



SAFETY DATA SHEET

According to Regulation (EC) No 453/2010

SDS -AETOH(70)Q-0001

Version 1.1

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www.eamaterials.com

Section 1: IDENTIFICATION OF SUBSTANCE/ MIXTURE AND OF THE COMPANY

1.1 Product identifier

Product name : **Ethanol, Absolute, 70%, Qcura Grade**

Included product code : AETOH(70)112-2.5P, AETOH(70)112-5.0P.

1.2 Relevant identified uses of the substance or mixture

Identified uses : Laboratory chemicals, Manufacture of substances.

Uses advised against : Not applicable.

1.3 Details of the supplier of the safety data sheet

Company : Elite Advanced Materials Sdn Bhd
No 1, Jalan KPK1/2, Kawasan Perindustrian
Kundang, 48020 Rawang, Selangor, Malaysia

E-mail address : enquiry@eamaterials.com

1.4 Emergency telephone number

Emergency : +603-60343766 (Local business hours only)



Section 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Flammable liquids	Category 2
Eye irritation	Category 2

2.2 Label elements

Labeling in compliance to Regulation (EC) No. 1272/2008 [CLP/GHS]

Hazard pictograms



GHS02



GHS07

Signal word

Danger

Hazard statement

H225

Highly flammable liquid and vapour.

H319

Causes serious eye irritation.

Precautionary statements

Prevention

P210

Keep away from heat/ sparks/open flames/hot surfaces. – No smoking.

P240

Ground/bond container and receiving equipment.

Response

P305 + P351+ P338

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Storage

P403 + P233

Store in a well-ventilated place. Keep container tightly closed.



2.3 Other hazards

No data available.

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substance

Not applicable.

3.2 Mixture

Hazardous components according to CLASS regulations 2013

Component	Identity	Classification Code	H-Code	Concentration (by wt)
Ethanol	CAS-No.: 64-17-5	Flam. Liq. 2 Eye Irritat. 2	H225 H319	70 - 72 %
Water	CAS-No.: 7732-18-5	Not Classified		28 -30 %

Section 4: FIRST AID MEASURES

4.1 Description of First Aid measures

General information

Immediate medical attention is required. Show this safety data sheet to the doctor in attendance.

After eye contact

Rinse immediately with plenty of water, also under the eyelids. Call in ophthalmologist. Remove contact lenses.

After skin contact

Take off immediately all contaminated clothing. Wash off with plenty of water for at least 15 minutes. Take victim to a doctor if irritation persists.

After swallowing

Immediately make victim drink water (two glasses at most). Seek medical attention

immediately.

Inhalation

Move person into fresh air.

4.2 Most important symptoms and delayed symptoms and effects

Irritant effects, respiratory paralysis, Dizziness, narcosis, inebriation, euphoria, Nausea, Vomiting.

4.3 Indication of any immediate medical attention and special treatment

No information available.

Section 5: FIRE FIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical, or carbon dioxide (CO₂) to extinguish flames.

Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given.

5.2 Special hazards arising from the substance or mixture

Combustible. Pay attention to flashback. Forms explosive mixtures with air at ambient temperature. Vapours are heavier than air and may spread along floors. Development of hazardous combustion gases or vapours possible in the event of fire.

5.3 Advice for fire-fighters

Full protective clothing and self-contained breathing apparatus are required during handling.

5.4 Further information

Remove container from danger zone and cool with water. Prevent fire extinguishing water from contaminating surface water or the ground water system.

Section 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Personal protective equipment is required during handling. Ensure adequate ventilation. Remove all sources of ignition. Avoid inhaling of vapour. If spillage occurred in confined area, wear respirator/breathing apparatus.

6.2 Environmental precautions

Do not discharge into drains or waterways. Risk of explosion. Prevent further leakage or spillage if safe to do so.

6.3 Methods and material for containment and cleaning up

Cover drains. Soak up with inert absorbent material. Keep in suitable, closed containers for disposal. Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment. (see section 13).

6.4 Reference to other sections

Information on waste treatment, see Section 13.

Section 7: HANDLING AND STORAGE

7.1 Precaution for safe handling

Personal protective equipment is required during handling to avoid contact with skin and eyes. Please handle the chemical under the fume hood to avoid inhalation of vapour or mist. Keep container tightly closed and away from sources of heat, sparks and open flames. Take precautionary measures against static discharges.

7.2 Conditions for safe storage, including any incompatibilities

Container must store in a cool dry, well-ventilated place and away from all sources of ignition, heat and direct sunlight.

7.3 Specific end use

No further relevant information available.

Section 8 : EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Component	ACGIH TLV	OSHA PEL	NIOSH REL
Ethyl Alcohol	No data available	TWA: 1000 ppm (1900 mg/m ³)	TWA: 1000 ppm (1900 mg/m ³)

(OSHA)

8.2 Exposure control

Personal protection measures, such as personal protective equipment

Do not eat, drink or smoke during chemical handling. Remove and wash contaminated clothing before re-using. Ventilation must work properly, especially in confined areas. Protective clothing needs to be selected specifically for the workplace, depending on concentrations and quantities of the hazardous substances handled.

Eye/ face protection

Chemical goggles or safety glasses is required during handling. A face shield may also be necessary. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Hand protection

Wear appropriate protective gloves and clothing to prevent skin exposure. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. The selected protective gloves have to satisfy the specifications of EC Directive 89/686/EEC and the standard EN 374 derived from it.

Full contact*

Material: butyl-rubber

Minimum layer thickness: 0.7 mm

Break through time: 480 min

Material tested: Butoject® (KCL 897 / Aldrich Z677647, Size M)

Splash contact*

Material: Nitrile rubber

Minimum layer thickness: 0.4 mm

Break through time: 120 min

Material tested: Camatril® (KCL 730 / Aldrich Z677442, Size M)

*Source – Sigma Aldrich, 2020.

Body protection

Complete suit protecting against chemicals, Flame retardant antistatic protective clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type AXBEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Physical state	:	Liquid
Colour	:	Colourless
Odour	:	No data available
Odour threshold	:	No data available
pH - value	:	7.0 at 10 mg/l, 20 °C
Melting point / Range	:	No data available
Boiling point / Range	:	No data available
Flash point	:	22.0 °C
Evaporation rate	:	No data available
Explosion limit – LEL	:	No data available
Explosion limit – UEL	:	No data available
Vapour pressure	:	No data available
Vapor density (air = 1)	:	No data available
Density	:	0.866 – 0.886 g/cm ³
Bulk density	:	No data available
Solubility(ies)	:	No data available

Water solubility	:	Completely miscible at 20 °C
Partition coefficient: n-octanol/water	:	No data available
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
Viscosity	:	No data available
Explosive properties	:	No data available
Oxidising properties	:	No data available
Surface Tension	:	No data available

9.2 Other information

No applicable.

Section 10 : STABILITY AND REACTIVITY

10.1 Reactivity

Vapours may form explosive mixture with air.

10.2 Chemical stability

The product is chemically stable under standard ambient conditions (room temperature).

10.3 Possibility of hazardous reactions

Risk of explosion/exothermic reaction with:

Hydrogen peroxide, perchlorates, perchloric acid, nitric acid, mercury (II) nitrate, permanganic acid, nitriles, peroxy compounds, strong oxidising agents, nitrosyl compounds, peroxides, sodium, potassium, halogen oxides, calcium hypochlorite, nitrogen dioxide, metallic oxides, uranium hexafluoride, iodides, chlorine, alkali metals, alkaline earth metals, alkali oxides, ethylene oxide

Silver with nitric acid

Silver compounds with ammonia

Potassium permanganate with conc. Sulfuric acid

Risk of ignition or formation of inflammable gases or vapours with:

Halogen-halogen compounds, chromium (VI) oxide, chromyl chloride, fluorine, hydrides, oxides of phosphorus, platinum.

Nitric acid with potassium permanganate.



10.4 Conditions to avoid

Heat, spark flame.

10.5 Incompatible materials

Rubber, various plastics.

10.6 Hazardous decomposition products

No data available

Section 11 : TOXICOLOGY INFORMATION

11.1 Information on toxicological effects

Acute toxicity

LD50 Oral	- 10470 mg/kg	(Rat)
LD50 Dermal	- No data available	
LC50 Inhalation	- 124.7 ppm /4h	(Rat)

(Merck, 2020; Ver 1.11)

Skin corrosion/irritation

Absolute Ethanol

Skin - Rabbit

Remarks : Not irritating.

Method : OECD Test Guideline 404

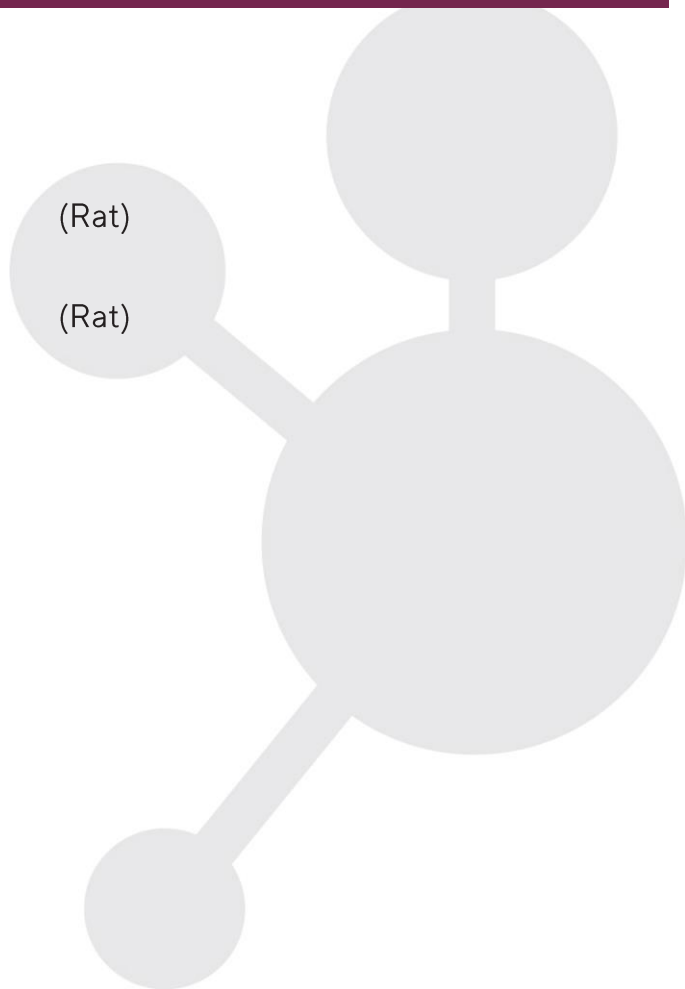
Serious eye damage/eye irritation

Absolute Ethanol

Eyes - Rabbit

Remarks : Irritant. Contact may result in irritation, lacrimation, pain and redness.

Method : OECD Test Guideline 405





Respiratory or skin sensitisation

Absolute Ethanol

Local lymph node assay - Mouse

Remarks : Negative

Method : OECD Test Guideline 429

Germ cell mutagenicity

Absolute Ethanol

Genotoxicity in vivo.

Ames test

Salmonella typhimurium

Result: Negative

Method: OECD Test Guideline 471

Absolute Ethanol

In Vitro mammalian cell gene mutation test.

Mouse lymphoma test

Result: Negative

Method: OECD Test Guideline 476

Carcinogenicity

No data available.

Reproductive toxicity

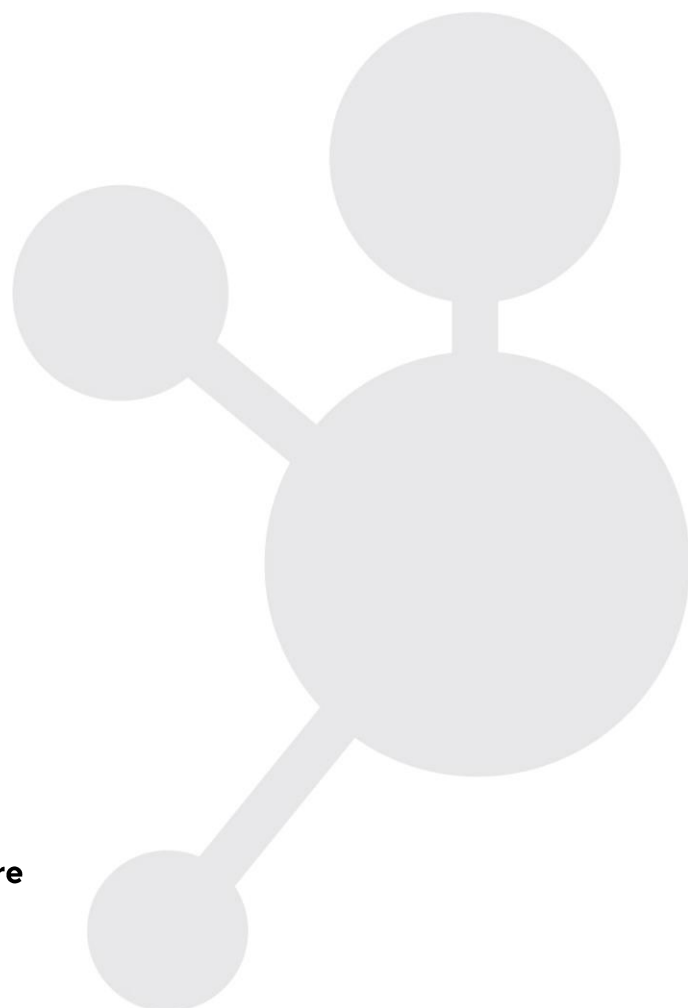
No data available.

Specific target organ toxicity – single exposure

No data available.

Specific target organ toxicity – repeated exposure

No data available.





Aspiration hazard

No aspiration toxicity classification.

Signs and Symptoms of Exposure

For information on potential signs and symptoms of exposure, See Section 2 - Hazards Identification and/or Section 11 - Toxicological Information.

Section 12 : ECOLOGY INFORMATION

12.1 Ecotoxicity

Toxicity to fish	EC50 - Pimephales promelas - 15300 mg/l - 96 h
Toxicity to aquatic invertebrates	EC50 - Daphnia magna (Water flea) -9268 - 14221 mg/l- 48 h
Toxicity to aquatic algae and cyanobacteria	IC5 - freshwater algae - Scenedesmus quadricauda - 5000 mg/l - 7d
Toxicity to microorganisms	EC5 - Pseudomonas putida - 6500 mg/l - 6 h

(Merck, 2020; Ver 1.11)

12.2 Persistence and degradability

Biodegradability	Readily biodegradable.
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12.3 Bioaccumulative potential

Accumulation in organisms is not expected.

12.4 Mobility in soil

No data available.

12.5 Results of PBT and vPvB assessment

Substance does not meet the criteria for PBT or vPvB according to Regulation (EC) No 1907/2006, Annex XIII.



12.6 Other adverse effects

No data available.

Section 13 : DISPOSAL CONSIDERATIONS

13.1 Waste treatment method

Product

Waste material must be disposed according to national and local regulations. Keep the chemicals in its specific waste container according to the waste classification.

According to Quality Environment Regulation (Scheduled Waste) 2005, waste need to be sent to designated premise for recycle, treatment or disposal. Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging

Dispose of as unused product and do not re-use empty containers. Follow label warnings even after container is emptied since it retains product residue.

Section 14 : TRANSPORT INFORMATION

14.1 UN number

ADR/RID: 1170	IMDG: 1170	IATA-DGR: 1170
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14.2 UN proper shipping name

ADR/RID:	ETHANOL (ETHYL ALCOHOL)
IMDG:	ETHANOL (ETHYL ALCOHOL)
IATA-DGR:	ETHANOL (ETHYL ALCOHOL)

14.3 Transport hazard class(es)

ADR/RID: 3 (6.1)	IMDG: 3 (6.1)	IATA-DGR: 3
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14.4 Packaging group

ADR/RID: II	IMDG: II	IATA-DGR: II
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14.5 Environmental hazards



ADR/RID: no	IMDG Marine pollutant: no	IATA-DGR: no
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14.6 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

No data available

14.7 Special precautions for user

No data available

Section 15 : REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

All national and local regulations, including Occupational Safety and Health (Classification, Labelling and Safety Data Sheet of Hazardous Chemicals) Regulations 2013, if applicable to the use, should be observed.

National legislation

Storage class 3

15.2 Chemical Safety Assessment

For this product a chemical safety assessment was not carried out.

Section 16 : OTHER INFORMATION

This information is based on present level of our knowledge, however, this shall not constitute a guarantee product features and shall not establish a legally valid contractual relationship.

Abbreviations:

ADR : European agreement concerning the international carriage of dangerous goods by road.

IMDG : International Maritime Dangerous Goods.

IATA : International Air Transport Association

ICAO : International Civil Aviation Organization

RID : Regulations concerning the International Carriage of Dangerous goods by rail.



Notice to reader

The information contained in this Safety Data Sheet is based on the present state of knowledge and current national legislation. It provides guidance on health, safety and environmental aspects of the products and should not be construed as any guarantee of technical performance or suitability for particular application.

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