

DR-0002-5310

HEXACHLOROBENZENE

REPT 2

LATEST REVISIONS: 04/29/88

THIS INFORMATION APPLIES TO THE STATED MATERIAL AND MAY NOT
APPLY TO DILUTIONS OR FORMULATIONS OF THE MATERIAL.

CAS NUMBER: 0000118-74-1

OTHER IDENTIFIERS: K-002688

SYNONYMS: BENZENE, HEXACHLORO-
PERCHLOROBENZENE
HCB

CHEMICAL AND PHYSICAL PROPERTIES

THESE DATA COMPILED FROM VARIOUS SOURCES AND NOT VERIFIED. ADDITIONAL
INFORMATION IS AVAILABLE THROUGH YOUR SITE'S REACTIVE CHEMICAL PROGRAM.

APPEARANCE: WHITE NEEDLES

MOLECULAR WEIGHT: 284.80

BOILING POINT: 322 C

MELTING POINT: 229 C (SUBLIMES)

VAPOR PRESSURE: 1 MMHG @ 114.4 C

FLASH POINT: 242 C

STABILITY/REACTIVITY:

VERY STABLE -- UNREACTIVE

POTENTIAL HEALTH EFFECTS

(REVISED:04/29/88)

THIS SECTION INCLUDES POSSIBLE ADVERSE EFFECTS WHICH COULD OCCUR
IF THIS MATERIAL IS NOT HANDLED IN THE RECOMMENDED MANNER.

EYE:

- ESSENTIALLY NONIRRITATING TO EYES.

SKIN:

- ESSENTIALLY NONIRRITATING TO SKIN.
- A SINGLE PROLONGED EXPOSURE IS NOT LIKELY TO RESULT IN THE MATERIAL BEING
ABSORBED THROUGH SKIN IN HARMFUL AMOUNTS.
- THE LD50 FOR SKIN ABSORPTION IN RABBITS IS >2000 MG/KG.
- REPEATED SKIN CONTACT PRESENTS A HAZARD DUE TO ACCUMULATION OF HCB IN THE
BODY.

INGESTION:

- SINGLE DOSE ORAL TOXICITY IS LOW.
- THE ORAL LD50 FOR RATS IS 3500 MG/KG.
- ALTHOUGH SINGLE-DOSE ORAL TOXICITY IS LOW, INGESTION OF SMALL AMOUNTS
PRESENTS A HAZARD DUE TO ACCUMULATION OF HCB IN THE BODY.

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ACUTE INHALATION EFFECTS:

- VAPORS ARE UNLIKELY DUE TO PHYSICAL PROPERTIES.
- EXPOSURE TO DUSTS MAY CONTRIBUTE TO THE ACCUMULATION OF HCB IN THE BODY.

SUBCHRONIC EFFECTS:

- EXCESSIVE EXPOSURE MAY CAUSE NEUROLOGIC SIGNS AND SYMPTOMS.
- REPEATED EXCESSIVE EXPOSURES MAY CAUSE ALTERED BLOOD/BILE PIGMENT METABOLISM (PORPHYRIA) AND LIVER, KIDNEY, SKIN, NERVOUS, SKELETAL, MUSCULAR AND IMMUNE SYSTEM EFFECTS.

CHRONIC EFFECTS / CARCINOGENICITY:

- HAS BEEN SHOWN TO CAUSE CANCER IN LABORATORY ANIMALS.
- FOR HAZARD COMMUNICATION PURPOSES UNDER OSHA STANDARD 29 CFR PART 1910.1200, THIS CHEMICAL IS LISTED AS A POTENTIAL CARCINOGEN BY NTP AND IARC.

TERATOGENIC EFFECTS:

- HAS CAUSED BIRTH DEFECTS IN LABORATORY ANIMALS ONLY AT DOSES TOXIC TO THE MOTHER.
- HAS BEEN TOXIC TO THE FETUS IN LABORATORY ANIMALS AT DOSES NONTXIC TO THE MOTHER.
- TOXICITY TO THE NEONATE BUT NOT BIRTH DEFECTS HAVE OCCURRED IN OFFSPRING OF HUMANS KNOWN TO HAVE INGESTED TOXIC AMOUNTS OF HEXACHLOROBENZENE.

REPRODUCTIVE EFFECTS:

- IN ANIMAL STUDIES, HAS BEEN SHOWN TO INTERFERE WITH REPRODUCTION .
- HCB IS BIOCONCENTRATED IN BODY FAT AND IS TRANSFERRED TO THE FETUS VIA THE PLACENTA AND TO THE NEONATE VIA LACTATION.

MUTAGENICITY:

- RESULTS OF IN VITRO ('TEST TUBE') MUTAGENICITY TESTS HAVE BEEN NEGATIVE.
- RESULTS OF MUTAGENICITY TESTS IN ANIMALS HAVE BEEN NEGATIVE.

EXPOSURE GUIDELINES

HEXACHLOROBENZENE: DOW BIOLOGICAL LIMIT GUIDE IS 150 PPB IN THE BLOOD.
THERE IS NO GUIDELINE FOR AIRBORNE CONCENTRATIONS.

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HANDLING PRECAUTIONS AND PROTECTIVE EQUIPMENT (REVISED:05/06/87)

THESE RECOMMENDED PRECAUTIONS ARE INTENDED FOR USE DURING NORMAL OPERATING CONDITIONS: EMERGENCY CONDITIONS COULD REQUIRE ADDITIONAL PRECAUTIONS. (FOR AN EXPLANATION OF THE LOW, MODERATE AND HIGH POTENTIAL EXPOSURE CATEGORIES OR SPECIFIC RECOMMENDATIONS FOR YOUR SPECIFIC OPERATION CONTACT YOUR INDUSTRIAL HYGIENIST.)

EYE

- LOW - USE SAFETY GLASSES.
- MODERATE - USE SAFETY GLASSES.
- HIGH - USE SAFETY GLASSES.

SKIN

- LOW - NO PRECAUTIONS OTHER THAN CLEAN BODY-COVERING CLOTHING SHOULD BE NEEDED.
- MODERATE - USE PROTECTIVE CLOTHING IMPERVIOUS TO THIS MATERIAL. SELECTION OF SPECIFIC ITEMS SUCH AS GLOVES, BOOTS, APRON, OR FULL-BODY SUIT WILL DEPEND ON OPERATION.
- HIGH - USE PROTECTIVE CLOTHING IMPERVIOUS TO THIS MATERIAL. SELECTION OF SPECIFIC ITEMS SUCH AS GLOVES, BOOTS, APRON, OR FULL-BODY SUIT WILL DEPEND ON OPERATION.

INHALATION

- LOW - NO RESPIRATORY PROTECTION SHOULD BE NEEDED.
- MODERATE - USE AN APPROVED AIR-PURIFYING RESPIRATOR.
- HIGH - USE AN APPROVED RESPIRATOR. SELECTION OF AIR-PURIFYING OR POSITIVE-PRESSURE SUPPLIED-AIR WILL DEPEND ON THE SPECIFIC OPERATION AND THE POTENTIAL AIRBORNE CONCENTRATION OF THE MATERIAL.

INGESTION

- AVOID INGESTION OF EVEN VERY SMALL AMOUNTS; DO NOT CONSUME OR STORE FOOD OR TOBACCO IN THE WORK AREA; WASH HANDS AND FACE BEFORE SMOKING OR EATING.

WARNING PROPERTIES:

- ODOR IS INADEQUATE WARNING OF EXCESSIVE EXPOSURE.

VENTILATION

- GOOD GENERAL VENTILATION SHOULD BE SUFFICIENT FOR MOST CONDITIONS.

PROTECTIVE EQUIPMENT INFORMATION

- THE FOLLOWING SHOULD BE EFFECTIVE PROTECTIVE CLOTHING MATERIALS: NEOPRENE, NITRILE BUTADIENE RUBBER.
- THERE IS NO RESPIRATOR TEST DATA AVAILABLE FOR THIS CHEMICAL. DATA FOR RELATED CHEMICALS INDICATE THAT THE FOLLOWING SHOULD BE EFFECTIVE TYPES OF AIR-PURIFYING RESPIRATORS: ORGANIC VAPOR WITH DUST PREFILTER.

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EMERGENCY TREATMENT AND MEDICAL NOTES REVISED:02/24/88)

EYE

- IRRIGATE IMMEDIATELY WITH WATER FOR AT LEAST 5 MINUTES.

SKIN

- WASH OFF IN FLOWING WATER OR SHOWER.

INGESTION

- INDUCE VOMITING IF LARGE AMOUNTS ARE INGESTED. CONSULT MEDICAL PERSONNEL.

INHALATION

- REMOVE TO FRESH AIR IF EFFECTS OCCUR. CONSULT A PHYSICIAN.

NOTES TO PHYSICIAN:

- INDIVIDUALS WITH CHRONIC OR LONG TIME EXPOSURE TO HEXACHLOROBENZENE SHOULD RECEIVE BIOLOGICAL MONITORING OF BLOOD LEVELS.
- NO SPECIFIC ANTIDOTE.
- SUPPORTIVE CARE. TREATMENT BASED ON JUDGMENT OF THE PHYSICIAN IN RESPONSE TO REACTIONS OF THE PATIENT.
- REPEATED EXCESSIVE EXPOSURE MAY AGGRAVATE PREEXISTING LIVER AND KIDNEY DISEASE.

END OF REPORT; FOR ADDITIONAL INFORMATION CONTACT:
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