

## MATERIAL SAFETY DATA SHEET

## COATINGS AND RESINS GROUP

PPG Industries, Inc.

## SECTION 1 - CHEMICAL, PRODUCT, AND COMPANY INFORMATION

PRODUCT CODE/IDENTITY: DCU2001

REVISION DATE: 01/29/00 (000) 0019

CUSTOMER PART #/NAME: Not applicable

PRODUCT TRADE NAME: POLYURETHANE CLEAR

CHEMICAL FAMILY: Acrylic

WHMIS HAZARD CLASS:

Class B, Division 2 Class D, Division 2, Subdivision A

EMERGENCY MEDICAL/SPILL INFO: (514) 645-1320 91-800-00-214 (MEXICO)

TECHNICAL INFORMATION: (905) 823-1100

PRODUCT SAFETY/MSDS INFORMATION: 4325 ROSANNA DRIVE, P.O. BOX 9 ALLISO  
15101 (412) 492-5555

DATE OF MSDS PREPARATION: 02/03/00

## PRIMARY HAZARD WARNING

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

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

## SECTION 2 - HAZARDOUS INGREDIENTS

REF	HAZARDOUS INGREDIENTS	PERCENT	CAS NUMBER	C
01	STYRENE MONOMER	0.1-1.0	100-42-5	
02	1-METHOXY-2-PROPYL ACETATE	7 - 13	108-65-6	
03	XYLENES	15 - 40	1330-20-7	
04	BENZOTRIAZOLE UV ABSORBANT	0.5-1.5	25973-55-1	

05	AROMATIC NAPHTHA	1 - 5	64742-95-6
06	1,2,4-TRIMETHYL BENZENE	0.5-1.5	95-63-6

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

OCCUPATIONAL EXPOSURE LIMITS HAVE BEEN ESTABLISHED FOR THE FOLLOWING M

REF	ACGIH		ONTARIO	
	TLV-TWA	TLV-STEL	PEL-TWA	PEL-STEL
01	20 ppm	40 ppm	50 ppm	200 ppm
02	NOT ESTAB.	NOT ESTAB.	NOT ESTAB.	NOT ESTAB.
02	IPEL-TWA: 100 ppm		IPEL-STEL: NOT ESTAB.	
03	100 ppm	150 ppm	100 ppm	150 ppm
04	NOT ESTAB.	NOT ESTAB.	NOT ESTAB.	NOT ESTAB.
05	NOT ESTAB.	NOT ESTAB.	NOT ESTAB.	NOT ESTAB.
06	NOT ESTAB.	NOT ESTAB.	NOT ESTAB.	NOT ESTAB.

[C- Ceiling Limit; S- Potential Skin Absorption; R- Respirable Dust] [  
= 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	5.00 g/kg	Not available	Not available
02	8.53 g/kg	Not available	Not available
03	4.30 g/kg	Not available	Not available
04	Not available	Not available	Not available
05	4.70 g/kg	3.48 g/kg	Not available
06	Not available	Not available	18.00 mg/L. 4 h

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

#### REF ACUTE TOXICITY

01	NO SEVERE HAZARDS
02	NO SEVERE HAZARDS
03	NO SEVERE HAZARDS
04	NO SEVERE HAZARDS
05	NO SEVERE HAZARDS
06	NO SEVERE HAZARDS

#### REF CHRONIC TOXICITY

01	CARCINOGEN
02	NO LONG-TERM EFFECTS IDENTIFIED
03	EMBRYOTOXIN
04	KIDNEY/LIVER/REPRODUCTIVE
05	NO LONG-TERM EFFECTS IDENTIFIED
06	NO LONG-TERM EFFECTS IDENTIFIED

## HAZARDS IDENTIFICATION

## EFFECTS OF OVEREXPOSURE FROM:

INGESTION: Harmful if swallowed.

EYE CONTACT: Causes eye irritation.

SKIN CONTACT: May cause moderate skin irritation.

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

CHRONIC OVEREXPOSURE: Avoid long-term and repeated contact. This product contains a benzotriazole-based light stabilizer. Subchronic feeding studies on laboratory animals, at high dose levels, resulted in adverse kidney, liver, and possibly reproductive organ effects. No evidence of these effects has been observed in humans. This product contains styrene which has been classified by the International Agency for Research on Cancer (IARC) as a Class 2B carcinogen. This classification is based on data obtained by exposing laboratory animals to styrene oxide. The evidence that styrene is a human carcinogen is inadequate. High exposures to xylenes in some animal studies have been reported to cause health effects on the developing embryo and fetus. These effects were observed 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

INGESTION: If swallowed, do not induce vomiting. Gently wipe out inside of mouth and 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.

**OTHER:** If ingestion, any type of overexposure or symptoms of overexposure 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.

#### SECTION 5 - FIRE OR EXPLOSION DATA

**FLASHPOINT:** 68 Degrees F ( 20 Degrees C) (PENSKEY-MARTENS CLOSED CUP)

**FLAMMABLE LIMITS:** Lower explosion limit (LEL): 1.2

Upper explosion limit (UEL): Not available

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

**UNUSUAL FIRE AND EXPLOSION HAZARDS:** Keep this product away from heat, flame, and other sources of ignition (i.e., pilot lights, electric motor, static electricity). Invisible vapors can travel to a source of ignition and cause a 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 may be used to cool closed containers to prevent pressure build-up and 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. Clean up spilled material with sand, vermiculite, or other noncombustible absorbent material and place in clean, empty containers for disposal. Only the spill material and the absorbent 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.

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 C.). Store large quantities in buildings designed and protected for st NFPA Class IB flammable liquids.

**OTHER PRECAUTIONS:** Vapors may collect in low areas. If this material i a multiple component system, read the Material Safety Data Sheet(s) fo other component or components before blending as the resulting mixture the hazards of all of its parts. Containers should be grounded when po 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 when possibility eye contact due to splashing or spraying liquid, airborne particles, o

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

**RESPIRATORY PROTECTION:** Overexposure to vapors may be prevented by ens proper ventilation controls, vapor exhaust or fresh air entry. A NIOSH air purifying respirator with the appropriate chemical cartridges or a positive-pressure, air-supplied respirator may also reduce exposure. R respirator manufacturer's instructions and literature carefully to det type of airborne contaminants against which the respirator is effectiv 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 ve in volume and pattern to keep the concentration of ingredients listed 2 below the lowest suggested exposure limits, the LEL below the stated and to remove decomposition products during welding or flame cutting.

#### SECTION 7 - PHYSICAL AND CHEMICAL PROPERTIES

[FORMULA VALUES, NOT SALES SPECIFICATIONS]

**BOILING RANGE:** 214- 410Degrees F

SOLUBILITY IN WATER: 2.4 %

VAPOR PRESSURE: 4.5 mmHg

WEIGHT/GALLON (LBS): 9.75 (IMPERIAL)

VAPOR DENSITY: Heavier than air

pH: Not applicable

% VOLATILE/VOLUME: 56.830

% SOLIDS BY WEIGHT: 48.00

SPECIFIC GRAVITY: .975

EVAPORATION RATE(BuOAc=100): 54

PHYSICAL STATE: LIQUID

FREEZING POINT: Not available

ODOR THRESHHOLD: Not available

COEFFICIENT OF OIL/WATER DISTRIBUTION: Not available

ODOR/APPEARANCE: Viscous liquid with an odor characteristic of the sol listed in Section 2.

#### SECTION 8 - STABILITY AND REACTIVITY DATA

This product is normally stable and will not undergo hazardous reactio

INCOMPATIBILITY (MATERIALS AND CONDITIONS TO AVOID): Avoid contact wit 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 ; dioxide ; lower molecular weight polymer fractions; Extreme heat inclu is not limited to, flame cutting, brazing, and welding.

SECTION 9 - PREPARATION INFORMATION PREPARED BY: Product Safety Depart  
NUMBER: (412)492-5555 DATE OF MSDS PREPARATION: 02/03/00

Hazardous Materials Identification System (HMIS) and National Fire Pro  
Association (NFPA) Ratings:

HMIS Rating		NFPA Rating	
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HEALTH	2*	HEALTH	2

FLAMMABILITY 3  
REACTIVITY 0

FLAMMABILITY 3  
INSTABILITY 0

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

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

THIS IS THE END OF THE MSDS FOR: DCU2001 (00164383.001\*DCU200

Manufactured and Supplied by:

PPG CANADA INC.

880 AVONHEAD ROAD

MISSISSAUGA, ONTARIO, CANADA

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