



SIGMA-ALDRICH

ALDRICH CHEMICAL COMPANY, INC.
P.O. BOX 355
MILWAUKEE, WISCONSIN 53201, USA

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DATE 09/24/99
CUST#: 523216
PO#: CC/ONSRUD/92399

M A T E R I A L S A F E T Y D A T A S H E E T PAGE 1

SECTION 1. CHEMICAL IDENTIFICATION

CATALOG #: 30030-6
NAME: METHYLCYCLOHEXANE, ANHYDROUS, 99+%

SECTION 2. COMPOSITION/INFORMATION ON INGREDIENTS

CAS #: 108-87-2
MF: C7H14
EC NO: 203-624-3

SYNONYMS

CYCLOHEXYLMETHANE * HEXAHYDROTOLUENE * METHYLCYCLOHEXANE (ACGIH:OSHA)
* METYLOCYKLOHEKSAN (POLISH) * SEXTONE B * TOLUENE HEXAHYDRIDE *
TOLUENE, HEXAHYDRO-

SECTION 3. HAZARDS IDENTIFICATION

LABEL PRECAUTIONARY STATEMENTS

FLAMMABLE (USA)
HIGHLY FLAMMABLE (EU)
IRRITANT
IRRITATING TO EYES, RESPIRATORY SYSTEM AND SKIN.
KEEP CONTAINER IN A WELL-VENTILATED PLACE.
KEEP AWAY FROM SOURCES OF IGNITION - NO SMOKING.
TAKE PRECAUTIONARY MEASURES AGAINST STATIC DISCHARGES.
IN CASE OF CONTACT WITH EYES, RINSE IMMEDIATELY WITH PLENTY OF WATER AND SEEK MEDICAL ADVICE.
WEAR SUITABLE PROTECTIVE CLOTHING, GLOVES AND EYE/FACE PROTECTION.

SECTION 4. FIRST-AID MEASURES

IF INHALED, REMOVE TO FRESH AIR. IF NOT BREATHING GIVE ARTIFICIAL RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN.
IN CASE OF CONTACT, IMMEDIATELY WASH SKIN WITH SOAP AND COPIOUS AMOUNTS OF WATER.
IN CASE OF CONTACT, IMMEDIATELY FLUSH EYES WITH COPIOUS AMOUNTS OF WATER FOR AT LEAST 15 MINUTES.

SECTION 5. FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA

CARBON DIOXIDE, DRY CHEMICAL POWDER OR APPROPRIATE FOAM.
WATER MAY BE EFFECTIVE FOR COOLING, BUT MAY NOT EFFECT EXTINGUISHMENT.

SPECIAL FIREFIGHTING PROCEDURES

WEAR SELF-CONTAINED BREATHING APPARATUS AND PROTECTIVE CLOTHING TO PREVENT CONTACT WITH SKIN AND EYES.
USE WATER SPRAY TO COOL FIRE-EXPOSED CONTAINERS.

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NAME: METHYLCYCLOHEXANE, ANHYDROUS, 99+%

UNUSUAL FIRE AND EXPLOSIONS HAZARDS
VAPOR MAY TRAVEL CONSIDERABLE DISTANCE TO SOURCE OF IGNITION AND
FLASH BACK.
EXTREMELY FLAMMABLE.
CONTAINER EXPLOSION MAY OCCUR UNDER FIRE CONDITIONS.
FORMS EXPLOSIVE MIXTURES IN AIR.

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

EVACUATE AREA.
SHUT OFF ALL SOURCES OF IGNITION.
WEAR SELF-CONTAINED BREATHING APPARATUS, RUBBER BOOTS AND HEAVY
RUBBER GLOVES.

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

REFER TO SECTION 8.

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

WEAR APPROPRIATE NIOSH/MSHA-APPROVED RESPIRATOR, CHEMICAL-RESISTANT
GLOVES, SAFETY GOGGLES, OTHER PROTECTIVE CLOTHING.
SAFETY SHOWER AND EYE BATH.
DO NOT BREATHE VAPOR.
AVOID CONTACT WITH EYES, SKIN AND CLOTHING.
AVOID PROLONGED OR REPEATED EXPOSURE.
WASH THOROUGHLY AFTER HANDLING.
WASH CONTAMINATED CLOTHING BEFORE REUSE.
IRRITANT.
KEEP TIGHTLY CLOSED.
KEEP AWAY FROM HEAT, SPARKS, AND OPEN FLAME.
STORE IN A COOL DRY PLACE.

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

PHYSICAL PROPERTIES

BOILING POINT: 101 C
MELTING POINT: -126 C
FLASHPOINT - 25 F
3C
EXPLOSION LIMITS IN AIR:
UPPER 6.7%
LOWER 1.1%
AUTOIGNITION TEMPERATURE: 545 F 284C
VAPOR PRESSURE: 37MM 20 C 83.2MM 37.7 C
SPECIFIC GRAVITY: 0.770
VAPOR DENSITY: 3.4

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

INCOMPATIBILITIES

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OXIDIZING AGENTS

HAZARDOUS COMBUSTION OR DECOMPOSITION PRODUCTS
CARBON MONOXIDE, CARBON DIOXIDE

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

ACUTE EFFECTS
CAUSES SKIN IRRITATION.
HARMFUL IF INHALED OR SWALLOWED.
VAPOR OR MIST IS IRRITATING TO THE EYES, MUCOUS MEMBRANES AND UPPER
RESPIRATORY TRACT.
PROLONGED EXPOSURE CAN CAUSE:
NARCOTIC EFFECT

RTECS #: GV6125000
CYCLOHEXANE, METHYL-

TOXICITY DATA

ORL-MUS LD50:2250 MG/KG 85GMAT - ,82,1982
IHL-MUS LC50:41500 MG/M3/2H 85GMAT - ,82,1982
IHL-RBT LC50:15227 PPM/1H JIHTAB 25,323,1943
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 - - - - -

BURN IN A CHEMICAL INCINERATOR EQUIPPED WITH AN AFTERBURNER AND
SCRUBBER BUT EXERT EXTRA CARE IN IGNITING AS THIS MATERIAL IS HIGHLY
FLAMMABLE.
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: 601-018-00-7
HIGHLY FLAMMABLE
IRRITANT
R 11
HIGHLY FLAMMABLE.
S 9
KEEP CONTAINER IN A WELL-VENTILATED PLACE.
S 16

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KEEP AWAY FROM SOURCES OF IGNITION - NO SMOKING.
S 33
TAKE PRECAUTIONARY MEASURES AGAINST STATIC DISCHARGES.

REVIEWS, STANDARDS, AND REGULATIONS

OEL=MAK
ACGIH TLV-TWA 1610 MG/M3 (400 PPM) DTLVS* TLV/BEI,1997
MSHA STANDARD-AIR:TWA 500 PPM (2000 MG/M3)
DTLVS* 3,162,1971
OSHA PEL (GEN INDU):8H TWA 500 PPM (2000 MG/M3)
CFRGBR 29,1910.1000,1994
OSHA PEL (CONSTRUC):8H TWA 500 PPM (2000 MG/M3)
CFRGBR 29,1926.55,1994
OSHA PEL (SHIPYARD):8H TWA 500 PPM (2000 MG/M3)
CFRGBR 29,1915.1000,1993
OSHA PEL (FED CONT):8H TWA 500 PPM (2000 MG/M3)
CFRGBR 41,50-204.50,1994
OEL-AUSTRALIA:TWA 400 PPM (1600 MG/M3) JAN 1993
OEL-BELGIUM:TWA 400 PPM (1610 MG/M3) JAN 1993
OEL-DENMARK: TWA 200 PPM (805 MG/M3), JAN1999
OEL-FINLAND:TWA 400 PPM (1600 MG/M3);STEL 500 PPM (2000 MG/M3) JAN 1993
OEL-GERMANY:TWA 500 PPM (2000 MG/M3) JAN 1993
OEL-JAPAN: OEL 400 PPM (1600 MG/M3), JAN1999
OEL-JAPAN:TWA 400 PPM (1600 MG/M3) JAN 1993
OEL-THE NETHERLANDS:TWA 400 PPM (1600 MG/M3) JAN 1993
OEL-THE PHILIPPINES:TWA 500 PPM (2000 MG/M3) JAN 1993
OEL-POLAND: MAC(TWA) 500 MG/M3, MAC(STEL) 2000 MG/M3, JAN1999
OEL-RUSSIA:TWA 400 PPM;STEL 50 MG/M3 JAN 1993
OEL-SWITZERLAND:TWA 400 PPM (1600 MG/M3);STEL 800 PPM JAN 1993
OEL-TURKEY:TWA 500 PPM (2000 MG/M3) JAN 1993
OEL-UNITED KINGDOM:TWA 400 PPM (1600 MG/M3);STEL 500 PPM JAN 1993
OEL IN BULGARIA, COLOMBIA, JORDAN, KOREA CHECK ACGIH TLV
OEL IN NEW ZEALAND, SINGAPORE, VIETNAM CHECK ACGIH TLV
NIOSH REL TO METHYLCYCLOHEXANE-AIR:10H TWA 400 PPM
NIOSH* DHHS #92-100,1992
NOHS 1974: HZD 47030; NIS 11; TNE 1733; NOS 9; TNE 6292
NOES 1983: HZD 47030; NIS 12; TNE 1175; NOS 11; TNE 10076; TFE 14
EPA TSCA SECTION 8(B) CHEMICAL INVENTORY
EPA TSCA SECTION 8(D) UNPUBLISHED HEALTH/SAFETY STUDIES
EPA TSCA TEST SUBMISSION (TSCATS) DATA BASE, JUNE 1999
NIOSH ANALYTICAL METHOD, 1994: HYDROCARBONS, BP 36-126 DEGREE C, 1500

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. ALDRICH 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.

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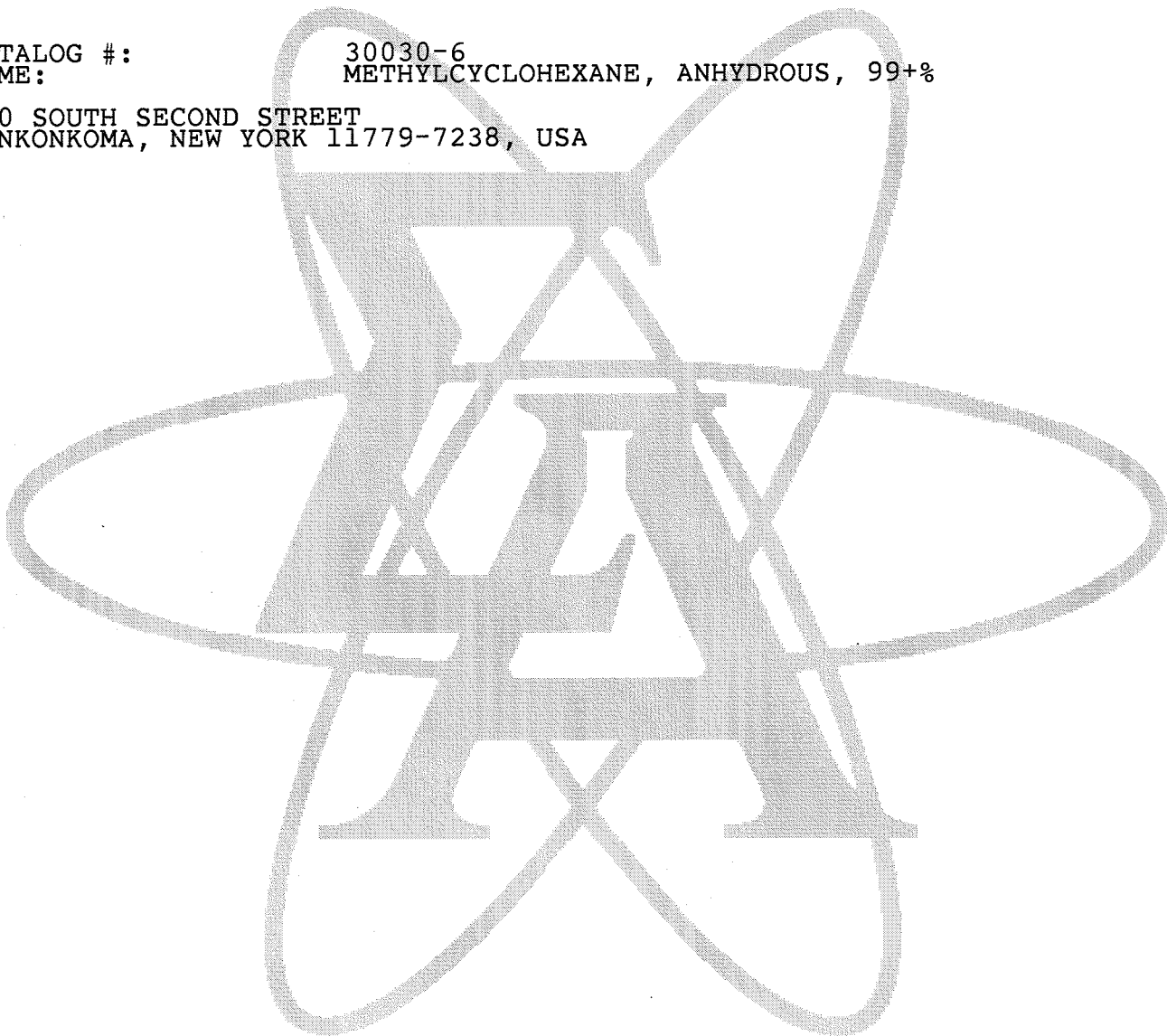
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