

Safety Data Sheet
according to 29CFR1910/1200 and GHS Rev. 3

Effective date : 01.08.2015

Isopropanol (Isopropyl Alcohol),

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

Product name: Isopropanol (Isopropyl Alcohol),
Manufacturer/Supplier Trade name:
Manufacturer/Supplier Article number: IP1005-D
Recommended uses of the product and restrictions on use: Laboratory Chemicals
Manufacturer Details:

AquaPhoenix Scientific
9 Barnhart Drive, Hanover, PA 17331
(717) 632-1291

Supplier Details:

AquaPhoenix Scientific, Inc
9 Barnhart Drive, Hanover, PA 17331
(717) 632-1291

Emergency telephone number:

Emergency Telephone No.: 800-255-3924

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

Flammable liq. 2.
Eye Irrit. 2.
Stot SE. 3.

Signal word: Danger

Hazard statements:

Highly flammable liquid and vapour.
Causes serious eye irritation.
May cause drowsiness or dizziness.

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.
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.

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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/vapours/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 ... for extinction.
Store in a well ventilated place. Keep container tightly closed.
Store in a well ventilated place. Keep cool.
Store locked up.
Dispose of contents/container.

Other Non-GHS Classification: None

SECTION 3: Composition/information on ingredients

Ingredients:

Ingredients:		
CAS 67-63-0	Isopropanol	100 %
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:

Induce vomiting. Dilute mouth with water or milk after rinsing. Immediately get medical assistance.

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

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Extinguishing media

Suitable extinguishing agents:

Use water, dry chemical, chemical foam, carbon dioxide, or alcohol-resistant foam. Water spray can be used to dilute spills to nonflammable mixtures.

Unsuitable extinguishing agents: None

Special hazards arising from the substance or mixture: None

Advice for firefighters:

Protective equipment:

Wear protective eyewear, gloves, and clothing. 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:

Avoid contact with skin, eyes, and clothing. Keep away from ignition sources. Protect from heat. Ensure that dust-handling systems (exhaust ducts, dust collectors, vessels, and processing equipment) are designed to prevent the escape of dust into the work area. Use personal protective equipment. Ensure adequate ventilation.

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:

Do not eat, drink, smoke, or use personal products when handling chemical substances. Wash hands before breaks and immediately after handling the product. Avoid contact with skin, eyes, and clothing. Empty containers retain product residue and can be dangerous.

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 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/m³ STEL.
67-63-0, Isopropanol, NIOSH: 400 ppm TWA; 980 mg/m³ TWA.

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- 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:** Not required under normal conditions of use. Use suitable respiratory protective device when high concentrations are present.
- 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

Appearance (physical state, color):	Clear colorless liquid	Explosion limit lower:	2%
		Explosion limit upper:	12.7%
Odor:	Alcohol	Vapor pressure at 20°C:	Approx 33 at 20°C
Odor threshold:	Not available	Vapor density:	Not available
pH-value:	Not available	Relative density:	0.785 g/mL at 25°C
Melting/Freezing point:	Below -88°C	Solubilities:	Infinite solubility.
Boiling point/Boiling range:	Approx 82°C	Partition coefficient (n-octanol/water):	log pow: 0.05
Flash point (closed cup):	12.0°C	Auto/Self-ignition temperature:	425.0°C
Evaporation rate:	3.0	Decomposition temperature:	Not available
Flammability (solid, gaseous):	Flammable	Viscosity:	a. Kinematic: Not available b. Dynamic: Not available
Density at 20°C:	Not available		

SECTION 10: Stability and reactivity

Reactivity:

None under normal processing.

Chemical stability:

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

Possible hazardous reactions:

None under normal processing.

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:

Toxic oxides of carbon, acrid and irritating fumes.

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SECTION 11: Toxicological information

Acute Toxicity:

Dermal:

LD50 Dermal-rabbit: 15800 mg/kg.

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: No additional information.

Germ cell mutagenicity: No additional information.

Reproductive Toxicity: No additional information.

STOT-single and repeated exposure: No additional information.

Additional toxicological information: No additional information.

SECTION 12: Ecological information

Ecotoxicity:

Water Flea., 48 Hr EC50 Daphnia magna: 13299 mg/L.

Algae, 96 Hr EC50 Desmodesmus subspicatus: >1000 mg/L.

Algae, 72 Hr EC50 Desmodesmus subspicatus: >1000 mg/L.

Fish., 96 Hr LC50 Pimephales promelas: 9640 mg/L.

Fish., 96 Hr LC50 Pimephales promelas: 11130 mg/L.

Fish., 96 Hr LC50 Lepomis macrochirus: >1400000 µg/L.

Persistence and degradability: No additional information.

Bioaccumulative potential: No additional information.

Mobility in soil:

Aqueous solution has high mobility in soil.

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). Remove all sources of ignition. Do not flush to sewer. Have fire extinguishing agent available in case of fire. 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

UN1219

Limited Quantity Exception:

None

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Bulk:

RQ (if applicable): None

Proper shipping Name: Isopropanol.

Hazard Class: 3

Packing Group: II.

Marine Pollutant (if applicable): No additional information.

Comments: None

Non Bulk:

RQ (if applicable): None

Proper shipping Name: Isopropanol.

Hazard Class: 3

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):

None of the ingredients are listed.

TSCA (Toxic Substances Control Act) :

All ingredients are listed.

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

None of the ingredients are listed.

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

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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: 2-0-0

HMIS: 2-0-0

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).
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).

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Methanol (Methyl Alcohol)

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

Product name: Methanol (Methyl Alcohol)
Manufacturer/Supplier Trade name:
Manufacturer/Supplier Article number: ME1000-D
Recommended uses of the product and restrictions on use: Dec 15 2015 12:00AM

Manufacturer Details:

AquaPhoenix Scientific
9 Barnhart Drive, Hanover, PA 17331
(717) 632-1291

Supplier Details:

AquaPhoenix Scientific, Inc
9 Barnhart Drive, Hanover, PA 17331
(717) 632-1291

Emergency telephone number:

Emergency Telephone No.: 800-255-3924

SECTION 2: Hazards identification

Classification of the substance or mixture:



Flammable
Flammable liquids, category 2



Toxic
Acute toxicity (oral, dermal, inhalation), category 3



Health hazard
Specific target organ toxicity following single exposure, category 1

AcTox Dermal. 3.
Flammable liq. 2.
AcTox Oral. 3.
AcTox Inhaln. 3.
Stot SE. 1.

Signal word: Danger

Hazard statements:

Highly flammable liquid and vapour.
Toxic if swallowed.
Toxic in contact with skin.
Toxic if inhaled.
Causes damage to organs.

Precautionary statements:

If medical advice is needed have product container or label at hand.
Keep out of reach of children.

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Read label before use.
 Wear protective gloves/protective clothing/eye protection/face protection.
 Wash skin thoroughly after handling.
 Do not eat, drink or smoke when using this product.
 Avoid breathing dust/fume/gas/mist/vapours/spray.
 Keep away from heat/sparks/open flames/hot surfaces. No smoking.
 Do not breathe dust/fume/gas/mist/vapours/spray.
 Specific treatment (see supplemental first aid instructions on this label).
 IF ON SKIN: Wash with soap and water.
 Call a POISON CENTER or doctor/physician if you feel unwell.
 Specific measures (see supplemental first aid instructions on this label).
 Take off contaminated clothing and wash before reuse.
 Wash contaminated clothing before reuse.
 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
 IF exposed: Call a POISON CENTER or doctor/physician.
 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
 Store locked up.
 Store in a well ventilated place. Keep cool.
 Dispose of contents and container as instructed in Section 13.

Other Non-GHS Classification: None

SECTION 3: Composition/information on ingredients

Ingredients:

Ingredients:		
CAS 67-56-1	Methanol	>90 %
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 attention immediately. If breathing is difficult, give oxygen. Give artificial respiration if necessary.

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. Rinse or flush eye gently with water for at least 15-20 minutes, lifting upper and lower lids. Seek medical attention if irritation persists or if concerned.

After swallowing:

Rinse mouth thoroughly. Do not induce vomiting. Have exposed individual drink sips of water. Dilute mouth with water or milk after rinsing. Seek medical attention immediately.

Most important symptoms and effects, both acute and delayed:

Poison. Irritation- all routes of exposure. Toxic by ingestion, absorption through skin and inhalation, potentially causing irreversible effects. Irritating to eyes, respiratory system and skin. Cannot be made non-poisonous. May

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cause gastrointestinal irritation, vomiting, and diarrhea. Skin disorders. Preexisting eye disorders. Gastrointestinal System. Shortness of breath. Nausea. Headache. May be fatal or cause blindness if swallowed. Central nervous system disorders. Toxic. Danger of very serious irreversible effects by inhalation, ingestion or absorption through skin. Experiments have shown reproductive toxicity effects on laboratory animals. May cause adverse kidney and liver effects.

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:

Dry chemical, foam, dry sand, or Carbon Dioxide. Water spray can keep containers cool.

Unsuitable extinguishing agents:

Water may be ineffective.

Special hazards arising from the substance or mixture:

Risk of ignition. Vapors may form explosive mixtures with air. Vapors can flow across ignition source and flashback. Containers may explode when heated.

Advice for firefighters:

Protective equipment:

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

Additional information (precautions):

Remove all sources of ignition. Avoid contact with skin, eyes, and clothing. Ensure adequate ventilation. Take precautions against static discharge.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures:

Use spark-proof tools and explosion-proof equipment. 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. Ensure adequate ventilation. Use personal protective equipment. Avoid contact with eyes, skin, and clothing. Remove sources of ignition. Take precautions against static discharge.

Environmental precautions:

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

Methods and material for containment and cleaning up:

If necessary use trained response staff or contractor. Remove all sources of ignition. Contain spillage and 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 leak or spill. Use spark-proof tools and explosion-proof equipment. Follow proper disposal methods. Refer to Section 13.

Reference to other sections: None

SECTION 7: Handling and storage

Precautions for safe handling:

Use in a chemical fume hood. Wash hands before breaks and immediately after handling the product. Avoid contact with skin, eyes, and clothing. Take precautions against static discharge.

Conditions for safe storage, including any incompatibilities:

Store in a cool location. Provide ventilation for containers. Avoid storage near extreme heat, ignition sources or open flame. Keep container tightly closed. Store with like hazards. Protect from freezing and physical damage.

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SECTION 8: Exposure controls/personal protection

**Control parameters:**

67-56-1, Methanol., ACGIH: 250 ppm STEL; 200 ppm TWA.
67-56-1, Methanol., NIOSH: 250 ppm STEL; 325 mg/m³ STEL.
67-56-1, Methanol., NIOSH: 200 ppm TWA; 260 mg/m³ TWA.

Appropriate engineering controls:

Emergency eye wash fountains and safety showers should be available in the immediate vicinity of use or handling. Ensure that dust-handling systems (exhaust ducts, dust collectors, vessels, and processing equipment) are designed to prevent the escape of dust into the work area. Use in chemical fume hood.

Respiratory protection:

Use in a chemical fume hood. If exposure limit is exceeded, a full-face respirator with organic cartridge may be worn.

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. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Perform routine housekeeping.

SECTION 9: Physical and chemical properties

Appearance (physical state, color):	Clear colorless liquid	Explosion limit lower:	6
		Explosion limit upper:	31
Odor:	Alcohol	Vapor pressure at 20°C:	128 hPa @ 20°C
Odor threshold:	Not available	Vapor density:	1.11
pH-value:	Not available	Relative density:	0.79
Melting/Freezing point:	-98°C	Solubilities:	Miscible at 20 °C
Boiling point/Boiling range:	64.7°C @ 760mmHg	Partition coefficient (n-octanol/water):	Not available
Flash point (closed cup):	12°C	Auto/Self-ignition temperature:	455°C
Evaporation rate:	5.2	Decomposition temperature:	Not available
Flammability (solid, gaseous):	Flammable	Viscosity:	a. Kinematic: Not available b. Dynamic: Not available
Density at 20°C:	Not available		

SECTION 10: Stability and reactivity

Reactivity:

Vapours may form explosive mixture with air.

Chemical stability:

Stable under normal conditions.

Possible hazardous reactions:

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None under normal processing.

Conditions to avoid:

Excess heat, Incompatible Materials, flames, or sparks.

Incompatible materials:

Oxidizing agents, reducing agents, alkali metals, acids, sodium, potassium, metals as powders, acid chlorides, acid anhydrides, powdered magnesium, and aluminum.

Hazardous decomposition products:

carbon monoxide, formaldehyde.

SECTION 11: Toxicological information

Acute Toxicity:

Dermal:

LD-50 15800 mg/kg (rabbit).

Chronic Toxicity: No additional information.

Skin corrosion/irritation:

Irritating to skin.

Serious eye damage/irritation:

Irritating to eyes.

Respiratory or skin sensitization: No additional information.

Carcinogenicity: No additional information.

Germ cell mutagenicity:

Mutagenic effects have occurred in experimental animals.
Teratogenicity has occurred in experimental animals.

Reproductive Toxicity:

Developmental Effects (Immediate/Delayed) have occurred in experimental animals.

STOT-single and repeated exposure:

Classified as causing damage to organs:

Eyes, skin, optic nerve, gastrointestinal tract, central nervous system, respiratory system, liver, spleen, kidney, blood.

Additional toxicological information: No additional information.

SECTION 12: Ecological information

Ecotoxicity:

Freshwater Fish, 96 Hr LC50 Pimephales promelas: 28200 mg/L.
Freshwater Fish, 96 Hr LC50 Oncorhynchus mykiss: 19500 - 20700 mg/L.
Freshwater Fish, 96 Hr LC50 Pimephales promelas: >100 mg/L.
Freshwater Fish, 96 Hr LC50 Oncorhynchus mykiss: 18 - 20 mL/L.
Freshwater Fish, 96 Hr LC50 Lepomis macrochirus: 13500 - 17600 mg/L.

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Persistence and degradability:

Not persistent.

Bioaccumulative potential:

Not expected to bio accumulate.

Mobility in soil:

Aqueous solution has high mobility in soil.

Other adverse effects: No additional information.

SECTION 13: Disposal considerations

Waste disposal recommendations:

Methanol RCRA waste code U154. Do not allow product to reach sewage system or open water. It is the responsibility of the waste generator to properly characterize all waste materials according to applicable regulatory entities (US 40CFR262.11). Absorb with a noncombustible absorbent material such as sand or earth and containerize for disposal. Provide ventilation. Have fire extinguishing agent available in case of fire. Eliminate all sources of ignition. Use spark-proof tools and explosion-proof equipment. 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

UN1230

Limited Quantity Exception:

None

Bulk:

RQ (if applicable): None

Proper shipping Name: Methanol.

Hazard Class: 3

Packing Group: II.

Marine Pollutant (if applicable): No additional information.

Comments: None

Non Bulk:

RQ (if applicable): None

Proper shipping Name: Methanol.

Hazard Class: 3

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):

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67-56-1 Methanol.

RCRA (hazardous waste code):

67-56-1 Methanol RCRA waste code U154.

TSCA (Toxic Substances Control Act) :

All ingredients are listed.

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

67-56-1 Methanol 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:

67-56-1 Methanol.

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: 2-0-0

HMIS: 2-0-0

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).

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Effective date : 11.19.2014

Ethyl Acetate

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

Product name: Ethyl Acetate

Manufacturer/Supplier Trade name:

Manufacturer/Supplier Article number: EA2000-D

Recommended uses of the product and restrictions on use: Laboratory

Manufacturer Details:

AquaPhoenix Scientific
9 Barnhart Drive, Hanover, PA 17331
(717) 632-1291

Supplier Details:

AquaPhoenix Scientific, Inc
9 Barnhart Drive, Hanover, PA 17331
(717) 632-1291

Emergency telephone number:

Emergency Telephone No.: 800-255-3924

SECTION 2: Hazards identification

Classification of the substance or mixture:



Flammable



Irritant

Flammable Liquid 2.
Specific Target Organ Toxicity, Single Exposure 3.
Eye irritation (Category 2A), H319.

Signal word: Danger

Hazard statements:

Highly flammable liquid and vapour.
May cause drowsiness or dizziness.
Causes serious eye 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.
Do not eat, drink or smoke when using this product.
Avoid breathing dust/fume/gas/mist/vapours/spray.
Use only outdoors or in a well-ventilated area.
Use personal protective equipment as required.
Keep away from heat/sparks/open flames/hot surfaces - No smoking.
Keep container tightly closed.

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Ground/bond container and receiving equipment.
 Use explosion-proof electrical/ventilating/light/.../equipment.
 Use only non-sparking tools.
 Take precautionary measures against static discharge.
 Wear protective gloves/protective clothing/eye protection/face protection.
 Wash thoroughly after handling.
 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
 In case of fire: Use ... for extinction.
 Rinse mouth.
 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
 Get Medical advice/attention if you feel unwell.
 Collect spillage.
 IF exposed or concerned: Get medical advice/attention.
 Store in a well ventilated place. Keep cool.
 Store in a well ventilated place. Keep container tightly closed.
 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 141-78-6	Ethyl Acetate	>98.5 %
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.

After skin contact:

Wash affected area with soap and water. Rinse thoroughly. Seek medical attention if irritation, discomfort or vomiting persists.

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. Seek medical attention if irritation persists or if concerned.

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. Dizziness.

Indication of any immediate medical attention and special treatment needed:

If seeking medical attention, provide SDS document to physician.

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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. Foam. Carbon dioxide.

Unsuitable extinguishing agents: None

Special hazards arising from the substance or mixture: None

Advice for firefighters:

Protective equipment:

Wear protective equipment. Use NIOSH-approved respiratory protection/breathing apparatus. Use spark-proof tools and explosion-proof equipment.

Additional information (precautions):

Move product containers away from fire or keep cool with water spray as a protective measure, where feasible.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures:

Wear protective equipment. Use respiratory protective device against the effects of fumes/dust/aerosol. Keep unprotected persons away. Ensure adequate ventilation. Keep away from ignition sources. Protect from heat. Stop the spill, if possible. Contain spilled material by diking or using inert absorbent. Transfer to a disposal or recovery container.

Environmental precautions:

Prevent from reaching drains, sewer or waterway. Collect spilled liquid for recovery, treatment or disposal.

Methods and material for containment and cleaning up:

If in a laboratory setting, follow Chemical Hygiene Plan procedures. Collect liquids using vacuum or by use of absorbents. Place into properly labeled containers for recovery or disposal.

Reference to other sections: None

SECTION 7: Handling and storage

Precautions for safe handling:

Prevent formation of aerosols. Follow good hygiene procedures when handling chemical materials. Do not eat, drink, smoke, or use personal products when handling chemical substances. If in a laboratory setting, follow Chemical Hygiene Plan. Use only in well ventilated areas. Avoid splashes or spray in enclosed areas. Wash hands before breaks and at the end of work.

Conditions for safe storage, including any incompatibilities:

Store in a cool location. 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. Keep container tightly closed. Store in secure flammable storage area away from sources of ignition. Protect from freezing and physical damage.

SECTION 8: Exposure controls/personal protection



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Control parameters:	141-78-6, ethyl acetate, TWA 400 ppm US. ACGIH Threshold Limit Values (01 2010). 141-78-6, ethyl acetate, PEL 400 ppm 1,400 mg/m ³ US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006).
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 mists below the applicable workplace exposure limits (Occupational Exposure Limits-OELs) indicated above.
Respiratory protection:	Not required under normal conditions of use. 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. Immediately remove all soiled and contaminated clothing. 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
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Appearance (physical state, color):	Clear, colorless liquid	Explosion limit lower: Explosion limit upper:	Lower explosion limit: 2.2 % (V) Upper explosion limit: 11.5 % (V)
Odor:	Not determined	Vapor pressure at 20°C:	97.3 hPa (73.0 mmHg) at 20.0 °C (68.0 °F)
Odor threshold:	Not determined	Vapor density:	Not determined
pH-value:	Not determined	Relative density:	Not determined
Melting/Freezing point:	Melting point/range:	Solubilities:	Surface tension 24.0 mN/m at 20.0 °C (68.0 °F)
Boiling point/Boiling range:	77 °C	Partition coefficient (n-octanol/water):	log pow: 0.73
Flash point (closed cup):	-2.99 °C (26.62 °F) - closed cup	Auto/Self-ignition temperature:	427.8 °C
Evaporation rate:	Not determined	Decomposition temperature:	Not determined
Flammability (solid, gaseous):	Flammable	Viscosity:	a. Kinematic: Not determined b. Dynamic: Not determined
Density at 20°C:	Not determined		

SECTION 10: Stability and reactivity

Reactivity: None**Chemical stability:**

No decomposition if used and stored according to specifications.

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Possible hazardous reactions: None

Conditions to avoid:

Store away from oxidizing agents, strong acids or bases. Ignition source. Excess heat. Incompatible materials. Open flame.

Incompatible materials:

Strong acids. Heat. Open flame. Sparks. Strong bases. Potassium dioxide. Acetyl bromide. Acetyl chloride. Bromine pentafluoride. Sodium. Platinum. Strong oxidizers.

Hazardous decomposition products:

Carbon oxides (CO, CO₂). Acrid smoke and fumes. Irritating fumes.

SECTION 11: Toxicological information

Acute Toxicity:

Dermal:

LD50 Dermal - Rabbit - > 18,000 mg/kg.

Chronic Toxicity: No additional information.

Skin corrosion/irritation: No additional information.

Serious eye damage/irritation:

May cause eye irritation.

Respiratory or skin sensitization: No additional information.

Carcinogenicity:

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Germ cell mutagenicity: No additional information.

Reproductive Toxicity: No additional information.

STOT-single and repeated exposure: No additional information.

Additional toxicological information: No additional information.

SECTION 12: Ecological information

Ecotoxicity:

Toxicity to fish, LC50 - *Oncorhynchus mykiss* (rainbow trout) - 350.00 - 600.00 mg/l - 96 h.

Toxicity to fish, LC50 - *Pimephales promelas* (fathead minnow) - 220.00 - 250.00 mg/l - 96 h.

Toxicity to daphnia and other aquatic invertebrates, LC50 - *Pimephales promelas* (fathead minnow) - 220.00 - 250.00 mg/l - 96 h.

Toxicity to algae., EC50 - Algae - 4,300.00 mg/l - 24 h.

Persistence and degradability:

Readily degradable in the environment.

Bioaccumulative potential:

- 3 d Bioconcentration factor (BCF): 30.

Mobility in soil:

Aqueous solution has high mobility in soil.

Other adverse effects: No additional information.

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SECTION 13: Disposal considerations

Waste disposal recommendations:

Product/containers must not be disposed together with household garbage. Do not allow product to reach sewage system or open water. 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 1170

Limited Quantity Exception: None

Bulk:

RQ (if applicable): None

Proper shipping Name: Ethanol (Mixture).

Hazard Class: 3

Packing Group: II.

Marine Pollutant (if applicable): No additional information.

Comments: None

Non Bulk:

RQ (if applicable): None

Proper shipping Name: Ethanol (Mixture).

Hazard Class: 3

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):

Reactive, Acute, Chronic, Fire

SARA Section 313 (Specific toxic chemical listings):

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):

None of the ingredients are listed.

Proposition 65 (California):

Chemicals known to cause cancer:

None of the ingredients are listed.

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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:

108-10-1 Methanol.

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: 2-0-0

HMIS: 2-0-0

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).
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).