

CONSEQUENCES OF EXPOSURE TO TOXIC AMOUNTS (B-1)

COMPOUND: BETA-TRI (1,1,2 TRICHLOROETHANE)

EXPOSURE LIMIT: TWA 10 PPM STEL NONE

ODOR THRESHOLD: NOT YET ESTABLISHED

EYES: LIQUID WILL CAUSE IRRITATION AND PAIN.
LIQUID MAY CAUSE SLIGHT CORNEAL INJURY.
VAPOR MAY CAUSE IRRITATION.

SKIN: SINGLE CONTACT NOT LIKELY TO CAUSE IRRITATION.
REPEATED CONTACT WILL RESULT IN ABSORPTION OF TOXIC
AMOUNTS AND CAN CAUSE IRRITATION AND REDDENING
OF THE SKIN DUE TO EXTRACTION OF SKIN FATS.

INGESTION: NOT LIKELY TO BE SWALLOWED IN TOXIC AMOUNTS.
IF ASPIRATED, WILL BE RAPIDLY ABSORBED IN OTHER
BODILY SYSTEMS.

INHALATION: SHORT TERM - VAPOR WILL CAUSE IRRITATION TO THE
EYES, NOSE, AND THROAT. ALSO MAY
CAUSE DIZZINESS, DROWSINESS, HEADACHE,
AND POSSIBLE LIVER AND/OR KIDNEY
DAMAGE. HIGH CONCENTRATIONS CAN CAUSE
DEATH.

LONG TERM - WILL CAUSE LIVER AND/OR KIDNEY DAMAGE.

COMMENTS: HAS BEEN SHOWN TO PRODUCE TUMORS IN LAB MICE.

CONSEQUENCES OF EXPOSURE TO TOXIC AMOUNTS (E-2)

COMPOUND: ETHYL CHLORIDE

EXPOSURE LIMIT: TWA 150 PPM STEL NONE

ODOR THRESHOLD: 4 PPM (ADEQUATE)

EYES: VAPORS MAY IRRITATE.
LIQUID WILL CAUSE IRRITATION, PAIN, AND FROSTBITE.

SKIN: LIQUID WILL CAUSE IRRITATION, PAIN, AND FROSTBITE.
NOT LIKELY TO BE ABSORBED DURING SINGLE, PROLONGED
CONTACT.

INGESTION: NOT LIKELY TO BE SWALLOWED IN TOXIC AMOUNTS.

INHALATION: SHORT TERM - HIGH CONCENTRATIONS MAY CAUSE CENTRAL
NERVOUS SYSTEM DEPRESSION, DIZZINESS,
AND INCOORDINATION. EXTREMELY HIGH
CONCENTRATIONS MAY CAUSE DEATH.

LONG TERM - NONE KNOWN OF RELEVANCE TO HUMANS.

CONSEQUENCES OF EXPOSURE TO TOXIC AMOUNTS (E-4)

COMPOUND: ETHYLENE DICHLORIDE

EXPOSURE LIMIT: TWA 1 PPM STEL 2 PPM

ODOR THRESHOLD: 88 PPM (INADEQUATE)

EYES: LIQUID WILL CAUSE IRRITATION AND PAIN.
WILL CAUSE CORNEAL INJURY.
VAPOR WILL CAUSE LACRIMATION (TEARING).

SKIN: SINGLE CONTACT NOT LIKELY TO CAUSE IRRITATION.
REPEATED CONTACT CAN RESULT IN ABSORPTION OF TOXIC
AMOUNTS AND CAN CAUSE IRRITATION AND REDDENING
OF THE SKIN DUE TO EXTRACTION OF SKIN FATS.

INGESTION: NOT LIKELY TO BE SWALLOWED IN TOXIC AMOUNTS.
IF ASPIRATED, WILL BE RAPIDLY ABSORBED IN OTHER
BODILY SYSTEMS.

INHALATION: SHORT TERM - VAPOR WILL CAUSE IRRITATION TO THE
EYES, NOSE, AND THROAT. ALSO MAY
CAUSE DIZZINESS, DROWSINESS, HEADACHE,
AND POSSIBLE LIVER AND/OR KIDNEY
DAMAGE. HIGH CONCENTRATIONS CAN CAUSE
DEATH.

LONG TERM - CAN CAUSE LIVER, LUNG, KIDNEY,
DIGESTIVE TRACT, AND CENTRAL NERVOUS
SYSTEM DAMAGE.

COMMENTS: ETHYLENE DICHLORIDE IS A LISTED POTENTIAL CARCINOGEN.
HAS BEEN SHOWN TO CAUSE CANCER IN LAB ANIMALS.

CONSEQUENCES OF EXPOSURE TO TOXIC AMOUNTS (P-3)

COMPOUND: PERCHLOROETHYLENE

EXPOSURE LIMIT: TWA 25 PPM STEL NONE

ODOR THRESHOLD: 27 PPM (INADEQUATE)

EYES: LIQUID WILL CAUSE IRRITATION AND PAIN.
CORNEAL INJURY IS NOT LIKELY.
VAPORS WILL CAUSE IRRITATION AT 100 PPM OR GREATER.

SKIN: SINGLE CONTACT NOT LIKELY TO CAUSE IRRITATION.
REPEATED AND PROLONGED EXPOSURE MAY CAUSE REDNESS AND
DRYNESS OR A BURN DUE TO EXTRACTION OF SKIN FATS.

INGESTION: NOT LIKELY TO BE SWALLOWED IN TOXIC AMOUNTS.
IF ASPIRATED, WILL BE RAPIDLY ABSORBED IN OTHER
BODILY SYSTEMS.

INHALATION: SHORT TERM - LOW CONCENTRATIONS CAN CAUSE HEADACHES
WITH MILD EYE, NOSE, AND THROAT IRRITATION,
AND EFFECTS SIMILAR TO ALCOHOL INTOXICATION.
HIGH CONCENTRATIONS CAN CAUSE DEATH.

LONG TERM - CAN CAUSE LIVER AND/OR KIDNEY DAMAGE,
LETHARGY, AND CENTRAL NERVOUS SYSTEM
EFFECTS.

COMMENTS: PERCHLOROETHYLENE IS A LISTED POTENTIAL CARCINOGEN.
HAS BEEN SHOWN TO INCREASE RATE OF SPONTANEOUS
MALIGNANT TUMORS IN LAB MICE AND RATS.
ALCOHOL MAY INCREASE ADVERSE EFFECTS OF EXPOSURE.

CONSEQUENCES OF EXPOSURE TO TOXIC AMOUNTS (P-6)

COMPOUND: PROPYLENE DICHLORIDE

EXPOSURE LIMIT: TWA 75 PPM STEL 110 PPM

ODOR THRESHOLD: .25 PPM (ADEQUATE)

EYES: LIQUID CAN CAUSE IRRITATION AND PAIN.
CORNEAL INJURY IS UNLIKELY.
VAPORS CAN CAUSE LACRIMATION (TEARING).

SKIN: SINGLE CONTACT NOT LIKELY TO CAUSE IRRITATION.
REPEATED AND PROLONGED CONTACT MAY CAUSE REDDENING
AND DRYNESS DUE TO EXTRACTION OF SKIN FATS.

INGESTION: NOT LIKELY TO BE SWALLOWED IN TOXIC AMOUNTS.
IF ASPIRATED, WILL BE RAPIDLY ABSORBED IN OTHER
BODILY SYSTEMS.

INHALATION: SHORT TERM - LOW CONCENTRATIONS MAY CAUSE EYE,
NOSE, AND THROAT IRRITATION AND
ALSO CAN CAUSE DIZZINESS AND
INCOORDINATION. HIGH CONCENTRATIONS CAN
CAUSE LIVER AND/OR KIDNEY DAMAGE AND
DEATH.

LONG TERM - CAN CAUSE LIVER AND/OR KIDNEY DAMAGE.

COMMENTS: SOME EVIDENCE OF CANCER IN LAB MICE BUT IS NOT
CONCLUSIVE.
HAS BEEN SHOWN TO HAVE TESTICULAR EFFECT ON LAB
ANIMALS AT CONCENTRATIONS THAT CAUSED DEATH.
ALCOHOL MAY INCREASE ADVERSE EFFECTS OF EXPOSURE.

CONSEQUENCES OF EXPOSURE TO TOXIC AMOUNTS (H-4)

COMPOUND: HEXACHLOROETHANE

EXPOSURE LIMIT: TWA 1 PPM STEL NONE

ODOR THRESHOLD: .15 PPM (ADEQUATE)

EYES: WILL CAUSE IRRITATION AND PAIN.
MAY CAUSE CORNEAL INJURY.
CONTACT WITH DUST WILL CAUSE IRRITATION SIMILAR TO THAT
OF ANY FOREIGN MATERIAL.
VAPOR MAY CAUSE IRRITATION.

SKIN: REPEATED OR PROLONGED EXPOSURE CAN CAUSE SKIN IRRITATION.
CONTACT WITH DUST MAY CAUSE SLIGHT IRRITATION.

INGESTION: AMOUNTS SWALLOWED DURING NORMAL PLANT OPERATING CONDITIONS DO NOT POSE A HEALTH THREAT. LARGER DOSES, HOWEVER, COULD LEAD TO SERIOUS HEALTH PROBLEMS, INCLUDING LIVER AND/OR KIDNEY DAMAGE.

INHALATION: SHORT TERM - LOW CONCENTRATIONS CAN CAUSE NOSE, THROAT,
AND LUNG IRRITATION.
HIGH CONCENTRATIONS CAN CAUSE SERIOUS
LUNG DAMAGE.

LONG TERM - MAY LEAD TO SERIOUS HEALTH PROBLEMS
INCLUDING LIVER AND/OR KIDNEY DAMAGE AND
CENTRAL NERVOUS SYSTEM EFFECTS.

COMMENTS: HEXACHLOROETHANE HAS BEEN SHOWN TO CAUSE CANCER IN LAB ANIMALS.

CONSEQUENCES OF EXPOSURE TO TOXIC AMOUNTS (H-3)

COMPOUND: HEXACHLOROBUTADIENE

EXPOSURE LIMIT: TWA .02 PPM STEL NONE

ODOR THRESHOLD: .2 PPM (INADEQUATE)

EYES: LIQUID WILL CAUSE IRRITATION AND PAIN.
CONTACT WITH DUST WILL CAUSE IRRITATION SIMILAR TO THAT
OF ANY FOREIGN MATERIAL.
VAPOR MAY CAUSE IRRITATION.

SKIN: TOXIC AMOUNTS MAY BE ABSORBED THROUGH THE SKIN.
A SINGLE PROLONGED CONTACT CAN RESULT IN SUFFICIENT
ABSORPTION OF MATERIAL AND CAUSE DEATH.
LIQUID CAN CAUSE MODERATE IRRITATION. REPEATED OR
PROLONGED EXPOSURE CAN CAUSE LIVER AND/OR KIDNEY DAMAGE
AND IN SEVERE CASES DEATH.
CONTACT WITH DUST MAY CAUSE SLIGHT IRRITATION.

INGESTION: AMOUNTS SWALLOWED DURING NORMAL PLANT OPERATING CONDITIONS DO NOT POSE A HEALTH THREAT. LARGER DOSES, HOWEVER, COULD LEAD TO SERIOUS HEALTH PROBLEMS, INCLUDING LIVER AND/OR KIDNEY DAMAGE.

INHALATION: SHORT TERM - LOW CONCENTRATIONS CAN CAUSE NOSE, THROAT, AND LUNG IRRITATION. A SINGLE PROLONGED CONTACT WITH HIGH CONCENTRATIONS CAN CAUSE LIVER AND/OR KIDNEY DAMAGE AND DEATH.

LONG TERM - MAY LEAD TO SERIOUS HEALTH PROBLEMS
INCLUDING LIVER AND/OR KIDNEY DAMAGE.

COMMENTS: HEXACHLOROBUTADIENE HAS BEEN SHOWN TO BE CARCINOGENIC IN LAB RATS BUT ONLY AT EXCESSIVELY HIGH CONCENTRATIONS.

DO 016386
CONFIDENTIAL

CONSEQUENCES OF EXPOSURE TO TOXIC AMOUNTS (H-2)

COMPOUND: HEXACHLOROBENZENE

EXPOSURE LIMIT: TWA - NONE ESTABLISHED FOR AIR, HOWEVER, DOW INC. BIOLOGICAL INDEX LIMIT IS 150 PPB IN BLOOD. NO CORRELATION EXISTS BETWEEN BLOOD LEVELS AND CONCENTRATION IN AIR.

ODOR THRESHOLD: NOT YET ESTABLISHED.

EYES: ESSENTIALLY NONIRRITATING.
CONTACT WITH DUST WILL CAUSE IRRITATION SIMILAR TO THAT
OF ANY FOREIGN MATERIAL.

SKIN: TOXIC AMOUNTS CAN BE ABSORBED THROUGH REPEATED SKIN CONTACT BUT MAIN HAZARD IS BIOACCUMULATION. LIQUID CAN CAUSE MODERATE IRRITATION. REPEATED OR PROLONGED EXPOSURE CAN CAUSE LIVER AND/OR KIDNEY DAMAGE AND IN SEVERE CASES DEATH. CONTACT WITH DUST MAY CAUSE SLIGHT IRRITATION.

INGESTION: AMOUNTS SWALLOWED DURING NORMAL PLANT OPERATING CONDITIONS DO NOT POSE A HEALTH THREAT. LARGER DOSES, HOWEVER, COULD LEAD TO SERIOUS HEALTH PROBLEMS, INCLUDING LIVER AND/OR KIDNEY DAMAGE. MAIN HAZARD IS BIOACCUMULATION.

INHALATION: VAPORS ARE UNLIKELY DUE TO PHYSICAL PROPERTIES OF COMPOUND.
CONTACT WITH DUST WILL CONTRIBUTE TO BIOACCUMULATION.

COMMENTS: HEXACHLOROBENZENE IS A LISTED POTENTIAL CARCINOGEN.
HAS BEEN SHOWN TO CAUSE CANCER IN LAB ANIMALS.
HAS BEEN SHOWN TO CAUSE BIRTH DEFECTS IN LAB ANIMALS.
HAS BEEN SHOWN TO BE PRESENT IN TOXIC AMOUNTS IN
BABIES OF FEMALE HUMANS KNOWN TO HAVE INGESTED TOXIC
AMOUNTS.

DO 016387
CONFIDENTIAL