

MATERIAL SAFETY DATA SHEET

1. INFORMATION OF MANUFACTURER/SUPPLIER

NAME OF MANUFACTURER/SUPPLIER :	CHUGOKU MARINE PAINTS (SHANGHAI), LTD	
ADDRESS OF MANUFACTURER/SUPPLIER :	4677, Jiasong Road(North), Jiading, Shanghai, 201814 China	
NAME & TELEPHONE FOR ENQUIRY :	TECHNICAL DEPARTMENT 86-21-59501635	
EMERGENCY TEL NO :	86-21-59501000	FAX NO : 86-21-59501300

2. PRODUCT IDENTIFICATION

NAME OF PRODUCT :	EPICON THINNER				
DESCRIPTION :	THINNER				
HAZARDOUS INGREDIENTS					
NAME	CHEMICAL FORMULA	CONCENTRATION(%)	CAS NO	ACGIH(TLV)	LD50
XYLENE	C ₆ H ₄ (CH ₃) ₂	50 - 60	1330-20-7	100 ppm	4300 mg/kg
TOLUENE	C ₆ H ₅ (CH ₃)	10 - 20	108-88-3	50 ppm	5000 mg/kg
N-BUTYL ACETATE	CH ₃ COOC ₄ H ₉	10 - 20	123-86-4	20 ppm	14,000 mg/kg
IPA	(CH ₃) ₂ CHOH	5 - 10	67-63-0	400 ppm	5045 mg/Kg
PGME	CH ₃ OCH ₂ CH(CH ₃)OH	5 - 10	107-98-2	100 ppm	5660 mg/kg

3. HEALTH HAZARD DATA

IN VIVO PATHWAY(HOST) :	(X) INHALATION	(X) SKIN CONTACT	(X) INGESTION
ENVIRONMENTAL EFFECT :	TAKE PRE-CAUTION TO PREVENT CONTAMINATION TO SOIL AND WATER		
PHYSICAL AND CHEMICAL HAZARDS :	MAY CAUSE IRRITATION TO SKIN , EYE AND RESPIRATORY SYSTEM.		
HUMAN HEALTH EFFECTS	ACUTE : ALLERGIC & SENSITIZING EFFECT BENIGN : SUSPECTED HAZARD TO HUMAN HEALTH		
SPECIAL HAZARDS :	ACCUMULATION OF VAPOR MAY RESULT IN EXPLOSION.		
CLASSIFICATION OF HAZARDS :	FLAMMABLE LIQUID		
MAJOR SYMPTOMS :	MAY CAUSE IRRITATION TO SKIN , EYE AND RESPIRATORY SYSTEM.		

4. FIRST AID MEASURES

EMERGENCY & FIRST AID PROCEDURES :	
INGESTION	- SEEK MEDICAL ADVICE
INHALATION	- REMOVE INTO FRESH AIR. LOOSEN COLLAR KEEP AT REST
SPLASHES TO SKIN	- REMOVE CONTAMINATED CLOTHING. - WASH WITH SOAP, WATER OR INDUSTRIAL CLEANSER. DO NOT USE SOLVENT.
EYE	- FLUSH THOROUGHLY WITH RUNNING WATER. SEEK MEDICAL ADVICE
PROTECTION TO RESCUE PERSONNEL :	USE SUITABLE PROTECTIVE EQUIPMENTS
ADVICE TO DOCTOR :	N/A

5. FIRE AND EXPLOSION HAZARD DATA

EXTINGUISHING MEDIA :	() WATER (X) CO ₂ (X) FOAMS (X) DRY SAND (X) CHEMICAL POWDER
FIRE FIGHTING MEASURES :	1. FIRE FIGHTERS SHOULD WEAR PROPER PROTECTIVE EQUIPMENTS. 2. REMOVE INFLAMMABLE MATERIALS NEAR FIRE IMMEDIATELY.
UNUSUAL FIRE AND EXPLOSION HAZARDS :	ACCUMULATION OF VAPORS MAY RESULT IN EXPLOSION.
SPECIAL FIRE FIGHTING PROTECTION EQUIPMENTS :	USE PROPER PROTECTIVE EQUIPMENTS

6. SPILL AND LEAKAGE PROCEDURES

PROTECTION TO PEOPLE	CLEANER SHOULD WEAR PERSONAL PROTECTIVE EQUIPMENT
PROTECTION TO ENVIRONMENT	SLUDGE SHALL BE KEPT IN CONTAINER & SEALED
CLEAN -UP	SPILLAGE OR LEAKAGE SHOULD BE CLEAN WITH PROPER MATERIAL AND THE WASTE SHOULD BE DISPOSE IN ACCORDANCE TO ALL LOCAL REGULATIONS.

7. HANDLING AND STORAGE MEASURES

PRECAUTIONS IN HANDLING & STORAGE	<ol style="list-style-type: none"> 1. KEEP CONTAINER TIGHTLY CLOSED 2. KEEP AWAY FROM HEAT & FIRE 3. DON'T MIX WITH FOREIGN MATERIALS 4. KEEP IN COOL, DRY AREA 5. AVOID PHYSICAL DAMAGE SUCH AS KNOCKING
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8. EXPOSURE PREVENTION MEASURES

PERSONAL PROTECTIVE EQUIPMENT	EYE : WEAR PROTECTIVE GOGGLES RESPIRATORY : USE A RESPIRATORY MASK FOR ORGANIC SOLVENT GASSES GLOVES : WEAR PROTECTIVE GLOVES OTHERS : WORKER SHOULD WEAR OVERALL WORKING SUIT & SAFETY SHOES	
ENGINEERING MEASURES :	VENTILATION EQUIPMENT : <ol style="list-style-type: none"> 1. USE EXPLOSION PROFF EXHAUST VENTILATION 2. USE NONSPARK CLOSED TYPE GROUND VENTILATION SYSTEM 	
CONTROL PARAMETER :	THRESHOLD LIMITED VALUE AND BIOLOGICAL INDICATORS :	PLEASE REFER TO SECTION 2 - PRODUCT IDENTIFICATION (HAZARDOUS INGREDIENTS)
PERSONAL HYGIENE	<ol style="list-style-type: none"> 1. WEAR PERSONAL PROTECTIVE EQUIPMENT 2. WASH EXPOSED BODY PARTS AFTER OPERATIONS 	

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE :		PH VALUE :	-
() SOLID (X) LIQUID () GAS		APPEARANCE	CLEAR LIQUID
() PASTE () POWDER		ODOR :	SOLVENT SMELL
MELTING POINT: - °C	BOILING POINT : 82.4 - 144.4 °C	VAPOUR PRESSURE :	4266pa (20oC)
DECOMPOSITION TEMPERATURE :		AUTOIGNITION TEMPERATURE :	- °C
VAPOUR DENSITY (AIR=1) :	>1	SPECIFIC DENSITY (WATER=1) :	0.84 - 0.88
EVAPORATION RATE :	>1	SOLUBILITY IN WATER :	INSOLUBLE
FLASH POINT 28.0 °C (CLOSED CUP)	EXPLOSION LIMIT : 1.1-15% (LEL) (UEL)		

10. REACTIVITY AND STABILITY PROPERTIES

STABILITY :	(X) STABLE () UNSTABLE
HAZARDOUS POLYMERIZATION :	() POSSIBLE (X) IMPOSSIBLE
HAZARDOUS DECOMPOSED PRODUCTS :	NONE
SPECIAL HAZARDS EFFECT :	ACCUMULATION OF VAPOR MAY RESULT IN EXPLOSION.
CONDITIONS TO AVOID :	HEAT, SPARK & FLAME
MATERIALS TO AVOID :	STRONG OXIDIZED AGENTS

11. TOXICOLOGICAL INFORMATIONS

ACUTE TOXICITY : MAY CAUSE SKIN, EYE AND RESPIRATORY IRRITATION.
ALLERGENIC AND SENSITIZING EFFECTS : MAY CAUSE EYE, SKIN & RESPIRATORY IRRITATION ON PROLONGED OR REPEATED EXPOSURE.
CHRONIC TOXICITY : MAY CAUSE ALLERGIC SKIN REACTION.
SIGNS OR SYMPTOMS : SKIN, EYE AND RESPIRATORY IRRITATION.
PLEASE REFER TO HAZARDOUS INGREDIENTS UNDER SECTION 2 : PRODUCT IDENTIFICATION

12. ECOLOGICAL INFORMATIONS

ENVIRONMENTAL EFFECTS	SPECIAL ATTENTION AND PRECAUTION SHOULD BE TAKEN FOR LEAKAGE AND DISPOSAL AS TO PROTECT THE ENVIRONMENT.
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13. DISPOSAL CONSIDERATIONS

DISPOSAL METHODS :	DISPOSING OF THIS MATERIAL / CONTAINER SHOULD FOLLOW ALL LOCAL REGULATIONS OR THROUGH AN AUTHORISED WASTE COLLECTORS IN YOUR COUNTRY.
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14. TRANSPORTATION INFORMATION

(UN NO) : 1263	CLASSIFICATION OF HAZARD : FLAMMABLE LIQUID	(HAZARD LABELS): 3.3
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15. REGULATORY INFORMATIONS

ALL REGULATORY INFORMATION WITH REGARD TO THIS SUBSTANCE IN YOUR COUNTRY OR YOUR REGION SHOULD BE EXAMINED BY YOUR RESPONSIBILITY.
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16. FURTHER INFORMATIONS

REFERENCE MATERIAL :	PLEASE REFER TO THE REFERENCE LIST BELOW.
SECTION CONCERNED	NAME : CHUGOKU MARINE PAINTS (SHANGHAI), LTD ADDRESS : 4677, Jiasong Road(North), Jiading, Shanghai, 201814 China TELEPHONE : 86-21-59501635
PERSON IN CHARGE	NAME : Ms.Shen Lan DESIGNATION: QA MANAGER
DATE PREPARED	YEAR : 2008 MONTH : 3 DATE : 3TH

REFERENCE LIST :

- RAW MATERIAL DATA BASE (JAPANESE PAINT MANUFACTURERS ASSOCIATION)
- SOLVENT POCKET BOOK (YUUKIE KAGAKU KYOKAI)
- INTERNATIONAL CHEMICAL SUBSTANCE SAFETY CARD (KAGAKU KOGYO NIPPON)
- REGISTRY OF TOXIC EFFECTS OF CHEMICAL SUBSTANCE (NIOSH)
- ACGIH : 1990-1991 THRESHOLD LIMIT VALUES FOR CHEMICAL SUBSTANCES AND PHYSICAL AGENTS.
- HAND BOOK OF HAZARDS AND HARM OF CHEMICAL SUBSTANCE (CHUOH RODOHSAIGAI BOHSHI KYOKAI)
- DATA BOOK OF HAZARDOUS SUBSTANCE (MARUZEN)

REMARKS :

- THE INFORMATION HEREIN IS GIVEN IN GOOD FAITH, BUT NO WARRANTY, EXPRESSED OR IMPLIED, IS MADE.
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