Ethanol, Lab Grade, 4L

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

Product name : **Ethanol, Lab Grade, 4L**

Manufacturer/Supplier Trade name:

Manufacturer/Supplier Article number: **S25309B**

Recommended uses of the product and uses restrictions on use:

Manufacturer Details:

AquaPhoenix Scientific
9 Barnhart Drive, Hanover, PA 17331

Supplier Details:

Fisher Science Education
15 Jet View Drive, Rochester, NY 14624

Emergency telephone number:

Fisher Science Education Emergency Telephone No.: 800-535-5053

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
Reproductive toxicity, category 2
Specific target organ toxicity following repeated exposure, category 2

Irritant
Specific target organ toxicity following single exposure, category 3

Narcotic effects
Flammable Liquid 2
Acute Toxicity 3 (oral)
Specific Target Organ Toxicity, Single Exposure 3
Specific Target Organ Toxicity, Repeat Exposure 1
Reproductive toxicity 2

Signal word :Danger

Hazard statements:
Highly flammable liquid and vapour
Toxic if swallowed
May cause drowsiness or dizziness
May damage fertility or the unborn child
May cause damage to organs through prolonged or repeated exposure

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
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 locked up
Store in a well ventilated place. Keep container tightly closed
Dispose of contents/container to …

Other Non-GHS Classification:

WHMIS

B2 

D2B 

D1B 

NFPA/HMIS

NFPA SCALE (0-4)

HMIS RATINGS (0-4)

SECTION 3 : Composition/information on ingredients

Ingredients:		
CAS 64-17-5	Ethanol, denatured	95 %
CAS 67-56-1	Methanol	3-52.25 %
CAS 108-10-1	MIBK	0.95-3.8 %
CAS 67-63-0	Isopropyl Alcohol	3.8-5.7 %
CAS 7732-18-5	Deionized Water	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, Shortness of breath.Dizziness. Vomiting;Impact to organs (liver, eyes, other-various). Impact to fetus (if pregnant)

Indication of any immediate medical attention and special treatment needed:

If seeking medical attention, provide SDS document to physician.

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. Water. Dry chemical. Foam. Carbon dioxide

For safety reasons unsuitable extinguishing agents:

Special hazards arising from the substance or mixture:

Combustion products may include carbon oxides or other toxic vapors.Dangerous fire hazard when exposed to heat, sparks and open flames.

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 contaminated soil for characterization per Section 13. 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. If necessary, use trained response staff/contractor.

Reference to other sections:

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 sealed.Store in secure flammable storage area away from sources of ignition.Protect from freezing and physical damage.

SECTION 8 : Exposure controls/personal protection

Control Parameters:

108-10-1, MIBK, ACGIH TLV STEL: 75 ppm)
67-63-0, 2-Propanol, OSHA PEL TWA: 400 ppm (980 mg/m3)
67-63-0, 2-Propanol, NIOSH REL: TWA 400 ppm (980 mg/m3)
67-63-0, 2-Propanol, NIOSH REL ST: 500 ppm (1225 mg/m3)
67-63-0, 2-Propanol, ACGIH TLV TWA: 200 ppm
67-63-0, 2-Propanol, ACGIH TLV STEL: 400 ppm
64-17-5, Ethanol, ACGIH TLV TWA: 1000 ppm (1881mg/m3)
64-17-5, Ethanol, OSHA PEL: TWA 1000 ppm (1900 mg/m3)
64-17-5, Ethanol, NIOSH IDLH: 3300 ppm [10%LEL]
64-17-5, Ethanol, NIOSH REL TWA: 1000 ppm (1900 mg/m3)
67-56-1, Methanol, OSHA PEL TWA: 260 mg/m3 (200 ppm)
67-56-1, Methanol, OSHA PEL STEL: 325 mg/m3 (250 ppm)
67-56-1, Methanol, ACGIH TLV TWA: 262 mg/m3
67-56-1, Methanol, ACGIH TLV STEL: 328 mg/m3 (250 ppm)
108-10-1, MIBK, OSHA PEL TWA: 205 mg/m3 (50 ppm)
108-10-1, MIBK, OSHA PEL STEL: 300 mg/m3 (75 ppm)
108-10-1, MIBK, ACGIH TLV TWA 20 mg/m3

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

Appearance (physical state,color):	Clear, colorless liquid	**Explosion limit lower**: **Explosion limit upper**:	3.3 18
Odor:	Alcohol	**Vapor pressure**:	48 mm Hg
Odor threshold:	10 ppm	**Vapor density**:	1.5
pH-value:	Not determined	**Relative density**:	Approx. 0.8
Melting/Freezing point:	-90 C	**Solubilities**:	infinite solubility
Boiling point/Boiling range:	77 C	**Partition coefficient (n-octanol/water)**:	Not determined
Flash point (closed cup):	15.5 C	**Auto/Self-ignition temperature**:	362.8 C

Evaporation rate:	3.6	**Decomposition temperature**:	Not determined
Flammability (solid,gaseous):	Flammable	**Viscosity**:	a. Kinematic:Not determined b. Dynamic: Not determined
Density: Not determined			

SECTION 10 : Stability and reactivity

Reactivity:
Chemical stability: No decomposition if used and stored according to specifications.
Possible hazardous reactions:
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:		
Inhalation:	64000 mg/kg 4 hr	LD50(rat) (Methanol 64-17-5)
Oral:	7060 mg/kg	LD50 oral-rat: (Ethanol 64-17-5)
Oral:	6200 mg/kg	LD50(rat) (Ethanol 64-17-5)
Oral:	4600 mg/kg	LD50(rat) (MIBK 108-10-1)
Oral:	5628 mg/kg	LD50(rat) (Methanol 67-56-1)
Inhalation:	20000 mg/kg 10 hr	LD50(rat) (Ethanol 64-17-5)
Inhalation:	8.2 mg/kg 4 hr	LD50(rat) (MIBK 108-10-1)
Chronic Toxicity:		
Oral:	May cause damage to the following organs: blood, kidneys, the reproductive system, liver, gastrointestinal tract, upper respiratory tract, skin, central nervous system (CNS), eye, lens or cornea.	Human
Corrosion Irritation:		
Ocular:		May cause eye irritation.
Sensitization:		No additional information.
Single Target Organ (STOT):		Classified as STOT in Section 2 (multiple organs - see above, Section 11)
Numerical Measures:		No additional information.

Carcinogenicity:	IARC: IARC classification (1) for Ethanol, CAS# 64-17-5, is intended for use in alcoholic beverage use only. This product is NOT intended for this use.
Mutagenicity:	No additional information.
Reproductive Toxicity:	No additional information.

SECTION 12 : Ecological information

Ecotoxicity Persistence and degradability: Readily degradable in the environment.
Bioaccumulative potential:
Mobility in soil: Aqueous solution has high mobility in soil.
Other adverse effects:

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

UN-Number

1170

UN proper shipping name

Ethanol (Mixture)

Transport hazard class(es)

Class:
3 Flammable liquids

Packing group:II
Environmental hazard:
Transport in bulk:
Special precautions for user:

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):

67-56-1 Methanol
67-63-0 2-Propanol
108-10-1 MIBK

RCRA (hazardous waste code):

None of the ingredients is listed

TSCA (Toxic Substances Control Act):

All ingredients are listed.

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

None of the ingredients is listed

Proposition 65 (California):

Chemicals known to cause cancer:

None of the ingredients is listed

Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed

Chemicals known to cause reproductive toxicity for males:

None of the ingredients is listed

Chemicals known to cause developmental toxicity:

108-10-1 Methanol

Canada

Canadian Domestic Substances List (DSL):

All ingredients are listed.

Canadian NPRI Ingredient Disclosure list (limit 0.1%):

64-17-5 Ethanol

Canadian NPRI Ingredient Disclosure list (limit 1%):

67-56-1 Methanol
67-63-0 2-Propanol
108-10-1 MIBK

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.

GHS Full Text Phrases:

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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