ATTN: SAFETY DIRECTOR
UNIVERSITY OF WISCONSIN WHITewater
P O Box 296
Whitewater WI 53190-0296

EMERGENCY PHONE 1-414-273-3850
DATE 05/28/96
CUST#: 523216
PO#: UNF64115

MATERIAL SAFETY DATA SHEET PAGE 1

SECTION 1. ----- --- --- --- CHEMICAL IDENTIFICATION -- --- --- --

CATALOG #: 30872-2
NAME: BENZENE-D6, 99.6 ATOM % D (1PK=5 X 0.5ML)

SECTION 2. ----- --- --- --- COMPOSITION/INFORMATION ON INGREDIENTS -- --- --- --

CAS #: 1076-43-3
MF: C6D6
EC NO: 214-061-8

SECTION 3. ----- --- --- --- HAZARDS IDENTIFICATION -- --- --- --

LABEL PRECAUTIONARY STATEMENTS
FLAMMABLE (USA DEFINITION)
HIGHLY FLAMMABLE (EUROPEAN DEFINITION)
TOXIC
MAY CAUSE CANCER.
TOXIC: DANGER OF SERIOUS DAMAGE TO HEALTH BY PROLONGED EXPOSURE THROUGH INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED. DANGER: CONTAINS BENZENE, CANCER HAZARD.
MUTAGEN.
CAUSES SEVERE EYE IRRITATION.
TARGET ORGAN(S):
BLOOD
BONE MARROW
EYES
KEEP AWAY FROM SOURCES OF IGNITION - NO SMOKING.
AVOID EXPOSURE - OBTAIN SPECIAL INSTRUCTIONS BEFORE USE.
IN CASE OF ACCIDENT OR IF YOU FEEL UNWELL, SEEK MEDICAL ADVICE IMMEDIATELY (SHOW THE LABEL WHERE POSSIBLE).
HYDROSCOPIC
STORE UNDER NITROGEN.

SECTION 4. ----- --- --- --- FIRST-AID MEASURES-- --- --- ---

IN CASE OF CONTACT IMMEDIATELY FLUSH EYES OR SKIN WITH COPIOUS AMOUNTS OF WATER FOR AT LEAST 15 MINUTES WHILE REMOVING CONTAMINATED CLOTHING AND SHOES.
ASSURE ADEQUATE FLUSHING OF THE EYES BY SEPARATING THE EYELIDS WITH FINGERS.
IF INHALED, REMOVE TO FRESH AIR. IF NOT BREATHING GIVE ARTIFICIAL RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN.
IF SWALLOWED, WASH OUT MOUTH WITH WATER PROVIDED PERSON IS CONSCIOUS. CALL A PHYSICIAN.
REMOVE AND WASH CONTAMINATED CLOTHING PROMPTLY.

SECTION 5. ----- --- --- --- -- FIRE FIGHTING MEASURES ---- --

CONTINUED ON NEXT PAGE
EXTINGUISHING MEDIA
CARBON DIOXIDE, DRY CHEMICAL POWDER OR APPROPRIATE FOAM.
WATER MAY BE EFFECTIVE FOR COOLING, BUT MAY NOT EFFECT EXTINGUISHMENT.

SPECIAL FIREFIGHTING PROCEDURES
WEAR SELF-CONTAINED BREATHING APPARATUS AND PROTECTIVE CLOTHING TO
PREVENT CONTACT WITH SKIN AND EYES.
USE WATER SPRAY TO COOL FIRE-EXPOSED CONTAINERS.

UNUSUAL FIRE AND EXPLOSIONS HAZARDS
DANGER:
EXREMELY FLAMMABLE.
VAPOR MAY TRAVEL CONSIDERABLE DISTANCE TO SOURCE OF IGNITION AND
FLASH BACK.
CONTAINER EXPLOSION MAY OCCUR UNDER FIRE CONDITIONS.

SECTION 6. - - - - - - - ACCIDENTAL RELEASE MEASURES--
- - - - - - - - - -
EVACUATE AREA.
SHUT OFF ALL SOURCES OF IGNITION.
WEAR SELF-CONTAINED BREATHING APPARATUS, RUBBER BOOTS AND HEAVY
RUBBER GLOVES.
COVER WITH AN ACTIVATED CARBON ADSORBENT, TAKE UP AND PLACE IN CLOSED
CONTAINERS. TRANSPORT OUTDOORS.
VENTILATE AREA AND WASH SPILL SITE AFTER MATERIAL PICKUP IS COMPLETE.

SECTION 7. - - - - - - - - HANDLING AND STORAGE--
- - - - - - - - - -
REFER TO SECTION 8.

SECTION 8. - - - - - EXPOSURE CONTROLS/PERSOAL PROTECTION--
- - - - - - - - - -
WEAR APPROPRIATE NIOSH/MSHA-APPROVED RESPIRATOR, CHEMICAL-RESISTANT
GLOVES, SAFETY GOGGLES, OTHER PROTECTIVE CLOTHING.
SAFETY SHOWER AND EYE BATH.
USE ONLY IN A CHEMICAL FUME HOOD.
USE NONSPARKING TOOLS.
DO NOT BREATHE VAPOR.
DO NOT GET IN EYES, ON SKIN, ON CLOTHING.
AVOID PROLONGED OR REPEATED EXPOSURE.
WASH THOROUGHLY AFTER HANDLING.
CARCINOGEN.
TOXIC.
SEVERE EYE IRITANT.
MUTAGEN.
KEEP TIGHTLY CLOSED.
KEEP AWAY FROM HEAT, SPARKS, AND OPEN FLAME.
HYGROSCOPIC

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STORE UNDER NITROGEN.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR
COLORLESS LIQUID

PHYSICAL PROPERTIES
BOILING POINT: 79.1 C
MELTING POINT: 6.8 C
FLASHPOINT: 12 F
SPECIFIC GRAVITY: 0.950

SECTION 10. STABILITY AND REACTIVITY

INCOMPATIBILITIES
OXIDIZING AGENTS
PROTECT FROM MOISTURE.

HAZARDOUS COMBUSTION OR DECOMPOSITION PRODUCTS
TOXIC FUMES OF: CARBON MONOXIDE, CARBON DIOXIDE

SECTION 11. TOXICOLOGICAL INFORMATION

ACUTE EFFECTS
DANGER: CONTAINS BENZENE, CANCER HAZARD.
HARMFUL IF SWALLOWED, INHALED, OR ABSORBED THROUGH SKIN.
MATERIAL IS IRRITATING TO MUCOUS MEMBRANES AND UPPER
RESPIRATORY TRACT.
CAUSES SEVERE EYE IRRITATION.
CAUSES SKIN IRRITATION.
EXPOSURE CAN CAUSE:
NAUSEA, DIZZINESS AND HEADACHE
NARCOTIC EFFECT

CHRONIC EFFECTS
CARCINOGEN.
BLOOD EFFECTS
MAY ALTER GENETIC MATERIAL.
TARGET ORGAN(S):
BLOOD
BONE MARROW
EYES

ADDITIONAL INFORMATION
INHALATION OF HIGH CONCENTRATIONS OF BENZENE MAY HAVE AN INITIAL
STIMULATORY EFFECT ON THE CENTRAL NERVOUS SYSTEM CHARACTERIZED BY

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EXHILARATION, NERVOUS EXCITATION AND/OR GIDDINESS, DEPRESSION, DROWSINESS, OR FATIGUE. THE VICTIM MAY EXPERIENCE TIGHTNESS IN THE CHEST, BREATHLESSNESS AND LOSS OF CONSCIOUSNESS. TREMORS, CONVULSIONS AND DEATH DUE TO RESPIRATORY PARALYSIS OR CIRCULATORY COLLAPSE CAN OCCUR IN A FEW MINUTES TO SEVERAL HOURS FOLLOWING SEVERE EXPOSURES. ASPIRATION OF SMALL AMOUNTS OF LIQUID IMMEDIATELY CAUSES PULMONARY EDEMA AND HEMORRHAGE OF PULMONARY TISSUE. DIRECT SKIN CONTACT MAY CAUSEERYTHEMA, REPEATED OR PROLONGED SKIN CONTACT MAY RESULT IN DRYING, SCALING, DERMATITIS OR DEVELOPMENT OF SECONDARY SKIN INFECCTIONS. THE CHEF TARGET ORGAN IS THE HEMATOPOIETIC SYSTEM. BLEEDING FROM THE NOSE, GUMS OR MUCOUS MEMBRANES AND THE DEVELOPMENT OF PURPURIC SPOTS, PANCYTOPENIA, LEUKOPENIA, THROMBOCYTOPENIA, APLASTIC ANEMIA AND LEUKEMIA MAY OCCUR AS THE CONDITION PROGRESSES. THE BONE MARROW MAY APPEAR NORMAL, APLASTIC OR HYPERPLASTIC. AND MAY NOT CORRELATE WITH PERIPHERAL BLOOD-FORMING TISSUES. THE ONSET OF EFFECTS OF PROLONGED BENZENE EXPOSURE MAY BE DELAYED FOR MANY MONTHS OR YEARS AFTER THE ACTUAL EXPOSURE HAS CEASED.

SECTION 12. ECOLOGICAL INFORMATION
DATA NOT YET AVAILABLE.

SECTION 13. DISPOSAL CONSIDERATIONS
BURN IN A CHEMICAL INCINERATOR EQUIPPED WITH AN AFTERBURNER AND SCRUBBER BUT EXERT EXTRA CARE IN IGNITING AS THIS MATERIAL IS HIGHLY FLAMMABLE. OBSERVE ALL FEDERAL, STATE AND LOCAL ENVIRONMENTAL REGULATIONS.

SECTION 14. TRANSPORT INFORMATION
CONTACT ALDRICH CHEMICAL COMPANY FOR TRANSPORTATION INFORMATION.

SECTION 15. REGULATORY INFORMATION
EUROPEAN INFORMATION
HIGHLY FLAMMABLE
TOXIC
R 45 MAY CAUSE CANCER.
R 48/23/24/25
TOXIC: DANGER OF SERIOUS DAMAGE TO HEALTH BY PROLONGED EXPOSURE THROUGH INHALATION, IN CONTACT WITH SKIN AND IF SWALLOWED.
HIGHLY FLAMMABLE
S 16 KEEP AWAY FROM SOURCES OF IGNITION - NO SMOKING.
S 53 AVOID EXPOSURE - OBTAIN SPECIAL INSTRUCTIONS BEFORE USE.
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TLV AND SOURCE
FOR BENZENE:
ACGIH TLV-TWA: 10 PPM.
OSHA PEL: 8H TWA 1 PPM; STEL: 5 PPM (15 MIN.).

SECTION 16. OTHER INFORMATION

THE ABOVE INFORMATION IS BELIEVED TO BE CORRECT BUT DOES NOT PURPORT TO BE ALL INCLUSIVE AND SHALL BE USED ONLY AS A GUIDE. ALDRICH SHALL NOT BE HELD LIABLE FOR ANY DAMAGE RESULTING FROM HANDLING OR FROM CONTACT WITH THE ABOVE PRODUCT. SEE Reverse SIDE OF INVOICE OR PACKING SLIP FOR ADDITIONAL TERMS AND CONDITIONS OF SALE.

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