

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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