

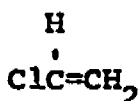
THE DOW CHEMICAL COMPANY
MIDLAND MICHIGAN

GENERAL

DATA SHEET OF PROPERTIES, HEALTH HAZARDS, AND PRECAUTIONS
FOR SAFE HANDLING OF MATERIALS

K-1711
T3.4-16

MOLECULAR FORMULA	C_2H_3Cl	NAME	Vinyl chloride
MOLECULAR WEIGHT	62.50	INDUSTRIAL HYGIENE STANDARD	See below*
SYNONYMS	Chloroethene; Chloroethylene;		
STRUCTURAL FORMULA - OR COMPOSITION			



PHYSICAL AND CHEMICAL PROPERTIES	BOILING POINT	EXPLOSIVE LIMITS (% VOL. IN AIR)	FLASH POINT	IGNITION TEMP.	MELTING POINT	VAPOR PRESS. (mm. Hg.)
	-13.9 °C 760 mmHg.	4-22	-78°C	-108 °C	-153.71 °C	29.433
	CORROSIVENESS (To Common Metals)			PHYSICAL STATE	COLOR	
	Not corrosive when dry			Gas	None	
	CHEMICAL REACTIVITY				ODOR (Include Concentration in Air)	
	Not dangerously reactive except for fire hazard				Sweet	
	STABILITY (To pH Change, Heat, Light)					
Will polymerize in presence of air, sunlight, oxygen or heat.						

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TYPE OF CONTACT		CLASSIFICATION OF TOXIC PROPERTIES	
** EYE	☐	MAY CAUSE NO RESPONSE OR NO MORE THAN VERY SLIGHT TO SLIGHT TRANSITORY PAIN AND OR SLIGHT TRANSIENT CORNEAL INJURY AND OR IRRITATION OF THE EYELIDS.	☐ MAY CAUSE SOME PERMANENT LOSS OF VISION (THIS INCLUDES DAMAGE TO CORNEA OR INTERNAL INJURY WHICH IS INCOMPLETELY HEALED IN ONE WEEK.)
	☒	MAY CAUSE SUFFICIENT INJURY TO THE EYE TO RESULT IN LOSS OF TIME FROM WORK. (THIS INCLUDES DAMAGE TO THE CORNEA WHICH HEALS OR NEARLY HEALS IN A WEEK AND OR CONSIDERABLE CONJUNCTIVAL IRRITATION WITH EDEMA.)	☐ VAPOR EXPOSURE MAY CAUSE SEVERE PAIN, LACRYMATION OR SERIOUS INJURY TO THE EYES.
** SKIN	☐	SINGLE PROLONGED EXPOSURE (HOURS) CAUSES NO EFFECT. SEVERAL REPEATED PROLONGED EXPOSURES MAY OR MAY NOT CAUSE THE DEVELOPMENT OF SOME SLIGHT IRRITATION.	☐ SINGLE SHORT EXPOSURE (MINUTES) MAY CAUSE CONSIDERABLE IRRITATION AND OR SINGLE PROLONGED OR FREQUENTLY REPEATED SHORT EXPOSURES CAUSE A BURN AND OR MAY CAUSE SYSTEMIC INJURY, EVEN DEATH.
	☒	SINGLE PROLONGED EXPOSURE MAY CAUSE SOME REDDENING OF THE SKIN. REPEATED PROLONGED CONTACTS MAY CAUSE APPRECIABLE IRRITATION.	☐ AN EXPOSURE RAPIDLY CAUSES SEVERE BURNS AND OR SERIOUS SYSTEMIC INJURY, EVEN DEATH.
TOXIC PROPERTIES INHALATION	DUST OR MIST	☐ NO SYSTEMIC INJURY EXPECTED. NO IRRITATION TO NOSE AND THROAT IN DUSTY OR MISTY ATMOSPHERES.	☐ DUSTY OR MISTY ATMOSPHERE PAINFUL TO NOSE AND THROAT (INTOLERABLE TO MOST PEOPLE) AND OR EXPOSURE MAY CAUSE SERIOUS SYSTEMIC INJURY, EVEN DEATH.
		☐ THROAT AND NOSE IRRITATION IN A DUSTY OR MISTY ATMOSPHERE IS PAINFUL BUT NOT INTOLERABLE AND OR PROLONGED OR REPEATED EXPOSURES MAY CAUSE SYSTEMIC INJURY.	☐ SHORT EXPOSURE (MINUTES) MAY CAUSE DEATH OR SERIOUS SYSTEMIC INJURY.
	VAPOR Tested at room temperature unless otherwise indicated.	☐ EXPOSURES DO NOT CAUSE ANY EFFECTS OTHER THAN SOME VERY SLIGHT IRRITATION OR PAIN TO THE EYES OR RESPIRATORY PASSAGES AT THE MOST.	☐ EXPOSURES MAY CAUSE EXTREME DROWSINESS, AND OR SERIOUS SYSTEMIC INJURY, AND OR MAY CAUSE INTOLERABLE IRRITATION TO THE RESPIRATORY PASSAGES.
		☒ SINGLE EXPOSURES EXCEEDING 1/2 HOUR, OR FREQUENTLY REPEATED EXPOSURES OF SHORTER DURATION, MAY CAUSE SLIGHT ANESTHESIA AND/OR SLIGHT SYSTEMIC INJURY, AND OR CAUSE APPRECIABLE, BUT NOT INTOLERABLE, IRRITATION OF RESPIRATORY PASSAGES.	☐ SHORT EXPOSURES MAY CAUSE UNCONSCIOUSNESS, AND OR SERIOUS SYSTEMIC INJURY, INCLUDING DEATH.
INGESTION	☐ EVEN VERY SHORT EXPOSURE WILL CAUSE SERIOUS SYSTEMIC INJURY OR DEATH.		
	☒	AMOUNTS WHICH MAY BE SWALLOWED INCIDENTAL TO INDUSTRIAL HANDLING WILL NOT CAUSE INJURY. HOWEVER, IF SUBSTANTIAL QUANTITIES SHOULD BE SWALLOWED, MORE OR LESS SERIOUS EFFECTS MAY OCCUR.	☐ AMOUNTS WHICH MAY BE SWALLOWED INCIDENTAL TO INDUSTRIAL HANDLING AND USE MAY CAUSE SERIOUS INJURY.

COMMENTS *Published: 500 ppm; Dow: 50 ppm.

**Eye and skin irritation can occur as frostbite. Vinyl chloride liquid boils away rapidly enough to freeze tissue beneath it.

R&S160083

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vinyl chloride

DEGREES OF EXPOSURE RELATED TO TYPES OF OPERATION		PRECAUTIONS (SEE CODE BELOW)			
		EYES	SKIN	INHALATION*	INGESTION
				DUST OR MIST	VAPOR
NO CONTACT	CHARACTERIZED BY REMOTE OPERATION WITH EQUIPMENT ISOLATED FROM THE WORK AREA. THE PERSONS ENTERING ISOLATED AREAS WILL REQUIRE THE PERSONAL PROTECTION OUTLINED FOR IV BELOW.	A	A		A
II CONTACT	CHARACTERIZED BY CLOSED SYSTEMS WITH EQUIPMENT VENTED OUTSIDE THE WORK AREA. INSTRUMENT CONTROL, MECHANICAL HANDLING OF MATERIALS IN BULK. EXAMPLES ARE: CONTINUOUS REACTORS, STILLS AND FILTERS, ENCLOSED CONVEYORS, VENTILATED PACKAGING.	B	A		A
III CONTACT	CHARACTERIZED BY MANUAL HANDLING OF MATERIALS IN PACKAGES SUCH AS BAGS, DRUMS AND FIBERPAPS. VENTILATION MAY BE PROVIDED FOR SPECIFIC JOBS. MANY BATCH OPERATIONS FALL INTO THIS CATEGORY.	B	A		B
IV CONTACT	CHARACTERIZED BY HAND OPERATION. EXAMPLES ARE: EMERGENCY REPAIRS, CLEANING EQUIPMENT, CLEANING FILTERS, TAKING CARE OF SPILLS, PACKAGING VOLATILE OR DUSTY MATERIALS WITHOUT VENTILATION, WHEELING AND TRAY DRYING.	C	A		E
EYE CONTACT		A NO EYE PROTECTION NEEDED. B USE SAFETY GLASSES WITHOUT SIDE SHIELDS. C USE SAFETY GLASSES WITH SIDE SHIELDS. D USE CHEMICAL WORKERS GOGGLES. E USE GAS TIGHT GOGGLES OR A FULL FACE GAS MASK.			
SKIN** CONTACT		A A BATH AND CLEAN CLOTHES ONCE PER WEEK ALONG WITH THE USUAL WASHING AT MEALTIMES SHOULD BE ADEQUATE PRECAUTIONS. B GROSSLY CONTAMINATED CLOTHING AND SHOES MUST BE REMOVED NOT LATER THAN THE END OF THE WORK PERIOD AND MUST BE THOROUGHLY CLEANED BEFORE RE-USE. C REQUIRE SHOWER AT THE END OF THE WORK PERIOD AND CLEAN CLOTHING FROM THE SKIN OUT AT THE START OF EACH WORK DAY. D CLOTHING SHOULD BE CHANGED AND SKIN WASHED PROMPTLY UPON ANY DETECTABLE CONTACT. EACH USE WILL REQUIRE SPECIAL CONSIDERATION TO DETERMINE SUITABLE PROTECTIVE DEVICES AND STANDARDS OF PERSONAL CLEANLINESS. E IMPERVIOUS CLOTHING SUCH AS RUBBER BOOTS, RUBBER APRONS, AND RUBBER GLOVES WILL BE REQUIRED. SPECIFIC ITEMS WILL BE DICTATED AS REQUIRED BY CIRCUMSTANCE.			
INHALATION	DUST OR MIST	A NO RESPIRATORY PROTECTION. B NO PROTECTION REQUIRED FOR EXPOSURE OF THIRTY MIN. DURATION OR LESS TO OBVIOUSLY DUSTY ATMOSPHERES. EXPOSURES OF LONGER DURATION WILL REQUIRE THE USE OF A DUST RESPIRATOR BEARING THE APPROVAL OF THE U.S. BUREAU OF MINES FOR THE USE WITH TOXIC DUSTS. C ANY EXPOSURE TO OBVIOUSLY DUSTY ATMOSPHERES WILL REQUIRE A DUST RESPIRATOR BEARING THE APPROVAL OF THE U.S. BUREAU OF MINES FOR USE WITH TOXIC DUSTS. D ANY EXPOSURE TO DUSTY ATMOSPHERES WILL REQUIRE THE USE OF AN AIRLINE RESPIRATOR, BLOWER MASK, OR CHEMEX MASK.			
	VAPOR	A NO PRECAUTIONS NECESSARY. B NO PRECAUTIONS NECESSARY FOR SINGLE EXPOSURES OF LESS THAN 1/2 HOUR. LONGER SINGLE EXPOSURES, OR FREQUENTLY REPEATED EXPOSURES WILL REQUIRE A GAS MASK OR RESPIRATOR EQUIPPED WITH APPROPRIATE CANISTER. C TEN MINUTES. LONGER EXPOSURES EITHER SINGLE OR REPEATED, WILL REQUIRE GAS MASK OR RESPIRATOR EQUIPPED WITH APPROPRIATE CANISTER. D GAS MASK WITH APPROPRIATE CANISTER REQUIRED AT ALL TIMES. E EVACUATE AREA AT ONCE AND ENTER ONLY WITH AIRLINE RESPIRATOR, BLOWER MASK OR CHEMEX MASK.			
INGESTION		A NO UNUSUAL PROCEDURES REQUIRED. B FOOD AND TOBACCO SHOULD NOT BE PRESENT IN THE WORK AREA. HANDS AND FACE SHOULD BE WASHED BEFORE SMOKING AND EATING.			

COMMENTS

**GOOD PRACTICE REQUIRES THAT GROSS AMOUNTS OF ANY CHEMICAL BE REMOVED FROM THE SKIN AS SOON AS IS PRACTICAL

*SUITABLE GAS MASK CANISTER

Organic vapor

Vapor exposures which cause "dizziness" should be avoided.

SIGNED REVISED: TRTorkelson CHECKED HRHoyle
 DATE 9/30/70 DATE 10/28/70