

**Safety Data Sheet**

according to 29CFR1910/1200 and GHS Rev. 3

**Initial preparation date:** : 01.31.2015**Chromatography Solution A****SECTION 1: Identification of the substance/mixture and of the supplier****Product name:** Chromatography Solution A**Manufacturer/Supplier Article number:** CH1904SS**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:****Flammable**

Flammable liquids, category 3

**Corrosive**

Serious eye damage, category 1

Skin corrosion, category 1B

**Irritant**

Specific target organ toxicity following single exposure, category 3

**Environmentally Damaging**

Acute hazards to the aquatic environment, category 1

Acute Tox. 4 (Oral).

Eye Dam. 1.

STOT SE 3, Central nervous system, Respiratory system.

Skin Corr. 1B.

Aquatic Acute 1.

Flam. Liq. 3.

**Signal word:** Danger**Hazard statements:**

Flammable liquid and vapour.

Causes severe skin burns and eye damage.

May cause respiratory irritation.

May cause drowsiness or dizziness.

Harmful if swallowed.

Very toxic to aquatic life.

**Precautionary statements:**

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If medical advice is needed have product container or label at hand.  
 Keep out of reach of children.  
 Read label before use.  
 Keep away from heat/sparks/open flames/hot surfaces. No smoking.  
 Use only outdoors or in a well-ventilated area.  
 Do not eat, drink or smoke when using this product.  
 Avoid release to the environment.  
 Keep container tightly closed.  
 Ground/bond container and receiving equipment.  
 Use explosion-proof electrical/ventilating/light/equipment.  
 Use only non-sparking tools.  
 Take precautionary measures against static discharge.  
 Do not breathe dust/fume/gas/mist/vapors/spray.  
 Wear protective gloves/protective clothing/eye protection/face protection.  
 Wash skin thoroughly after handling.  
 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.  
 Rinse mouth.  
 DO NOT induce vomiting.  
 Collect spillage.  
 In case of fire, use agents recommended in section 5 for extinction.  
 Wash contaminated clothing before reuse.  
 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
 Immediately call a POISON CENTER or doctor/physician.  
 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 treatment (see supplemental first aid instructions on this label).  
 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.  
 Store in a well ventilated place. Keep cool.  
 Store in a well ventilated place. Keep container tightly closed.  
 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:**

<b>Ingredients:</b>		
CAS 71-36-3	Butanol	79.52 %
CAS 64-17-5	Ethanol	9.68 %
CAS 1336-21-6	Ammonium Hydroxide	10.8 %
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

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clothing and place exposed in a comfortable position. Seek immediate medical assistance.

**After skin contact:**

Wash hands and exposed skin with soap and plenty of water. Seek medical attention if irritation persists or if concerned.

**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. Seek immediate medical assistance.

**After swallowing:**

Rinse mouth with water. Do not induce vomiting. Never give anything by mouth to an unconscious person. Seek immediate medical assistance.

**Most important symptoms and effects, both acute and delayed:**

Irritation. Shortness of breath. Headache. Nausea. Dizziness.

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

If seeking medical attention provide SDS document to physician. Physician should treat symptomatically.

**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:**

Thermal decomposition can lead to release of irritating gases and vapors. Flash back possible over considerable distance.

**Advice for firefighters:****Protective equipment:**

Wear protective eyewear, 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. Fight fire remotely due to the risk of explosion. Use water spray to cool unopened containers.

**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:**

Should not be released into environment. Prevent from reaching drains, sewer, or waterway. Ethanol has a slight acute and chronic toxicity to aquatic life. Avoid runoff into sewer.

**Methods and material for containment and cleaning up:**

Wear protective eyewear, gloves, and clothing. Ventilate area of spill. Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Refer to Section 8. 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. Remove all sources of ignition. Use non-sparking equipment. Ventilate area of spill.

**Reference to other sections:** None**SECTION 7: Handling and storage**

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**Chromatography Solution A****Precautions for safe handling:**

Avoid contact with skin, eyes and clothing. Follow good hygiene procedures when handling chemical materials. Refer to Section 8. Follow proper disposal methods. Do not eat, drink, smoke, or use personal products when handling chemical substances. Keep away from ignition sources. Use non-sparking equipment. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose empty containers to heat, sparks or open flames. Use only with adequate ventilation. Remove contaminated clothing immediately. 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. Keep away from ignition sources. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

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

71-36-3, Butanol, ACGIH TLV TWA 60 mg/m<sup>3</sup> (20 ppm).  
 71-36-3, Butanol, OSHA REL C 150 mg/m<sup>3</sup> (50 ppm).  
 71-36-3, Butanol, OSHA PEL TWA 300 mg/m<sup>3</sup> (100 ppm).  
 64-17-5, Ethanol, ACGIH TLV TWA: 1,900 mg/m<sup>3</sup>.  
 64-17-5, Ethanol, OSHA PEL TWA 1,900 mg/m<sup>3</sup>.  
 1336-21-6, Ammonium Hydroxide, OSHA TWA 25 ppm (18 mg/m<sup>3</sup>) ST 35 ppm (27 mg/m<sup>3</sup>).  
 1336-21-6, Ammonium Hydroxide, ACGIH TWA 25 ppm (18 mg/m<sup>3</sup>) ST 35 ppm (27 mg/m<sup>3</sup>).

**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.

**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**

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<b>Appearance (physical state, color):</b>	Clear, colorless liquid	<b>Explosion limit lower:</b> <b>Explosion limit upper:</b>	Not determined Not determined
<b>Odor:</b>	Strong characteristic odor	<b>Vapor pressure at 20°C:</b>	Not determined
<b>Odor threshold:</b>	Not determined	<b>Vapor density:</b>	Not determined
<b>pH-value:</b>	Not determined	<b>Relative density:</b>	Not determined
<b>Melting/Freezing point:</b>	Not determined	<b>Solubilities:</b>	Slightly soluble.
<b>Boiling point/Boiling range:</b>	Not determined	<b>Partition coefficient (n-octanol/water):</b>	Not determined
<b>Flash point (closed cup):</b>	14 - 35°C ethanol/butanol	<b>Auto/Self-ignition temperature:</b>	Not determined
<b>Evaporation rate:</b>	Not determined	<b>Decomposition temperature:</b>	Not determined
<b>Flammability (solid, gaseous):</b>	Flammable	<b>Viscosity:</b>	a. Kinematic: Not determined b. Dynamic: Not determined
<b>Density at 20°C:</b>	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. Vapours may form explosive mixture with air.

**Conditions to avoid:**

Incompatible materials. Excess heat. Open Flames. Confined spaces.

**Incompatible materials:**

Strong oxidizers, strong acids, alkali metals, heat, sparks, open flames, sodium, bromine pentafluoride, potassium dioxide, acetyl bromide, acetyl chloride, gold, mercury, halogens, silver, calcium hypochlorite bleaches.

**Hazardous decomposition products:**

Carbon monoxide, irritating and toxic fumes and gases, carbon dioxide, ammonia and nitrogen oxides.

**SECTION 11: Toxicological information****Acute Toxicity:****Dermal:**

Butanol LD50 Rabbit - 3,400 mg/kg.

**Chronic Toxicity:** No additional information.**Skin corrosion/irritation:**

Butanol Rabbit: irritation - 24hr.

Ammonium hydroxide Corrosive.

**Serious eye damage/irritation:**

Butanol Rabbit: Blindness.

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May cause respiratory irritation

May cause drowsiness or dizziness.

**Additional toxicological information:**

No additional information.

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

Expected to result in biodegradation and in volatilization from the water surface.

**Bioaccumulative potential:**

Bioaccumulation is expected to be low.

**Mobility in soil:**

No information Available.

**Other adverse effects:**

None identified.

**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.

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

ADR, ADN, DOT, IMDG, IATA

1120

**Limited Quantity Exception:**

None

**Bulk:****RQ (if applicable):** None**Proper shipping Name:** Butanols.**Hazard Class:** 3**Packing Group:** III.**Non Bulk:****RQ (if applicable):** None**Proper shipping Name:** Butanols.**Hazard Class:** 3**Packing Group:** III.

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Acute, Chronic, Fire

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

1336-21-6 Ammonium Hydroxide.

71-36-3 Butanol.

**RCRA (hazardous waste code):**

71-36-3 Butanol - U031.

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

All ingredients are listed.

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

1336-21-6 Ammonium Hydroxide 1000 lbs.

71-36-3 Butanol 5000 lbs.

**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

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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:** 3-0-0**HMIS:** 3-0-0**GHS Full Text Phrases:** None**Abbreviations and Acronyms:** None