

GHS SAFETY DATA SHEET

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Effective Date: June 2021
REF NO.:AK21/0069/ETHANOL 95% (WITH 5% METHANOL)

ETHANOL 95%

1. Chemical Product and Company Identification

Product Identification:

ETHANOL 95% (WITH 5% METHANOL)

Chemicals Name:

ETHANOL 95% (WITH 5% METHANOL)

Other Trade Name:

DENATURED ALCOHOL 95%, ETHANOL 95%, ETHANOL 95% (WITH 5% METHANOL), ETHANOL 96%, ETHANOL ALCOHOL DENATURED 95%, ETHYL ALCOHOL 95%, ETHYL ALCOHOL 96%, FLX-IED-CE0100, FLX-IED-CE0600, METHYLATED SPIRIT 95%, SD 40 ALCOHOL

Manufacturer/Supplier:

Aik Moh Paints & Chemicals Pte Ltd
20 TUAS STREET, SINGAPORE 638457
Tel : 6863 1993 Fax : 6863 8033
Website : www.aikmoh.com.sg

2. Hazards Identification

GHS Classification

Flammable Liquids	Category 2
Eye Damage/Irritation	Category 2
Specific Target Organ Toxicity - Single exposure	Category 2

GHS Label Elements



Signal words: Danger

Physical hazards:

Hazard classification:
H225 - Highly flammable liquid and vapour

Health hazards:

Hazard classification:
H319 - Causes serious eye irritation
H371 - May cause damage to organs

Precautionary Statement(s):

Prevention

P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P240 - Ground/bond container and receiving equipment.
P241 - Use explosion-proof electrical/ventilating/lighting/.../equipment.
P243 - Take precautionary measures against static discharge.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P264 - Wash thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.

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Response

P303 + P361 + P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P370 + P378 - In case of fire: Use suitable extinguishing media for extinction. (Refer to MSDS Section 5)
P301 + P312 - IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
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.
P330 - Rinse mouth.
P302 + P350 - IF ON SKIN: Gently wash with plenty of soap and water.
P309 + P311 - IF exposed or if you feel unwell: Call a POISON CENTER or doctor/physician.

Storage

P403 + P233 + P235 - Store in a well-ventilated place. Keep container tightly closed. Keep cool.
P405 - Store locked up.

Disposal

P501 - Dispose of contents/container to an approved waste disposal plant.

3. Composition Information on Ingredients

Chemical Name	CAS No.	Index No.	EC No.	Contents (%W/W)	Hazard Statements
Ethanol 95%	64-17-5	603-002-00-5	200-578-6	95.00	H225 H319
Methanol	67-56-1	603-001-00-X	200-659-6	5.00	H225 H301 H331 H311 H370 H319

For the full text of the H-Statements mentioned in this Section, see Section 16.

4. First-Aid Measures

Description of necessary first-aid measures

Inhalation

Move to fresh air in case of accidental inhalation of vapours. If breathing is irregular or stopped, administer artificial respiration. In case of shortness of breath, give oxygen. Call a physician immediately.

Skin Contact

Wash off immediately with plenty of water for at least 15 minutes. Call a physician immediately.

Eye Contact

Rinse immediately with plenty of water, also under eyelids, for at least 15 minutes. Call a physician immediately.

Ingestion

If swallowed, seek medical advice immediately and show this container or label. Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person.

Most important symptoms/effects, acute and delayed

Refer to Section 11.

5. Fire Fighting Measures

Suitable extinguishing media

Water spray, dry powder, alcohol-resistant foam.

Special hazards arising from the substance or mixture

Flash back possible over considerable distance.

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Special protective equipment for firefighters

Wear self-contained breathing apparatus and protective suit.

6. Accidental Release Measures

Personal precautions

Keep people away from and upwind of spill/leak. Remove all sources of ignition. Do not breathe vapours or spray mist.

Environmental precautions

Should not be released into the environment. Prevent further leakage or spillage if safe to do so.

Methods for cleaning up

Soak up with inert absorbent material and dispose of as hazardous waste.

Reference to other sections

Refer to Section 8 and 13.

7. Handling and Storage

Safe handling advice

Provide sufficient air exchange and/or exhaust in work rooms. Wear personal protective equipment.

Advice on protection against fire and explosion

Keep away from heat and sources of ignition. Use explosion-proof equipment.

Requirements for storage areas and containers

Keep containers tightly closed in a dry, cool and well-ventilated place.

Advice on common storage

No data available.

8. Exposure Controls/Personal Protection

Components with workplace control parameters

National occupational exposure limits

Components	Type	Control Parameters	Update	Basis
Ethanol (Ethyl alcohol)	TWA	1,800 mg/m ³	2006	Singapore PELs
	TWA	1,000 ppm	2006	Singapore PELs
Methanol (Methyl alcohol)	TWA	262 mg/m ³	2006	Singapore PELs
	TWA	200 ppm	2006	Singapore PELs
Methanol (methyl alcohol)	STEL	328 mg/m ³	2006	Singapore PELs
	STEL	250 ppm	2006	Singapore PELs

Exposure Controls

Engineering measures

Provide sufficient air exchange and/or exhaust in work rooms.

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Personal protective equipment

Hand protection

Gloves suitable for permanent contact:
Material: butyl-rubber
Break through time: 4h
Material thickness: 0.5mm

Eye protection

Safety glasses with side-shields.

Skin and body protection

Protective suit, safety shoes.

Hygiene measures

Wash hands before breaks and immediately after handling the product.

9. Physical and Chemical Properties

Information on basic physical and chemical properties

Form	: Liquid
State of Matter	: Liquid; at 20 °C; 1,013 hPa
Colour	: Colourless
Odour	: Alcohol-like
Odour Threshold	: No data available
pH	: Neutral
Melting point/range	: -97.8 °C
Boiling point/range	: 64.5 °C
Flash point	: 15 °C; closed cup
Evaporation rate	: No data available
Flammability (solid, gas)	: No data available
Auto-ignition temperature	: 363 °C
Lower explosion limit	: 6 %(V)
Upper explosion limit	: 36.5 %(V)
Relative vapour density	: 1.6
Density	: 0.791 g/cm ³ ; 20 °C
Water solubility	: Completely miscible, Completely soluble
Viscosity, kinematic	: 1.43 mm ² /s

10. Stability and Reactivity

Reactivity

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No decomposition if used as directed.

Chemical stability

Stable under normal conditions.

Possibility of hazardous reactions

No data available.

Conditions to avoid

Heat, flame and sparks.

Material to avoid

Oxidising agents.

Hazardous decomposition products

Carbon dioxide.

11. Toxicological Information

Acute inhalation toxicity

Ethanol:
LC50 Mouse: 4h; vapour >20 mg/L; (literature value)
Methanol:
LC50 Rat: 4h; vapour >2 - 10 mg/L; (literature value)

Acute dermal toxicity

Ethanol:
LD50 Dermal Rabbit: >2,000 mg/kg; OECD Test Guideline 402; (literature value)
Methanol:
LD50: >200 - 1,000 mg/kg

Skin irritation

Ethanol:
Rabbit: not irritating; OECD Test Guideline 404; (literature value)
Methanol:
Rabbit: Not irritating; (literature value), Based on available data, the classification criteria are not met.

Eye irritation

Ethanol:
Rabbit: irritating; OECD Test Guideline 405; (literature value)
Methanol:
Rabbit: Slightly irritating; (literature value), Based on available data, the classification criteria are not met.

Sensitisation

Ethanol:
Maximisation Test; Guinea pig: Not sensitising; OECD Test Guideline 406; (literature value)
Methanol:
Maximisation Test; Guinea pig: Not sensitising; OECD Test Guideline 406; (literature value)

Mutagenicity

Ethanol:
Ames test: Salmonella typhimurium; Not mutagenic; OECD Test Guideline 471; (literature value)

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12. Ecological Information

Toxicity to fish

Ethanol:
Static test; *Leuciscus idus*; 48 h; LC50; > 100 mg/L; OECD Test Guideline 203; (literature value)
Methanol:
Static test; *Leuciscus idus*; 48 h; LC50; > 100 mg/L; (literature value)

Toxicity to daphnia and other aquatic invertebrates

Ethanol:
Static test; *Daphnia magna* (water flea); 24 h; EC50; > 100 mg/L; OECD Test Guideline 202; (literature value)
Methanol:
Static test; *Daphnia magna* (water flea); 24 h; EC50; > 100 mg/L; (literature value)

Toxicity to algae

Ethanol:
Static test; *Chlorella pyrenoidosa*; EC50; > 100 mg/L; OECD Test Guideline 201; (literature value)
Methanol:
Static test; *Chlorella pyrenoidosa* (algae) Growth rate; 96 h; EC50; > 100 mg/L; OECD Test Guideline 201; (literature value)

Toxicity to bacteria

Ethanol:
Pseudomonas putida; 16 h; 6,500 mg/L; Toxicity to bacteria

Biodegradability

Ethanol:
aerobic; > 70 %; 5 d; Readily biodegradable; OECD Test Guideline 301D; (literature value)

Bioaccumulation

Methanol:
Leuciscus idus (Golden orfe); 72 h; < 10; Bioaccumulation is unlikely

Chemical Oxygen Demand (COD)

Ethanol:
ca. 1,700 mg/g; Directive 84/449/EEC, C.9; no;

13. Disposal Considerations

Product

Dispose of as special waste in compliance with local and national regulations.

14. Transport Information

ADR

UN Number

: 1987

Class

: 3

Packaging group

: II; F1

Proper shipping name

: ALCOHOLS, N.O.S.
(Ethanol, methanol)

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RID

UN Number : 1987
Class : 3
Packaging group : II; F1
Proper shipping name : ALCOHOLS, N.O.S.
(Ethanol, methanol)

IMDG

UN Number : 1987
Class : 3
EmS : F-E, S-D
Packaging group : II
Proper shipping name : ALCOHOLS, N.O.S.
(Ethanol, methanol)
Marine pollutant : Not a Marine Pollutant

ICAO/IATA

UN Number : 1987
Class : 3
Packaging group : II
Proper shipping name : ALCOHOLS, N.O.S.
(Ethanol, methanol)

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code : Ethyl alcohol
Pollution Category: Z

15. Regulatory Information

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

Inv. of Exist. Chem. Substance in China All chemical constituents are listed in: Inv. of Exist. Chem. Substances in China (See Chapter 3)

USA TSCA Inventory All chemical constituents are listed in: USATSCA Inventory (See Chapter 3)

Canadian Domestic Substances List (DSL) All chemical constituents are listed in: Canadian Domestic Substances List (DSL) (See Chapter 3)

Australian Inv. of Chem. Substances (AICS) All chemical constituents are listed in: Australian Inv. of Chem. Substances (AICS) (See Chapter 3)

New Zealand Inventory of Chemicals (NZIoC) All chemical constituents are listed in: New Zealand Inventory of Chemicals (NZIoC) (See Chapter 3)

Jap. Inv. of Exist. & New Chemicals (ENCs) All chemical constituents are listed in: Jap. Inv. of Exist. & New Chemicals (ENCs) (See Chapter 3)

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Japan. Industrial Safety & Health Law (ISHL)	All chemical constituents are listed in: Japan. Industrial Safety & Health Law (ISHL) (See Chapter 3)
Korea. Existing Chemical Inventory (KECI)	All chemical constituents are listed in: Korea. Existing Chemical Inventory (KECI) (See Chapter 3)
Philippines Inventory of Chemicals and Chemical Substances (PICCS)	All chemical constituents are listed in: Philippines Inventory of Chemicals and Chemical Substances (PICCS) (See Chapter 3)
China Inv. Existing Chemical Substances (IECSC)	All chemical constituents are listed in: China Inv. Existing Chemical Substances (IECSC) (See Chapter 3)

16. Other Information

Full text of H Statements

H225 Highly flammable liquid and vapour.
H301 Toxic if swallowed.
H311 Toxic in contact with skin.
H319 Causes serious eye irritation.
H331 Toxic if inhaled.
H370 Causes damage to organs.

Disclaimer

This information is based on our current knowledge and is intended to describe the product for the only. It should not therefore be construed as guaranteeing any specific property of the product.