

MATERIAL SAFETY DATA SHEET

DOP DLC®-A

Date Revised: January 15, 2003

Page 1 of 5

1. CHEMICAL PRODUCT & COMPANY IDENTIFICATION

TRADE NAME: DOP DLC-A

CHEMICAL NAME: Di (2-ethylhexyl) phthalate on silicon dioxide

Company:



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

HMIS RATING	
HEALTH	2
FLAMMABILITY	1
REACTIVITY	0

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)

2. COMPOSITION/INFORMATION ON INGREDIENTS

COMPONENT NAME	CAS#	PERCENT
Di (2-ethylhexyl) phthalate	117-81-7	72
Silicon Dioxide	112926-00-8	28

Contains no detectable crystalline silica (detection limit <0.01% by weight).

3. HAZARDS IDENTIFICATION

POTENTIAL HEALTH EFFECTS:

EYE: Avoid contact with eyes, may cause irritation and pain. Symptoms include stinging, tearing, and redness.

SKIN: Avoid prolonged, repeated, or excessive contact with skin, may cause irritation and discomfort. Additional symptoms of skin contact may include: allergic skin reaction (delayed skin rash which may be followed by blistering, scaling and other skin effects), passage of this material into the body through the skin is possible, but is unlikely that this would result in harmful effects during safe handling and use.

INGESTION: Ingestion of small amounts of this material during normal handling is not likely to cause harmful effects. Swallowing large amounts may be harmful.

INHALATION: Avoid prolonged or repeated inhalation of dust; may irritate the respiratory tract. Breathing small amounts of this material during normal handling is not likely to cause harmful effects. Breathing large amounts may be harmful. Symptoms usually occur at air concentrations higher than the recommended exposure limits.

SYMPTOMS OF EXPOSURE: Stomach or intestinal upset (nausea, vomiting, diarrhea), irritation (nose, throat, airways).

TARGET ORGAN EFFECTS: Overexposure to this material (or its components) has been suggested as a cause of the following effects in laboratory animals: mild, reversible liver effects mild, mild, reversible kidney effects, effects on male fertility, testis damage.

DEVELOPMENTAL INFORMATION: This material (or a component) has been shown to cause birth defects in laboratory animal studies. The relevance of these findings to humans is uncertain.

CANCER INFORMATION: There is sufficient evidence for the carcinogenicity of di (2-ethylhexyl) phthalate in experimental animals. Administered in the feed, this chemical caused an increased incidence of liver cancer in male and female rats and mice. The relevance of this finding to humans is uncertain. This material is listed as a carcinogen by the National Toxicology Program.

PRIMARY ROUTE(s) of ENTRY: Inhalation, skin absorption, skin contact, eye contact, ingestion.

4. FIRST AID MEASURES

INHALATION: If inhaled, remove from area to fresh air. Get medical attention if respiratory irritation develops or if breathing becomes difficult. If symptoms persist, seek medical attention.

EYE CONTACT: In case of contact, flush eyes gently with water while holding eyelids apart. If symptoms persist or there is any visual difficulty, seek medical attention.

SKIN CONTACT: In case of contact wash with soap and water for at least 15 minutes. Get medical attention if irritation persists.

INGESTION: Seek medical attention. If individual is drowsy or unconscious, do not give anything by mouth; place individual on the left side with the head down. Contact a physician, medical facility, or poison control center for advice about whether to induce vomiting. If possible, do not leave individual unattended.

NOTES TO PHYSICIAN: Treat symptomatically. Preexisting disorders of the following organs (or organ systems) may be aggravated by exposure to this material: lung (for example, asthma-like conditions), liver, male reproductive system.

5. FIRE FIGHTING MEASURES

FLASH POINT: 425°F

EXPLOSIVE LIMIT: N/DA

AUTOIGNITION TEMPERATURE: N/DA

EXTINGUISHING MEDIA: Regular foam, water fog, carbon dioxide, dry chemical

SPECIAL FIREFIGHTING PROCEDURES: Water or foam may cause frothing which can be violent and possibly endanger the life of the firefighter. Wear a self-contained breathing apparatus with a full face-piece operated in the positive pressure demand mode with appropriate turnout gear and chemical resistant personal protective equipment.

FIRE & EXPLOSION HAZARDS: No special fire hazards are known to be associated with this product.

HAZARDOUS PRODUCTS OF COMBUSTION: May form oxides of carbon, various hydrocarbons.

6. ACCIDENTAL RELEASE MEASURES

ACTION TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED: Safely stop the spill. Contain material and sweep up. Do not let material enter sewers or bodies of water. Transfer contaminated material to containers for disposal.

DISPOSAL: Dispose in accordance with local, state, and federal regulations.

7. HANDLING AND STORAGE

PRECAUTIONS TO BE TAKEN DURING HANDLING AND STORAGE:

Store in a dry area. When transferring material into flammable solvents, use proper grounding to avoid electrical sparks. Product surface alterations caused by calcining or mixing with additives may alter toxicological properties.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Limits:

Di (2-ethylhexyl) phthalate: OSHA PEL 5.000 mg/m³ - TWA; OSHA VPEL 5.000 mg/m³ - TWA; OSHA VPEL 10.000 mg/m³ - TWA; ACGIH TLV 5.000 mg/m³ - TWA.

Silicon Dioxide: 8-hour Time Weighted Average (TWA); 15-minute Short-Term Exposure Limit (STEL). OSHA: 6 mg/m³ (total dust) TWA. 29 CFR 1910.1000. ACGIH: 10 mg/m³ (total amorphous dust) TWA. 3 mg/m³ (respirable nuisance particulate) TWA.

RESPIRATORY PROTECTION: Use NIOSH approve dust filter respirator for exposure above permissible exposure limits. The respiratory use limitations made by NIOSH or the manufacturer must be observed. Respiratory protection programs must be in accordance with 29 CFR 1910.134.

VENTILATION: General or local exhaust sufficient to maintain employee exposure below permissible exposure limits.

EYE AND FACE PROTECTION: If eye exposure to powder is likely, use tight fitting protective goggles.

PROTECTIVE GLOVES: Cloth. Leather. Rubber

OTHER PROTECTIVE EQUIPMENT: Boots, apron, or chemical suits should be used when necessary to prevent skin contact. Personal protective clothing and use of equipment must be in accordance with 29 CFR 1910.132 (general requirements), .133 (eye and face protection), and .138 (hand protection).

9. PHYSICAL AND CHEMICAL PROPERTIES

BOILING POINT: N/A

SPECIFIC GRAVITY (Water = 1): 1.15 (CALC)

SOLUBILITY (wt. % in water): Insoluble

VAPOR PRESSURE: N/DA

PHYSICAL STATE: Free Flowing Powder

COLOR: Off white

VAPOR DENSITY (Air = 1): N/A

FREEZING/MELTING POINT: N/DA

% VOLATILE: N/D

EVAPORATION RATE: Slower than ethyl ether

ODOR: Characteristic odor

10. STABILITY AND REACTIVITY

STABILITY: Stable

HAZARDOUS POLYMERIZATION: Will not occur.

INCOMPATIBILITY (CONDITIONS TO AVOID): High temperatures (>800°C) treatment (calcining). Avoid alteration of product properties before use. Calcining, which may result in crystalline formation, or mixing with additives may alter toxicological properties.

INCOMPATIBILITY (MATERIALS TO AVOID): Strong oxidizing agents.

HAZARDOUS THERMAL DECOMPOSITION/COMBUSTION PRODUCTS: May form oxides of carbon and various hydrocarbons.

11. TOXICOLOGICAL INFORMATION

ACUTE INHALATION LC50: Nuisance dust

ACUTE DERMAL LD50: N/A

SKIN IRRITATION: Mildly irritating.

EYE IRRITATION: Mildly irritating.

ACUTE ORAL LD50: Estimated >5 g/kg. Not significantly toxic.

CHRONIC EFFECTS/CARCINOGENICITY: This product is as a carcinogen or suspected carcinogen by NTP.

MEDICAL CONDITIONS AGGRAVATED: None known.

EFFECTS OF OVEREXPOSURE:

ACUTE: Excessive contact with powder can cause drying of mucous membranes of nose, eyes, and throat due to absorption of moisture and oils. This material can also cause nasal irritation and nosebleeds. Eye contact with powder can result in mild irritation.

CHRONIC: An epidemiological study was conducted which included 165 precipitated silica workers who had been exposed an average time span of 8.6 years. Of these 165 workers, 44 had been exposed for an average of 18 years. No adverse effects were noted in complete medical examinations (including chest roentgenograms) of these workers. Pulmonary function decrements were correlated only with smoking and age but not with the degree of duration of dust exposures. Laboratory studies have also been conducted in small animals via inhalation to levels of precipitated silica dust of up to 126 mg/m³ per periods from six months to two years. Although precipitated silica was temporarily deposited in the animals' lungs, most of the deposited material was cleared soon after the dust exposure ended. The results of the studies performed by, or known to, PPG indicate a very low order of pulmonary activity for synthetic precipitated silicas.

PPG recommends that person with breathing problems or lung disease should not work in dusty areas unless a physician approves and certifies their fitness to wear respiratory protection.

12. ECOLOGICAL INFORMATION

ECOTOXICOLOGICAL INFORMATION:

EC₀: > 1000 ppm (daphnia magna) (24-hour acute immobilization test)

EC₀: > 10,000 ppm (rainbow trout) (4-day static study)

EC₀: > 10,000 ppm (freshwater fish) (96-hour static acute toxicity study)

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD:

Waste from this product may be disposed of in a sanitary landfill if state and local regulations permit. Care should be taken to avoid creation of dust during disposal operations.

14. TRANSPORT INFORMATION

USA DOT DESCRIPTION: Environmentally Hazardous Substances, Solid, N.O.S., 9, UN3077, III
N.O.S. Component: Di (2-ethylhexyl) phthalate

RQ (Reportable Quantity) – 49 CFR 172.101:

<u>Product Quantity (lbs)</u>	<u>Component</u>
100	Di (2-ethylhexyl) phthalate

15. REGULATORY INFORMATION

USA TSCA: DOP is listed. Silicon dioxide is listed on the TSCA Inventory as its general CAS# 7631-86-9
EUROPE EINECS: DOP is listed. Silicon dioxide is listed on EINECS (231-545-4) as its general CAS# 7631-86-9

CANADA DSL: The components of this product are listed.

AUSTRALIA AICS: The components of this product are listed.

KOREA ECL: Silicon dioxide is listed on ECL.

JAPAN MITI (ENCS): The components of this product are listed on MITI.

PHILIPPINES PICCS: Silicon dioxide is listed on the Philippines Inventory of Chemicals and Chemical Substances (PICCS).

SARA TITLE III:

SARA (311,312) Hazard Class: DOP – Acute and chronic health hazard. Silicon Dioxide – Acute Health Hazard.

SARA (313) Chemicals: DOP is listed.

SARA Section 302: Not listed as an Extremely Hazardous Substance.

CERCLA RQ – 40 CFR 302.4(a)

Component: DOP RQ (lbs): 100

16. OTHER INFORMATION

Revision Note: Updated Section II and Section XI

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

The information given in this MSDS was obtained from sources, which we believe are reliable. However, since data, safety standards, and government regulations are subject to change and the conditions of handling and use, or misuse are beyond our control, Natrochem, Inc. makes no warranty express or implied, with respect to the completeness or continuing accuracy of the information contained herein and disclaims all liability for reliance thereon.