MATERIAL SAFETY DATA SHEET
DOP DLC®

Date Revised: June 20, 2000

SECTION I - PRODUCT AND COMPANY IDENTIFICATION

HMIS RATING	
Health	2
Flammability	1
Reactivity	0

TRADE NAME: DOP DLC
CHEMICAL NAME: Dioctyl phthalate on calcium silicate

Company: NATROCHEM, INC.
P.O. Box 1205
Savannah, GA 31402-1205

Telephone Numbers:
Transportation Emergencies:
CHEMTREC (U.S.A.): (800) 424-9300 (24 hours)
CHEMTREC (International): (202) 483-7616 (24 hours, call collect)
Product Information: (912) 236-4464 (EST, 8:00AM – 4:00PM M-F)

SECTION II - HAZARDOUS INGREDIENTS

The component(s) listed below is identified as a hazardous chemical under the criteria of the OSHA Hazard Communication Standard (29 CFR 1910.1200).

INGREDIENT	CAS #	ACGIH (TLV)	OSHA (PEL)	UNITS
Synthetic Calcium Silicate	1344-95-2	10	5	mg/m^3
Dioctyl Phthalate	000117-81-7	5 (TWA)	5	mg/m3

SECTION III - PHYSICAL DATA

Boiling Point: 384EC
Vapor Pressure (mm Hg): 0.00000007
Vapor Density (Air = 1): 13.5
Solubility in Water: <1%
Specific Gravity: 1.1.83 (Calculated
Percent Volatiles: Negligible
Evaporation Rate: Negligible
Appearance and Odor: Off-white, free flowing powder with mild odor.

SECTION IV - FIRE & EXPLOSION DATA

FLASH POINT (Method Used): 216EC (COC)
FLAMMABLE LIMITS: Lower, 0.31 Upper, N/DA
AUTOIGNITION TEMPERATURE: N/DA
EXTINGUISHING MEDIA: Water spray, dry chemical, carbon dioxide (CO2), foam.
SPECIAL FIRE FIGHTING PROCEDURES: Wear self-contained breathing apparatus and protective clothing
UNUSUAL FIRE & EXPLOSION HAZARDS: None known

SECTION V - HEALTH HAZARD DATA

CHRONIC HEALTH EFFECTS: Prolonged and repeated exposures to concentrations of product dust in excess of PEL\TLV can cause chronic pulmonary disease. Oral doses of this material that were high enough to cause toxicity in pregnant animals also produced birth defects in their offspring. High oral doses of this material given to male animals produced reduced fertility. However, high doses to humans handling this material are not expected since oral consumption is not likely a route of significant exposure. Because this material does not evaporate readily and is not easily absorbed through inhalation or skin exposure when handled in a manner consistent with the precautionary measures contained in this material safety data sheet.

SECTION V - HEALTH HAZARD DATA (cont)

PRIMARY ROUTE OF ENTRY- Inhalation, dust contact with eyes

CHEMICAL LISTED AS CARCINOGEN OR POTENTIAL CARCINOGEN: Dioctyl phthalate
NTP: Yes IARC: No OSHA: No

ACUTE ORAL TOXICITY:

Oral LD-50 (rat): 30.6 g/kg	Oral LD-50 (rabbit): 33.9 g/kg
Inhalation LC-50: N/A	Dermal LD-50 (rabbit): > 20ml/kg
Skin irritation (rabbit): slight	Skin irritation (human): none
Skin sensitization (human): none	Eye irritation (rabbit): slight

CARCINOGENICITY DATA:
DEHP was administered to rats and mice in a lifetime bioassay sponsored by the U.S. National Toxicology Program (NTP). High feed concentrations (mice: 3000 and 6000 ppm; rats: 6000 and 12000 ppm) were used because of the very low toxicity of DEHP. Liver tumors were produced at both dose levels in each species. Further studies have shown that the liver tumors probably arose from the ability of DEHP at high doses in rodents to perturb lipid metabolism, to proliferate peroxisomes, or to increase the rate of cell division. Since non-rodent species (including primates) have been shown to be very resistant to these effects, and since DEHP is not genotoxic, DEHP probably presents a negligible carcinogenic risk to humans at exposure levels typical of occupational or consumer use.

DEVELOPMENTAL TOXICITY DATA:
Oral study (rat): LOEL (Lowest-observed-effect level) for maternal toxicity = 670 mg/kg/day, NOEL (no-observed-effect level) for maternal toxicity = 360 mg/kg/day, LOEL for embryo/fetotoxicity = 670 mg/kg/day, NOEL for developmental toxicity = 360 mg/kg/day.

Oral study (mouse): LOEL for teratogenicity = 90 mg/kg/day, NOEL for developmental toxicity = 45 mg/kg/day.

Oral study (mouse): LOEL for embryo/fetotoxicity = 190 mg/kg/day, NOEL for developmental toxicity = 70 mg/kg/day.

Inhalation study (mouse): NOEL for developmental toxicity = 0.3 mg/l (highest concentration tested), LOEL for maternal toxicity = 0.3 mg/l, NOEL for maternal toxicity = 0.05 mg/l.

Reproductive Toxicity Data: Oral study (mouse): LOEL for maternal/paternal fertility = 0 % in diet, NOEL for maternal/paternal fertility = 0.01% in diet.

Dermal absorption rate (human, in vitro): 0.0001 mg/cm2/hour

MUTAGENICITY/GENOTOXICITY DATA:
Cell transformation assay: negative (+/- activation).
Chromosomal aberration assay: negative (+/- activation)
Mouse lymphoma assay: negative.
Mouse micronucleus assay: negative.
Salmonella typhimurium assay (Ames test): negative (+/- activation)
Unscheduled DNA synthesis (UDS) assay: negative.
In vivo (rat) DNA binding assay: negative.

SECTION V - HEALTH HAZARD DATA (cont)

EFFECTS OF EXPOSURE-

EYES- Low hazard for usual industrial handling or commercial handling by trained personnel

SKIN- Harmful if absorbed through skin.

INHALATION- Harmful if inhaled. Irritation and soreness in throat and nose In extreme exposures some congestion may occur.

INGESTION- Harmful if ingested

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE- Pre-existing upper respiratory and lung disease such as, but not limited to bronchitis, emphysema and asthma.

SECTION VI - EMERGENCY & FIRST AID PROCEDURES

EYE CONTACT: Immediately rinse with clean water for 15 minutes. Retract eyelids often If irritation persists, seek medical attention.

SKIN CONTACT: Immediately remove contaminated clothing. Wash skin thoroughly with mild soap and water. Flush with lukewarm water for 15 minutes. Destroy or thoroughly clean contaminated shoes. Seek medical attention if ill effect or irritation develops.

INHALATION If overcome by exposure, remove victim to fresh air. Get medical attention if symptoms persist.

INGESTION: Seek medical advice

SECTION VII - REACTIVITY DATA

STABILITY: Stable

MATERIALS TO AVOID- Hydrofluoric acid, strong oxidizing agents

CONDITIONS TO AVOID- N/DA

HAZARDOUS DECOMPOSITION PRODUCTS: Oxides of carbon

HAZARDOUS POLYMERIZATION: Will not occur.

SECTION VIII - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: MINIMIZE SPILL AREA. Place in a container for chemical waste.

WASTE DISPOSAL METHOD: In accordance with local, state, and federal regulations.

SECTION IX - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION: Use a respirator such as 3M 9900 or equivalent for protection against pneumoniosis.

VENTILATION: Use sufficient natural or mechanical ventilation to keep dust level below PEL

SECTION IX - SPECIAL PROTECTION INFORMATION (cont.)

PROTECTIVE GLOVES: Impervious gloves

EYE PROTECTION: Chemical goggles.

OTHER PROTECTIVE EQUIPMENT: Eye bath, safety shower, washing facilities

SECTION X - SPECIAL PRECAUTIONS

HANDLING AND STORAGE: Keep containers closed. Keep from oxidizing materials.
OTHER PRECAUTIONS: Avoid breathing mist or vapor at concentrations greater than the exposure limits. Use only with adequate ventilation.

SECTION XI - REGULATORY INFORMATION

TOXIC SUBSTANCE CONTROL ACT (TSCA):

The components of this product are contained on the Inventory of the Toxic Substance Control Act

SARA TITLE III INFORMATION:

SECTION 313 - TOXIC CHEMICALS:
This product contains the following toxic chemicals subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 (40 CFR 372):

CAS REGISTRY #	CHEMICAL NAME	PERCENT BY WEIGHT
000117-81-7	di(2-ethylhexyl) adipate	72

This information must be included in all MSDS's that are copied and distributed for this material

SECTION 302 - EXTREMELY HAZARDOUS SUBSTANCES:
This product does not contain an extremely hazardous substance.

SECTION 311/312 - HAZARD CATEGORIES:
The physical and health hazard categories for this product are:

Fire Hazard: None
Sudden Release of Pressure Hazard: None
Reactivity Hazard: None
Immediate (Acute) Health Hazard: Calcium silicate
Delayed (Chronic) Health Hazard: di(2-ethylhexyl) adipate

TRANSPORTATION INFORMATION:
DOT Shipping Name: Environmentally Hazardous Substances, Solid, N.O.S., 9
DOT Identification Number: UN3077, III

SECTION XII - OTHER INFORMATION

Revision Note: Added CHEMTREC information.

Prepared by: James L. Pye, Jr.

Title Safety Coordinator

N/A = Not applicable N/D = Not determined N/DA = No Data Available
N/E = Not established

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