



M A T E R I A L S A F E T Y D A T A S H E E T

SECTION 1. -----PRODUCT AND COMPANY IDENTIFICATION -----

PRODUCT NAME: MOCA-HR

MANUFACTURER: SUZHOU XIANGYUAN NEW MATERIALS CO., LTD.
NO. 25/27, PINGSI ROAD SUZHOU, CHINA 215001
TEL: 86-512-6753-6550

SECTION 2. ----- COMPOSITION/INFORMATION ON INGREDIENTS -----

MF: $C_{13}H_{12}Cl_2N_2$

USE OF SUBSTANCE/PREPARATION: USED IN POLYURETHANE MANUFACTURING.

SECTION 3. ----- HAZARDS IDENTIFICATION -----

LABEL PRECAUTIONARY STATEMENTS

HARMFUL

MAY CAUSE CANCER.

MAY CAUSE HERITABLE GENETIC DAMAGE.

HARMFUL IF SWALLOWED.

IRRITATING TO EYES, RESPIRATORY SYSTEM AND SKIN.

VERY TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT.

TARGET ORGAN(S):

BLOOD

BLADDER

AVOID EXPOSURE - OBTAIN SPECIAL INSTRUCTIONS BEFORE USE.

IN CASE OF CONTACT WITH EYES, RINSE IMMEDIATELY WITH PLENTY OF WATER AND SEEK MEDICAL ADVICE.

IN CASE OF ACCIDENT OR IF YOU FEEL UNWELL, SEEK MEDICAL ADVICE IMMEDIATELY (SHOW THE LABEL WHERE POSSIBLE).

WEAR SUITABLE PROTECTIVE CLOTHING, GLOVES AND EYE/FACE PROTECTION.

THIS MATERIAL AND ITS CONTAINER MUST BE DISPOSED OF AS HAZARDOUS WASTE.

AVOID RELEASE TO THE ENVIRONMENT. REFER TO SPECIAL INSTRUCTIONS/ SAFETY DATA SHEETS.

SECTION 4. ----- FIRST-AID MEASURES -----

IF SWALLOWED, WASH OUT MOUTH WITH WATER PROVIDED PERSON IS CONSCIOUS.
CALL A PHYSICIAN.

IF INHALED, REMOVE TO FRESH AIR. IF BREATHING BECOMES DIFFICULT,
CALL A PHYSICIAN.

IN CASE OF CONTACT, IMMEDIATELY WASH SKIN WITH SOAP AND COPIOUS AMOUNTS OF WATER.

IN CASE OF CONTACT WITH EYES, FLUSH WITH COPIOUS AMOUNTS OF WATER FOR AT LEAST 15 MINUTES. ASSURE ADEQUATE FLUSHING BY SEPARATING THE EYELIDS WITH FINGERS. CALL A PHYSICIAN.

SECTION 5. - - - - - FIRE FIGHTING MEASURES - - - - -

EXTINGUISHING MEDIA

WATER SPRAY.

CARBON DIOXIDE, DRY CHEMICAL POWDER OR APPROPRIATE FOAM.

SPECIAL FIREFIGHTING PROCEDURES

WEAR SELF-CONTAINED BREATHING APPARATUS AND PROTECTIVE CLOTHING TO PREVENT CONTACT WITH SKIN AND EYES.

UNUSUAL FIRE AND EXPLOSIONS HAZARDS

EMITS TOXIC FUMES UNDER FIRE CONDITIONS.

CONTAINER EXPLOSION MAY OCCUR UNDER FIRE CONDITIONS.

SECTION 6. - - - - - ACCIDENTAL RELEASE MEASURES- - - - -

WEAR SELF-CONTAINED BREATHING APPARATUS, RUBBER BOOTS AND HEAVY RUBBER GLOVES.

WEAR DISPOSABLE COVERALLS AND DISCARD THEM AFTER USE.

SWEEP UP, PLACE IN A BAG AND HOLD FOR WASTE DISPOSAL.

AVOID RAISING DUST.

VENTILATE AREA AND WASH SPILL SITE AFTER MATERIAL PICKUP IS COMPLETE.

EVACUATE AREA.

SECTION 7. - - - - - HANDLING AND STORAGE- - - - -

REFER TO SECTION 8.

SECTION 8. - - - - - EXPOSURE CONTROLS/PERSONAL PROTECTION- - - - -

USE ONLY IN A CHEMICAL FUME HOOD.

SAFETY SHOWER AND EYE BATH.

WASH CONTAMINATED CLOTHING BEFORE REUSE.

WASH THOROUGHLY AFTER HANDLING.

DO NOT BREATHE DUST.

DO NOT GET IN EYES, ON SKIN, ON CLOTHING.

AVOID PROLONGED OR REPEATED EXPOSURE.

NIOSH/MSHA-APPROVED RESPIRATOR IN NONVENTILATED AREAS AND/OR FOR EXPOSURE ABOVE THE ACGIH TLV.

COMPATIBLE CHEMICAL-RESISTANT GLOVES.

CHEMICAL SAFETY GOGGLES.

KEEP TIGHTLY CLOSED.

STORE IN A COOL DRY PLACE.

SECTION 9. - - - - - PHYSICAL AND CHEMICAL PROPERTIES - - - - -

PHYSICAL PROPERTIES

BOILING POINT: 202 °C TO 214 °C/.3MM.

MELTING POINT: 97 °C TO 110 °C

FLASH POINT: >230°C

SECTION 10. - - - - - -STABILITY AND REACTIVITY - - - - -

STABILITY

STABLE.

INCOMPATIBILITIES

STRONG ACIDS

STRONG BASES

STRONG OXIDIZING AGENTS
HAZARDOUS COMBUSTION OR DECOMPOSITION PRODUCTS
CARBON MONOXIDE, CARBON DIOXIDE
HYDROGEN CHLORIDE GAS
NITROGEN OXIDES
HAZARDOUS POLYMERIZATION
WILL NOT OCCUR.

SECTION 11. - - - - - TOXICOLOGICAL INFORMATION - - - - -

ACUTE EFFECTS

CAUSES SKIN IRRITATION.
MAY BE HARMFUL IF ABSORBED THROUGH THE SKIN.
CAUSES EYE IRRITATION.
MATERIAL IS IRRITATING TO MUCOUS MEMBRANES AND UPPER
RESPIRATORY TRACT.
MAY BE HARMFUL IF INHALED.
HARMFUL IF SWALLOWED.
TO THE BEST OF OUR KNOWLEDGE, THE CHEMICAL, PHYSICAL, AND
TOXICOLOGICAL PROPERTIES HAVE NOT BEEN THOROUGHLY INVESTIGATED.

CHRONIC EFFECTS

THIS PRODUCT IS OR CONTAINS A COMPONENT THAT HAS BEEN REPORTED TO BE
PROBABLY CARCINOGENIC BASED ON ITS IARC, OSHA, ACGIH, NTP OR EPA
CLASSIFICATION.

TARGET ORGAN(S):

BLOOD
BLADDER
LIVER
LUNGS

MAY ALTER GENETIC MATERIAL.

RTECS #: CY1050000

BENZENAMINE, 4,4'-METHYLENEBIS(2-CHLORO-

TOXICITY DATA

ORL-RAT LD50:1140 MG/KG	GISAAA 55(6),86,1990
SCU-RAT LD50:>5 GM/KG	NATWAY 58,578,1971
ORL-MUS LD50:640 MG/KG	GISAAA 55(6),86,1990
IPR-MUS LD50:64 MG/KG	PMRSDJ 1,682,1981
SKN-RBT LD50:>5 GM/KG	85INA8 6,988,1991
ORL-GPG LD50:400 MG/KG	GISAAA 55(6),86,1990

TARGET ORGAN DATA

SENSE ORGANS AND SPECIAL SENSES (OTHER OLFACTION EFFECTS)
BEHAVIORAL (MUSCLE WEAKNESS)
BEHAVIORAL (ATAXIA)
LUNGS, THORAX OR RESPIRATION (CYANOSIS)
KIDNEY, URETER, BLADDER (URINE VOLUME INCREASED)

ADDITIONAL INFORMATION

ORL-RAT LD50:5000 MG/KG
ONLY SELECTED REGISTRY OF TOXIC EFFECTS OF CHEMICAL SUBSTANCES
(RTECS) DATA IS PRESENTED HERE. SEE ACTUAL ENTRY IN RTECS FOR
COMPLETE INFORMATION.

SECTION 12. - - - - - ECOLOGICAL INFORMATION - - - - -

DATA NOT YET AVAILABLE.

SECTION 13. - - - - - DISPOSAL CONSIDERATIONS - - - - -

CONTACT A LICENSED PROFESSIONAL WASTE DISPOSAL SERVICE TO DISPOSE OF
THIS MATERIAL.
OBSERVE ALL FEDERAL, STATE AND LOCAL ENVIRONMENTAL REGULATIONS.

SECTION 14. ----- TRANSPORT INFORMATION -----

CONTACT ALDRICH CHEMICAL COMPANY FOR TRANSPORTATION INFORMATION.

SECTION 15. ----- REGULATORY INFORMATION -----

EUROPEAN INFORMATION

EC INDEX NO: 612-078-00-9

TOXIC

R 45

MAY CAUSE CANCER.

R 22

HARMFUL IF SWALLOWED.

R 50/53

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S 53

AVOID EXPOSURE - OBTAIN SPECIAL INSTRUCTIONS BEFORE USE.

S 45

IN CASE OF ACCIDENT OR IF YOU FEEL UNWELL, SEEK MEDICAL ADVICE IMMEDIATELY (SHOW THE LABEL WHERE POSSIBLE).

S 60

THIS MATERIAL AND ITS CONTAINER MUST BE DISPOSED OF AS HAZARDOUS WASTE.

S 61

AVOID RELEASE TO THE ENVIRONMENT. REFER TO SPECIAL INSTRUCTIONS/ SAFETY DATA SHEETS.

REVIEWS, STANDARDS, AND REGULATIONS

OEL=MAK

ACGIH TLV-SUSPECTED HUMAN CARCINOGEN DTLVS* TLV/BEI,1999

ACGIH TLV-TWA 0.01 PPM (SKIN) DTLVS* TLV/BEI,1999

IARC CANCER REVIEW:ANIMAL SUFFICIENT EVIDENCE IMEMDT 4,65,1974

IARC CANCER REVIEW:ANIMAL SUFFICIENT EVIDENCE IMEMDT 57,271,1993

IARC CANCER REVIEW:HUMAN INADEQUATE EVIDENCE IMSUDL 7,246,1987

IARC CANCER REVIEW:HUMAN INADEQUATE EVIDENCE IMEMDT 57,271,1993

IARC CANCER REVIEW:GROUP 2A IMEMDT 57,271,1993

OEL-AUSTRALIA: TWA 0.02 PPM (0.22 MG/M3), SKIN, CARCINOGEN, JAN1993

OEL-AUSTRIA: CARCINOGEN, JAN1999

OEL-BELGIUM: TWA 0.02 PPM (0.22 MG/M3), SKIN, CARCINOGEN, JAN1993

OEL-FINLAND: TWA 0.02 PPM (0.2 MG/M3), STEL 0.06 PPM, SKIN, JAN1993

OEL-FINLAND: TWA 0.02 PPM (0.2 MG/M3), STEL 0.06 PPM, CARCINOGEN, JAN1999

OEL-FRANCE: VME 0.02 PPM (0.22 MG/M3), C2 CARCINOGEN, JAN1999

OEL-GERMANY: CARCINOGEN, JAN1999

OEL-JAPAN: OEL 0.005 MG/M3, SKIN, 2A CARCINOGEN, JAN1999

OEL-THE NETHERLANDS: MAC-TGG 0.01 PPM (0.11 MG/M3), SKIN, CARCINOGEN, JAN1999

OEL-SWEDEN: CARCINOGEN, JAN1999

OEL-SWITZERLAND: MAK-W 0.02 MG/M3, CARCINOGEN, JAN1999

OEL-UNITED KINGDOM: TWA 0.005 MG/M3, SKIN, CARCINOGEN, SEP2000

OEL IN ARGENTINA, BULGARIA, COLOMBIA, JORDAN, KOREA CHECK ACGIH TLV;

OEL IN NEW ZEALAND, SINGAPORE, VIETNAM CHECK ACGIH TLV

NIOSH REL TO MOCA-AIR:10H CA TWA 0.003 MG/M3 (SK)

NIOSH* DHHS #92-100,1992

NOHS 1974: HZD 83341; NIS 15; TNF 376; NOS 13; TNE 2094

NOES 1983: HZD 83341; NIS 1; TNF 4; NOS 1; TNE 114

EPA GENETOX PROGRAM 1988, POSITIVE: CARCINOGENICITY-MOUSE/RAT

EPA GENETOX PROGRAM 1988, POSITIVE: CELL TRANSFORM.-RLV F344 RAT EMBRYO

EPA GENETOX PROGRAM 1988, POSITIVE: CELL TRANSFORM.-SA7/SHE; MAMMALIAN

MICRONUCLEUS
EPA GENETOX PROGRAM 1988, POSITIVE: HISTIDINE REVERSION-AMES TEST
EPA GENETOX PROGRAM 1988, POSITIVE/DOSE RESPONSE: CELL
TRANSFORM.-BALB/C-3T3
EPA TSCA SECTION 8(B) CHEMICAL INVENTORY
ON EPA IRIS DATABASE
EPA TSCA TEST SUBMISSION (TSCATS) DATA BASE, JANUARY 2001
NIOSH ANALYTICAL METHOD, 1994: MBOCA IN URINE, 8302
NTP 9TH REPORT ON CARCINOGENS, 2000:REASONABLY ANTICIPATED TO BE HUMAN
CARCINOGEN
OSHA ANALYTICAL METHOD #24
OSHA ANALYTICAL METHOD #ID-71
U.S. INFORMATION
THIS PRODUCT IS SUBJECT TO SARA SECTION 313 REPORTING REQUIREMENTS.
CALIFORNIA PROPOSITION 65:
THIS PRODUCT IS OR CONTAINS CHEMICAL(S) KNOWN TO THE STATE OF CALIFORNIA TO CAUSE
CANCER.

SECTION 16. ----- OTHER INFORMATION-----

THE ABOVE INFORMATION IS BELIEVED TO BE CORRECT BUT DOES NOT PURPORT TO BE ALL
INCLUSIVE AND SHALL BE USED ONLY AS A GUIDE. SUZHOU XIANGYUAN NEW MATERIALS CO.,
LTD. SHALL NOT BE HELD LIABLE FOR ANY DAMAGE RESULTING FROM HANDLING OR FROM
CONTACT WITH THE ABOVE PRODUCT. SEE REVERSE SIDE OF INVOICE OR PACKING SLIP FOR
ADDITIONAL TERMS AND CONDITIONS OF SALE.