Elite Advanced Materials Sdn Bhd

SAFETY DATA SHEET

According to Regulation (EC) No 453/2010

SDS-IETOH-0001
Version 1.4
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SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

Product name : **Ethanol (Denatured with IPA)**

Included product code : IETOH010-2.5, IETOH010-4.0, IETOH012-2.5, IETOH012-4.0, IETOH011-2.5P, IETOH011-4.0P, IETOH011-25P, IETOH011-25M, IETOH011-200M, IETOH008-2.5P, IETOH008-4.0P, IETOH008-25P, IETOH008-25M, IETOH008-200M, IETOH006-2.5P, IETOH006-4.0P, IETOH006-25P, IETOH006-25M, IETOH006-200M, IETOH004-2.5P, IETOH004-4.0P, IETOH004-25P, IETOH004-25M, IETOH004-200M

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 KPK 1/2, Kawasan Perindustrian Kundang, 48020 Rawang, Selangor, Malaysia

E-mail address : enquiry@eamaterials.com

1.4 Emergency telephone number

Emergency phone : +60 3-6034 3766 (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 statements

H225 - Highly flammable liquid and vapour

H319 - Causes serious eye irritation

Precautionary statements

P210 - Keep away from heat, hot surfaces, open flames, sparks. - No smoking

P280 - Wear eye protection, face protection, protective clothing, protective gloves

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.
P337 + P313	If eye irritation persists: Get medical advice/ attention.

Storage

P403 + P233	Store in a well-ventilated place. Keep container tightly closed.

2.3 Other hazards

Not available

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substance

Synonyms:	Denatured Alcohol, Ethyl Alcohol, Reagent Alcohol
Formula:	C_2H_6O
Molecular Weight:	46.07 g/mol

Component	Identity	Classification Code	H-Code	Concentration (by volume)
Ethanol	CAS-No.: : 64-17-5	Flam. Liq. 2 Eye Irrit. 2A	H225 H319	>= 90 - <= 100%
2-Propanol	CAS-No.: : 67-63-0	Flam. Liq. 2 Eye Irritat. 2 STOT SE 3	H225 H319 H336	>= 3 - < 10%

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.

If inhaled
Move person into fresh air and keep at rest in a position comfortable for breathing. If breathing is difficult, give oxygen. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Immediate medical attention is required.

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

In case of eye contact
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Immediate medical attention is required.

If swallowed
Do NOT induce vomiting. Have victim drink water or milk to dilute if victim is conscious. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

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 data available.

SECTION 5: FIRE FIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical, or carbon dioxide (CO_2) 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

Carbon oxides

5.3 Advice for fire-fighters

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

5.4 Further information

Use water spray to cool unopened containers.

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. Take precautionary measures against static discharges. Respirators should be selected accordance to OSHA (29 CFR 1910 134).

6.2 Environmental precautions

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

6.3 Methods and material for containment and cleaning up

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 naked 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. Avoid accumulation of electrostatic charges.

7.3 Specific end use

No further relevant information available.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Components within workplace control parameters.

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 working 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).

Skin 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 EU Directive 89/686/EEC and the standard EN 374 derived from it.

Full contact*
Material: butyl-rubber
Minimum layer thickness: 0.3 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: 31 min
Material tested:Camatril® (KCL 730 / Aldrich Z677442, Size M)

*Source – Sigma Aldrich, 2015

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
Color	:	colorless
Ordor	:	No data available
Ordor threshold	:	No data available
pH - value	:	No data available
Melting point / Range	:	-114 °C
Boiling point / Range	:	78 °C at 760 mmHg
Flash point	:	13 °C [closed cup]
Evaporation rate	:	No data available
Flammability limit - LEL	:	3.3 % (V)
Flammability limit - UEL	:	19 % (V)
Vapour pressure	:	44.6 mm Hg at 20.0 °C
Vapor density (air = 1)	:	No data available
Density	:	0.789 g/ml
Water solubility	:	Soluble in water
Partition coefficient: n-octanol/water	:	No data available
Auto-ignition temperature	:	363 °C / 685.4 °F
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

Not applicable

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

No data available

10.2 Chemical stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

No data available

10.4 Conditions to avoid

Incompatible materials, ignition sources, excess heat, oxidizers, flames, and sparks

10.5 Incompatible materials

Aluminium, Acids, Oxidizing agents, Alkali metals, Halogenated compounds, Ammonia, Acid chlorides, Acid anhydrides, Reducing agents, Peroxides

10.6 Hazardous decomposition products

Other decomposition products – No data available
In the event of fire: see section 5

SECTION 11: TOXICOLOGY INFORMATION

11.1 Information on toxicological effects

Acute toxicity
No data available

Skin corrosion/irritation
No data available

Serious eye damage/eye irritation
No data available

Respiratory or skin sensitisation
No data available

Germ cell mutagenicity
No data available

Carcinogenicity
IARC: 3 - Group 3: Not classifiable as to its carcinogenicity to humans (2-Propanol)

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 data available

Additional Information
RTECS: Not available
Kidney - Irregularities - Based on Human Evidence (2-Propanol)

SECTION 12: ECOLOGICAL INFORMATION

12.1 Ecotoxicity
No data available

12.2 Persistence and degradability
No data available

12.3 Bioaccumulative potential
No data available

12.4 Mobility in soil
No data available

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment method

For small amounts absorb with sand, vermiculite or similar and dispose of to an approved landfill site. Contact the manufacturer for additional information if larger amounts are involved. Prevent contamination of drains and waterways as aquatic life may be threatened and environmental damage may result.

SECTION 14: TRANSPORT INFORMATION

14.1 UN number

ADR/RID: 1170 IMDG: 1170 IATA-DGR: 1170

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 (6.1)

14.4 Packaging group

ADR/RID: II IMDG: II IATA-DGR: II

14.5 Environmental hazards

ADR/RID: no IMDG Marine pollutant: no IATA-DGR: no

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

This safety datasheet complies with the requirements of Regulation (EC) No. 453/2010.

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.

Relevant phrases:

H225 Highly flammable liquid and vapor

H319 Causes serious eye irritation

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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