MATERIAL SAFETY DATA SHEET
COATINGS AND RESINS GROUP
PPG Industries, Inc.

SECTION 1 - CHEMICAL, PRODUCT, AND COMPANY INFORMATION

PRODUCT CODE/IDENTITY:	**DBU-1**
PRODUCT TRADE NAME:	**DELTRON BASECOAT**
REVISION DATE:	04/19/00 (T) 0808
CUSTOMER PART #/NAME:	Not applicable
CHEMICAL FAMILY:	ACRYLIC
WHMIS HAZARD CLASS:	Class B, Division 2 Class D, Division 2, Subdivision A Class D, Division 2, Subdivision B
EMERGENCY MEDICAL/SPILL INFO:	(514) 645-1320 91-800-00-214 (MEXICO)
TECHNICAL INFORMATION:	(440) 572-2800
PRODUCT SAFETY/MSDS INFORMATION:	4325 ROSANNA DRIVE, P.O. BOX 9 ALLISON PARK, PA 15101 (412) 492-5555
DATE OF MSDS PREPARATION:	03/13/01

PRIMARY HAZARD WARNING

Flammable. Keep away from heat, sparks, flames, and other sources of ignition. Do not smoke. Extinguish all flames and pilot lights. Turn off stoves, heaters, electrical motors, and other sources of ignition during use and until all vapors/odors are gone. Harmful if swallowed. May cause moderate skin irritation. Causes severe eye irritation. May be absorbed through the skin. Vapor and/or spray mist harmful if inhaled. Vapor irritates eyes, nose, and throat. Sanding and grinding dusts may be harmful if inhaled.

THIS MATERIAL SAFETY DATA SHEET HAS BEEN PREPARED IN ACCORDANCE WITH CANADA'S WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM.

SECTION 2 - HAZARDOUS INGREDIENTS

REF	HAZARDOUS INGREDIENTS	MAX %	CAS NUMBER	CARCINOGEN*
01	ETHYL BENZENE	0.5-1.5	100-41-4	
02	2-ETHYLHEXYL ACRYLATE	0.1-1.0	103-11-7	
03	1-METHOXY-2-PROPYL ACETATE	10 - 30	108-65-6	
04	TOLUENE	10 - 30	108-88-3	
05	N-BUTYL ACETATE	40 - 70	123-86-4	
06	XYLENES	5 - 10	1330-20-7	
07	CARBON BLACK	0.5-1.5	1333-86-4	I
08	TITANIUM DIOXIDE	15 - 40	13463-67-7	
09	ETHYL ACETATE	5 - 10	141-78-6	
10	TRIMETHYLBENZENE	1 - 5	25551-13-7	
11	PETROLEUM DISTILLATES	1 - 5	64741-65-7	
12	NAPHTHA	3 - 7	64742-89-8	
13	AROMATIC NAPHTHA	7 - 13	64742-95-6	
14	ISOPROPYL ALCOHOL	1 - 5	67-63-0	
15	ACETONE	3 - 7	67-64-1	
16	ALUMINUM POWDER	10 - 30	7429-90-5	
17	GRAPHITE	7 - 13	7782-42-5	
18	METHYL ETHYL KETONE	10 - 30	78-93-3	
19	NAPHTHA	1 - 5	8052-41-3	

* Carcinogens: O = OSHA; A = ACGIH; N = NTP; I = IARC

OCCUPATIONAL EXPOSURE LIMITS HAVE BEEN ESTABLISHED FOR THE FOLLOWING MATERIALS:

	ACGIH		ONTARIO	
REF	TLV-TWA	TLV-STEL	PEL-TWA	PEL-STEL
01	100 ppm	125 ppm	100 ppm	125 ppm
02	NOT ESTAB.	NOT ESTAB.	NOT ESTAB.	NOT ESTAB.
03	NOT ESTAB.	NOT ESTAB.	NOT ESTAB.	NOT ESTAB.
03	IPEL-TWA: 100 ppm		IPEL-STEL: NOT ESTAB.	
04	S- 50 ppm	NOT ESTAB.	100 ppm	150 ppm
05	150 ppm	200 ppm	150 ppm	200 ppm
06	100 ppm	150 ppm	100 ppm	150 ppm
07	3.5 mg/m3	NOT ESTAB.	3.5 mg/m3	NOT ESTAB.
08	10 mg/m3	NOT ESTAB.	10 mg/m3	NOT ESTAB.
09	400 ppm	NOT ESTAB.	400 ppm	NOT ESTAB.
10	25 ppm	NOT ESTAB.	25 ppm	NOT ESTAB.
11	NOT ESTAB.	NOT ESTAB.	NOT ESTAB.	NOT ESTAB.
12	NOT ESTAB.	NOT ESTAB.	NOT ESTAB.	NOT ESTAB.
13	NOT ESTAB.	NOT ESTAB.	NOT ESTAB.	NOT ESTAB.
14	400 ppm	500 ppm	400 ppm	500 ppm
15	500 ppm	750 ppm	750 ppm	1000 ppm
16	10 mg/m3	NOT ESTAB.	5 mg/m3	NOT ESTAB.
17	R- 2 mg/m3	NOT ESTAB.	R- 2.5 mg/m3	NOT ESTAB.
18	200 ppm	300 ppm	200 ppm	300 ppm
18	IPEL-TWA: NOT ESTAB.		IPEL-STEL: 250 PPM	
19	100 ppm	NOT ESTAB.	525 mg/m3	NOT ESTAB.

[C- Ceiling Limit; S- Potential Skin Absorption; R- Respirable Dust] [NOT ESTAB. = NOT ESTABLISHED = NOT APPLICABLE]
Consult local authorities for acceptable provincial values.

SECTION 3 - TOXICOLOGICAL PROPERTIES

REF	LD50 ORAL (rat)	LD50 DERMAL (rabbit)	LC50 INHALATION (rat)
01	3.50 g/kg	17.80 g/kg	Not available
02	5.70 g/kg	8.50 g/kg	Not available
03	8.53 g/kg	Not available	Not available
04	5.00 g/kg	12.12 g/kg	Not available
05	14.00 g/kg	Not available	Not available

06	4.30 g/kg	Not available	Not available
07	Not available	Not available	Not available
08	Not available	Not available	Not available
09	5.62 g/kg	Not available	14.41 mg/L. 4 h
10	8.97 g/kg	Not available	Not available
11	Not available	Not available	Not available
12	Not available	Not available	Not available
13	4.70 g/kg	3.48 g/kg	Not available
14	5.84 g/kg	13.00 g/kg	Not available
15	5.80 g/kg	20.00 g/kg	Not available
16	Not available	Not available	Not available
17	Not available	Not available	Not available
18	2.74 g/kg	13.00 g/kg	Not available
19	5.00 g/kg	Not available	5.50 mg/L. 4 h

THE FOLLOWING INFORMATION IS REQUIRED UNDER CANADA'S WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM

REF	ACUTE TOXICITY
01	NO SEVERE HAZARDS
02	SKIN SENSITIZER/EYE IRRITANT
03	NO SEVERE HAZARDS
04	NO SEVERE HAZARDS
05	EYE IRRITANT
06	NO SEVERE HAZARDS
07	NO SEVERE HAZARDS
08	NO SEVERE HAZARDS
09	NO SEVERE HAZARDS
10	NO SEVERE HAZARDS
11	NO SEVERE HAZARDS
12	NO SEVERE HAZARDS
13	NO SEVERE HAZARDS
14	NO SEVERE HAZARDS
15	NO SEVERE HAZARDS
16	NO SEVERE HAZARDS
17	NO SEVERE HAZARDS
18	EYE IRRITANT
19	NO SEVERE HAZARDS

REF	CHRONIC TOXICITY
01	CARCINOGEN/KIDNEY/LIVER/LUNG
02	CARCINOGEN
03	NO LONG-TERM EFFECTS IDENTIFIED
04	TERATOGEN
05	NO LONG-TERM EFFECTS IDENTIFIED
06	EMBRYOTOXIN
07	CARCINOGEN
08	CARCINOGEN/LUNG
09	NO LONG-TERM EFFECTS IDENTIFIED
10	NO LONG-TERM EFFECTS IDENTIFIED
11	NO LONG-TERM EFFECTS IDENTIFIED
12	NO LONG-TERM EFFECTS IDENTIFIED
13	NO LONG-TERM EFFECTS IDENTIFIED
14	NO LONG-TERM EFFECTS IDENTIFIED
15	NO LONG-TERM EFFECTS IDENTIFIED
16	NO LONG-TERM EFFECTS IDENTIFIED
17	LUNG
18	EMBRYOTOXIN/TERATOGEN
19	NO LONG-TERM EFFECTS IDENTIFIED

HAZARDS IDENTIFICATION

EFFECTS OF OVEREXPOSURE FROM:

►INGESTION: Harmful if swallowed.

►EYE CONTACT: Causes severe eye irritation.

►SKIN CONTACT: May cause moderate skin irritation. May be absorbed through the skin.

►INHALATION: Vapor and/or spray mist harmful if inhaled. Vapor irritates eyes, nose, and throat. Sanding and grinding dusts may be harmful if inhaled. Repeated exposure to high vapor concentrations may cause irritation of the respiratory system and permanent brain and nervous system damage.

►CHRONIC OVEREXPOSURE: Avoid long-term and repeated contact. This product contains titanium dioxide. Animals inhaling massive quantities of titanium dioxide dust in a long-term study developed lung tumors. Studies with humans involved in manufacture of this pigment indicate no increased risk of cancer from exposure. Potential for inhalation of titanium dioxide dusts from coatings is very limited. Since overexposures are not expected, there is no significant hazard for man. This product contains 2-ethyl hexyl acrylate which has caused skin cancer in laboratory animals after chronic skin painting studies. This product contains methyl ethyl ketone (MEK). MEK has been shown to cause minor embryotoxic/fetotoxic effects in laboratory animals exposed for prolonged periods at high concentrations via inhalation. The potential for human exposure to high concentrations is expected to be low due to the irritating effects of MEK at low concentrations. This product contains a material which may be a fibrogenic dust. Long-term exposure to this material in the form of dust may result in accumulation of the material in the lungs and in subsequent lung damage. This product contains toluene. Toluene inhalation in animals (greater than 1500 ppm) and intentional inhalation of toluene-containing products by humans (e.g. glue) has caused adverse fetal development effects. This product contains carbon black which has been rated an IARC 2B carcinogen due to animal data. Ethylbenzene has been reported by NTP to cause cancer in laboratory animals following a chronic (2 year) inhalation exposure. Carcinogenicity was found in the kidneys of rats and the lung and liver of mice at the 750 ppm dose level. The No Observed Effect Level (NOEL) was 75 ppm. The International Agency for Research on Cancer (IARC) has evaluated ethylbenzene and classified it as a possible human carcinogen (Group 2B) based on sufficient evidence for carcinogenicity in experimental animals, but inadequate evidence for cancer in exposed humans. High exposures to xylenes in some animal studies have been reported to cause health effects on the developing embryo and fetus. These effects were often at levels toxic to the mother. The significance of these findings to humans has not been determined.

SIGNS AND SYMPTOMS OF OVEREXPOSURE: Eye watering, headaches, nausea, dizziness, and loss of coordination are indications that solvent levels are too high. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal. Redness, itching, burning sensation and visual disturbances may indicate excessive eye contact. Dryness, itching, cracking, burning, redness, and swelling are conditions associated with excessive skin contact.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Not applicable.

TOXICOLOGICALLY SYNERGISTIC PRODUCTS: Not available

SECTION 4 - FIRST AID MEASURES

►OTHER: If ingestion, any type of overexposure or symptoms of overexposure occur during or following the use of this product, contact a poison control center, emergency room or physician immediately; have Material Safety Data Sheet information available.

►INGESTION: If swallowed, do not induce vomiting. Gently wipe out inside mouth to remove any residual material.

►EYE CONTACT: In case of eye contact, remove contact lenses and flush eyes immediately with a gentle stream of luke warm water for at least 15 minutes.

►SKIN CONTACT: In case of skin contact, flush immediately with plenty of water for at least 15 minutes followed by washing with soap and water.

►INHALATION: If affected by inhalation of vapor or spray mist, remove to fresh air. Apply artificial respiration and other support measures as required.

SECTION 5 - FIRE OR EXPLOSION DATA

►**FLASHPOINT:** 27 Degrees F (-3 Degrees C) (PENSKY-MARTENS CLOSED CUP)

►FLAMMABLE LIMITS: Lower explosion limit (LEL): 1.8

►Upper explosion limit (UEL): Not available

►EXTINGUISHING MEDIA: Use National Fire Protection Association (NFPA) Class B extinguishers (carbon dioxide, dry chemical, or universal aqueous film forming foam) designed to extinguish NFPA Class IB flammable liquid fires.

►UNUSUAL FIRE AND EXPLOSION HAZARDS: Keep this product away from heat, sparks, flame, and other sources of ignition (i.e., pilot lights, electric motors, static electricity). Invisible vapors can travel to a source of ignition and flash back. Do not smoke while using this product. Keep containers tightly closed when not in use. Closed containers may explode when overheated. Do not apply to hot surfaces. Toxic gases may form when this product comes in contact with extreme heat.

►SPECIAL FIRE FIGHTING PROCEDURES: Water spray may be ineffective. Water spray may be used to cool closed containers to prevent pressure build-up and possible autoignition or explosion when exposed to extreme heat. If water is used, fog nozzles are preferable. Fire-fighters should wear self-contained breathing apparatus and full protective clothing.

►AUTOIGNITION TEMPERATURE: Not available

SECTION 6 - PREVENTIVE MEASURES

ACCIDENTAL RELEASE MEASURES

►STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Provide maximum ventilation. Only personnel equipped with proper respiratory, skin, and eye protection should be permitted in the area. Remove all sources of ignition. Take up spilled material with sand, vermiculite, or other noncombustible absorbent material and place in clean, empty containers for disposal. Only the spilled material and the absorbant should be placed in this container.

►WASTE DISPOSAL METHOD: Waste material must be disposed of in accordance with federal, state, provincial, and local environmental control regulations. Empty containers should be recycled or disposed of through an approved waste management facility.

HANDLING AND STORAGE

►HANDLING AND STORAGE PRECAUTIONS: Do not store above 120 degrees F.(48 degrees C.). Store large quantities in buildings designed and protected for storage of NFPA Class IB flammable liquids.

►OTHER PRECAUTIONS: Vapors may collect in low areas. If this material is part of a multiple component system, read the Material Safety Data Sheet(s) for the other component or components before blending as the resulting mixture may have the hazards of all of its parts. Containers should be grounded when pouring. Avoid free fall of liquids in excess of a few inches.

EXPOSURE CONTROLS AND PERSONAL PROTECTION

PERSONAL PROTECTIVE EQUIPMENT FOR:

►EYE PROTECTION: Wear chemical-type splash goggles or full face shield when possibility exists for eye contact due to splashing or spraying liquid, airborne particles, or vapors.

►SKIN PROTECTION: Wear protective clothing to prevent skin contact. Apron and gloves should be constructed of: neoprene rubber. No specific permeation/degradation testing have been done on protective clothing for this product. Recommendations for skin protection are based on infrequent contact with this product. For frequent contact or total immersion, contact a manufacturer of protective clothing for appropriate chemical impervious equipment.

►RESPIRATORY PROTECTION: Overexposure to vapors may be prevented by ensuring proper ventilation controls, vapor exhaust or fresh air entry. A NIOSH- approved air purifying respirator with the appropriate chemical cartridges or a positive-pressure, air-supplied respirator may also reduce exposure. Read the respirator manufacturer's instructions and literature carefully to determine the type of airborne contaminants against which the respirator is effective, its limitations, and how it is to be properly fitted and used.

►OTHER EQUIPMENT: Clean contaminated clothing and shoes.

VENTILATION REQUIREMENTS: Provide general dilution or local exhaust ventilation in volume and pattern to keep the concentration of ingredients listed in Section 2 below the lowest suggested exposure limits, the LEL below the stated limit, and to remove decomposition products during welding or flame cutting.

SECTION 7 - PHYSICAL AND CHEMICAL PROPERTIES

[FORMULA VALUES, NOT SALES SPECIFICATIONS]

BOILING RANGE: 133- 417Degrees F
VAPOR PRESSURE: 13.1 mmHg
VAPOR DENSITY: Heavier than air
% VOLATILE/VOLUME: 52-73
SPECIFIC GRAVITY: 1.020
PHYSICAL STATE: LIQUID
ODOR THRESHHOLD: Not available
SOLUBILITY IN WATER: 1.2 %
WEIGHT/GALLON (LBS): 10.2 (IMPERIAL)
pH: Not determined
% SOLIDS BY WEIGHT: 34-59
EVAPORATION RATE(BuOAc = 100): 135
FREEZING POINT: Not available
COEFFICIENT OF OIL/WATER DISTRIBUTION: Not available
ODOR/APPEARANCE: Viscous liquid with an odor characteristic of the solvents listed in Section 2.

SECTION 8 - STABILITY AND REACTIVITY DATA

►This product is normally stable but may undergo hazardous reactions at extremely high temperatures and pressures.

►INCOMPATIBILITY (MATERIALS AND CONDITIONS TO AVOID): Avoid contact with strong alkalies, strong mineral acids, or strong oxidizing agents.

►HAZARDOUS DECOMPOSITION PRODUCTS: May produce the following hazardous decomposition products when exposed to extreme heat: carbon monoxide ; carbon dioxide ; oxides of aluminum ; lower molecular weight polymer fractions; Extreme heat includes, but is not limited to, flame cutting, brazing, and welding.

SECTION 9 - PREPARATION INFORMATION

PREPARED BY: Product Safety Department
PHONE NUMBER: (412)492-5555
DATE OF MSDS PREPARATION: 10/23/00
►Hazardous Materials Identification System (HMIS) and National Fire Protection Association (NFPA) Ratings:

HMIS Rating		NFPA Rating	
HEALTH	2*	HEALTH	2
FLAMMABILITY	3	FLAMMABILITY	3
REACTIVITY	1	INSTABILITY	1

Rating System:0 = Minimal, 1 = Slight, 2 = Moderate, 3 = Serious, 4 = Severe, * = Chronic Effects.

Safe handling of this product requires that all of the information on the MSDS be evaluated for specific work environments and conditions of use.

THIS IS THE END OF THE MSDS FOR: DBU-1 (00171248.002DBU-1 10/23/00)