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MATERIAL SAFETY DATA SHEET

BBP DLC®-A

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SECTION I - PRODUCT IDENTIFICATION

TRADE NAME: BBP DLC-A
CHEMICAL NAME: Butyl Benzyl Phthalate on Silicon Dioxide

HMIS RATING	
Health	1
Flammability	1
Reactivity	0

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
Silicon Dioxide	7631-86-9	10	6	mg/m3

SECTION III - PHYSICAL DATA

Boiling Point: 464°F @ 10 mm Hg
Vapor Pressure (mm Hg): 0.16 @ 302°F
Vapor Density (Air = 1): 10.8
Solubility in Water: 2.82 mg/l @ 68°F
Specific Gravity: 1.277 (Calculated)
Percent Volatiles: N/DA
Evaporation Rate: Negligible
Appearance and Odor: Off-white, free flowing powder with characteristic odor.

SECTION IV - FIRE & EXPLOSION DATA

FLASH POINT (Method Used): 390°F (COC)
FLAMMABLE LIMITS: N/DA
AUTOIGNITION TEMPERATURE: N/DA

MARKETED BY
HARWICK STANDARD DISTRIBUTION CORPORATION
60 S. Seiberling Street • Akron, Ohio 44305

EXTINGUISHING MEDIA: Use water spray (fog), foam, dry chemical, or CO_2.

SPECIAL FIRE FIGHTING PROCEDURES: Fire fighters and others who may be exposed to products of combustion should wear full protective clothing including self-contained breathing apparatus.

UNUSUAL FIRE & EXPLOSION HAZARDS: None known.

SECTION V - HEALTH HAZARD DATA

CHRONIC HEALTH EFFECTS: An epidemiological study was conducted which included 165 precipitated silica workers who had been exposed for an average of 18 years. No adverse effects were noted in complete medical examination (including chest roentgenograms) of these workers. Pulmonary function decrements were correlated only with smoking and age but not with the degree or duration of dust exposure. Laboratory studies have also been conducted in small animals via inhalation to levels of precipitated silica dust of up to 126 mg/m3 for 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 all studies performed by, or known to, PPG indicate a very low order of pulmonary activity for synthetic precipitated silica.

SECTION V - HEALTH HAZARD DATA (cont)

PRIMARY ROUTE OF ENTRY- Inhalation, skin contact.

CHEMICAL LISTED AS CARCINOGEN OR POTENTIAL CARCINOGEN: None.
NTP: No IARC: No OSHA: No

EFFECTS OF EXPOSURE-

EYES- Mildly irritating. Excessive contact with powder can cause drying of mucous membranes of eyes due to absorption of moisture and oils.

SKIN- Mildly irritating.

INHALATION- Nuisance dust. Excessive contact with powder can cause drying of mucous membranes of nose and throat due to absorption of moisture and oils. This material can also cause nasal irritation and nosebleeds.

INGESTION- Not significantly toxic.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE- Persons with breathing problems or lung disease should not work in dusty areas unless a physician approves and certifies their fitness to wear respiratory protection.

TOXICOLOGICAL INFORMATION: Data from laboratory studies conducted by Monsanto and from other available scientific literature are summarized below:

Single does (acute) toxicity studies indicate: Oral-Rat LD50, 20,400 mg/kg. Dermal-Rabbit LD50, >10,000 mg/kg. Inhalation-Rat, 4-hour LC50, >6.7 mg/l.

Eye Irritation-Rabbits (6 animals); 24 hours exposure; FSHA: 1.4/110; EEC: Corneal opacity - 0.0, Erythema - 0.4, Chemosis - 0.3.
Skin Irritation-Rabbits (6 animals); 24 hours exposure; FSHA: 0.7/8.0; EEC: Erythema - 0.6, Edema 0.1.

No skin allergy was observed in humans following repeated exposure in controlled skin contact studies and no skin allergy was observed in mice and guinea pigs following repeated skin exposure.

Reduced body weights as well as spleen and sex organ changes were observed following repeated inhalation (4 weeks) of butyl benzyl phthalate by rats. Lower concentrations for a longer period of time (3 months) produced increased liver and kidney weights. Following repeated exposures (up to 26 weeks) to this material in their feed, reduced body weights and food consumption, weakness, hindlimb stiffness, some organ weight changes and effects on liver testes and pancreas were observed in rats. There was no evidence of changes in nervous system tissues including delayed effects in chickens (repeat oral doses) or rats (single and repeat oral doses).

Female rats fed butyl benzyl phthalate in long-term (2 year) studies conducted by the National Toxicology Program (NTP) were reported to show an increased frequency of mononuclear cell leukemia, a common spontaneous disease in the test strain of rat. For this reason, NTP concluded that butyl benzyl phthalate was probably carcinogenic for these rats. Male rats in these studies were terminated after 6 months due to excessive treatment related deaths. Mice fed butyl benzyl phthalate (2 years) had no increase in tumors. Butyl Benzyl Phthalate has produced no genetic changes in standard tests using animal, bacterial and yeast cells.

SECTION V - HEALTH HAZARD DATA (cont)

This material did not produce birth defects in rabbits given this material orally during pregnancy at doses that did not produce material toxicity. However, another study reports birth defects in mice and rats given butyl benzyl phthalate orally during pregnancy but only at doses which produced significant toxic effects in the mothers and the offspring. Testicular changes and reduced fertility were reported in male rats fed high doses of butyl benzyl phthalate for 3 weeks or longer.

Butyl benzyl phthalate is excreted rapidly after oral, dermal and intravenous dosing of rats.

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. Seek medical attention if ill effect or irritation develops.

INHALATION: If overcome by exposure, remove victim to fresh air.

INGESTION: Immediate first aid is not likely to be required. A physician can be contact for advice.

SECTION VII - REACTIVITY DATA

STABILITY: Stable.

MATERIALS TO AVOID- Avoid alteration of product properties before reuse. Calcining, which may result in crystalline formation or mixing with additives may alter toxicological properties.

CONDITIONS TO AVOID- Avoid high temperatures (>800 C) treatment.

HAZARDOUS DECOMPOSITION PRODUCTS: Oxides of carbon when burned.

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. Vacuum spill material and place in closed plastic bags for disposal.

WASTE DISPOSAL METHOD: This material when discarded is not a hazardous waste as that term is defined by RCRA, 40 CFR 261. Dispose of by incineration or recycle 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 pneumoconiosis producing dusts.

VENTILATION: Provide explosion proof ventilation as required to control airborne dust levels. The sum total of all ingredients may emit vapors during normal processing. All possible health effects are not known and individual sensitivities will vary. Effective exhaust ventilation should always be provided to draw dust, fumes and vapors away from workers to prevent routine inhalation. Ventilation should be adequate to maintain ambient workplace atmosphere below the limits listed in Section V.

SECTION IX - SPECIAL PROTECTION INFORMATION

PROTECTIVE GLOVES: Impervious gloves to protect against contact with product.

EYE PROTECTION: Safety goggles.

OTHER PROTECTIVE EQUIPMENT: Protective clothing, eye wash station, safety shower.

SECTION X - SPECIAL PRECAUTIONS

HANDLING AND STORAGE: Handling can create explosive dust clouds. Eliminate ignition sources, use explosive proof equipment. Conveying and processing equipment should be spark-proof, well bonded and grounded. Avoid dust accumulations.

OTHER PRECAUTIONS: Wash with soap and water before eating, drinking, smoking, or using toilet facilities. Launder contaminated clothing before reuse.

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

This product does not contain a toxic chemical in excess of 1% of the mixture.

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:
Sudden Release of Pressure Hazard:
Reactivity Hazard:
Immediate (Acute) Health Hazard: Silicon Dioxide
Delayed (Chronic) Health Hazard:

CERCLA: Reportable Quantity, 100 pounds
Release of more than 100 pounds of this product to the environment in a 24 hour period requires notification to the National Response Center (800-424-8802 or 202-426-2675).\

SECTION XI - REGULATORY INFORMATION

FDA: Regulated for food contact use under 21 CFR 175.105 (adhesives), 175.300 (resinous & polymeric coatings), 176.170 (paper & paperboard aqueous & fatty foods), 176.180 (paper & paperboard dry foods), 177.2420 (polyester resins, cross-linked as solvent), and 178.3740 (plasticizers in polymeric substances, subject to extraction limitation).

TRANSPORTATION INFORMATION:
DOT Classification: Environmentally Hazardous Substances, Solid, N.O.S. (Butyl benzyl phthalate), 9, UN3077, PGIII*.
DOT Label: Class 9 *
DOT Reportable Quantity: 100 pounds, butyl benzyl phthalate.
DOT\IMO Provisions: This material is a marine pollutant.
IMO Classification: Environmentally Hazardous Substances, Solid, N.O.S. (Butyl benzyl phthalate), 9, UN3077, PGIII*.
IATA\ICAO Classification: Environmentally Hazardous Substances, Solid, N.O.S. (Butyl benzyl phthalate), 9, UN3077, PGIII*.

* Applies ONLY to containers which contain a RQ.

SECTION XII - OTHER INFORMATION

Revision Note: New Issue of MSDS.

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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