam. 1, H318 STOT SE 3, H335 Aquatic Acute 3, H402 Aquatic Chronic 3, H412
Sodium hypochlorite	Hypochlorous acid, sodium salt / Hypochlorous acid, sodium salt (1:1) / Sodium hypochlorite, solution ...% Chlorine active / Sodium hypochlorite solution / SODIUM HYPOCHLORITE / Sodium hypochlorite, solution ...% / Sodium hypochlorite, solution... % Cl active	(CAS-No.) 7681-52-9	0.5	Met. Corr. 1, H290 Skin Corr. 1B, H314 Eye Dam. 1, H318 STOT SE 3, H335 Aquatic Acute 1, H400 Aquatic Chronic 1, H410

Full text of H- and EUH-statements: see section 16

\*Percentages are listed in weight by weight percentage (w/w%) for liquid and solid ingredients. Gas ingredients are listed in volume by volume percentage (v/v%).

## SECTION 4: FIRST AID MEASURES

### 4.1. Description of First-aid Measures

**General:** Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

**Inhalation:** When symptoms occur: go into open air and ventilate suspected area. Obtain medical attention if breathing difficulty persists.

**Skin Contact:** Remove contaminated clothing. Drench affected area with water for at least 5 minutes. Obtain medical attention if irritation develops or persists.

**Eye Contact:** Rinse cautiously with water for at least 5 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention if irritation develops or persists.

**Ingestion:** Rinse mouth. Do NOT induce vomiting. Obtain medical attention.

### 4.2. Most Important Symptoms and Effects Both Acute and Delayed

**General:** Not expected to present a significant hazard under anticipated conditions of normal use.

**Inhalation:** Prolonged exposure may cause irritation.

**Skin Contact:** Prolonged exposure may cause skin irritation.

**Eye Contact:** May cause slight irritation to eyes.

**Ingestion:** Ingestion may cause adverse effects.

**Chronic Symptoms:** Repeated exposure may cause skin dryness or cracking.

### 4.3. Indication of Any Immediate Medical Attention and Special Treatment Needed

If exposed or concerned, get medical advice and attention. If medical advice is needed, have product container or label at hand.

## SECTION 5: FIRE-FIGHTING MEASURES

### 5.1. Extinguishing Media

**Suitable Extinguishing Media:** Water spray, fog, carbon dioxide (CO<sub>2</sub>), alcohol-resistant foam, or dry chemical.

**Unsuitable Extinguishing Media:** Do not use a heavy water stream. Use of heavy stream of water may spread fire.

# Reagent A (RED)

## Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations And According To The Hazardous Products Regulation (February 11, 2015).

### 5.2. Special Hazards Arising From the Substance or Mixture

**Fire Hazard:** Not considered flammable but may burn at high temperatures.

**Explosion Hazard:** Product is not explosive.

**Reactivity:** Hazardous reactions will not occur under normal conditions.

### 5.3. Advice for Firefighters

**Precautionary Measures Fire:** Exercise caution when fighting any chemical fire.

**Firefighting Instructions:** Use water spray or fog for cooling exposed containers.

**Protection During Firefighting:** Do not enter fire area without proper protective equipment, including respiratory protection.

**Hazardous Combustion Products:** Carbon oxides (CO, CO<sub>2</sub>). Sodium oxides. Oxygen. Chlorine gas.

**Other Information:** Do not allow run-off from fire fighting to enter drains or water courses.

### 5.4. Reference to Other Sections

Refer to Section 9 for flammability properties.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

### 6.1. Personal Precautions, Protective Equipment and Emergency Procedures

**General Measures:** Avoid prolonged contact with eyes, skin and clothing. Avoid breathing (vapor, mist, spray).

#### 6.1.1. For Non-Emergency Personnel

**Protective Equipment:** Use appropriate personal protective equipment (PPE).

**Emergency Procedures:** Evacuate unnecessary personnel.

#### 6.1.2. For Emergency Personnel

**Protective Equipment:** Equip cleanup crew with proper protection.

**Emergency Procedures:** Upon arrival at the scene, a first responder is expected to recognize the presence of dangerous goods, protect oneself and the public, secure the area, and call for the assistance of trained personnel as soon as conditions permit.

Ventilate area.

### 6.2. Environmental Precautions

Prevent entry to sewers and public waters. Avoid release to the environment. Collect spillage.

### 6.3. Methods and Materials for Containment and Cleaning Up

**For Containment:** Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.

**Methods for Cleaning Up:** Clean up spills immediately and dispose of waste safely. Transfer spilled material to a suitable container for disposal. Contact competent authorities after a spill.

### 6.4. Reference to Other Sections

See Section 8 for exposure controls and personal protection and Section 13 for disposal considerations.

## SECTION 7: HANDLING AND STORAGE

### 7.1. Precautions for Safe Handling

**Precautions for Safe Handling:** Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Avoid prolonged contact with eyes, skin and clothing. Avoid breathing vapors, mist, spray.

**Hygiene Measures:** Handle in accordance with good industrial hygiene and safety procedures.

### 7.2. Conditions for Safe Storage, Including Any Incompatibilities

**Technical Measures:** Comply with applicable regulations.

**Storage Conditions:** Keep container closed when not in use. Store in a dry, cool place. Keep/Store away from direct sunlight, extremely high or low temperatures and incompatible materials.

**Incompatible Materials:** Strong acids, strong bases, strong oxidizers.

### 7.3. Specific End Use(s)

Laboratory

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1. Control Parameters

For substances listed in section 3 that are not listed here, there are no established exposure limits from the manufacturer, supplier, importer, or the appropriate advisory agency including: ACGIH (TLV), AIHA (WEEL), NIOSH (REL), OSHA (PEL), or Canadian provincial governments.

#### Sodium hypochlorite (7681-52-9)

USA AIHA

WEEL STEL

2 mg/m<sup>3</sup> (15-min. STEL)

#### Sodium hydroxide (1310-73-2)

# Reagent A (RED)

## Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations And According To The Hazardous Products Regulation (February 11, 2015).

USA ACGIH	ACGIH OEL Ceiling	2 mg/m <sup>3</sup>
USA OSHA	OSHA PEL (TWA) [1]	2 mg/m <sup>3</sup>
USA NIOSH	NIOSH REL (Ceiling)	2 mg/m <sup>3</sup>
USA IDLH	IDLH	10 mg/m <sup>3</sup>
Alberta	OEL C	2 mg/m <sup>3</sup>
British Columbia	OEL C	2 mg/m <sup>3</sup>
Manitoba	OEL C	2 mg/m <sup>3</sup>
New Brunswick	OEL C	2 mg/m <sup>3</sup>
Newfoundland & Labrador	OEL C	2 mg/m <sup>3</sup>
Nova Scotia	OEL C	2 mg/m <sup>3</sup>
Nunavut	OEL C	2 mg/m <sup>3</sup>
Northwest Territories	OEL C	2 mg/m <sup>3</sup>
Ontario	OEL C	2 mg/m <sup>3</sup>
Prince Edward Island	OEL C	2 mg/m <sup>3</sup>
Québec	Plafond (OEL Ceiling)	2 mg/m <sup>3</sup>
Saskatchewan	OEL C	2 mg/m <sup>3</sup>
Yukon	OEL C	2 mg/m <sup>3</sup>

### 8.2. Exposure Controls

**Appropriate Engineering Controls:** Suitable eye/body wash equipment should be available in the vicinity of any potential exposure. Ensure adequate ventilation, especially in confined areas. Ensure all national/local regulations are observed.

**Personal Protective Equipment:** Gloves. Protective clothing. Protective goggles.



**Materials for Protective Clothing:** Chemically resistant materials and fabrics.

**Hand Protection:** Wear protective gloves.

**Eye and Face Protection:** Chemical safety goggles.

**Skin and Body Protection:** Wear suitable protective clothing.

**Respiratory Protection:** If exposure limits are exceeded or irritation is experienced, approved respiratory protection should be worn. In case of inadequate ventilation, oxygen deficient atmosphere, or where exposure levels are not known wear approved respiratory protection.

**Other Information:** When using, do not eat, drink or smoke.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1. Information on Basic Physical and Chemical Properties

Physical State	: Liquid
Appearance	: Not available
Odor	: Not available
Odor Threshold	: Not available
pH	: Not available
Evaporation Rate	: Not available
Melting Point	: Not available
Freezing Point	: Not available
Boiling Point	: Not available
Flash Point	: Not available
Auto-ignition Temperature	: Not available
Decomposition Temperature	: Not available
Flammability (solid, gas)	: Not applicable
Lower Flammable Limit	: Not available
Upper Flammable Limit	: Not available

# Reagent A (RED)

## Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations And According To The Hazardous Products Regulation (February 11, 2015).

Vapor Pressure	: Not available
Relative Vapor Density at 20°C	: Not available
Relative Density	: Not available
Specific Gravity	: Not available
Solubility	: Not available
Partition Coefficient: N-Octanol/Water	: Not available
Viscosity	: Not available

## SECTION 10: STABILITY AND REACTIVITY

- 10.1. Reactivity:** Hazardous reactions will not occur under normal conditions.
- 10.2. Chemical Stability:** Stable under recommended handling and storage conditions (see section 7).
- 10.3. Possibility of Hazardous Reactions:** Can initiate polymerization in certain alkenes.
- 10.4. Conditions to Avoid:** Direct sunlight, extremely high or low temperatures, and incompatible materials.
- 10.5. Incompatible Materials:** Strong acids, strong bases, strong oxidizers.
- 10.6. Hazardous Decomposition Products:** Not expected to decompose under ambient conditions.

## SECTION 11: TOXICOLOGICAL INFORMATION

### 11.1. Information on Toxicological Effects - Product

**Acute Toxicity (Oral):** Not classified

**Acute Toxicity (Dermal):** Not classified

**Acute Toxicity (Inhalation):** Not classified

**LD50 and LC50 Data:** Not available

**Skin Corrosion/Irritation:** Not classified.

**Eye Damage/Irritation:** Not classified.

**Respiratory or Skin Sensitization:** Not classified

**Germ Cell Mutagenicity:** Not classified

**Carcinogenicity:** Not classified

**Specific Target Organ Toxicity (Repeated Exposure):** Not classified

**Reproductive Toxicity:** Not classified

**Specific Target Organ Toxicity (Single Exposure):** Not classified

**Aspiration Hazard:** Not classified

**Symptoms/Injuries After Inhalation:** Prolonged exposure may cause irritation.

**Symptoms/Injuries After Skin Contact:** Prolonged exposure may cause skin irritation.

**Symptoms/Injuries After Eye Contact:** May cause slight irritation to eyes.

**Symptoms/Injuries After Ingestion:** Ingestion may cause adverse effects.

**Chronic Symptoms:** Repeated exposure may cause skin dryness or cracking.

### 11.2. Information on Toxicological Effects - Ingredient(s)

**LD50 and LC50 Data:**

Sodium hypochlorite (7681-52-9)	
LD50 Oral Rat	8.91 g/kg
LD50 Dermal Rabbit	> 20000 mg/kg
LC50 Inhalation Rat	> 10.5 mg/l (Exposure time: 1 h)
ATE US/CA (oral)	8,910.00 mg/kg body weight
Sodium hydroxide (1310-73-2)	
LD50 Oral Rat	325 mg/kg
Sodium hypochlorite (7681-52-9)	
IARC Group	3

## SECTION 12: ECOLOGICAL INFORMATION

### 12.1. Toxicity

**Ecology - General:** Toxic to aquatic life with long lasting effects.

<b>Sodium hypochlorite (7681-52-9)</b>
--

# Reagent A (RED)

## Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations And According To The Hazardous Products Regulation (February 11, 2015).

LC50 Fish 1	0.06 (0.06 – 0.11) mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])
EC50 - Crustacea [1]	0.033 – 0.044 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])
LC50 Fish 2	4.5 (4.5 – 7.6) mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])
<b>Sodium hydroxide (1310-73-2)</b>	
LC50 Fish 1	45.4 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [static])
EC50 - Crustacea [1]	40 mg/l

### 12.2. Persistence and Degradability

Reagent A (RED)	
Persistence and Degradability	May cause long-term adverse effects in the environment.

### 12.3. Bioaccumulative Potential

Reagent A (RED)	
Bioaccumulative Potential	Not established.

12.4. Mobility in Soil Not available

### 12.5. Other Adverse Effects

Other Information: Avoid release to the environment.

## SECTION 13: DISPOSAL CONSIDERATIONS

### 13.1. Waste treatment methods

**Waste Disposal Recommendations:** Dispose of contents/container in accordance with local, regional, national, territorial, provincial, and international regulations.

**Ecology - Waste Materials:** Avoid release to the environment. This material is hazardous to the aquatic environment. Keep out of sewers and waterways.

## SECTION 14: TRANSPORT INFORMATION

The shipping description(s) stated herein were prepared in accordance with certain assumptions at the time the SDS was authored, and can vary based on a number of variables that may or may not have been known at the time the SDS was issued.

### 14.1. In Accordance with DOT

**Proper Shipping Name** : ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S.(Sodium hydroxide; Sodium hypochlorite)

**Hazard Class** : 9

**Identification Number** : UN3082

**Label Codes** : 9

**Packing Group** : III

**Marine Pollutant** : Marine pollutant

**ERG Number** : 171



### 14.2. In Accordance with IMDG

**Proper Shipping Name** : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.(Sodium hydroxide; Sodium hypochlorite)

**Hazard Class** : 9

**Identification Number** : UN3082

**Label Codes** : 9

**Packing Group** : III

**EmS-No. (Fire)** : F-A

**EmS-No. (Spillage)** : S-F

**Marine pollutant** : Marine pollutant



### 14.3. In Accordance with IATA

**Proper Shipping Name** : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Sodium hydroxide; Sodium hypochlorite)

**Hazard Class** : 9

**Identification Number** : UN3082

**Label Codes** : 9



# Reagent A (RED)

## Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations And According To The Hazardous Products Regulation (February 11, 2015).

**Packing Group** : III

**ERG Code (IATA)** : 9L

### 14.4. In Accordance with TDG

**Proper Shipping Name** : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.(Sodium hydroxide; Sodium hypochlorite)

**Hazard Class** : 9

**Identification Number** : UN3082

**Label Codes** : 9

**Packing Group** : III

**Marine Pollutant (TDG)** : Marine pollutant



## SECTION 15: REGULATORY INFORMATION

### 15.1. US Federal Regulations

<b>Water (7732-18-5)</b>	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
<b>Sodium hypochlorite (7681-52-9)</b>	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
<b>CERCLA RQ</b>	100 lb
<b>Sodium hydroxide (1310-73-2)</b>	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
<b>CERCLA RQ</b>	1000 lb

### 15.2. US State Regulations

<b>Sodium hypochlorite (7681-52-9)</b>
U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) List U.S. - Massachusetts - Right To Know List U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List
<b>Sodium hydroxide (1310-73-2)</b>
U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) List U.S. - Massachusetts - Right To Know List U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List

### 15.3. Canadian Regulations

<b>Water (7732-18-5)</b>
Listed on the Canadian DSL (Domestic Substances List)
<b>Sodium hypochlorite (7681-52-9)</b>
Listed on the Canadian DSL (Domestic Substances List)
<b>Sodium hydroxide (1310-73-2)</b>
Listed on the Canadian DSL (Domestic Substances List)

## SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

**Date of Preparation or Latest** : 08/30/2021

### Revision

**Other Information** : This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200 and Canada's Hazardous Products Regulations (HPR) SOR/2015-17.

### GHS Full Text Phrases:

Acute Tox. 4 (Oral)	Acute toxicity (oral) Category 4
Aquatic Acute 1	Hazardous to the aquatic environment - Acute Hazard Category 1
Aquatic Acute 2	Hazardous to the aquatic environment - Acute Hazard Category 2
Aquatic Acute 3	Hazardous to the aquatic environment - Acute Hazard Category 3

# Reagent A (RED)

## Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations And According To The Hazardous Products Regulation (February 11, 2015).

Aquatic Chronic 1	Hazardous to the aquatic environment - Chronic Hazard Category 1
Aquatic Chronic 2	Hazardous to the aquatic environment - Chronic Hazard Category 2
Aquatic Chronic 3	Hazardous to the aquatic environment - Chronic Hazard Category 3
Eye Dam. 1	Serious eye damage/eye irritation Category 1
Met. Corr. 1	Corrosive to metals Category 1
Skin Corr. 1A	Skin corrosion/irritation Category 1A
Skin Corr. 1B	Skin corrosion/irritation Category 1B
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation
H290	May be corrosive to metals
H302	Harmful if swallowed
H314	Causes severe skin burns and eye damage
H318	Causes serious eye damage
H335	May cause respiratory irritation
H400	Very toxic to aquatic life
H401	Toxic to aquatic life
H402	Harmful to aquatic life
H410	Very toxic to aquatic life with long lasting effects
H411	Toxic to aquatic life with long lasting effects
H412	Harmful to aquatic life with long lasting effects

*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.*

NA GHS SDS 2015 (Can, US)