

# MATERIAL SAFETY DATA SHEET

MSDS DATE:07/26/07

---

## SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

---

PRODUCT NAME: DIBUTYL PHTHALATE

SYNONYMS: BENSENE-O-DICARBOXULIC ACID DI-N-BUTYL PHTHALATE; DIBUTYL 1,2-BENZENEDICAROXYLATE; DIBUTYL O-PHTHALATE; N-BUTYL PHTHALATE

PRODUCT CODES: 13100

MANUFACTURER: ELECTRON MICROSCOPY SCIENCES

DIVISION: 1560 INDUSTRY ROAD/P.O. BOX 550

ADDRESS: HATFIELD, PA 19440

EMERGENCY PHONE: 215-412-8400

CHEMTREC PHONE: 800-424 -4300

FAX PHONE: 215-412-8450

CHEMICAL NAME: PHTHALIC ACID, DIBUTYL ESTER

CHEMICAL FAMILY: N/A

---

## SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

---

### INGREDIENT:

<u>CAS NO.</u>	<u>% WT</u>	<u>% VOL</u>	<u>SARA 313 REPORTABLE</u>
84-74-2	100	N/A	
	<u>ppm</u>	<u>mg/m3</u>	
OSHA PEL-TWA:	N/A	5	
OSHA PEL STEL :	N/A	N/A	
OSHA PEL CEILING:	N/A	N/A	
ACGIH TLV-TWA:	N/A	N/A	
ACGIH TLV STEL:	N/A	N/A	
ACGIH TLV CEILING:	N/A	N/A	

---

## SECTION 3: HAZARDS IDENTIFICATION

---

EMERGENCY OVERVIEW: N/A

ROUTES OF ENTRY: ABSORBED THROUGH SKIN, EYE CONTACT, INHALATION

### POTENTIAL HEALTH EFFECTS

EYES: HAZARDOUS IN CASE OF EYE CONTACT (IRRITANT)

SKIN: SLIGHTLY HAZARDOUS IN CASE OF SKIN CONTACT ( IRRITANT, PERMEATOR)

INGESTION: SLIGHTLY HAZARDOUS

INHALATION: SLIGHTLY HAZARDOUS

ACUTE HEALTH HAZARDS: N/A

CHRONIC HEALTH HAZARDS: THE SUBSTANCE MAY BE TOXIC TO KIDNEYS, THE NERVOUS SYSTEM, LIVER, CENTRAL NERVOUS SYSTEM (CNS). REPEATED OR PROLONGED EXPOSURE TO THE SUBSTANCE CAN PRODUCE TARGET ORGANS DAMAGE

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: N/A

# MATERIAL SAFETY DATA SHEET

MSDS DATE:07/26/07

CARCINOGENICITY

OSHA: N/A

ACGIH: N/A

NTP: N/A

IARC: N/A

OTHER: N/A

---

## SECTION 4: FIRST AID MEASURES

**EYES:** CHECK FOR AND REMOVE ANY CONTACT LENSES. IN CASE OF CONTACT, IMMEDIATELY FLUSH WITH WATER FOR 15 MINUTES. WARM WATER MUST BE USED, COLD WATER MAY BE USED, IF IRRITATION OCCURS, SEEK MEDICAL ATTENTION

**SKIN:** WASH WITH SOAP AND WATER. COVER THE IRRITATED SKIN WITH AN EMOLLIENT. IF IRRITATION OCCURS. SEEK MEDICAL ATTENTION.

**INGESTION:** DO NOT INDUCE VOMITING UNLESS DIRECTED TO DO SO BY MEDICAL PERSONNEL. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. LOOSEN TIGHT CLOTHING SUCH AS A COLLAR, TIE, BELT, OR WAISTBAND. GET MEDICAL ATTENTION IF SYMPTOMS APPEAR

**INHALATION:** IF INHALED, REMOVE TO FRESH AIR. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN. GET MEDICAL ATTENTION

NOTES TO PHYSICIANS OR FIRST AID PROVIDERS: N/A

---

## SECTION 5: FIRE-FIGHTING MEASURES

FLAMMABLE LIMITS IN AIR, UPPER: N/A  
(% BY VOLUME) LOWER: 0.5

FLASH POINT:

F: 314.6 ( CLOSED CUP), 375.8 (OPEN CUP)

C: 157 (CLOSED CUP), 191 (OPEN CUP)

METHOD USED: N/A

AUTOIGNITION TEMPERATURE:

F: 755.6

C: 402

NFPA HAZARD CLASSIFICATION

HEALTH: 0

FLAMMABILITY: 1

REACTIVITY: 0

OTHER: N/A

HMIS HAZARD CLASSIFICATION

HEALTH: 2

FLAMMABILITY: 1

REACTIVITY: 0

PROTECTION: N/A

EXTINGUISHING MEDIA: SMALL FIRE: USE DRY CHEMICAL POWDER

LARGE FIRE: USE WATER SPRAY, FOG OR FOAM, DO NOT USE WATER JET

SPECIAL FIRE FIGHTING PROCEDURES: N/A

UNUSUAL FIRE AND EXPLOSION HAZARDS: N/A

HAZARDOUS DECOMPOSITION PRODUCTS: N/A

---

## SECTION 6: ACCIDENTAL RELEASE MEASURES

ACCIDENTAL RELEASE MEASURES:

SMALL SPILL: ABSORB WITH AN INERT MATERIAL AND PUT THE SPILLED MATERIAL IN AN APPROPRIATE WASTE DISPOSAL

LARGE SPILL: ABSORB WITH AN INERT MATERIAL AND PUT THE SPILLED MATERIAL IN AN APPROPRIATE WASTE DISPOSAL. BE CAREFUL THAT THE PRODUCT IS NOT PRESENT AT A CONCENTRAION LEVEL ABOVE TLV. CHECK TLV ON THE MSDS AND WITH LOCAL AUTHORITIES

# MATERIAL SAFETY DATA SHEET

MSDS DATE:07/26/07

---

## SECTION 7: HANDLING AND STORAGE

---

HANDLING AND STORAGE: KEEP CONTAINER TIGHTLY CLOSED. KEEP CONTAINER IN A COOL, WELL VENTILATED AREA

OTHER PRECAUTIONS: KEEP AWAY FROM HEAT. KEEP AWAY FROM SOURCES OF IGNITION. EMPTY CONTAINERS POSE A FIRE RISK, EVAPORATE THE RESIDUE UNDER A FUME HOOD. GROUND ALL EQUIPMENT CONTAINING MATERIAL. DO NOT INGEST. DO NOT BREATHE GAS/FUMES/VAPOR/SPRAY. AVOID CONTACT WITH EYES. WEAR SUITABLE PROTECTIVE CLOTHING. IF INGESTED, SEEK MEDICAL ADVICE IMMEDIATELY AND SHOW THE CONTAINER OR THE LABEL. KEEP AWAY FROM INCOMPATIBLES SUCH AS OXIDIZING AGENTS, ACIDS, ALKALIS.

---

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

---

ENGINEERING CONTROLS: PROVIDE EXHAUST VENTILATION OR OTHER ENGINEERING CONTROLS TO KEEP THE AIRBORNE CONCENTRATIONS OF VAPORS BELOW THEIR RESPECTIVE THRESHOLD LIMIT VALUE. ENSURE THAT EYEWASH STATIONS AND SAFETY SHOWERS ARE PROXIMAL TO THE WORK STATION LOCATION

VENTILATION: N/A

RESPIRATORY PROTECTION: VAPOR RESPIRATOR

EYE PROTECTION: SPLASH GOGGLES

SKIN PROTECTION: LAB COAT

OTHER PROTECTIVE CLOTHING OR EQUIPMENT: IN CASE OF LARGE SPILL: BOOTS, GLOVES, A SELF CONTAINED BREATHING APPARATUS SHOULD BE USED TO AVOID INHALATION OF THE PRODUCT.

WORK HYGIENIC PRACTICES: WASH THOROUGHLY AFTER HANDLING. WASH CLOTHING BEFORE REUSE.

EXPOSURE GUIDELINES: TWA: 5(mg/ m<sup>3</sup>) FROM OSHA (PEL) [UNITED STATES]  
TWA: 5 (mg/ m<sup>3</sup>) FROM ACGIH (TLV) [UNITED STATES]

---

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

---

APPEARANCE: COLORLESS TO LIGHT YELLOW

ODOR: ESTER (SLIGHT)

PHYSICAL STATE: VISCOUS LIQUID

pH AS SUPPLIED: N/A

pH (Other): N/A

BOILING POINT:

F: 644 DEG

C: 340 DEG

MELTING POINT:

F: -31 DEG

C: -35 DEG

FREEZING POINT:

F: N/A

C: N/A

VAPOR PRESSURE (mmHg): 0 KPA

@

F: N/A

C: 20 DEG

VAPOR DENSITY (AIR = 1): 9.58

@

# MATERIAL SAFETY DATA SHEET

MSDS DATE:07/26/07

F: N/A  
C: N/A

@

F: N/A  
C: N/A

EVAPORATION RATE: N/A

BASIS (=1): N/A

---

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (con't)

---

SOLUBILITY IN WATER: 13 MG/L @ 25 DEG. C

PERCENT SOLIDS BY WEIGHT: N/A

PERCENT VOLATILE: N/A  
BY WT/ BY VOL @  
F: N/A  
C: N/A

VOLATILE ORGANIC COMPOUNDS (VOC): N/A

WITH WATER: N/A LBS/GAL  
WITHOUT WATER: N/A LBS/GAL  
MOLECULAR WEIGHT: N/A

VISCOSITY:

@

F: N/A  
C: N/A

---

## SECTION 10: STABILITY AND REACTIVITY

---

STABILITY: THE PRODUCT IS STABLE

CONDITIONS TO AVOID (STABILITY): N/A

INCOMPATIBILITY (MATERIAL TO AVOID): REACTIVE WITH OXIDIZING AGENTS, ACIDS, ALKALIS

HAZARDOUS DECOMPOSITION OR BY-PRODUCTS: N/A

HAZARDOUS POLYMERIZATION: WILL NOT OCCUR

CONDITIONS TO AVOID (POLYMERIZATION): N/A

---

## SECTION 11: TOXICOLOGICAL INFORMATION

---

TOXICOLOGICAL INFORMATION: TOXICITY TO ANIMALS: WARNING: THE LC50 VALUES HEREUNDER ARE ESTIMATED ON THE BASIS OF A 4-HOUR EXPOSURE.

ACUTE ORAL TOXICITY (LD50): 3474 MG/ KG [MOUSE]

ACUTE DERMAL TOXICITY (LD50): > 20000 MG/ KG [RABBIT]

ACTUE TOXICITY OF THE MIST (LC50): 25000 MG/ M<sup>3</sup> 2 HOURS [RAT]

---

## SECTION 12: ECOLOGICAL INFORMATION

---

ECOLOGICAL INFORMATION: POSSIBLY HAZARDOUS SHORT TERM DEGRADATION PRODUCTS ARE NOT LIKELY. HOWEVER, LONG TERM DEGRADATION PRODUCTS MAY ARISE

# MATERIAL SAFETY DATA SHEET

MSDS DATE:07/26/07

## SECTION 13: DISPOSAL CONSIDERATIONS

---

WASTE DISPOSAL METHOD: COMPLY WITH FEDERAL, STATE, LOCAL REGULATIONS.

RCRA HAZARD CLASS: N/A

---

## SECTION 13: DISPOSAL CONSIDERATIONS (con't)

---

---

## SECTION 14: TRANSPORT INFORMATION

---

### U.S. DEPARTMENT OF TRANSPORTATION

PROPER SHIPPING NAME: DIBUTYL PHTHALATE  
HAZARD CLASS: 9 MISCELLANEOUS HAZARDOUS MATERIAL  
ID NUMBER: UNNA3082  
PACKING GROUP: III  
LABEL STATEMENT: ENVIRONMENTALLY HAZARDOUS SUBSTANCE

### WATER TRANSPORTATION

PROPER SHIPPING NAME:  
HAZARD CLASS: SAME  
ID NUMBER:  
PACKING GROUP:  
LABEL STATEMENTS:

### AIR TRANSPORTATION

PROPER SHIPPING NAME:  
HAZARD CLASS: SAME  
ID NUMBER:  
PACKING GROUP:  
LABEL STATEMENTS:

OTHER AGENCIES: N/A

---

## SECTION 15: REGULATORY INFORMATION

---

### U.S. FEDERAL REGULATIONS

TSCA (TOXIC SUBSTANCE CONTROL ACT):  
8(b) INVENTORY: DIBUTYL PHTHALATE  
8(a) IUR: DIBUTYL PHTHALATE  
8(d) H AND S DATA REPORTING: DIBUTYL PHTHALATE: EFFECTIVE DATE: 10/4/82; SUNSET DATE: 10/4/92

CERCLA (COMPREHENSIVE RESPONSE COMPENSATION, AND LIABILITY ACT):  
HAZARDOUS SUBSTANCES: DIBUTYL PHTHALATE: 10 LBS (4.536 KG)

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT):  
TOXIC CHEMICAL NOTIFICATION AND RELEASE REPORTING: DIBUTYL PHTHALATE

311/312 HAZARD CATEGORIES: CALIFORNIA PROP. 65 THIS PRODUCT CONTAINS THE FOLLOWING INGREDIENTS FOR WHICH THE STATE OF CALIFORNIA HAS FOUND TO CAUSE CANCER WHICH WOULD REQUIRE A WARNING UNDER THE STATUTE: NO PRODUCTS WERE FOUND.  
CALIFORNIA PROP. 65: THIS PRODUCT CONTAINS THE FOLLOWING INGREDIENTS FOR WHICH THE STATE OF CALIFORNIA HAS FOUND TO CAUSE BIRTH DEFECTS WHICH WOULD REQUIRE A WARNING UNDER THE STATUTE: NO PRODUCTS WERE FOUND.

DSCL (EEC): R50- VERY TOXIC TO AQUATIC ORGANISMS  
R61- MAY CAUSE HARM TO THE UNBORN CHILD.  
R62- POSSIBLE RISK OF IMPAIRED FERTILITY  
S45- IN CASE OF ACCIDENT OR IF YOU FEEL UNWELL, SEEK MEDICAL ADVICE IMMEDIATELY  
653- AVOID EXPOSURE- OBTAIN SPECIAL INSTRUCTIONS BEFORE USE.  
S61- AVOID RELEASE TO THE ENVIRONMENT. REFER TO SPECIAL INSTRUCTIONS/ SAFETY DATA SHEETS

# MATERIAL SAFETY DATA SHEET

MSDS DATE:07/26/07

313 REPORTABLE INGREDIENTS: N/A

STATE REGULATIONS: N/A

INTERNATIONAL REGULATIONS: N/A

---

## SECTION 16: OTHER INFORMATION

---

### OTHER INFORMATION:

OSHA: HAZARDOUS BY DEFINITION OF HAZARD COMMUNICATION STANDARD (29 CFR 1910.1200)

EINECS: THIS PRODUCT IS ON THE EUROPEAN INVENTORY OF EXISTING COMMERCIAL CHEMICAL SUBSTANCES.

PREPARATION INFORMATION: N/A

DISCLAIMER: IN COMPLIANCE WITH THE OSHA HAZARD COMMUNICATION STANDARD, 2.9 C.F.R 1910. 1200, WE ARE PROVIDING YOU WITH A MSDS FOR THE HAZARDOUS MATERIAL YOU ARE PURCHASING.

IT IS YOUR RESPONSIBILITY TO EDUCATE YOUR EMPLOYEES ON THE SAFE USE OF THE HAZARDOUS MATERIAL.

ELECTRON MICROSCOPY SCIENCES MAKES NO PRESENTATION AS TO THE ACCURACY OF THE INFORMATION IN THE MSDS. THE INFORMATION IS BELIEVED TO BE CORRECT; HOWEVER, YOU (THE CUSTOMER), SHOULD PERFORM YOUR OWN INVESTIGATION AND INDEPENDENT VERIFICATION. IF YOU RESELL THE PRODUCT, YOU ARE RESPONSIBLE TO FORWARD THE INFORMATION IN THE MSDS TO YOUR CUSTOMER.