MANUFACTURER'S NAME: BUTLER SALES ASSOCIATES, INC.
P.O. BOX 8098
ST. JOSEPH, MO 64508
TELEPHONE NO.: 816/279-3449
FAX NO.: 816/279-4725
COMMON NAME: Diethylstilbestrol
CAS NUMBER: 56-53-1
REVISION NUMBER: 1
EMERGENCY TELEPHONE: (317) 276-2000
CHEMTREC TELEPHONE: 1-800-424-9300
FOR ADDITIONAL INFORMATION CALL:
   Occupational Health and Safety
   (317) 276-2286
REVISION DATE: September 30, 1988

SECTION 1 - MATERIAL IDENTIFICATION
SYNONYMS/TRADE NAMES: Stilbestrol; DES; Stilbasol
CHEMICAL FAMILY: Estrogen

SECTION 2 - PHYSICAL DATA
APPEARANCE: White crystalline powder
MELTING POINT: 169-175 deg. C
ODOR: Odorless
SOLUBILITY IN WATER: Practically insoluble in water
VAPOR PRESSURE: Not applicable
SPECIFIC GRAVITY: Not applicable
BOILING POINT: Not applicable
VAPOR DENSITY: Not applicable
EVAPORATION RATE: Not applicable

SECTION 3 - FIRE AND EXPLOSION DATA
FLASH POINT: Not applicable
METHOD: Not applicable
FLAMMABLE LIMITS:
LEL: Not applicable
UEL: Not applicable
EXTINGUISHING MEDIA: Water, carbon dioxide, dry chemical, foam or Halon extinguisher.
UNUSUAL FIRE AND EXPLOSION HAZARDS: As a finely divided material, may explode if suspended in air in heavy concentration, and subjected to a source of ignition.

SECTION 4 - HEALTH HAZARD
ANIMAL TOXICITY:
SINGLE EXPOSURE:
ORAL LD50: Mouse 2500 mg/kg.
INTRAEPITONAL LD50: Mouse 67 mg/kg.
SUBCUTANEOUS LD50: Mouse 50 mg/kg.
INTRAEPITONAL LD50: Rat 34 mg/kg.
DERMAL IRRITATION AND TOXICITY: Not available.
OCULAR IRRITATION: Not available.
INHALATION: Not available.
REPEAT EXPOSURE: Diethylstilbestrol is embryolethal for pre- and postimplantation embryos in some species, and may cause teratogenic effects in the genital tract, which could be related to the carcinogenicity observed in some of these tissues.
CARCINOGENICITY: IARC evaluation of carcinogenicity determined diethylstilbestrol to be a positive animal carcinogen. Not listed as carcinogenic by NCI/NTP, OSHA, or ACGIH.
EFFECTS OF EXPOSURE (Occupational): Exposure to diethylstilbestrol can cause gynecomastia in males.
ADVERSE REACTIONS (In clinical use): Please refer to the attached product literature for information on adverse reactions in clinical use.

SECTION 5 - EMERGENCY AND FIRST AID PROCEDURES
EYES: Wash with running water for 15 minutes. Call physician.
SKIN: Wash with soap and large amounts of running water. If symptoms develop, call physician.
INHALATION: Remove to well ventilated area. Administer artifical respiration if necessary and call physician.
INGESTION: Contact physician immediately. If physician unavailable, induce vomiting.

SECTION 6 - REACTIVITY DATA
STABILITY: Stable to heat at warm ambient temperatures (i.e., up to 50 deg. C) and stable to light; however, excessive light and heat exposure can cause loss of potency.
INCOMPATIBILITY: Strong oxidizing agents (e.g., peroxides, permanganates, nitric acid, etc.) may produce violent reaction with this compound.
HAZARDOUS DECOMPOSITION: May emit toxic fumes when heated to decomposition.
HAZARDOUS POLYMERIZATION: Will not occur.

SECTION 7 - SPILL, LEAK AND DISPOSAL PROCEDURES
SPILLS (Steps to be taken when material is released or spilled): If material spills occur, use either vet clean-up methods, ensuring that no airborne dusts or aerosols are formed, or appropriate vacuum cleaners having high efficiency particulate (HEPA) filters.
WASTE DISPOSAL METHOD: Dispose of any waste residues according to prescribed state and local guidelines, e.g., approved and permitted landfill disposal, or approved (low level) discharges to municipal or on-site waste water treatment facilities.

SECTION 8 - SHIPPING INFORMATION
DOT: Non-regulated
ICAO: Non-regulated
IMO: Non-regulated
OTHER INFORMATION: Packaging Group--NA
Reportable Quantity--NA

SECTION 9 - HANDLING PRECAUTIONS
RESPIRATORY PROTECTION: NIOSH approved high efficiency dust/mist respirator or airline respirator. Alternatively, a laboratory fume hood can be used.
VENTILATION: General room ventilation.
PROTECTIVE GLOVES: Impermeable gloves.
EYE PROTECTION: Safety glasses.
OTHER PROTECTIVE EQUIPMENT: Disposable laboratory coat/coveralls.
OTHER HANDLING PRECAUTIONS: Other special precautions are normally not needed.
As of the date of issuance, we are providing available information relevant to the handling of this material in the workplace. All information contained herein is offered in good faith belief that it is accurate. However, this safety data sheet does not constitute a warranty of any kind, express or implied. In the event of an adverse incident associated with this material, this safety data sheet is not, and is not intended to be, a substitute for consultation with appropriately trained personnel. Nor is this safety data sheet intended to be a substitute for product literature which may accompany the finished product.

GLOSSARY OF MATERIAL SAFETY DATA SHEET TERMS

ACGIH = American Conference of Governmental Industrial Hygienist
CAS Number = Chemical Abstract Service Registry Number
CHEMTREC = Chemical Transportation Emergency Center
CWA = Clean Water Act
DOT = Department of Transportation
EPA = Environmental Protection Agency
HC = Hazard Class
HEPA = High Efficiency Particulate Air (Filter)
ICAO = International Civil Aviation Organization
IMO = International Maritime Organization
IARC = The International Agency for Research on Cancer
LC50 = Lethal Concentration Required to Kill 50% of a Population of Test Animals
LD50 = Lethal Dose Required to Kill 50% of a Population of Test Animals
LEL = Lower Explosion Limit
MSDS = Material Safety Data Sheet
NA = Not Applicable
NCI/NTP = National Cancer Institute/National Toxicology Program
NIOSH = National Institute for Occupational Safety and Health
OSHA = Occupational Safety and Health Administration
PEL = Permissible Exposure Limit
PSN = Proper Shipping Name
RCRA = Resource Conservation and Recovery Act
TLV = Threshold Limit Value
TSCA = Toxic Substances Control Act
UEL = Upper Explosion Limit
UN = United Nations

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COMPAS Code: 12500110