Safety Data Sheet
Denatured Ethyl Alcohol

SDS Revision Date: 06/15/2023

1. Identification

1.1. Product identifier

Product Identity	SOL-1041(Denatured Ethyl Alcohol)
Alternate Names	Ethanol, Ethyl Alcohol

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use	See Technical Data Sheet.
Application Method	See Technical Data Sheet.

1.3. Details of the supplier of the safety data sheet

Company Name	Mac Coatings 1106 WALKER ROAD WINDSOR, ONTARIO N8Y 2N7
Customer Service: Mac Coatings	(519)-252-7275

2. Hazard(s) identification

2.1. Classification of the substance or mixture

Flam. Liq. 2;H225	Highly flammable liquid and vapor.
Acute tox. oral 4; H302	Harmful if swallowed.
Eye irritation 2A; H319	Causes Serious eye irritation.
STOT SE 3; H335	May cause respiratory irritation.

2.2. Label elements

Using the Toxicity Data listed in section 11 and 12 the product is labeled as follows.

DANGER

H225 Highly flammable liquid and vapor.
H302 Harmful if swallowed.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.

[Prevention]:
P210 Keep away from heat/sparks/open flames/hot surfaces and other ignition sources – no smoking.
P233 KEEP CONTAINER TIGHTLY closed.
P240 Ground / bond container and receiving equipment.
P241 Use explosion-proof electrical / ventilating / light / equipment.
P242 Use only non-sparking tools.
P243 Take precautionary measures against static discharge.
P260Do not breathe dust/fume/gas/mist/vapours/spray.
P264 Wash thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P280 Wear protective gloves / eye protection / face protection.
[Response]:
P301+310 + 330 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth.
P303+361+353 IF ON SKIN (OR HAIR): REMOVE/TAKE OFF IMMEDIATELY ALL CONTAMINATED CLOTHING. RINSE SKIN WITH WATER/SHOWER.
P305+351+338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308 + 311 If exposed or concerned: Call a POISON CENTER or doctor/physician.
P337+313 IF EYE IRRITATION PERSISTS: Get medical advice/attention.
P370+378 IN CASE OF FIRE: Use dry sand, dry chemical or alcohol resistant foam for extinction.
[Storage]:
P403+235 Store in a well ventilated place. Keep cool.
P405 Store locked up.

[Disposal]:
P501 Dispose of contents / container in accordance with local / national regulations.

2.3. Other Hazards
Vapors can accumulate in low areas.

3. Composition/information on ingredients

This product contains the following substances that present a hazard within the meaning of the relevant State and Federal Hazardous Substances regulations.

Ingredient/Chemical Designations	Weight %	GHS Classification	Notes
Ethanol **CAS Number: 000000064-17-5**	**≥ 99%**	**Flam. Liq. 2;H225** **Acute Tox. 4;H302** **Eye irrit. 2A; H319** **Specific organ Tox.1; H335**	**[1] [2]**
Methanol **CAS Number: 0000067-56-1**	**<1%**	**Flam. Liq. 2;H225** **Acute Tox. 3;H331** **Acute Tox. 3;H311** **Acute Tox. 3;H301** **STOT SE 1;H370 (> 10%)**	**[1][2][3]**

[1] Substance classified with a health or environmental hazard.
[2] Substance with a workplace exposure limit.
[3] PBT-substance or vPvB-substance.
*The full texts of the phrases are shown in Section 16.

4. First aid measures

4.1. Description of first aid measures

General In all cases of doubt, or when symptoms persist, seek medical attention.

Inhalation Remove to fresh air, keep patient warm and at rest. If breathing is irregular or stopped, give artificial respiration. Get Medical attention immediately.

Eyes Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention immediately.

Skin In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash before reuse.

Ingestion DO NOT INDUCE VOMITING. If conscious, rinse out mouth with water.

4.2. Most important symptoms and effects, both acute and delayed

Overview Effects of overexposure:
Acute: Eyes-may cause severe irritation, redness, tearing, blurred vision.
Skin/skin absorption- Prolonged or repeated contact can cause moderate irritation. Defatting, dermatitis.
Breathing-excessive inhalation of vapors can cause nasal and Respiratory irritation and

	central nervous system effects including: Dizziness, weakness, fatigue, nausea, headache and possible unconsciousness. Swallowing-can cause gastrointestinal, irritation, nausea, vomiting, and diarrhea. Aspiration of material into the lungs can cause chemical pneumonitis which can be fatal. Exposure to solvent vapor concentrations in excess of the stated occupational exposure limits may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms include headache, nausea, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness.
Inhalation	May cause drowsiness or dizziness. May cause irritation of the mouth. Throat or esophagus.
Eyes	Causes eye irritation. May cause stinging/watering/redness/swelling.
Skin	Causes skin irritation.

5. Fire-fighting measures

5.1. Extinguishing media

Dry chemical alcohol Foam, Water fog, Carbon Dioxide.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition: Burning may produce irritating Or toxic fumes. Carbon dioxide and carbon monoxide, various hydrocarbons, etc.

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

Keep cool.

Ground / bond container and receiving equipment.

Use explosion-proof electrical / ventilating / light / equipment.

Use only non-sparking tools.

Take precautionary measures against static discharge.

Avoid breathing dust / fume / gas / mist / vapors / spray.

Do not get in eyes, on skin, or on clothing.

5.3. Advice for fire-fighters

Evacuate hazard area. Wear self-contained breathing apparatus with a full face piece
Vapors are heavier than air and may travel along the ground or may be moved by ventilation and ignited by pilot lights, other flames, sparks, heaters, smoking, electric motors, static discharge, or other ignition sources at locations distant from material handling point. Never use welding or cutting torch on or near container (even empty) because product (even just residue) can ignite explosively. All five gallon pails and large metal containers should be grounded and/or bonded when material is transferred.

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6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Put on appropriate personal protective equipment (see section 8). Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

6.2. Environmental precautions

Do not allow spills to enter drains or waterways. Prevent further leakage or spillage if safe to do so.

6.3. Methods and material for containment and cleaning up

Contain spillage and then collect with electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations.

7. Handling and storage

7.1. Precautions for safe handling

See section 2 for further details. - [Prevention]:

7.2. Conditions for safe storage, including any incompatibilities

Keep away from heat, sparks, and open flames. Protect container from physical damage. Keep the container tightly closed when not in use. Store in a cool and well-Ventilated area.
See section 2 for further details. - [Storage]:

7.3. Specific end use(s)

No data available.

8. Exposure controls and personal protection

8.1. Control parameters

Exposure

CAS No.	Ingredient	Source	Value
0000064-17-5	Ethanol	OSHA	TWA 1, 000 ppm(1900 mg/m3) STEL: 1000 ppm(1900 mg/m3)

		ACGIH	TWA: 1,000 ppm (1900 mg/m3) STEL: 1,000 ppm (1900 mg/m3)
		NIOSH	TWA: 1,000 ppm Ceiling (Not measured)
		Supplier	No Established Limit
0000067-56-1	Methanol	OSHA	TWA 200 ppm (260 mg/m3)
		ACGIH	TWA: 200 ppm STEL: 250 ppm Skin
		NIOSH	TWA 200 ppm (260 mg/m3) ST 250 ppm (325 mg/m3) [skin]
		Supplier	No Established Limit

8.2. Exposure controls

Respiratory Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicated this is necessary.

Eyes Chemical goggles and face shield.

Skin Chemical resistant, impervious gloves complying with an approved standard should be worn at all times. Coveralls, apron, and boots as necessary to minimize contact.

Engineering Controls Use only in adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Other Work Practices Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

See section 2 for further details. - [Prevention]:

9. Physical and chemical properties

Appearance	Clear, Colorless Liquid
Odor	Alcohol like Odor
Odor threshold	Not determined
pH	Not Measured
Melting point / freezing point	-114°C/-173°F
Initial boiling point and boiling range	78-80°C
Flash Point	Closed cup 9°C
Evaporation rate (N-Butyl Acetate = 1)	(X) Faster Than N-BUTYL ACETATE
Flammability (solid, gas)	Flammable liquid
Upper/lower flammability or explosive limits	**Lower Explosive Limit:** 3.3% **Upper Explosive Limit:** 24.5%

Vapor pressure (hPa)	59.5
Vapor Density	(X)Heavier Than Air ( )Lighter than Air
Specific Gravity	0.789
Solubility in Water	Miscible
Partition coefficient n-octanol/water (Log Kow)	Not Measured
Auto-ignition temperature	425°C
Decomposition temperature	Not Measured
Viscosity (cSt)	Not Measured
Percent Volatile (by volume)	100

9.2. Other information

No other relevant information.

10. Stability and reactivity

10.1. Reactivity

Hazardous Polymerization will not occur.

10.2. Chemical stability

Stable under normal circumstances.

10.3. Possibility of hazardous reactions

Vapors may form an explosive mixture with air.

10.4. Conditions to avoid

High temperatures, flames, sparks

10.5. Incompatible materials

Avoid contact with: Strong acids and oxidizing materials.

10.6. Hazardous decomposition products

Smoke, carbon monoxide, carbon dioxide, aldehydes and other products of incomplete combustion.

11. Toxicological information

Acute toxicity

Respiratory irritation
An inhalation hazard may only arise if product is used in aerosol conditions if heated up. The material is misted or if the vapors are generated from heating. Exposure may cause irritation of mucous membranes and upper respiratory tract.

Eye irritation
Causes serious eye irritation.

Skin Irritation
Causes mild skin irritation

Sensitization
Not expected to cause skin or respiratory sensitization.

Aspiration Hazard
If swallowed can be aspirated into lungs and cause chemical pneumonia, varying degrees of pulmonary injury or death.
If swallowed, do not induce vomiting.

Chronic Exposure

Vapor/aerosol concentrations above recommended exposure levels are irritating to the eyes and respiratory tract, may cause headaches, dizziness, anesthesia, drowsiness, unconsciousness and other central nervous system effects including death.
Prolonged or repeated direct exposure to the skin results in symptoms of irritation and redness, dermatitis or oil acne.

Note: When no route specific LD50 data is available for an acute toxin, the converted acute toxicity point estimate was used in the calculation of the product's ATE (Acute Toxicity Estimate).

Ingredient	Oral LD50, mg/kg	Skin LD50, mg/kg	Inhalation Vapor LC50, mg/L/4hr	Inhalation Dust/Mist LC50, mg/L/4hr	Inhalation Gas LC50, ppm
Ethanol- (0000064-17-5)	>5000, Rat - Category: NA	>5000, Rabbit Category: NA	>5000, Rat - Category: NA	No data available	No data available
Methanol - (67-56-1)	143.00, Human - Category: 3	No data available	No data available	No data available	64,000.00, Rat - Category: NA

Carcinogen Data

CAS No.	Ingredient	Source	Value
0000064-17-5	Ethanol	OSHA	Select Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;
0000067-56-1	Methanol	OSHA	Select Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;

Classification	Category	Hazard Description
Acute toxicity (oral)	4	Harmful if swallowed.
Acute toxicity (dermal)	---	Not Applicable
Acute toxicity (inhalation)	---	Not Applicable
Skin corrosion/irritation	---	Not Applicable
Eye damage/irritation	2A	Causes serious eye irritation.
Respiratory sensitization	---	Not Applicable
Skin sensitization	---	Not Applicable
Germ cell mutagenicity	---	Not Applicable
Carcinogenicity	---	Not Applicable
Reproductive toxicity	---	Not Applicable
STOT-single exposure	---	Not Applicable
STOT-single exposure	3	May cause respiratory irritation.
STOT-repeated exposure	---	Not Applicable
Aspiration hazard	---	Not Applicable

12. Ecological information

12.1. Toxicity

No additional information provided for this product. See Section 3 for chemical specific data.

Aquatic Ecotoxicity

Ingredient	48 hr LC50 fish, mg/l	48 hr EC50 Crustacia, mg/l	ErC50 algae, mg/l
Ethanol- (0000064-17-5)	8,140, Leuciscus idus	Not Available	Not Available
Methanol - (67-56-1)	100.00, Pimephales promelas	10,000.00, Daphnia magna	16.912 (96 hr), Ulva pertusa

12.2. Persistence and degradability

No data available.

12.3. Bioaccumulative potential

No bioaccumulation is to be expected.

12.4. Mobility in soil

Dissolves in water. If the product enters soil, one or more constituents will or may be mobile and may contaminate ground water.

12.5. Results of PBT and vPvB assessment

No data available.

12.6. Other adverse effects

No data available.

13. Disposal considerations

13.1. Waste treatment methods

Observe all federal, state and local regulations when disposing of this substance.

14. Transport information

	DOT (Domestic Surface Transportation)	IMO / IMDG (Ocean Transportation)	ICAO/IATA
14.1. UN number	UN1986	1986	1986
14.2. UN proper shipping name	UN1986	1986	1986
14.3. Transport hazard class(es)	**DOT Hazard Class:** 3	**IMDG:** 3 **Sub Class:** Not Applicable	**Air Class:** 3
14.4. Packing group	II	II	II

14.5. Environmental hazards

IMDG No further information

14.6. Special precautions for user

No further information

15. Regulatory information

Regulatory Overview The regulatory data in Section 15 is not intended to be all-inclusive, only selected regulations are represented.

Toxic Substance Control Act (TSCA) All components of this material are either listed or exempt from listing on the TSCA Inventory.

US EPA Tier II Hazards

Fire: Yes
Sudden Release of Pressure: No
Reactive: No
Immediate (Acute): Yes
Delayed (Chronic): No

EPCRA 311/312 Chemicals and RQs (lbs):
Methanol.

EPCRA 302 Extremely Hazardous:
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

EPCRA 313 Toxic Chemicals:
Methanol.

Proposition 65 - Carcinogens (>0.0%):
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Developmental Toxins (>0.0%):
Methanol.

Proposition 65 - Female Repro Toxins (>0.0%):
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Male Repro Toxins (>0.0%):
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

New Jersey RTK Substances (>1%):

Ethanol

Methanol

Pennsylvania RTK Substances (>1%):

Ethanol

Methanol

16. Other information

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein. We accept no responsibility and disclaim all liability for any harmful effects which may be caused by exposure to our products. Customers/users of this product must comply with all applicable health and safety laws, regulations, and orders.

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