

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MANUFACTURER.....:

PREPARATION DATE.: 03/01/91
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EM SCIENCE
A DIVISION OF EM INDUSTRIES
P.O. BOX 70
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GIBBSTOWN, N.J. 08027

INFORMATION PHONE NUMBER.: 609-354-9200
HOURS: MON. TO FRI. 8:30-5
CHEMTREC EMERGENCY NUMBER: 800-424-9300
HOURS: 24 HRS A DAY

CATALOG NUMBER(S):

CX2286 CX2290 CX2295

CHEMICAL NAME.....: CYCLOHEXANE
TRADE NAME.....: HEXAMETHYLENE
CHEMICAL FAMILY...: CYCLIC HYDROCARBON
FORMULA.....: C6H12

MOLECULAR WEIGHT.: 84.16

2. COMPOSITION / INFORMATION ON INGREDIENTS

COMPONENT	CAS #	APPR %
CYCLOHEXANE	110-82-7	100%

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

EXTREMELY FLAMMABLE LIQUID AND VAPOR.

HARMFUL IF SWALLOWED OR INHALED.

MAY BE IRRITATING TO SKIN, EYES AND MUCOUS MEMBRANES.

MAY CAUSE DAMAGE TO CENTRAL NERVOUS SYSTEM, LIVER, AND KIDNEYS.

APPEARANCE.....:

CLEAR LIQUID, PUNGENT ODOR.

POTENTIAL HEALTH EFFECTS (ACUTE AND CHRONIC)

SYMPTOMS OF EXPOSURE:

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HARMFUL IF INHALED OR SWALLOWED.
MAY BE IRRITATING ON CONTACT WITH SKIN, EYES, OR MUCOUS MEMBRANES.
VAPOR IRRITATING TO EYES AND RESPIRATORY PASSAGES.
MAY CAUSE HEADACHE, DIZZINESS, NAUSEA, NARCOSIS, UNCONSCIOUSNESS,
AND POSSIBLY ASPHYXIATION.

MAY CAUSE DAMAGE TO CENTRAL NERVOUS SYSTEM, LIVER AND KIDNEYS.

MEDICAL COND. AGGRAVATED BY EXPOSURE:

LIVER, KIDNEY AND CNS CONDITIONS.

ROUTES OF ENTRY.....:

INHALATION, INGESTION

CARCINOGENICITY.....:

THE MATERIAL IS NOT LISTED AS A CANCER CAUSING AGENT.

4. FIRST AID MEASURES

EMERGENCY FIRST AID:

GET MEDICAL ASSISTANCE FOR ALL CASES OF OVEREXPOSURE.

SKIN: WASH THOROUGHLY WITH SOAP AND WATER.

EYES: IMMEDIATELY FLUSH THOROUGHLY WITH WATER FOR AT LEAST 15
MINUTES.

INHALATION: REMOVE TO FRESH AIR; GIVE ARTIFICIAL RESPIRATION IF
BREATHING HAS STOPPED.

INGESTION: DO NOT INDUCE VOMITING; GET IMMEDIATE MEDICAL
ATTENTION.

5. FIRE FIGHTING MEASURES

FLASH POINT (F).....: -4 (CC)

FLAMMABLE LIMITS LEL (%): 1.30

FLAMMABLE LIMITS UEL (%): 8.00

EXTINGUISHING MEDIA.....:

CO2, DRY CHEMICAL, ALCOHOL FOAM.

WATER SPRAY TO DISPERSE VAPORS AND COOL EXPOSED CONTAINERS.

FIRE FIGHTING PROCEDURES.:

WEAR SELF-CONTAINED BREATHING APPARATUS AND PROTECTIVE CLOTHING.

FIRE & EXPLOSION HAZARDS.:

DANGEROUS FIRE AND EXPLOSIVE HAZARD.

VAPORS CAN TRAVEL DISTANCES TO IGNITION SOURCE & FLASH BACK

6. ACCIDENTAL RELEASE MEASURES

SPILL RESPONSE:

EVACUATE THE AREA OF ALL UNNECESSARY PERSONNEL.

WEAR SUITABLE PROTECTIVE EQUIPMENT LISTED UNDER EXPOSURE /
PERSONAL PROTECTION.

ELIMINATE ANY IGNITION SOURCES UNTIL THE AREA IS DETERMINED TO BE

FREE FROM EXPLOSION OR FIRE HAZARDS.
CONTAIN THE RELEASE AND ELIMINATE ITS SOURCE, IF THIS CAN BE DONE WITHOUT RISK.
TAKE UP AND CONTAINERIZE FOR PROPER DISPOSAL AS DESCRIBED UNDER DISPOSAL.
COMPLY WITH FEDERAL, STATE, AND LOCAL REGULATIONS ON REPORTING RELEASES. REFER TO REGULATORY INFORMATION FOR REPORTABLE QUANTITY AND OTHER REGULATORY DATA.
EM SCIENCE RECOMMENDS SPILL-X ABSORBENT AGENTS FOR VARIOUS TYPES OF SPILLS. ADDITIONAL INFORMATION ON THE SPILL-X PRODUCTS CAN BE PROVIDED THROUGH THE EM SCIENCE TECHNICAL SERVICE DEPARTMENT (609) 354-9200.
THE FOLLOWING EM SCIENCE SPILL-X ABSORBENT IS RECOMMENDED FOR THIS PRODUCT:

SX0863 SOLVENT SPILL TREATMENT KIT

7. HANDLING AND STORAGE

HANDLING & STORAGE:

KEEP CONTAINER TIGHTLY CLOSED.
STORE IN COOL, WELL-VENTILATED AREA AWAY FROM IGNITION SOURCES AND OXIDIZERS.
DO NOT BREATHE VAPOR.
DO NOT GET IN EYES, ON SKIN, OR ON CLOTHING.
ELECTRICALLY GROUND ALL EQUIPMENT WHEN HANDLING THIS PRODUCT.
RETAINED RESIDUE MAY MAKE EMPTY CONTAINERS HAZARDOUS; USE CAUTION!

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS AND PERSONAL PROTECTIVE EQUIPMENT:

VENTILATION, RESPIRATORY PROTECTION, PROTECTIVE CLOTHING, EYE PROTECTION
MATERIAL MUST BE HANDLED OR TRANSFERRED IN AN APPROVED FUME HOOD OR WITH ADEQUATE VENTILATION.
PROTECTIVE GLOVES SHOULD BE WORN TO PREVENT SKIN CONTACT (VITON OR EQUIVALENT)
SAFETY GLASSES WITH SIDE SHIELDS SHOULD BE WORN AT ALL TIMES.
RESPIRATORY PROTECTION: IF WORKPLACE EXPOSURE LIMIT(S) OF PRODUCT OR ANY COMPONENT IS EXCEEDED (SEE TLV/PEL), A NIOSH/MSHA APPROVED AIR SUPPLIED RESPIRATOR IS ADVISED IN ABSENCE OF PROPER ENVIRONMENTAL CONTROL. OSHA REGULATIONS ALSO PERMIT OTHER NIOSH/MSHA RESPIRATORS (NEGATIVE PRESSURE TYPE) UNDER SPECIFIED CONDITIONS (SEE YOUR SAFETY EQUIPMENT SUPPLIER). ENGINEERING AND/OR ADMINISTRATIVE CONTROLS SHOULD BE IMPLEMENTED TO REDUCE EXPOSURE.

WORK / HYGENIC PRACTICES:

WASH THOROUGHLY AFTER HANDLING.

DO NOT TAKE INTERNALLY.

EYE WASH AND SAFETY EQUIPMENT SHOULD BE READILY AVAILABLE.

EXPOSURE GUIDELINES

OSHA - PEL:

COMPONENT	TWA		STEL		CL		SKIN
	PPM	MG/M3	PPM	MG/M3	PPM	MG/M3	
CYCLOHEXANE	300	1050					

ACGIH - TLV:

COMPONENT	TWA		STEL		CL		SKIN
	PPM	MG/M3	PPM	MG/M3	PPM	MG/M3	
CYCLOHEXANE	300	1030					

9. PHYSICAL AND CHEMICAL PROPERTIES

BOILING POINT (C 760 MMHG): 81
MELTING POINT (C): 7
SPECIFIC GRAVITY (H2O = 1): 0.779
VAPOR PRESSURE (MM HG): 95 20C
PERCENT VOLATILE BY VOL (%): 100
VAPOR DENSITY (AIR = 1): 2.9
EVAPORATION RATE (BUAC = 1): FAST
SOLUBILITY IN WATER (%): INSOLUBLE
APPEARANCE: CLEAR LIQUID, PUNGENT ODOR.

10. STABILITY AND REACTIVITY

STABILITY: YES
HAZARDOUS POLYMERIZATION:
DOES NOT OCCUR

HAZARDOUS DECOMPOSITION.:

COX

CONDITIONS TO AVOID.....:

HEAT, SPARKS, OPEN FLAME

MATERIALS TO AVOID.....:

- () WATER
- () ACIDS
- () BASES
- () CORROSIVES
- (X) OXIDIZERS
- (X) OTHER :

NITROGEN DIOXIDE

11. TOXICOLOGICAL INFORMATION

TOXICITY DATA:

ORL-MUS LD50: 813 MG/KG

TOXICOLOGICAL FINDINGS:

TESTS ON LABORATORY ANIMALS INDICATE MATERIAL MAY PRODUCE ADVERSE MUTAGENIC EFFECTS.

CITED IN REGISTRY OF TOXIC EFFECTS OF SUBSTANCES (RTECS)

12. DISPOSAL CONSIDERATIONS

EPA WASTE NUMBERS: U056 D002

TREATMENT:

INCINERATION, FUELS BLENDING OR RECYCLE. CONTACT YOUR LOCAL PERMITTED WASTE DISPOSAL SITE (TSD) FOR PERMISSIBLE TREATMENT SITES.

ALWAYS CONTACT A PERMITTED WASTE DISPOSER (TSD) TO ASSURE COMPLIANCE WITH ALL CURRENT LOCAL, STATE AND FEDERAL REGULATIONS.

13. TRANSPORT INFORMATION

DOT PROPER SHIPPING NAME....:

CYCLOHEXANE

DOT ID NUMBER.....: UN1145

14. REGULATORY INFORMATION

TSCA INVENTORY.....:

THE CAS NUMBER OF THIS PRODUCT IS LISTED ON THE TSCA INVENTORY.

COMPONENT	SARA EHS (302)	SARA EHS TPQ (LBS)	CERCLA RQ (LBS)
CYCLOHEXANE			1000

COMPONENT	OSHA FLOOR LIST	SARA 313	DEMINIMIS FOR SARA 313 (%)
CYCLOHEXANE	Y	Y	1.0

15. OTHER INFORMATION

COMMENTS:

NONE

NFPA HAZARD RATINGS:

HEALTH : 1

FLAMMABILITY : 3

REACTIVITY : 0

SPECIAL HAZARDS:

REVISION HISTORY:

11/01/81 05/01/84 10/27/87 01/19/88

- = REVISED SECTION

N/A = NOT AVAILABLE

N/E = NONE ESTABLISHED

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