



# Material Safety Data Sheet

## **1) Product & Company Identification**

- A. Product: 4,4'-Methylenebis (2-methyl-6-ethylaniline)  
B. Company: Shanghai Liluo Industrial Co.,Ltd.  
Tel.: +86-21- 56973112  
Fax: +86-21-56721121

## **2) Composition / Information on ingredients**

Chemical characterization: 4,4'-Methylenebis (2-methyl-6-ethylaniline)  
CAS number: 19900-72-2  
EINECS number:

## **3) Hazards Identification**

### **Health Hazards Acute & Chronic:**

EYE: Mild irrit incl. redness, swelling, pain & tearing.

SKIN: Allergic RXN can incl. redness, swelling, blistering & itching. Mild skin irrit can incl. redness, swelling & itching.

Inhal: PRLNGD/RPTD OV EREXP, above recom guidelines, may cause allergic RESP RXN incl. dfclty brthg. DFCLTY BRTHG, WHEEZING, TIGHTNESS OF(EFTS OF OVEREXP)

### **Signs & Symptoms of Overexposure:**

HLTH HAZ: CHEST & RESP FAILURE.

NERVOUS SYS EFTS CAN INCL EMOTIONAL CHANGES, LACK OF COOR, TREMORS & SENSORY LOSS. IRRIT (UPPER RESP) CAN INCL SORENESS OF NOSE & THROAT, COUGHING & SNEEZING. LUNG DMG C AN INCL COUGHING, DFCLTY BRTHG, WHEEZING, TIGHTNESS IN CHEST, CONGESTION & COUGHING UP OF BLOOD. INGEST: ILLNESS(ING 7)

### **Medical Conditions Aggravated by Exposure:**

ALLERGIC CONTACT DERMATITIS MAY OCCUR IN CERTAIN INDIVIDUALS AFTER CONTACT W/PART A(PREPOLYMER) AND THE MIXTURE OF PART A W/PART

B(POLYOL).

**LD50 LC50 Mixture:** 1901mg/kg

**Route of Entry Indicators:**

**Inhalation:** YES

**Skin:** YES

**Ingestion:** YES

**Carcinogenicity Indicators**

**NTP:** NO

**IARC:** NO

**OSHA:** NO

**Carcinogenicity Explanation:** NOT RELEVANT.

**4) First aid measures**

**First Aid:**

EYE: IMMEDIATELY FLUSH WITH LARGE AMOUNTS OF WATER FOR AT LEAST 15 MINUTES. GET IMMEDIATE MEDICAL ATTENTION.

SKIN: FLUSH WITH LARGE AMOUNTS OF WATER. IF IRRITATION PERSISTS, GET MEDICAL ATTENTION.

INHALATION: REMOVE PERSON TO FRESH AIR. IF SIGNS/SYMPTOMS CONTINUE, CALL MEDICAL DOCTOR.

INGESTION: DO NOT INDUCE VOMITING. DRINK TWO GLASSES OF WATER. CALL MEDICAL DOCTOR.

**5) Fire-fighting measures**

**Fire Fighting Procedures:**

WEAR NIOSH/MSHA APPROVED SCBA & FULL PROTECTIVE EQUIPMENT(FP N).

**Unusual Fire or Explosion Hazard:**

CLOSED CONTAINERS EXPOSED TO HEAT FROM FIRE MAY BUILD UP PRESSURE AND EXPLODE.

**Extinguishing Media:**

CARBON DIOXIDE, DRY CHEMICAL, FOAM.

**Autoignition Temperature:**

**Autoignition Temperature Text:** N/A

**Lower Limit(s):** N/K

**Upper Limit(s):** N/K

**6) Accidental release measures**

**Spill Release Procedures:**

REFER TO MSDS FOR INFORMATION REGARDING PHYSICAL & HEALTH HAZARDS, RESPIRATORY PROTECTION, VENTILATION & PERSONAL PROTECTION EQUIPMENT. POUR ISOCYANATE DECONTAMINATION SOLUTION(90% WATER, 8 % CONCENTRATION AMMONIA, 2% DETERGENT) ON SPILL & (SUPPORT)

**7) Handling and storage**

**HANDLING:** Keep containers closed when not in use. Use proper handling precautions designated for a moisture-sensitive substance.

All label precautions must be observed when handling or transporting empty containers

due to product residues. Neutralize residues with the appropriate substances for this material.

**STORAGE:** Store in tightly sealed containers away from moisture and direct sunlight or heat. Store at temperatures less than 100 °F.

This material has a shelf life of one year minimum.

### **8) Exposure controls/personal protection**

#### **Respiratory Protection:**

AVOID BRTHG OF VAPORS CREATED DURING CURE CYCLE. AVOID PRLNGD BRTHG OF VAPS. SELECT ONE OF FOLLOWING NIOSH/MSHA APPROVED RESPS BASED ON AIRBORNE CONC OF CONTAM AND IN ACCORD W/OSHA REGS: HALF-MASK ORG ANIC VAPOR RESPIRATOR.

#### **Ventilation:**

PROVIDE APPROP LOC EXHST FOR HEAT CURING. USE IN WELL-VENT AREA. IF EXHST VENT IS NOT AVAIL, USE APPROP NIOSH/(SUPDAT)

#### **Protective Gloves:**

IMPERVIOUS GLOVES(FP N).

**Eye Protection:** ANSI APPRVD CHEM WORKERS GOGGS(FP N).

**Other Protective Equipment:** EMERGENCY EYEWASH & DELUGE SHOWER MEETING ANSI DESIGN CRITERIA(FP N). APRON, COVERALLS.

**Work Hygienic Practices:** NONE SPECIFIED BY MANUFACTURER.

**Supplemental Health & Safety Information:** MATL TO AVOID:PRESS BUILDUP. HAZ DECOMP: IRRIT VAP/GASES. SPILL PROC: ALLOW TO REACT FOR 10 MINS. ALTERNATIVELY, POUR WATER ON SPILL & ALLOW TO REACT FOR >30MINS. COVER W/ABSORB. PLACE IN APPRVD DRUM, BUT DO NOT SEAL DRUM FOR 48 HRS TO AVOID POSS PRESS BUILDUP. NEUT SPILL RESIDUE W/DECONTAM SOLN. VENT:MSHA APPRVD RESP.

### **9) Physical and chemical properties**

**Appearance:** White powder or pellet

**Physical State:** Solid

PH: N/A

**Freezing /Melting Point:** Melts 83.5-87.5°C

**Solubility in Water:** Insoluble in water

Soluble in: toluene, xylol; aniline. 1,4-butanediol, acetone

Freely Soluble in Triethylene glycol at 80°C.

### **10) Stability and reactivity**

**Stability Indicator:** YES

#### **Materials to Avoid:**

NONE SPECIFIED BY MANUFACTURER.

#### **Stability Condition to Avoid:**

NONE SPECIFIED BY MANUFACTURER.

#### **Hazardous Decomposition Products:**

CARBON MONOXIDE & DIOXIDE, OXIDES OF NITROGEN, HYDROGEN CYANIDE, ISOCYANATES, TOXIC VAPORS, GASES/PARTICULATES,(SUPDAT)

**Hazardous Polymerization Indicator:** NO

**Conditions to Avoid Polymerization:**

NOT RELEVANT.

**11) Toxicological information**

Contains 4,4'-Methylenebis (2-methyl-6-ethyl-aniline) (M-MEA). Based on initial results of animal feeding studies of M-MEA, there is no evidence of toxicological effects. However, other chemicals similar in structure to M-MEA have been found to cause organ and systemic effects, and cancer in laboratory animals.

**12) Ecological information**

No data available.

**13) Disposal considerations**

**Waste Disposal Methods:**

INCINERATE IN AN INDUSTRIAL OR COMMERCIAL FACILITY. DISPOSE OF COMPLETELY CURED (OR POLYMERIZED) MATL IN SANITARY LANDFILL. DISPOSE OF IN ACCORDANCE W/LOCAL, STATE & FEDERAL REGULATIONS(FP N).

**14) Transport information**

ADR	not restricted
RID	not restricted
ADNA	not restricted
IMDG	not restricted
IATA	not restricted

**15) Regulatory Information**

**SARA Title III Information:** N/P

**Federal Regulatory Information:** N/P

**State Regulatory Information:** N/P

**16) Other information**

This information is believed to be accurate and represents the information currently available. However, no warranty is expressed or implied with respect to such information, and no liability resulting from its use is assumed. Users should make their own investigations to determine the suitability of the information for their particular purposes.