Safety Data Sheet

according to 29CFR1910/1200 and GHS Rev. 3

Initial preparation date: : 01.31.2015

Gun Barrel Cleaning Solution

SECTION 1: Identification of the substance/mixture and of the supplier

Product name: Gun Barrel Cleaning Solution

Manufacturer/Supplier Article number: GB6500SS

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:

Environmentally Damaging
Chronic hazards to the aquatic environment, category 2
Acute hazards to the aquatic environment, category 1

Irritant
Acute toxicity (oral, dermal, inhalation), category 4

Corrosive
Skin corrosion, category 1B
Serious eye damage, category 1

Health hazard
Germ cell mutagenicity, category 2
Reproductive toxicity, category 2
Specific target organ toxicity following repeated exposure, category 1

Ac. Oral Tox. 4.
Skin Corr. 1B.
Eye corr. 1.
Muta. 2.
Repr. 2.
STOT RE 1.
Aquatic Acute 1.
Aquatic Chronic 1.

Signal word: Danger

Hazard statements:

Fatal in contact with skin.
Causes severe skin burns and eye damage.
Suspected of causing genetic defects.
Suspected of damaging fertility or the unborn child.
Causes damage to organs through prolonged or repeated exposure.
Harmful if swallowed.

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Very toxic to aquatic life with long lasting effects.

Precautionary statements:

If medical advice is needed have product container or label at hand.
Keep out of reach of children.
Read label before use.
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Do not breathe dust/fume/gas/mist/vapors/spray.
Do not get in eyes, on skin, or on clothing.
Wash skin thoroughly after handling.
Do not eat, drink or smoke when using this product.
Avoid release to the environment.
Wear protective gloves/protective clothing/eye protection/face protection.
Collect spillage.
IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
Immediately call a POISON CENTER or doctor/physician.
Specific measures (see supplemental first aid instructions on this label).
Remove/Take off immediately all contaminated clothing.
Wash contaminated clothing before reuse.
Store locked up.
Dispose of contents and container to an approved waste disposal plant.

Other Non-GHS Classification: None

SECTION 3: Composition/information on ingredients

Ingredients:

Ingredients:		
CAS 7487-94-7	Mercuric chloride	<5 %
CAS 64-17-5	Ethanol, 95%, ACS	<1.89 %
CAS 10025-77-1	Ferric Chloride Hexahydrate	<1.6 %
CAS 7697-37-2	Nitric Acid	<1.36 %
CAS 7732-18-5	Deionized Water	>90.15 %
		Percentages are by weight

SECTION 4: First aid measures

Description of first aid measures

After inhalation:

Move exposed to fresh air. Give artificial respiration if necessary. If breathing is difficult give oxygen. Loosen clothing and place exposed in a comfortable position. Seek medical assistance if cough or other symptoms appear.

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After skin contact:

Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Take victim immediately to hospital. Consult a physician.

After eye contact:

Protect unexposed eye. Flush exposed eye gently using water for 15-20 minutes. Remove contact lenses, if present and easy to do, and continue rinsing. Get medical attention immediately.

After swallowing:

Rinse mouth with water. Do not induce vomiting. Never give anything by mouth to an unconscious person. Get medical aid immediately and call Poison Control Center.

Most important symptoms and effects, both acute and delayed:

Irritation. Shortness of breath. Headache. Nausea. Dizziness. 7487-94-7 Stomach - Irregularities - Based on Human Evidence. 64-17-5. Central nervous system depression and narcosis. Damage to the heart.

Indication of any immediate medical attention and special treatment needed:

If seeking medical attention provide SDS document to physician. Physician should treat symptomatically. The concentration of mercury in whole blood is a reasonable measure of the bodyburden of mercury and thus is used for monitoring purposes. The use of Dimercaprol or BAL (British AntiLewisite), or d-Penicillamine as a chelating agent should be determined by qualified medical personnel.

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing agents:

Use water, dry chemical, chemical foam, carbon dioxide, or alcohol-resistant foam.

Unsuitable extinguishing agents: None

Special hazards arising from the substance or mixture:

Irritating and highly toxic gases may be generated by thermal decomposition or combustion. Hydrogen chloride gas, Mercury/mercury oxides.

Advice for firefighters:

Protective equipment:

Wear protective eyeware, gloves, and clothing. Refer to Section 8.

Additional information (precautions):

Avoid inhaling gases, fumes, dust, mist, vapor, and aerosols. Avoid contact with skin, eyes and clothing. Water runoff can cause environmental damage. Dike and collect water used to fight fire.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures:

Ensure adequate ventilation. Ensure that air-handling systems are operational. Avoid contact with eyes, skin, and clothing.

Environmental precautions: None

Methods and material for containment and cleaning up:

Wear protective eyeware, gloves, and clothing. Always obey local regulations. If necessary use trained response staff or contractor. Evacuate personnel to safe areas. Containerize for disposal. Refer to Section 13. Keep in suitable closed containers for disposal. Refer to Section 8.

Reference to other sections: None

SECTION 7: Handling and storage

Precautions for safe handling:

Avoid contact with skin, eyes and clothing. Follow good hygiene procedures when handling chemical materials.

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Refer to Section 8. Follow proper disposal methods. Do not eat, drink, smoke, or use personal products when handling chemical substances. Refer to Section 13.

Conditions for safe storage, including any incompatibilities:

Store in a cool location. Keep away from food and beverages. Protect from freezing and physical damage. Provide ventilation for containers. Keep container tightly sealed. Store away from incompatible materials. Light Sensitive. moisture sensitive.

SECTION 8: Exposure controls/personal protection



Control parameters:

7487-94-7, Mercuric chloride, ACGIH TLV TWA: 0.025 mg/m³.
10025-77-1, Ferric Chloride Hexahydrate, TWA 1.000000 mg/m3 USA. NIOSH.
7697-37-2, Nitric acid, TWA 2.000000 ppm USA. ACGIH.
7697-37-2, Nitric acid, TWA 2.000000 ppm 5.000000 mg/m3 USA. NIOSH.
7697-37-2, Nitric acid, TWA 2.000000 ppm 5.000000 mg/m3 USA. OSHA.
7487-94-7, Mercuric chloride, C 0.1 mg/m3 USA. OSHA.
7487-94-7 , Mercuric chloride, TWA 0.05 mg/m3 USA. NIOSH.
64-17-5, Ethanol, TWA 1,000 ppm USA. ACGIH.
64-17-5, Ethanol, TWA 1,000 ppm 1,900 mg/m3 USA.
64-17-5, Ethanol, TWA 1,000 ppm 1,900 mg/m3 USA. NIOSH.
10025-77-1, Ferric Chloride Hexahydrate, TWA 1.000000 mg/m3 USA. ACGIH.

Appropriate engineering controls:

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

Respiratory protection:

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. When necessary use NIOSH approved breathing equipment. Not required under normal conditions of use.

Protection of skin:

Select glove material impermeable and resistant to the substance. Select glove material based on rates of diffusion and degradation. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Use proper glove removal technique without touching outer surface. Avoid skin contact with used gloves. Wear protective clothing.

Eye protection:

Wear equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses or goggles are appropriate eye protection.

General hygienic measures:

Perform routine housekeeping. Wash hands before breaks and immediately after handling the product. Avoid contact with skin, eyes and clothing. Before re-wearing, wash contaminated clothing.

SECTION 9: Physical and chemical properties

Appearance (physical state, color):	Clear yellow liquid	**Explosion limit lower**: **Explosion limit upper**:	Not determined Not determined

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Odor:	Characteristic	**Vapor pressure at 20°C**:	Not determined
Odor threshold:	Not determined	**Vapor density**:	Not determined
pH-value:	Not determined	**Relative density**:	Not determined
Melting/Freezing point:	Not determined	**Solubilities**:	Soluble in Water
Boiling point/Boiling range:	Not determined	**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:

Stable under normal conditions.

Possible hazardous reactions:

None under normal processing.

Conditions to avoid:

Incompatible materials.

Incompatible materials: None

Hazardous decomposition products:

Oxides of mercury, nitrogen, carbon and iron.

SECTION 11: Toxicological information

Acute Toxicity:

Dermal:

LD50 Dermal - rat - 41 mg/kg 7487-94-7.

Chronic Toxicity: No additional information.

Skin corrosion/irritation:

Rabbit: Skin Irritation - 24 h 7487-94-7 (Mercuric Chloride).

Skin - Rabbit Result : No skin irritation - 24 h 64-19-7.

Serious eye damage/irritation:

Rabbit: Severe eye irritation - 24 h 7487-94-7 (Mercuric Chloride).

Eyes - Rabbit Result : Mild eye irritation - 24 h 64-19-7.

Respiratory or skin sensitization: No additional information.

Carcinogenicity:

64-17-5: Carcinogenicity - Mouse - Oral Tumorigenic:Equivocal tumorigenic agent by RTECS criteria. Liver:Tumors. Blood:Lymphomas including Hodgkin's disease.

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Germ cell mutagenicity:

have occurred in experimental animals.

Reproductive Toxicity: No additional information.

STOT-single and repeated exposure:

Causes damage to organs through prolonged or repeated exposure

Additional toxicological information:

No additional information.

SECTION 12: Ecological information

Ecotoxicity:

Fish LOEC - Lates calcarifer - 0.113 mg/l - 96.0 h, 7487-94-7 (Mercuric Chloride).
Invertebrates EC50 - Daphnia magna (Water flea) - 0.002 mg/l - 48 h, 7487-94-7 (Mercuric Chloride).

Persistence and degradability:

Compound decomposes to metallic mercury when in contact with organic matter and sunlight.

Bioaccumulative potential:

7487-94-7: Pimephales promelas (fathead minnow) - 0.50 µg/. 7487-94-7: Bioconcentration factor (BCF): 5,680.

Mobility in soil: No additional information.

Other adverse effects: No additional information.

SECTION 13: Disposal considerations

Waste disposal recommendations:

Contact a licensed professional waste disposal service to dispose of this material. Dispose of empty containers as unused product. Product or containers must not be disposed together with household garbage. It is the responsibility of the waste generator to properly characterize all waste materials according to applicable regulatory entities (US 40CFR262.11). Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations. Ensure complete and accurate classification. Dilute with water and flush to sewer.

SECTION 14: Transport information

US DOT

UN Number:
ADR, ADN, DOT, IMDG, IATA 3287

Limited Quantity Exception: None

Bulk:
RQ (if applicable): None
Proper shipping Name: Toxic Liquid, inorganic, N.O.S. (Mercuric Chloride).
Hazard Class: 6
Packing Group: II.
Marine Pollutant (if applicable): No

Non Bulk:
RQ (if applicable): None
Proper shipping Name: Toxic Liquid, inorganic, N.O.S. (Mercuric Chloride).
Hazard Class: 6
Packing Group: II.
Marine Pollutant (if applicable): No

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additional information.
Comments: None

additional information.
Comments: None

SECTION 15: Regulatory information

United States (USA)

SARA Section 311/312 (Specific toxic chemical listings):

Acute,Chronic

SARA Section 313 (Specific toxic chemical listings):

7697-37-2 Nitric acid.

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):

Nitric acid Nitric acid 1000 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:

7487-94-7 Mercuric Chloride.

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.

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NFPA: 2-0-0
HMIS: 2-0-0
GHS Full Text Phrases: None

Abbreviations and Acronyms: None