

Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 12.22.2016

Page 1 of 10

Eluent

SECTION 1: Identification

Product identifier

Product name: Eluent

Product code: EL1070SS

Recommended use of the product and restriction on use

Relevant identified uses: Laboratory chemicals

Uses advised against: Not determined or not applicable.

Reasons why uses advised against: Not determined or not applicable.

Manufacturer or supplier details

Manufacturer:

United States

AquaPhoenix Scientific, Inc.

860 Gitts Run Road

Hanover, PA 17331

1-717-632-1291

Emergency telephone number:

Canada

ChemTel: (24-hour)

+1(800)255-3924

+1(813)248-0585 (International)

SECTION 2: Hazard(s) identification

GHS classification:

Flammable liquids, category 2

Eye irritation, category 2A

Skin irritation, category 2

Acute toxicity (oral), category 4

Specific target organ toxicity - single exposure, category 3, respiratory irritation

Specific target organ toxicity - single exposure, category 3, central nervous system

Carcinogenicity, category 1B

Label elements

Hazard pictograms:



Signal word: Danger

Hazard statements:

H225 Highly flammable liquid and vapor.

H319 Causes serious eye irritation.

H315 Causes skin irritation.

H302 Harmful if swallowed.

H335 May cause respiratory irritation.

H336 May cause drowsiness or dizziness.

H350 May cause cancer.

Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 12.22.2016

Page 2 of 10

Eluent

Precautionary statements:

P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P243 Take precautionary measures against static discharge.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P264 Wash skin thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P261 Avoid breathing dust/fume/gas/mist/vapors/spray.
P271 Use only outdoors or in a well-ventilated area.
P233 Keep container tightly closed.
P240 Ground/bond container and receiving equipment.
P241 Use explosion-proof electrical/ventilating/light/equipment.
P242 Use only non-sparking tools.
P303+P361+P353 If on skin (or hair): Immediately remove/take off all contaminated clothing. Rinse skin with water/shower.
P308+P313 If exposed or concerned: Get medical advice/attention.
P370+P378 In case of fire: Use agents recommended in section 5 for extinction.
P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
P321 Specific treatment (see supplemental first aid instructions on this label).
P362 Take off contaminated clothing and wash before reuse.
P302+P352 If on skin: Wash with soap and water.
P332+P313 If skin irritation occurs: Get medical advice/attention.
P301+P330+P312 IF SWALLOWED: Rinse mouth. Call a POISON CENTER or doctor/physician if you feel unwell.
P304+P340+P312 If inhaled: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a poison center or doctor/physician if you feel unwell.
P405 Store locked up.
P403+P233 Store in a well ventilated place. Keep container tightly closed.
P501 Dispose of contents and container as instructed in Section 13.

Hazards not otherwise classified: None

SECTION 3: Composition/information on ingredients

Identification	Name	Weight %
CAS number: 67-63-0	Isopropyl alcohol	10
CAS number: 107-06-2	Ethyl dichloride	42.5
CAS number: 141-78-6	Ethyl acetate	47.5

Additional Information: None

SECTION 4: First aid measures

Description of first aid measures

General notes:

Not determined or not applicable.

Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 12.22.2016

Page 3 of 10

Eluent

After inhalation:

Move exposed individual to fresh air
Call a POISON CONTROL CENTER or seek medical attention if you feel unwell

After skin contact:

Wash affected area with soap and water
Seek medical attention if symptoms develop or persist

After eye contact:

Rinse/flush exposed eye(s) gently using water for 15-20 minutes
Remove contact lens(es) if able to do so during rinsing
Seek medical attention if irritation persists or if concerned

After swallowing:

Call a POISON CONTROL CENTER or seek medical attention if you feel unwell
Do not induce vomiting
Rinse mouth and then drink plenty of water

Most important symptoms and effects, both acute and delayed

Acute symptoms and effects:

Not determined or not applicable.

Delayed symptoms and effects:

Not determined or not applicable.

Immediate medical attention and special treatment

Specific treatment:

Not determined or not applicable.

Notes for the doctor:

Not determined or not applicable.

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing media:

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

Unsuitable extinguishing media:

Not determined or not applicable.

Specific hazards during fire-fighting:

Thermal decomposition can lead to release of irritating gases and vapors
Vapors can flow to distant ignition sources and flashback
Liquid is volatile and may generate an explosive atmosphere

Special protective equipment for firefighters:

Wear protective eye wear, gloves and clothing
Refer to Section 8

Special precautions:

Avoid inhaling gases, fumes, dust, mist, vapor and aerosols
Avoid contact with skin, eyes and clothing

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures:

Ensure adequate ventilation
Ensure air handling systems are operational
Beware of vapors accumulating to form explosive concentrations

Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 12.22.2016

Page 4 of 10

Eluent

Vapors can accumulate in low areas

Environmental precautions:

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

Methods and material for containment and cleaning up:

Wear protective eye wear, gloves and clothing
Use spark-proof tools and explosion-proof equipment

Reference to other sections:

Not determined or not applicable.

SECTION 7: Handling and storage

Precautions for safe handling:

Do not eat, drink, smoke or use personal products when handling chemical substances.
Avoid breathing mist or vapor.
Use only non-sparking tools.
Take precautionary measures against electrostatic discharges.

Conditions for safe storage, including any incompatibilities:

Store in a cool, well-ventilated area.
Keep container tightly sealed.
Keep away from all ignition sources: open flames, hot surfaces, direct sunlight, spark sources.
Store locked up.
Use appropriate containment to avoid environmental contamination.
Protect from freezing and physical damage.

SECTION 8: Exposure controls/personal protection

Only those substances with limit values have been included below.

Occupational Exposure limit values:

Country (Legal Basis)	Substance	Identifier	Permissible concentration
United States (OSHA)	Ethyl acetate	141-78-6	OSHA PEL TWA 400 ppm (1,400 mg/m ³)
	Isopropyl alcohol	67-63-0	OSHA PEL TWA 400 ppm, 980 mg/m ³
	Ethyl dichloride	107-06-2	OSHA PEL: TWA value 50 ppm
NIOSH	Isopropyl alcohol	67-63-0	NIOSH IDLH 2,000 ppm
	Isopropyl alcohol	67-63-0	NIOSH STEL 500 ppm, 1,225 mg/m ³
	Isopropyl alcohol	67-63-0	NIOSH TWA 400 ppm, 980 mg/m ³
	Ethyl acetate	141-78-6	NIOSH REL TWA 400 ppm (1,400 mg/m ³)
	Ethyl dichloride	107-06-2	NIOSH TWA: 4 mg/m ³ (1ppm)
ACGIH	Ethyl acetate	141-78-6	ACGIH TLV TWA 400 ppm
	Isopropyl alcohol	67-63-0	ACGIH TLV STEL 400 ppm
	Isopropyl alcohol	67-63-0	ACGIH TLV TWA 200 ppm

Biological limit values:

Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 12.22.2016

Page 5 of 10

Eluent

Substance	Identifier	Determinant	Sampling time	Permissible limits
Isopropyl alcohol	67-63-0	Acetone	End of shift at end of workweek.	40 mg/L

Information on monitoring procedures:

Not determined or not applicable.

Appropriate engineering controls:

Emergency eye wash fountains and safety showers should be available in the immediate vicinity of use or handling.

Use explosion-proof ventilation equipment.

Personal protection equipment

Eye and face protection:

Safety goggles or glasses, or appropriate eye protection.

Skin and body protection:

Select glove material impermeable and resistant to the substance.

Respiratory protection:

When necessary, use NIOSH-approved breathing equipment.

General hygienic measures:

Wash hands before breaks and at the end of work.

Avoid contact with skin, eyes and clothing.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Appearance	Clear, colorless liquid
Odor	Not available
Odor threshold	Not available
pH	Not available
Melting point/freezing point	-35 °C
Initial boiling point/range	83 °C
Flash point (closed cup)	13°C
Evaporation rate	Not available
Flammability (solid, gas)	Flammable
Upper flammability/explosive limit	16.2%
Lower flammability/explosive limit	6.2%
Vapor pressure	25 mm Hg at 0°C
Vapor density	Not available
Density	Not available
Relative density	Not available
Solubilities	Not determined or not available.
Partition coefficient (n-octanol/water)	1.48 at 20°C
Auto/Self-ignition temperature	413 °C
Decomposition temperature	Not available
Dynamic viscosity	Not available
Kinematic viscosity	Not available

Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 12.22.2016

Page 6 of 10

Eluent

Explosive properties	Not determined or not available.
Oxidizing properties	Not determined or not available.

Other information

SECTION 10: Stability and reactivity

Reactivity:

Does not react under normal conditions of use and storage.

Chemical stability:

Stable under normal conditions of use and storage.

Possibility of hazardous reactions:

None under normal conditions of use and storage.

Conditions to avoid:

None known.

Incompatible materials:

None known.

Hazardous decomposition products:

None known.

SECTION 11: Toxicological information

Acute toxicity

Assessment: Harmful if swallowed

Product data: No data available.

Substance data:

Name	Route	Result
Ethyl dichloride	oral	LD50 Oral - Rat - 670 mg/kg
	dermal	LD50 Dermal - Rabbit - 2800 mg/kg
	inhalation	LC50 Inhalation - Rat - 1000 mg/m3 7H

Skin corrosion/irritation

Assessment: Causes skin irritation

Product data: No data available.

Substance data:

Name	Result
Ethyl dichloride	Causes skin irritation

Serious eye damage/irritation

Assessment: Causes serious eye irritation

Product data: No data available.

Substance data:

Name	Result
Ethyl acetate	Irritating effect on the eyes.
Ethyl dichloride	Causes eye irritation
Isopropyl alcohol	Causes serious eye irritation.

Respiratory or skin sensitization

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available.

Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 12.22.2016

Page 7 of 10

Eluent

Substance data: No data available.

Carcinogenicity

Assessment: May cause cancer

Product data: No data available.

Substance data:

Name	Species	Result
Ethyl dichloride		Suspected of causing cancer

International Agency for Research on Cancer (IARC):

Name	Classification
Isopropyl alcohol	Group 3 - Not classifiable as to its carcinogenicity to humans

National Toxicology Program (NTP): None of the ingredients are listed.

Germ cell mutagenicity

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available.

Substance data: No data available.

Reproductive toxicity

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available.

Substance data: No data available.

Specific target organ toxicity (single exposure)

Assessment: May cause respiratory irritation May cause drowsiness or dizziness

Product data: No data available.

Substance data:

Name	Result
Ethyl acetate	Component affects the central nervous system.
Ethyl dichloride	Specific target organ toxicity - single exposure. Inhalation - May cause respiratory irritation
Isopropyl alcohol	Specific Target Organ Toxicity, Single Exposure - May cause drowsiness or dizziness.

Specific target organ toxicity (repeated exposure)

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available.

Substance data: No data available.

Aspiration toxicity

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available.

Substance data: No data available.

Information on likely routes of exposure: No data available.

Symptoms related to the physical, chemical and toxicological characteristics: No data available.

Other information: No data available.

SECTION 12: Ecological information

Acute (short-term) toxicity

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available.

Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 12.22.2016

Page 8 of 10

Eluent

Substance data: No data available.

Chronic (long-term) toxicity

Product data: No data available.

Substance data: No data available.

Persistence and degradability

Product data: No data available.

Substance data: No data available.

Bioaccumulative potential

Product data: No data available.

Substance data: No data available.

Mobility in soil

Product data: No data available.

Substance data: No data available.

Other adverse effects: No data available.



SECTION 13: Disposal considerations

Disposal methods:



It is the responsibility of the waste generator to properly characterize all waste materials according to applicable regulatory entities (US 40CFR262.11)

SECTION 14: Transport information

United States Transportation of dangerous goods (49 CFR DOT)

UN number	UN 1184
UN proper shipping name	Ethylene dichloride
UN transport hazard class(es)	3 (6.1)  
Packing group	II
Environmental hazards	None
Special precautions for user	None

International Maritime Dangerous Goods (IMDG)

UN number	UN 1184
UN proper shipping name	Ethylene dichloride
UN transport hazard class(es)	3 (6.1)  
Packing group	II
Environmental hazards	None
Special precautions for user	None

International Air Transport Association Dangerous Goods Regulations (IATA-DGR)

UN number	UN 1184
UN proper shipping name	Ethylene dichloride



Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 12.22.2016

Page 9 of 10

Eluent

UN transport hazard class(es)	3 (6.1)	 
Packing group	II	
Environmental hazards	None	
Special precautions for user	None	

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	
Bulk Name	None
Ship type	None
Pollution category	None

SECTION 15: Regulatory information

United States regulations

Inventory listing (TSCA):

141-78-6	Ethyl acetate	Listed
107-06-2	Ethyl dichloride	Listed
67-63-0	Isopropyl alcohol	Listed

Significant New Use Rule (TSCA Section 5): Not determined.

Export notification under TSCA Section 12(b): Not determined.

SARA Section 311/312 hazards:

Acute	Chronic	Fire	Pressure	Reactive
No	No	No	No	No

SARA Section 302 extremely hazardous substances: Not determined.

SARA Section 313 toxic chemicals:

107-06-2	Ethyl dichloride	Listed
67-63-0	Isopropyl alcohol	Listed

CERCLA:

141-78-6	Ethyl acetate	Listed	5000
107-06-2	Ethyl dichloride	Listed	100

RCRA:

141-78-6	Ethyl acetate	Listed	
107-06-2	Ethyl dichloride	Listed	

Section 112(r) of the Clean Air Act (CAA): Not determined.

Massachusetts Right to Know:

107-06-2	Ethyl dichloride	Listed
141-78-6	Ethyl acetate	Not Listed
67-63-0	Isopropyl alcohol	Listed

New Jersey Right to Know:

107-06-2	Ethyl dichloride	Not Listed
141-78-6	Ethyl acetate	Not Listed

Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 12.22.2016

Page 10 of 10

Eluent

67-63-0	Isopropyl alcohol	Listed
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New York Right to Know:

107-06-2	Ethyl dichloride	Listed
141-78-6	Ethyl acetate	Not Listed
67-63-0	Isopropyl alcohol	Listed

Pennsylvania Right to Know:

107-06-2	Ethyl dichloride	Listed
141-78-6	Ethyl acetate	Not Listed
67-63-0	Isopropyl alcohol	Listed

California Proposition 65:

WARNING: This product contains a chemical known to the State of California to cause cancer.

107-06-2	Ethyl dichloride
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SECTION 16: Other information

Abbreviations and Acronyms: None

Disclaimer:

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. 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: 3-3-1

HMIS: 3-3-1

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End of Safety Data Sheet