

### 1. IDENTIFICATION OF THE SUBSTANCE OR MIXTURE AND OF THE SUPPLIER

<b>Material name</b>	:	LION BRAND METHYL ALCOHOL GRADE AAA 100% no. T31
<b>Recommended use</b>	:	Used to dissolve shellac (powder or flakes) or mixed in wood dyes for furniture or compatible material coating.
<b>Supplier</b>	:	UR Chemical Co., Ltd. 81, Moo 11, Tambol Bang-pla, Amphur Bang-plee, Samutprakan 10540
<b>Telephone</b>	:	+66 2 312 1415-9
<b>Fax</b>	:	+66 2 312 1048
<b>Emergency Telephone number</b>	:	+66 2 312 1415

### 2. HAZARD IDENTIFICATION

<b>GHS Classification</b>	:	<ul style="list-style-type: none"> <li>- Flammable liquids, category 3</li> <li>- Acute toxicity – oral, category 3</li> <li>- Acute toxicity – dermal, category 3</li> <li>- Acute toxicity – inhalation, category 3</li> <li>- Specific Target Organ Toxicity (single exposure), category 1</li> </ul>
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#### GHS Label Elements

**Symbol(s)**



**Signal words**

**: DANGER**

**GHS Hazard Statement**

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Physical hazards

: H225: Highly flammable liquid and vapour.

Health hazards

: H301: Toxic if swallowed.  
H311: Toxic if in contact with skin.  
H331: Toxic if inhaled.  
H370: Causes damage to organs (CNS, Visual system, Respiratory system).

Environmental hazards

: Not classified as environmental hazard according to GHS criteria.

#### GHS Precautionary Statement

Prevention

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- 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.
- P242: Use only non-sparking tools.
- P243: Take precautionary measures against static discharge.

		<ul style="list-style-type: none"> <li>- P280: Wear protective gloves, eyes and face protection equipment.</li> <li>- P270: Do not eat, drink or smoke when using this product.</li> <li>- P260: Do not breathe dust/ vapours/ mist/ spray/ fume.</li> <li>- P271: Use only outdoors or in a well-ventilated area.</li> <li>- P264: Wash hands and contaminated body parts thoroughly after handling.</li> </ul>
Response	:	<ul style="list-style-type: none"> <li>- P303+P361+P353: IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.</li> <li>- P370+P378: In case of fire: Use appropriated media for extinction.</li> </ul>
Storage	:	<ul style="list-style-type: none"> <li>- P403+P235: Store in a well-ventilated place. Keep cool.</li> <li>- P233+P405: Keep container tightly closed. Store locked up.</li> </ul>
Disposal	:	<ul style="list-style-type: none"> <li>- P501: Dispose of contents/ container to appropriate waste reclaimer in accordance with local and national regulations.</li> </ul>

### 3. COMPOSITION/ INFORMATION ON INGREDIENTS

#### Hazardous Components

Chemical Identity	CAS No.	% w/w	Hazard category
Methyl Alcohol	67-56-1	> 98 %	<ul style="list-style-type: none"> <li>- Flammable liquids, cat. 2</li> <li>- Acute toxic –oral, cat. 3</li> <li>- Acute – toxic - dermal, cat. 3</li> <li>- Acute – toxic - inhalation, cat. 3</li> <li>- STOT (single), cat. 1 (CNS &amp; visual organs)</li> </ul>

STOT = (Single Target Organ Toxicity)

### 4. FIRST-AID MEASURES

<b>Inhalation</b>	:	Remove to fresh air, if rapid recovery does not occur, transport to nearest medical facility for additional treatment.
<b>Skin contact</b>	:	Remove contaminated clothing. In a shower, wash affected area with soap and water at least 15 minutes. Seek medical attention if irritant occurs or persists. Wash clothing before reuse.
<b>Eye contact</b>	:	Remove contact lenses, if present. Immediately flush eyes with plenty of clean running water at least 15 minutes while holding eyelids open. If eye irritation, burning sensation, redness, swelling and/ or blurred vision. Transport to the nearest medical facility for additional treatment.
<b>Ingestion</b>	:	May be fatal, If swallowed. Do not induce vomiting, transport to the nearest medical facility for additional treatment. If vomiting occurs spontaneously, keep head below hips to prevent aspiration.
<b>Most important Symptom/ Effect, Acute &amp; Delayed</b>	:	Exposure to methanol (by swallowed or inhalation), causes acidosis. Causes Central Nervous System depression. Symptoms and effects may be delayed for 18 to 24 hours and in some cases up to 72 hours. Treatment of poisoning may require use of ethanol. Treatment of acidosis may include correction with alkali solution, haemodialysis and supportive measures such as correction of electrolyte

imbalances, where necessary. Potassium supplements may also be required.

### 5. FIRE FIGHTING MEASURES

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|---|---|---|
| <b>Suitable extinguishing media</b>                             | : | Alcohol-resistant foam, water spray or fog. Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only.  |
| <b>Unsuitable extinguishing</b>                                 | : | None. Foam or water spray can be used but may be ineffective.   |
| <b>Specific hazard arising from chemicals</b>                   | : | The combustion can emit the irritating and toxic vapors/ fumes as carbon monoxide, carbon dioxide. The vapor is heavier than air, spreads along the ground and distant ignition is possible |
| <b>Protective equipment &amp; precautions for fire fighters</b> | : | Wear protective clothing and self-contained breathing apparatus.  |
| <b>Additional advice</b>  | : | Keep adjacent containers cool by spraying with water.   |

### 6. ACCIDENTAL RELEASE MEASURES

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| <b>Personal precautions, Protective equipment and Emergency procedures</b> | : | Isolate hazard area and deny entry to unnecessary or unprotected personnel. Step up wind and keep out of low areas. Avoid contact with spilled or released material. Immediately take off contaminated clothing. Take precautionary measures against static discharge. Ensure electrical continuity by bonding and grounding all equipments. Monitor area with combustible indicator. Wear full protective clothing and self-contained breathing apparatus. |
| <b>Environmental precautions</b>   | : | Shut off leaks, if possible without personal risks. Remove all possible sources of ignition in the surrounding area. Use appropriate containment (of product and fire fighting water) to avoid environmental contamination. Prevent from spreading or entering drains, ditches or rivers by using sand, earth, or other appropriate barriers.<br>Authorities should be notified if reportable quantity release occurs.                                      |
| <b>Method and material for containment and clean up</b>                    | : | For small liquid spills (< 1 drum): transfer by mechanical means to a labelled, sealable container for product recovery or safe disposal.<br>For large liquid spills (> 1 drum): Perform with same method for small liquid spills. Retain as contaminated waste. Recover or recycle if possible.  |

### 7. HANDLING AND STORAGE

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|--------------------------------------|---|--|
| <b>Precautions for safe handling</b> | : | Avoid inhale vapour and/or mist. Avoid contact with skin, eye and clothing. Only use in a well-ventilated area. Wash thoroughly after handling. Do not smoke. Remove ignition sources. Avoid sparks. Keep container closed when not in use. Handling temperature: Ambient. |
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<b>Conditions for safe storage/ Including any incompatibility</b>	:	Keep away from aerosol, flammables, incompatible materials such as oxidizing agent, corrosive and other flammable products. The container should be labelled and keep tightly closed. Keep in a well-ventilated place. Keep cool. Storage temperature: Ambient
<b>Recommended materials Unsuitable materials Container advice</b>	:	For container, use mild steel or stainless steel. Avoid using any materials which consists of copper, galvanized zinc or aluminium due to It may be corroded. Plastic can use for short term storage, by long term is not recommended due to material may be deteriorated and contaminated. Avoid prolonged contact with natural, butyl or nitrile rubbers. Containers, even those that have been emptied can contain explosive vapours. Do not cut, drill, grind, weld or perform similar operation on or near containers.

## 8. EXPOSURE CONTROL/ PERSONAL PROTECTION

### Threshold limit for exposure control

Occupation exposure limit

ชื่อสารเคมี	ACGIH	ppm	mg/m3	หมายเหตุ
Methanol	TLV - TWA (skin)	200	262	-
	TLV - STEL (skin)	250	328	-
	PEL - TWA (skin)	200	-	-
	PEL - STEL (skin)	250	-	-
	IHDL	6000	-	มีความเป็นพิษเฉียบพลันต่อสัตว์

<b>Appropriate engineering control</b>	:	Select controls based on a risk assessment of local circumstances. Appropriate measures include: Use sealed systems as far as possible. Adequate ventilation to control airborne concentrations below the exposure guidelines/limits are recommended.
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### Individual protection measures

Respiratory protection	:	If engineering controls do not maintain airborne concentrations to a level which is adequate to protect worker health, select respiratory protection equipment suitable for the specific conditions of use and meeting relevant legislation. Check with respiratory protective equipment suppliers. Where air-filtering respirators are suitable, select an appropriate combination of mask and filter. Select a filter suitable for organic gases and vapours [boiling point < 65 °C (149 °F)] meeting EN371. Where respiratory protective equipment is required, use a full-face mask. Where air-filtering respirators are unsuitable (e.g., airborne concentrations are high, risk of oxygen deficiency, confined space) use appropriate positive pressure breathing apparatus.
Hand protection	:	Using gloves constructed of chemical resistant materials such as heavy nitrile rubber or butyl rubber if frequent or prolonged contact is expected. Neoprene or PVC gloves also be using in case of incidental contact or splash protection. Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly.

Eye protection	:	Chemical splash goggles (chemical monogoggles). Eye washes and showers for emergency use are recommended to the work area.
Protective clothing	:	Protective gloves, safety shoes and boots are recommended.
Remarks	:	Personal protective equipment is not considered to long term solution of exposure control.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance</b>	:	Colourless liquid.
<b>Odor</b>	:	Characteristic odor.
<b>Initial Boiling Point</b>	:	64.7 °C / 148.5 °F at 101 kPa
<b>Melting Point</b>	:	- 97.8 °C / -144 °F
<b>Flash point</b>	:	11 °C ( Closed cup )
<b>Auto-ignition temperature</b>	:	464 °C
<b>Vapour pressure</b>	:	12.8 kPa at 20 °C / 68 °F
<b>Vapour density (air = 1)</b>	:	1.105 at 15 °C
<b>Evaporation rate (nBuAc = 1)</b>	:	4.1 (ASTM D 3539, nBuAc=1)
<b>Dynamic viscosity</b>	:	0.59 mPa.s at 20 °C / 68 °F
<b>Specific Gravity (water = 1)</b>	:	No data.
<b>Water solubility</b>	:	Immiscible

References: MSDS of Methanol by TOPS Solvent Company Limited.

## 10. STABILITY AND RELIABILITY

<b>Chemical stability</b>	:	Stable under normal conditions of use.
<b>Possibility of hazardous reaction</b>	:	No data
<b>Condition to avoid</b>	:	Avoid from heat, sparks, open flames and other ignition sources.
<b>Incompatible materials</b>	:	Strong oxidizing agent, strong acid. Combustion can occur from chemical reaction. Lead, aluminium, magnesium or platinum should be avoided to prevent material is corroded. Plastic or rubber may be deteriorated for long term contact or storage.
<b>Hazardous decomposition products</b>	:	Thermal decomposition is highly dependent on conditions. A complex mixture of airborne solids, liquids and gases, including carbon monoxide, carbon dioxide and other organic compounds may be evolved when this material undergoes combustion or thermal or oxidative degradation.

## 11. TOXICOLOGICAL INFORMATION

<b>Basis of assessment</b>	:	Information given is based on product data, mixtures of product and/ or the similar product and/ or ingredients.
<b>Acute oral toxicity</b>	:	Moderately toxicity : LD50 > 200 – 2,000 mg/kg (Rat)
<b>Acute dermal toxicity</b>	:	Low toxicity : LD50 > 2,000 mg/kg (Rat)
<b>Acute inhalation toxicity</b>	:	Low toxicity : LC50 > 20 mg/l (Rat)
<b>Skin corrosion/ irritation</b>	:	Causes irritation to skin. Prolonged or repeated exposure may cause skin dryness or dermatitis.
<b>Serious eye damage/ irritation</b>	:	Causes irritating to eyes.
<b>Respiratory tract irritation</b>	:	High concentration of vapor exposure may cause the irritation of respiratory tract.
<b>Aspiration hazard</b>	:	No data
<b>Germ cell mutagenicity</b>	:	Not mutagenic.
<b>Carcinogenicity</b>	:	Not a carcinogen.
<b>Reproductive and Developmental Toxicity</b>	:	Causes adverse effects on the fetus based on animal studies. Does not impair fertility
<b>Additional Information</b>	:	In humans, over exposure to methanol can result in blindness and metabolic acidosis. There is a marked difference in acute oral toxicity between animals and man, man being more susceptible than animals. The estimate mean fatal dose = 300 mg/kg for an adult.

## 12. ECOLOGICAL INFORMATION

<b>Basis for Assessment</b>	The information given below is based partly on a knowledge of the components and the ecotoxicology of similar products.
<b>Acute Toxicity</b>	
- Fish	: Low toxic LC/EC/IC > 1000 mg/l
- Aquatic Invertebrates	: Low toxic LC/EC/IC > 1000 mg/l
- Algae	: Low toxic LC/EC/IC > 1000 mg/l
<b>Mobility</b>	: If product enters soil, it will be highly mobile and may contaminate groundwater.
<b>Persistence/degradability</b>	: Readily biodegradable meeting the 10 day window criterion. Oxidizes rapidly by photo-chemical reactions in air.
<b>Bioaccumulative potential</b>	: Does not bioaccumulate significantly.

## 13. DISPOSAL CONSIDERATION

<b>Material disposal</b>	:	Recover or recycle if possible. It is responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste classification and disposal methods in compliance with applicable regulations. Do not dispose into the environment, in drains or in water courses. Waste product should not be allowed to contaminate soil or water.
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**Container disposal** : Disposal should be in accordance with applicable regional, national, and local laws and regulations. Send a disposal container to drum recover or metal reclaimier.

### 14. TRANSPORT INFORMATION

	ADR /RID	IMDG	IATA
UN Number	1230	UN 1230	1230
Proper Shipping Name	METHANOL	METHANOL	Methanol
Class	3	3	3
Subsidiary class/ Division	6.1	6.1	6.1
Packing group	II	II	II
Environmentally Hazardous	NO	NO	-

### 15. REGULATORY INFORMATION

- Hazardous substances ACT, B.E. 2535 (1992)
- Notification of statement of the hazardous substances committee subject to Transportation of Dangerous Goods by road B.E. 2545 (2002)
- Notification of the Ministry of Industry subject to responsibility of Department of Industrial Works for hazardous substances containment B.E. 2551 (2008)
- Notification of the Ministry of Industry subject to Globally Harmonized System of Classification and Labelling of Chemicals (GHS) B.E. 2555 (2012)

### 16. OTHER INFORMATION

**SDS version** : 2.0

**Date of Issue** : 23.08.2017

**Reference** :

- 1) Safety Data Sheet of Methanol  
Published by Shell Chemical Europe B.V.  
MSDS version 3.1 / Effective date: 16.02.2006
- 2) Safety Data Sheet of Methanol  
Published by TOP Solvent Co., Ltd.  
MSDS version 2.1/ Effective date: June 1, 2012

**Disclaimer** : This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be constructed as guaranteeing any specific property of the product.

All rights reserved to inform the precise quantity of constituents in the product. By reason is confidential of the company which could not reveal or propagate to the public.