

Safety Data Sheet

according to 29CFR1910/1200 and GHS Rev. 3

Initial preparation date: : 12.14.2014**Simulated Blood Hemoglobin****SECTION 1: Identification of the substance/mixture and of the supplier****Product name:** Simulated Blood Hemoglobin**Manufacturer/Supplier Article number:** CL3100SS**Recommended uses of the product and restrictions on use:** Laboratory Chemicals**Manufacturer Details:**

AquaPhoenix Scientific, Inc.
 860 Gitts Run Road
 Hanover, PA 17331
 1-717-632-1291

Emergency telephone number:**ChemTel: (24-hour)**

+1(800)255-3924

+1(813)248-0585 (International)

SECTION 2: Hazards identification**Classification of the substance or mixture:****Irritant**

Skin irritation, category 2

Eye irritation, category 2A

Eye Irrit. 2A.

Skin Irrit. 2.

Signal word: Warning**Hazard statements:**

Causes serious eye irritation.

Causes skin irritation.

Precautionary statements:

Wash skin thoroughly after handling.

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

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

Continue rinsing.

If eye irritation persists get medical advice/attention.

IF ON SKIN: Wash with soap and water.

Specific treatment (see supplemental first aid instructions on this label).

If skin irritation occurs: Get medical advice/attention.

Take off contaminated clothing and wash before reuse.

Other Non-GHS Classification: None**SECTION 3: Composition/information on ingredients****Ingredients:**

Ingredients:		
CAS 7681-52-9	Sodium Hypochlorite	<1 %

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CAS 7732-18-5	Deionized Water	>94 %
CAS 7647-14-5	Sodium Chloride	<1 %
CAS 497-19-8	Sodium Carbonate	<1 %
CAS 7775-09-9	Sodium Chlorate	<1 %
CAS 1310-73-2	Sodium Hydroxide	<1 %
CAS 9003-04-7	Sodium Polyacrylate	<1 %
CAS 1643-20-5	Lauramine Oxide	<1 %
Percentages are by weight		

SECTION 4: First aid measures**Description of first aid measures****After inhalation:**

Move exposed individual to fresh air. Loosen clothing as necessary and position individual in a comfortable position. Seek medical advice if discomfort or irritation persists. If breathing difficult, give oxygen.

After skin contact:

Take off contaminated clothing and shoes immediately. Wash affected area with soap and water. Seek medical attention if irritation, discomfort persist.

After eye contact:

Protect unexposed eye. Rinse/flush exposed eye(s) gently using water for 15-20 minutes. Remove contact lens(es) if able to do so during rinsing. Immediately get medical assistance.

After swallowing:

Rinse mouth thoroughly. Do not induce vomiting. Have exposed individual drink sips of water. Seek medical attention if irritation, discomfort or vomiting persists.

Most important symptoms and effects, both acute and delayed:

Irritation. Nausea. Headache. Shortness of breath.

Indication of any immediate medical attention and special treatment needed:

If seeking medical attention, provide SDS document to physician.

SECTION 5: Firefighting measures**Extinguishing media****Suitable extinguishing agents:**

If in laboratory setting, follow laboratory fire suppression procedures. Use appropriate fire suppression agents for adjacent combustible materials or sources of ignition.

Unsuitable extinguishing agents: None**Special hazards arising from the substance or mixture:**

Sodium oxides. Poisonous gas may be produced in fire.

Advice for firefighters:**Protective equipment:**

Use NIOSH-approved respiratory protection/breathing apparatus.

Additional information (precautions): None

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Wear protective equipment. Ensure adequate ventilation. Avoid contact with eyes, skin, and clothing.

Environmental precautions:

Should not be released into the environment.

Methods and material for containment and cleaning up:

If in a laboratory setting, follow Chemical Hygiene Plan procedures. Place into properly labeled containers for recovery or disposal. If necessary, use trained response staff/contractor. Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container.

Reference to other sections: None**SECTION 7: Handling and storage****Precautions for safe handling:**

Absorb spillage to prevent material damage due to corrosiveness to metal. Avoid contact with skin, eyes and clothing. Wash hands after handling. Do not mix with acids. Follow good hygiene procedures when handling chemical materials. Use only in well ventilated areas.

Conditions for safe storage, including any incompatibilities:

Provide ventilation for containers. Avoid storage near extreme heat, ignition sources or open flame. Store away from foodstuffs. Store away from oxidizing agents. Store in cool, dry conditions in well sealed containers.

SECTION 8: Exposure controls/personal protection**Control parameters:**

Appropriate engineering controls: Emergency eye wash fountains and safety showers should be available in the immediate vicinity of use/handling. Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapor or dusts (total/respirable) below the applicable workplace exposure limits (Occupational Exposure Limits-OELs) indicated above.

Respiratory protection: Use suitable respiratory protective device when high concentrations are present. Use suitable respiratory protective device when aerosol or mist is formed. For spills, respiratory protection may be advisable.

Protection of skin: The glove material has to be impermeable and resistant to the product/ the substance/ the preparation being used/handled. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.

Eye protection: Safety glasses with side shields or goggles.

General hygienic measures: The usual precautionary measures are to be adhered to when handling chemicals. Keep away from food, beverages and feed sources. Wash hands before breaks and at the end of work. Do not inhale gases/fumes/dust/mist/vapor/aerosols. Avoid contact with the eyes and skin.

SECTION 9: Physical and chemical properties

Appearance (physical state, color):	Clear colorless to light yellow green liquid	Explosion limit lower:	Non Explosive
		Explosion limit upper:	Non Explosive

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Odor:	Bleach	Vapor pressure at 20°C:	14 mmHg at 20°C
Odor threshold:	Not determined	Vapor density:	>1
pH-value:	Not determined	Relative density:	Approx. 1
Melting/Freezing point:	Approx. 0°C	Solubilities:	Soluble in Water
Boiling point/Boiling range:	Decomposes	Partition coefficient (n-octanol/water):	Not determined
Flash point (closed cup):	Not determined	Auto/Self-ignition temperature:	Not determined
Evaporation rate:	Not determined	Decomposition temperature:	Not determined
Flammability (solid, gaseous):	Not determined	Viscosity:	a. Kinematic: Not determined b. Dynamic: Not determined
Density at 20°C:	Not determined		

SECTION 10: Stability and reactivity**Reactivity:**

Nonreactive under normal conditions.

Chemical stability:

Decomposes slowly at normal temperatures releasing low concentrations of corrosive chlorine gas.

Decomposition is influenced by temperature, pH, exposure to light, concentration, ionic strength, and presence of metals.

Possible hazardous reactions:

None under normal processing.

Conditions to avoid:

Metals, ammonia, strong reducing agents, methanol, strong acids, formic acid, amines, phenyl acetonitrile, ammonium salts.

Incompatible materials:

Metals, ammonia, strong reducing agents, methanol, strong acids, formic acid, amines, phenyl acetonitrile, ammonium salts.

Hazardous decomposition products:

Hydrogen chloride, chlorine, sodium oxide.

SECTION 11: Toxicological information

Acute Toxicity: No additional information.

Chronic Toxicity: No additional information.

Skin corrosion/irritation:

Rabbit: Causes Burns. 1310-73-2.

Serious eye damage/irritation:

Rabbit: Corrosive to eyes. 1310-73-2.

Respiratory or skin sensitization: No additional information.

Carcinogenicity:

There are no known carcinogenic chemicals in this product.:

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No additional information.

SECTION 12: Ecological information**Ecotoxicity:** No additional information.**Persistence and degradability:**

Readily degradable in the environment.

Bioaccumulative potential:

Not expected to bio accumulate.

Mobility in soil:

No information Available.

Other adverse effects: No additional information.**SECTION 13: Disposal considerations****Waste disposal recommendations:**

It is the responsibility of the waste generator to properly characterize all waste materials according to applicable regulatory entities (US 40CFR262.11). Consult federal state/ provincial and local regulations regarding the proper disposal of waste material that may incorporate some amount of this product.

SECTION 14: Transport information**US DOT****UN Number:**

ADR, ADN, DOT, IMDG, IATA

Not Regulated.

Limited Quantity Exception:

None

Bulk:**RQ (if applicable):** None**Proper shipping Name:** Not Regulated.**Hazard Class:** None**Packing Group:** Not Regulated.**Marine Pollutant (if applicable):** No additional information.**Comments:** None**Non Bulk:****RQ (if applicable):** None**Proper shipping Name:** Not Regulated.**Hazard Class:** None**Packing Group:** Not Regulated.**Marine Pollutant (if applicable):** No additional information.**Comments:** None**SECTION 15: Regulatory information****United States (USA)****SARA Section 311/312 (Specific toxic chemical listings):**

Acute

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None of the ingredients are listed.

RCRA (hazardous waste code):

None of the ingredients are listed.

TSCA (Toxic Substances Control Act) :

All ingredients are listed.

CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act):

7681-52-9 Sodium Hypochlorite 100 lb.

Proposition 65 (California):**Chemicals known to cause cancer:**

None of the ingredients are listed.

Chemicals known to cause reproductive toxicity for females:

None of the ingredients are listed.

Chemicals known to cause reproductive toxicity for males:

None of the ingredients are listed.

Chemicals known to cause developmental toxicity:

None of the ingredients are listed.

Canada**Canadian Domestic Substances List (DSL) :**

All ingredients are listed.

SECTION 16: Other information

This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations. Note. The responsibility to provide a safe workplace remains with the user. The user should consider the health hazards and safety information contained herein as a guide and should take those precautions required in an individual operation to instruct employees and develop work practice procedures for a safe work environment. The information contained herein is, to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by the use of this material. It is the responsibility of the user to comply with all applicable laws and regulations applicable to this material.

NFPA: 1-0-0**HMIS:** 1-0-0**GHS Full Text Phrases:** None**Abbreviations and Acronyms:**

IMDG	International Maritime Code for Dangerous Goods.
PNEC.	Predicted No-Effect Concentration (REACH).
CFR	Code of Federal Regulations (USA)
SARA	Superfund Amendments and Reauthorization Act (USA).
RCRA.	Resource Conservation and Recovery Act (USA).
TSCA.	Toxic Substances Control Act (USA).
NPRI	National Pollutant Release Inventory (Canada).

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DOT	US Department of Transportation.
IATA	International Air Transport Association.
GHS	Globally Harmonized System of Classification and Labelling of Chemicals.
ACGIH	American Conference of Governmental Industrial Hygienists
CAS	Chemical Abstracts Service (division of the American Chemical Society).
NFPA	National Fire Protection Association (USA).
HMIS	Hazardous Materials Identification System (USA).
WHMIS	Workplace Hazardous Materials Information System (Canada).
DNEL	Derived No-Effect Level (REACH).