

BETZ MATERIAL SAFETY DATA SHEET

EMERGENCY TELEPHONE NUMBER 215/355-3300

PRODUCT : COR-TROL 778-P

EFFECTIVE DATE 2/85

* NFPA

* HEALTH - 2

* FIRE - 0

* REACTIVITY-0

* SPECIAL - -

ACGIH INGREDIENT TLV-TWA(SEE LATEST TLV BULLETIN):

HYDROQUINONE-2MG/M3 (STEL=4MG/M3)

OSHA INGREDIENT PERMISSIBLE EXPOSURE LIMIT(SEE CFR 1910.1000 TABLES Z-1 /Z-2):

HYDROQUINONE-2MG/M3

*** GENERIC DESCRIPTION ***

AN AQUEOUS MIXTURE OF HYDROQUINONE AND A NEUTRALIZING AMINE.

-----SECTION 2-----TYPICAL PHYSICAL DATA-----

PH: AS IS (APPROX.) 7.5 B.P.T.OF OR B.RANGE: >200
FL.PT.(DEG.F): >200 SETA(CC) SP.GR.(70/70oF)OR DENSITY: 1.005
VAPOR PRESSURE(mmHG): 18 VAPOR DENSITY(AIR=1): <1
VISC cps70oF: 3.5 %SOLUBILITY(WATER): 100
EVAP.RATE: <1. ETHER=1 APPEARANCE: BROWN
PHYSICAL STATE: LIQUID FREEZE POINT(DEG.F): 32
ODOR: AMINE

-----SECTION 3-----REACTIVITY DATA-----

THERMAL DECOMPOSITION (DESTRUCTIVE FIRES) YIELDS ELEMENTAL OXIDES.
REDUCING AGENT.DO NOT STORE OR MIX WITH OXIDIZING AGENTS.
HYDROQUINONE MAY OXIDIZE TO QUINONE.

-----SECTION 4-----HEALTH HAZARD EFFECTS-----

ACUTE SKIN EFFECTS***

SLIGHTLY IRRITATING TO THE SKIN.POTENTIAL SKIN SENSITIZER

ACUTE EYE EFFECTS***

MODERATELY IRRITATING TO THE EYES

ACUTE RESPIRATORY EFFECTS***

MISTS/AEROSOLS MAY CAUSE IRRITATION TO UPPER RESPIRATORY TRACT

CHRONIC EFFECTS***

CHRONIC EFFECTS OF THIS FORMULATION HAVE NOT YET BEEN FULLY EVALUATED

-----SECTION 5-----FIRST AID INSTRUCTIONS-----

SKIN CONTACT***

REMOVE CONTAMINATED CLOTHING.WASH EXPOSED AREA WITH A LARGE QUANTITY OF
SOAP SOLUTION OR WATER FOR 15 MINUTES

EYE CONTACT***

IMMEDIATELY FLUSH EYES WITH WATER FOR 15 MINUTES.IMMEDIATELY CONTACT A
PHYSICIAN FOR ADDITIONAL TREATMENT

INHALATION EXPOSURE***

REMOVE VICTIM FROM CONTAMINATED AREA TO FRESH AIR.APPLY APPROPRIATE
FIRST AID TREATMENT AS NECESSARY

INGESTION***

GENERAL-DO NOT FEED ANYTHING BY MOUTH TO AN UNCONSCIOUS OR CONVULSIVE VICTIM
SPECIFIC- DILUTE CONTENTS OF STOMACH.INDUCE VOMITING BY ONE OF THE STANDARD
METHODS.IMMEDIATELY CONTACT A PHYSICIAN

OVER

---SECTION 6-----SPILL, DISPOSAL AND FIRE INSTRUCTIONS-----

SPILL INSTRUCTIONS***

GENERAL-VENTILATE AREA, USE SPECIFIED PROTECTIVE EQUIPMENT. CONTAIN AND ABSORB ON ABSORBENT MATERIAL. PLACE IN WASTE DISPOSAL CONTAINER. THE WASTE CHARACTERISTICS OF THE ABSORBED MATERIAL, OR ANY CONTAMINATED SOIL, SHOULD BE DETERMINED IN ACCORDANCE WITH RCRA REGULATIONS. SPECIFIC- FLUSH AREA WITH WATER. WET AREA MAY BE SLIPPERY. IF SO, SPREAD SAND OR GRIT.

DISPOSAL INSTRUCTIONS***

GENERAL-WATER CONTAMINATED WITH THIS PRODUCT MAY BE SENT TO A SANITARY SEWER TREATMENT FACILITY, IN ACCORDANCE WITH ANY LOCAL AGREEMENT, A PERMITTED WASTE TREATMENT FACILITY OR DISCHARGED UNDER A NPDES PERMIT PRODUCT (AS IS)- INCINERATE OR BURY IN APPROVED LANDFILL

FIRE EXTINGUISHING INSTRUCTIONS***

GENERAL-FIREFIGHTERS SHOULD WEAR POSITIVE PRESSURE SELF-CONTAINED BREATHING APPARATUS (FULL FACE-PIECE TYPE). DRY CHEMICAL, CARBON DIOXIDE, FOAM OR WATER

-----SECTION 7-----SPECIAL PROTECTIVE EQUIPMENT-----

VENTILATION PROTECTION***

ADEQUATE VENTILATION TO MAINTAIN AIR CONTAMINANTS BELOW EXPOSURE LIMITS

RECOMMENDED RESPIRATORY PROTECTION***

IF VENTILATION IS INADEQUATE OR SIGNIFICANT PRODUCT EXPOSURE IS LIKELY, USE A RESPIRATOR WITH ORGANIC VAPOR CARTRIDGES AND DUST/MIST PREFILTERS. FOLLOW MANUFACTURERS GUIDELINES FOR VAPORS WITH POOR WARNING PROPERTIES

RECOMMENDED SKIN PROTECTION***

RUBBER GLOVES AND CHEMICAL RESISTANT APRON
REPLACE AS NECESSARY

RECOMMENDED EYE PROTECTION***

SPLASH PROOF CHEMICAL GOGGLES

-----SECTION 8-----STORAGE AND HANDLING PRECAUTIONS-----

STORAGE INSTRUCTIONS***

GENERAL-KEEP CONTAINER CLOSED

SPECIFIC- STORE WITH MINIMUM EXPOSURE TO LIGHT

HANDLING INSTRUCTIONS***

GENERAL-IMMEDIATELY REMOVE CONTAMINATED CLOTHING, WASH BEFORE REUSE

SPECIFIC- NORMAL CHEMICAL HANDLING

-----SECTION 9-----FEDERAL REGULATIONS-----

OSHA (29CFR)-FOR RESPIRATORY PROTECTION USE PROPERLY FITTED MSHA/NIOSH APPROVED RESPIRATORY EQUIPMENT WITHIN USE LIMITATIONS. OTHERWISE, USE SUPPLIED AIR APPARATUS.

CWA (40CFR) REPORTABLE QUANTITY: AS IS PRODUCT (HAZARDOUS SUBSTANCE)
NOT APPLICABLE

RCRA (40CFR): IF DISCARDED, THIS MATERIAL BEARS HWI# NOT APPLICABLE

DOT (49CFR) CLASSIFICATION: NOT APPLICABLE

THIS FORM IS ESSENTIALLY EQUAL TO OSHA 20 FORM. WHILE THE INFORMATION AND RECOMMENDATIONS SET FORTH HEREIN ARE BELIEVED TO BE ACCURATE AS OF THE DATE HEREOF, BETZ LABORATORIES, INC. MAKES NO WARRANTY WITH RESPECT THERETO AND DISCLAIMS ALL LIABILITY FROM RELIANCE THEREON.

HAROLD M. HERSH
ENVIRONMENTAL INFORMATION COORDINATOR

MATERIAL SAFETY DATA SHEET

L-4618-A
September 1985



An explanation of the terms used herein may be found in OSHA 29 CFR 1910.1200 available from OSHA regional or area offices.
(Essentially similar to U.S. Department of Labor Form OSHA-20 and generally accepted in Canada for information purposes)
Do Not Duplicate This Form. Request an Original.



I. PRODUCT IDENTIFICATION

PRODUCT	Methane		
CHEMICAL NAME	Methane	SYNONYMS	Marsh Gas, Methyl Hydride, Fire Damp, Sewer Gas
FORMULA	CH ₄	CHEMICAL FAMILY	Alkane
		MOLECULAR WEIGHT	16.043
TRADE NAME	Methane		

II. HAZARDOUS INGREDIENTS

For mixtures of this product request the respective component Material Safety Data Sheets. See Section IX.

MATERIAL (CAS NO.)	Wt (%)	1984-1985 ACGIH TLV-TWA (OSHA-PEL)
Methane (74-82-8)	100	Simple asphyxiant (None currently established)

III. PHYSICAL DATA

BOILING POINT, 760 mm. Hg	-161.5°C (-258.7°F)	FREEZING POINT	-182.6°C (-296.7°F)
SPECIFIC GRAVITY (H ₂ O = 1)	Gas	VAPOR PRESSURE AT 20°C.	Gas
VAPOR DENSITY (air = 1)	0.554 @ 0°C (32°F)	SOLUBILITY IN WATER, % by wt.	Slightly
PERCENT VOLATILES BY VOLUME	100	EVAPORATION RATE (Butyl Acetate = 1)	Not applicable

APPEARANCE AND ODOR Colorless, odorless gas at normal temperature and pressure.

EMERGENCY PHONE NUMBER

IN CASE OF EMERGENCIES involving this material, further information is available at all times:
In the USA 304 — 744-3487 In Canada 514 — 645-5311
For routine information contact your local supplier

Union Carbide requests the users of this product to study this Material Safety Data Sheet (MSDS) and become aware of product hazards and safety information. To promote safe use of this product a user should (1) notify its employees, agents and contractors of the information on this MSDS and any product hazards and safety information, (2) furnish this same information to each of its customers for the product, and (3) request such customers to notify their employees and customers for the product of the same product hazards and safety information.

UNION CARBIDE CORPORATION LINDE DIVISION
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IV. HEALTH HAZARD DATA

THOLD LIMIT VALUE: See Section II.

EFFECTS OF A SINGLE (ACUTE) OVEREXPOSURE:

SWALLOWING — An unlikely route of exposure.

SKIN ABSORPTION — No evidence of adverse effects from available information.

INHALATION — Asphyxiant. Moderate concentrations may cause headache, drowsiness, dizziness, excitation, excess salivation, vomiting and unconsciousness.

SKIN CONTACT — No evidence of adverse effects from available information.

EYE CONTACT — No evidence of adverse effects from available information.

EFFECTS OF REPEATED (CHRONIC) OVEREXPOSURE: No evidence of adverse effects from available information.

OTHER EFFECTS OF OVEREXPOSURE: Methane is an asphyxiant. Lack of oxygen can cause death.

MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE: A knowledge of the available toxicology information and of the physical and chemical properties of the material suggest that overexposure is unlikely to aggravate existing medical conditions.

SIGNIFICANT LABORATORY DATA WITH POSSIBLE RELEVANCE TO HUMAN HEALTH HAZARD EVALUATION: None currently available.

EMERGENCY AND FIRST AID PROCEDURES:

SWALLOWING — This product is a gas at normal temperature and pressure.

SKIN — Wash with soap and water.

INHALATION — Remove to fresh air. Give artificial respiration if not breathing. Give oxygen if breathing is difficult. Call a physician.

EYES — Flush with water.

NOTE TO PHYSICIAN: There is no specific antidote. Treatment of overexposure should be directed at the control of symptoms and the clinical condition.