

**Safety Data Sheet**

according to 29CFR1910/1200 and GHS Rev. 3

**Initial preparation date:** : 02.23.2015**Eluent****SECTION 1: Identification of the substance/mixture and of the supplier****Product name:** Eluent**Manufacturer/Supplier Article number:** EL1070SS**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 2

**Irritant**

Eye irritation, category 2A

Specific target organ toxicity following single exposure, category 3

**Health hazard**

Carcinogenicity, category 1B

Flammable liq. 2.

Eye Irrit. 2.

Stot SE. 3.

Carcinogenicity - Carc. 1B.

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

Highly flammable liquid and vapour.

Causes serious eye irritation.

May cause drowsiness or dizziness.

May cause cancer.

May cause respiratory irritation.

**Precautionary statements:**

If medical advice is needed have product container or label at hand.

Keep out of reach of children.

Read label before use.

Keep container tightly closed.

Wash thoroughly after handling.

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

**Safety Data Sheet**

according to 29CFR1910/1200 and GHS Rev. 3

**Initial preparation date:** : 02.23.2015**Eluent**

Use personal protective equipment as required.  
 Keep away from heat/sparks/open flames/hot surfaces. No smoking.  
 Ground/bond container and receiving equipment.  
 Use explosion-proof electrical/ventilating/light/.../equipment.  
 Use only non-sparking tools.  
 Take precautionary measures against static discharge.  
 Use only outdoors or in a well-ventilated area.  
 Wear protective gloves/protective clothing/eye protection/face protection.  
 Avoid breathing dust/fume/gas/mist/vapors/spray.  
 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.  
 If eye irritation persists get medical advice/attention.  
 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Call a POISON CENTER or doctor/physician if you feel unwell.  
 In case of fire, use agents recommended in section 5 for extinction.  
 IF exposed or concerned: Get medical advice/attention.  
 Store in a well ventilated place. Keep container tightly closed.  
 Store in a well ventilated place. Keep cool.  
 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 107-06-2	1-2 Dichloroethane, ACS	51.28 %
CAS 141-78-6	Ethyl acetate	41.13 %
CAS 67-63-0	Isopropanol, ACS	7.59 %
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. Give artificial respiration if necessary. If breathing is difficult, give oxygen.

**After skin contact:**

Wash affected area with soap and water. Rinse/flush exposed skin gently using water for 15-20 minutes. Seek medical attention if irritation persists or if concerned.

**After eye contact:**

Protect unexposed eye. Immediately flush eyes with water for at least 15 minutes. Immediately get medical assistance.

**After swallowing:**

**Safety Data Sheet**

according to 29CFR1910/1200 and GHS Rev. 3

**Initial preparation date:** : 02.23.2015**Eluent**

Seek medical assistance. If swallowed, do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person.

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

Shortness of breath. Irritation. Nausea. Headache.

**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:**

Water may be ineffective. Use water spray, alcohol foam, CO2, dry chemical.

**Unsuitable extinguishing agents:**

Water may be ineffective.

**Special hazards arising from the substance or mixture:**

Flammable liquid and vapor. Vapors are heavier than air and may travel to a source of ignition and flash back. Vapors can spread along the ground and collect in low or confined areas.

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

Wear protective eyewear, gloves, and clothing. Use NIOSH-approved breathing equipment. Refer to Section 8.

**Additional information (precautions):**

Ensure adequate ventilation. Avoid contact with skin, eyes and clothing. Do not inhale gases, fumes, dust, mist, vapor, and aerosols.

**SECTION 6: Accidental release measures****Personal precautions, protective equipment and emergency procedures:**

Keep away from ignition sources. Protect from heat.

**Environmental precautions:**

Prevent from reaching drains, sewer or waterway. Should not be released into environment.

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

Use spark-proof tools and explosion-proof equipment. Have fire extinguishing agent available in case of fire. Always obey local regulations. Refer to Section 13. Collect liquids using vacuum or by use of absorbents. Place into properly labeled containers for recovery or disposal. Remove all sources of ignition. Contain spill then collect. Do not flush to sewer. Absorb with a noncombustible absorbent material such as sand or earth and containerize for disposal. Ventilate area of spill.

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

Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Keep container tightly closed, in a well-ventilated area. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose empty containers to heat, sparks or open flames. Use only with adequate ventilation. Keep away from heat and sources of ignition. Avoid breathing fumes, vapors and mists. Empty containers retain product residue and can be dangerous. Ground and bond containers when transferring material. Wash hands after handling. Avoid contact with eyes, skin, and clothing.

**Conditions for safe storage, including any incompatibilities:**

Store in a cool location. Store securely in flammable storage area away from sources of ignition. Provide ventilation for containers. Avoid storage near extreme heat, ignition sources or open flame. Keep container

**Safety Data Sheet**

according to 29CFR1910/1200 and GHS Rev. 3

Initial preparation date: : 02.23.2015

**Eluent**

tightly closed. Protect from freezing and physical damage. Store away from incompatible materials.

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

67-63-0, Isopropanol, ACGIH: 400 ppm STEL; 200 ppm TWA.  
 67-63-0, Isopropanol , NIOSH: 500 ppm STEL; 1225 mg/m<sup>3</sup> STEL.  
 67-63-0, Isopropanol , NIOSH: 400 ppm TWA; 980 mg/m<sup>3</sup> TWA.  
 141-78-6, Ethyl acetate, ACGIH TLV: 400 ppm TWA, OSHA PEL: 400 ppm TWA.  
 107-06-2, Ethyl dichloride , ACGIH TLV; 10ppm, OSHA PEL: NA.

**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:**

Use suitable respiratory protective device when high concentrations are present. Normal ventilation is adequate. If the TLV is exceeded, a full-face chemical cartridge respirator may be worn to 50 times the TLV or the maximum use concentration specified by the supplier.

**Protection of skin:**

Select glove material impermeable and resistant to the substance. Select glove material based on rates of diffusion and degradation.

**Eye protection:**

Safety glasses with side shields or goggles.

**General hygienic measures:**

Wash hands before breaks and at the end of work. Avoid contact with the eyes and skin. Perform routine housekeeping. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices.

**SECTION 9: Physical and chemical properties**

<b>Appearance (physical state, color):</b>	Clear colorless liquid	<b>Explosion limit lower:</b> <b>Explosion limit upper:</b>	6.2% 16.2%
<b>Odor:</b>	No information available	<b>Vapor pressure at 20°C:</b>	25.0 mm Hg @ 0 C
<b>Odor threshold:</b>	Not available	<b>Vapor density:</b>	Not determined
<b>pH-value:</b>	Not available	<b>Relative density:</b>	Not determined
<b>Melting/Freezing point:</b>	-35° C	<b>Solubilities:</b>	Water;; 8.69 g/L @ 20 C
<b>Boiling point/Boiling range:</b>	83° C	<b>Partition coefficient (n-octanol/water):</b>	1.48 @ 20 C
<b>Flash point (closed cup):</b>	13.0°C	<b>Auto/Self-ignition temperature:</b>	Not determined
<b>Evaporation rate:</b>	Not determined	<b>Decomposition temperature:</b>	Not available
<b>Flammability (solid, gaseous):</b>	Flammable	<b>Viscosity:</b>	a. Kinematic: Not available b. Dynamic: Not available
<b>Density at 20°C:</b>	Not available		

**SECTION 10: Stability and reactivity**

**Safety Data Sheet**

according to 29CFR1910/1200 and GHS Rev. 3

**Initial preparation date:** : 02.23.2015**Eluent****Reactivity:**

None under normal processing.

**Chemical stability:**

No decomposition if used and stored according to specifications. Stable under normal conditions.

**Possible hazardous reactions:**

Vapors may form explosive mixtures with air.

**Conditions to avoid:**

Incompatible materials.

**Incompatible materials:**

Strong oxidizers, heat, sparks, open flames. Will attack some forms of rubber, plastics and coatings. May react with metallic aluminum and generate hydrogen gas.

**Hazardous decomposition products:**

Oxides of carbon, hydrogen chloride gas.

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

LD50 Rabbit &gt;18000 mg/kg (Source: JAPAN\_GHS) Ethyl Acetate.

**Chronic Toxicity:** No additional information.**Skin corrosion/irritation:** No additional information.**Serious eye damage/irritation:** No additional information.**Respiratory or skin sensitization:** No additional information.**Carcinogenicity:****Ethyl dichloride CAS# 107-06-2 :** Cytogenetic Analysis: hamster fibroblast 9g/L Sex Chromosome Loss/Nondisjunction: *S. cerevisiae* 24400 ppm.**Germ cell mutagenicity:** No additional information.**Reproductive Toxicity:** No additional information.**STOT-single and repeated exposure:**

May cause respiratory tract irritation.

**Additional toxicological information:**

No additional information.

**SECTION 12: Ecological information****Ecotoxicity:**Freshwater fish, Ethyl Acetate: 96 Hr LC50 *Pimephales promelas*: 220 - 250 mg/L [flow-through]; 96 Hr LC50 *Oncorhynchus mykiss*: 484 mg/L [flow-through]; 96 Hr LC50 *Oncorhynchus mykiss*: 352 - 500 mg/L [semi-static].Water flea, Ethyl Acetate: 48 Hr EC50 *Daphnia magna*: 560 mg/L [Static].Earthworm, Ethylene dichloride: 48 Hr LC50 *Eisenia foetida*: 60 mg/cm<sup>2</sup> [filter paper].**Persistence and degradability:** No additional information.**Bioaccumulative potential:** No additional information.**Mobility in soil:**

Aqueous solution has high mobility in soil.

**Safety Data Sheet**

according to 29CFR1910/1200 and GHS Rev. 3

**Initial preparation date:** : 02.23.2015**Eluent****Other adverse effects:**

Isopropanol has acute toxicity with effects of death in animals and low growth rates and death in plants. Chronic toxic effects, may be shortened life span, lower fertility, reproductive problems, and changes in appearance and/or behavior in animals.

**SECTION 13: Disposal considerations****Waste disposal recommendations:**

Comply with all local, state, and federal regulations. It is the responsibility of the waste generator to properly characterize all waste materials according to applicable regulatory entities (US 40CFR262.11). Remove all sources of ignition. Do not flush to sewer. Have fire extinguishing agent available in case of fire. Burn in a chemical incinerator equipped with an afterburner and scrubber. All chemical waste generators must determine whether a discarded chemical is classified as hazardous waste. Comply with all local, state, and federal regulations.

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

ADR, ADN, DOT, IMDG, IATA

UN1184,

**Limited Quantity Exception:**

None

**Bulk:****RQ (if applicable):** None**Proper shipping Name:** Ethylene dichloride.**Hazard Class:** 3, 6**Packing Group:** II.**Marine Pollutant (if applicable):** No additional information.**Comments:** None**Non Bulk:****RQ (if applicable):** None**Proper shipping Name:** Ethylene dichloride.**Hazard Class:** 3, 6**Packing Group:** II.**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,Chronic,Fire

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

67-63-0 Isopropanol.

**RCRA (hazardous waste code):**

107-06-2 Ethyl dichloride.

141-78-6 Ethyl acetate.

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

All ingredients are listed.

**Safety Data Sheet**

according to 29CFR1910/1200 and GHS Rev. 3

**Initial preparation date:** : 02.23.2015**Eluent****CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act):**

141-78-6 Ethyl acetate 5000 Lbs.

107-06-2 Ethyl dichloride 100 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 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:**

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).
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).

**Safety Data Sheet**

according to 29CFR1910/1200 and GHS Rev. 3

**Initial preparation date:** : 02.23.2015**Eluent**

- 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).