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

Material name	:	Lion brand Clear Lacquer Decoration no. 6
Recommended use	:	Use as top coat for wood decoration to bring out the natural wood grain with high gloss and beautiful finish.
Supplier	:	UR Chemical Co., Ltd. 81, Moo 11, Tambol Bang-pla, Amphur Bang-plee, Samutprakan 10540
Telephone	:	+66 2 312 1415-9
Fax	:	+66 2 312 1048
Emergency Telephone number	:	+66 2 312 1415

2. HAZARD IDENTIFICATION

GHS Classification :

- Flammable liquids, category. 2
- Skin corrosion and irritation, category 2
- Serious eye damage/ irritation, category 2A
- Toxic to reproduction, cat. 2
- Single Target Organ Toxicity (single exposure), category 3
- Single Target Organ Toxicity (repeated exposure), category 2
- Acute hazards to the aquatic environment, category 2

GHS Label Elements

Symbol(s) :



Signal words : **DANGER**

GHS Hazard Statement :

Physical hazards : H225: Highly flammable liquid and vapour.

Health hazards : H315: Causes skin irritation.
H319: Causes serious eye irritation.
H361: Suspected of damaging fertility or the unborn child.
H336: May cause drowsiness or dizziness.
H373: May cause damage to organs through prolonged or repeated exposure.

Environmental hazards : H401: Toxic to the aquatic life.

GHS Precautionary Statement

Prevention	:	- P201: Obtain special instruction before use. - P202: Do not handle until all safety precautions have been read and understood. - 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. - P280: Wear protective gloves, eyes and face protection equipment. - P260: Do not breathe vapours/ mist/ fume. - P271: Use only outdoors or in a well-ventilated area. - P273: Avoid release to the environment.
Response	:	- P303+P361+P353: IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower. - P302+P352 : If ON SKIN: Wash with plenty of soap and water. - P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. - P332+P337+P313: If skin or eye irritation persists: Get medical advice/ attention. - P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. - P308+P313: IF exposed concerned: Get medical advice/ attention. - P312: Call a POISON CENTER or doctor/ physician if you feel unwell. - P370+P378: In case of fire: Use appropriated media for extinction.
Storage	:	- P403+P235: Store in a well-ventilated place. Keep cool. - P233+P405: Keep container tightly closed. Store locked up.
Disposal	:	- P501: Dispose of contents/ container to appropriate waste reclaimer in accordance with local and national regulations.

3. COMPOSITION/ INFORMATION ON INGREDIENTS

Hazardous Components

Chemical Identity	CAS No.	% w/w	Hazard category
Toluene	108-88-3	40 - 55 %	- H225: Flammable liquids, cat.2 - H315: Skin corrosion/ irritation, cat. 2 - H319: Eye damage/ irritation, cat. 2A - H361: Toxic to reproduction, cat. 2 - H304: Aspiration hazard, cat. 2 - H336: STOT (single), cat.3 – narcotic effect - H373: STOT (repeated), cat.2 - H401: Acute hazard to aquatic life.
Butyl Acetate	123-86-4	5 – 15 %	- H226: Flammable liquids, cat. 3 - H336: STOT (single), cat. 3 – narcotic effect

Acetone	67-64-1	5 – 15%	- H225: Flammable liquid and vapour, cat. 2 - H320: Eye damage/ irritation, cat. 2B - H336: STOT (single), cat. 3 (narcotic effect) - H305: Aspiration hazard, cat. 2 - H305
Isopropyl alcohol	67-63-0	1 – 10 %	- H225: Flammable liquids, cat. 2 - H319: Eye damage/ irritation, cat. 2A - H336: STOT (single), cat. 3 – narcotic effect
Nitrocellulose (Wetting agent with alcohol)	9004-70-0	1 – 10 %	- H228: Flammable solid
Ethyl Acetate	141-78-6	1 - 5 %	- H225: Flammable liquids, cat. 2 - H319: Eye damage/ irritation, cat. 2A - H336: STOT (single), cat.3 – narcotic effect.
Butyl Glycol Ether	111-76-2	1 – 5 %	- H227: Flammable liquids, cat. 4 - H302: Acute toxic – oral, cat. 4 - H312: Acute toxic – dermal, cat. 4 - H332: Acute toxic – inhalation, cat. 4 - H315: Skin corrosion/ irritation, cat. 2 - H319: Eye damage/ irritation, cat. 2A
Xylene	1330-20-7	1 – 5 %	- H226: Flammable liquids, cat. 3 - H303: Acute toxic – oral, cat. 5 - H312: Acute toxic – dermal, cat. 4 - H332: Acute toxic – inhalation, cat. 4 - H315: Skin corrosion/ irritation, cat. 2 - H319: Eye damage/ irritation, cat. 2A - H335: STOT (single), cat. 3 - H373: STOT (repeated), cat. 2 - H304: Aspiration hazard, cat. 2 - H401: Acute toxic to aquatic life, cat. 2

4. FIRST-AID MEASURES

Inhalation : Remove to fresh air, if rapid recovery does not occur, transport to nearest medical facility for additional treatment.

Skin contact : 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.

Eye contact : 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.

Ingestion : 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.

Most important Symptom/ Effect, Acute & Delayed : Skin irritation signs and symptoms may include a burning sensation, redness, swelling, and/or blisters. Breathing of high concentration vapors may cause central nervous system (CNS) depression resulting in dizziness, lightheadedness, headache, nausea, lightheadedness, headache, nausea and loss of coordination.

5. FIRE FIGHTING MEASURES

Suitable extinguishing media	:	Foam, water spray or fog. Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only.
Unsuitable extinguishing	:	Do not use water in a jet.
Specific hazard arising from chemicals	:	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
Protective equipment & precautions for fire fighters	:	Wear protective clothing and self-contained breathing apparatus.
Additional advice	:	Keep adjacent containers cool by spraying with water.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, Protective equipment and Emergency procedures	:	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.
Environmental precautions	:	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. Authorities should be notified if reportable quantity release occurs.
Method and material for containment and clean up	:	For small liquid spills (< 1 drum): transfer by mechanical means to a labelled, sealable container for product recovery or safe disposal. 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

Precautions for safe handling	:	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.

Conditions for safe storage/ Including any incompatability	:	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
Recommended materials	:	For container, use mild steel or stainless steel.
Unsuitable materials		Avoid prolonged contact with natural, butyl or nitrile rubbers.
Container advice		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 limits

Material	ACGIH TLV		Remark
	TWA	STEL	
Toluene	20 ppm	-	-
Acetone	500 ppm	750 ppm	-
Nitrocellulose (wetting in alcohol)	400 ppm	500 ppm	-
Butyl Acetate	150 ppm	200 ppm	-
Ethyl Acetate	400 ppm	-	-
Xylene	100 ppm	150 ppm	-
Isopropyl alcohol	200 ppm	400 ppm	-
Butyl Glycol Ether	20 ppm	-	-

Appropriate engineering control	:	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.

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 EN14387. 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 if frequent or prolonged contact is expected. Neoprene or PVC gloves also be using in case of incidential 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

Appearance	:	Clear liquid.
Odor	:	Characteristic odor.
Initial Boiling Point	:	No data
Melting Point	:	No data
Flash point	:	< 10 °C (Closed cup)
Viscosity (Ford cup no. 4)	:	15 – 17 sec at 25° C
Density	:	0.85 – 0.95
Water solubility	:	Immiscible

10. STABILITY AND RELIABILITY

Chemical stability	:	Stable under normal conditions of use.
Possibility of hazardous reaction	:	No data
Condition to avoid	:	Avoid from heat, sparks, open flames and other ignition sources.
Incompatible materials	:	Strong oxidizing agent
Hazardous decomposition products	:	Thermal decomposition is highly dependent on conditions. A complex mixture of airbone 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

Basis of assessment	:	Information given is based on product data, mixtures of product and/ or the similar product and/ or ingredients.

Acute oral toxicity	:	Low toxicity : LD50 > 5,000 mg/kg
Acute dermal toxicity	:	Low toxicity : LD50 > 5,000 mg/kg
Acute inhalation toxicity	:	Expected to be low of toxicity if inhaled.
Skin corrosion/ irritation	:	Irritation to skin. Prolonged or repeated exposure may cause skin dryness or dermatitis.
Serious eye damage/ irritation	:	Irritating to eyes.
Respiratory tract irritation	:	High concentration of vapor exposure may cause the irritation of respiratory tract.
Aspiration hazard	:	No data
Germ cell mutagenicity	:	Not mutagenic.
Carcinogenicity	:	Not a carcinogen.
Reproductive and Developmental Toxicity	:	Suspected of damaging fertility or the unborn child. Does not impair fertility.
Specific Target Organ Toxicity (Single)	:	May cause drowsiness or dizziness.
Specific Target Organ Toxicity (Repeated)	:	Prolonged or repeated exposure may cause damage to Central Nervous System and respiratory tract. Effect has seen only in high doses. Auditory system: prolonged or repeated exposure to high concentrations have resulted in hearing loss in rats. Solvent abuse and noise interaction in the work environment may cause hearing loss. (Based on data of raw materials)

12. ECOLOGICAL INFORMATION

Basis for Assessment		The information given below is based partly on a knowledge of the components and the ecotoxicology of similar products.
Acute Toxicity		
- Fish	:	Toxic LC/EC/IC50 1 – 10 mg/l
- Aquatic Invertebrates	:	Toxic LC/EC/IC50 1 – 10 mg/l
- Algae	:	Toxic LC/EC/IC50 > 100 mg/l (Based on data of raw materials).
Mobility	:	Some parts of product can be adsorbed to soil.
Persistence/degradability	:	This product , some parts are readily biodegradable by photo-chemical reaction in air while the rest are expected to be slow rate of biodegradation
Bioaccumulative potential	:	Does not bioaccumulate significantly.

13. DISPOSAL CONSIDERATION

Material disposal : 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.

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 reclamier.

14. TRANSPORT INFORMATION

	ADR /RID	IMDG	IATA
UN Number	1263	UN 1263	1263
Proper Shipping Name	Paint (flammable)	PAINT (FLAMMABLE)	Paint (flammable)
Class	3	3	3
Packing group	II	II	II
Environmentally Hazardous	YES	YES	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 : 1.1

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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.