

M A T E R I A L S A F E T Y D A T A S H E E T P A G E : 1
DOW CHEMICAL U.S.A. MIDLAND MICHIGAN 48674 EMERGENCY PHONE: 517-636-4400

EFFECTIVE DATE: 12 MAR 85 DATE PRINTED: 13 MAR 85 PRODUCT CODE: 91575

PRODUCT NAME: VINYL CHLORIDE MONOMER MSD: 0664

INGREDIENTS (TYPICAL VALUES-NOT SPECIFICATIONS) : x :

VINYL CHLORIDE, CAS# 75-01-4 : 99.9 :

SUBSTANCES LISTED IN THE INGREDIENT SECTION ARE THOSE IDENTIFIED AS BEING PRESENT AT A CONCENTRATION OF 1% OR GREATER, OR 0.1% IF THE SUBSTANCE IS ON THE LIST OF POTENTIAL CARCINOGENS CITED IN OSHA HAZARD COMMUNICATION STANDARD. WHERE PROPRIETARY INGREDIENT SHOWS, THE IDENTITY OF THIS SUBSTANCE MAY BE MADE AVAILABLE AS PROVIDED IN 29 CFR 1910.1200(1).

SECTION 1

PHYSICAL DATA

BOILING POINT: -13.8C (+7.16F) : SOL. IN WATER: <0.1%
VAP PRESS: 2524 MMHG, 336KPA @20C : SP. GRAVITY: 0.9104 @ 20/20C, 58F
VAP DENSITY (AIR=1): 2.15 : % VOLATILE BY VOL: 100

APPEARANCE AND ODOR: EXTREMELY FLAMMABLE, COLORLESS GAS OR LIQUID
UNDER PRESSURE - FAINT, SWEET ODOR.

SECTION 2

FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: -78C (-108.4F) : FLAMMABLE LIMITS
METHOD USED: CLEVELAND OPEN CUP : LFL: 3.6 VOL. % UFL: 33.0 VOL %

EXTINGUISHING MEDIA: FOR CONTAINMENT OF FIRE AND PROTECTION OF
SURROUNDING EQUIPMENT ONLY. WATER FOG, FOAM, CO2, DRY CHEMICAL.

SPECIAL FIRE FIGHTING EQUIPMENT AND HAZARDS: WEAR POSITIVE PRESSURE
SELF-CONTAINED BREATHING APPARATUS. VAPORS CAN FORM FLAMMABLE
MIXTURES WITH AIR AT ALL NORMAL AMBIENT TEMPERATURES. ALL SOURCES
OF POSSIBLE IGNITION SHOULD BE AVOIDED IN AREAS WHERE VINYL CHLORIDE
VAPORS ARE PRESENT. AUTOIGNITION TEMPERATURE 472C (882F).

SECTION 3

REACTIVITY DATA

STABILITY: AVOID EXPOSURE TO AIR, OXYGEN, SUNLIGHT, MOISTURE, AND
ALL SOURCES OF HEAT OR IGNITION. AUTOIGNITES IN AIR AT 472C (882F).

INCOMPATIBILITY: OXIDIZING MATERIAL, AND ALUMINUM OR ALUMINUM ALLOYS.

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PRODUCT (CONT'D): VINYL CHLORIDE MONOMER MSD: 0664

SECTION 3 REACTIVITY DATA (CONTINUED)

HAZARDOUS DECOMPOSITION PRODUCTS: HYDROGEN CHLORIDE, CARBON MONOXIDE.

HAZARDOUS POLYMERIZATION: MAY OCCUR. AVOID EXPOSURES TO
OXYGEN (AIR), HEAT, SUNLIGHT, MOISTURE, AND FREE RADICAL INITIATORS
OR OTHER CATALYTIC IMPURITIES.

SECTION 4 SPILL, LEAK, AND DISPOSAL PROCEDURES

ACTION TO TAKE FOR SPILLS: REMOVE ALL SOURCES OF IGNITION; SUPPLY
AMPLE VENTILATION; ALLOW ONLY PROPERLY PROTECTED PERSONNEL INTO THE
AREA; DO NOT ALLOW VINYL CHLORIDE TO ENTER THE SEWER SYSTEM BECAUSE
OF EXPLOSIVE HAZARD.

DISPOSAL METHOD: INCINERATE IN EQUIPMENT WITH A HYDROCHLORIC ACID
SCRUBBER ACCORDING TO LOCAL, STATE, AND FEDERAL REGULATIONS. CONTACT
THE DOW CHEMICAL COMPANY FOR ADDITIONAL HELP.

SECTION 5 HEALTH HAZARD DATA

EYE: IF LIQUID CONTACTS EYE, EVAPORATION MAY CAUSE FROSTBITE-TYPE
INJURY DUE TO RAPID COOLING.

SKIN CONTACT: IF LIQUID CONTACTS SKIN, EVAPORATION MAY CAUSE FROST-BITE
TYPE INJURY DUE TO RAPID COOLING.

SKIN ABSORPTION: SKIN ABSORPTION IS UNLIKELY DUE TO PHYSICAL PROPERTIES.

INGESTION: INGESTION IS UNLIKELY DUE TO PHYSICAL STATE.

INHALATION: A SINGLE BRIEF (MINUTES) INHALATION EXPOSURE TO EASILY
ATTAINABLE CONCENTRATIONS MAY CAUSE SERIOUS ADVERSE EFFECTS, EVEN
DEATH. SIGNS AND SYMPTOMS OF EXCESSIVE EXPOSURE AT CONCENTRATIONS
OF 8,000 TO 10,000 PPM MAY BE ANESTHETIC OR NARCOTIC EFFECTS. SIGNS
AND SYMPTOMS OF EXCESSIVE EXPOSURE MAY BE CENTRAL NERVOUS SYSTEM
EFFECTS.

SYSTEMIC & OTHER EFFECTS: EXCESSIVE EXPOSURE MAY CAUSE LUNG, LIVER
AND KIDNEY EFFECTS. EXCESSIVE EXPOSURE HAS BEEN SHOWN TO CAUSE CANCER
IN HUMANS AND IN LABORATORY ANIMALS. REPEATED EXCESSIVE EXPOSURE MAY
CAUSE RAYNAUD'S PHENOMENON, PSEUDOSCLERODERMA AND ACROOSTEOLYSIS IN
HUMANS. HAS BEEN SHOWN TO BE A MUTAGEN IN BACTERIA. HAS BEEN SHOWN
TO PRODUCE REVERSIBLE CHROMOSOMAL ABNORMALITIES IN HUMANS. VINYL CHLORIDE
IS LISTED AS A CARCINOGEN BY THE NATIONAL TOXICOLOGY PROGRAM, THE
INTERNATIONAL AGENCY FOR RESEARCH, AND OSHA.

SECTION 6 FIRST AID

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EYES: IRRIGATE IMMEDIATELY WITH WATER FOR AT LEAST 5 MINUTES.

SKIN: NO ADVERSE EFFECTS ANTICIPATED BY THIS ROUTE OF EXPOSURE
EXCEPT FOR FROSTBITE.

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PRODUCT (CONT'D): VINYL CHLORIDE MONOMER MSD: 0664

SECTION 6 FIRST AID (CONTINUED)

INGESTION: NO ADVERSE EFFECTS ANTICIPATED BY THIS ROUTE OF EXPOSURE
DUE TO PHYSICAL PROPERTIES.

INHALATION: REMOVE TO FRESH AIR. IF NOT BREATHING, MOUTH-TO-
MOUTH RESUSCITATION. IF BREATHING IS DIFFICULT, GT OXYGEN. CALL
A PHYSICIAN.

NOTE TO PHYSICIAN: NO SPECIFIC ANTIDOTE. SUPPORTIVE CARE. TREATMENT
BASED ON JUDGMENT OF THE PHYSICIAN IN RESPONSE TO REACTIONS OF THE
PATIENT.

SECTION 7 SPECIAL HANDLING INFORMATION

EXPOSURE GUIDELINE(S): ACGIH TLV IS 5 PPM FOR VINYL CHLORIDE.
OSHA PEL IS 1 PPM FOR VINYL CHLORIDE WITH A 0.5 PPM ACTION LEVEL.

VENTILATION: CONTROL AIRBORNE CONCENTRATIONS BELOW THE EXPOSURE
GUIDELINE. USE ONLY WITH ADEQUATE VENTILATION. LOCAL EXHAUST
VENTILATION MAY BE NECESSARY FOR SOME OPERATIONS.

RESPIRATORY PROTECTION: WHEN AIRBORNE EXPOSURE GUIDELINES AND/OR
COMFORT LEVELS MAY BE EXCEEDED, USE AN APPROVED POSITIVE-PRESSURE
SELF-CONTAINED BREATHING APPARATUS.

PROTECTIVE CLOTHING: USE AN IMPERVIOUS FULL SLICKER SUIT WHEN THERE
IS ANY POSSIBILITY OF SKIN CONTACT WITH LIQUID OR VAPORS IN EXCESS
OF EXPOSURE GUIDELINES.

EYE PROTECTION: USE CHEMICAL GOGGLES. IF VAPOR EXPOSURE CAUSES
EYE IRRITATION, USE A FULL-FACE, SUPPLIED-AIR RESPIRATOR.

SECTION 8 SPECIAL PRECAUTIONS AND ADDITIONAL INFORMATION

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: STORAGE SHOULD BE IN
AN ISOLATED, WELL-VENTILATED AREA. PITS, DEPRESSIONS, AND BASEMENTS
SHOULD BE AVOIDED.

AVOID ALL SKIN AND EYE CONTACT. AVOID BREATHING VAPORS. VINYL
CHLORIDE SHOULD ALWAYS BE HANDLED WITH FULL RECOGNITION OF ITS
VOLATILITY AND ITS FLAMMABILITY. KEEP THE MATERIAL ENCLOSED AND
ELIMINATE ALL SOURCES OF IGNITION.

ADDITIONAL INFORMATION: REVISED SECTIONS 1, 2, 3, 5, 6, 7, AND
INGREDIENTS.

'TIE' DATE: 1-JAN-78

LAST PAGE

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