

**MATERIAL SAFETY DATA SHEET  
COATINGS AND RESINS GROUP**



**SECTION I - PRODUCT INFORMATION**

MANUFACTURER'S NAME: PPG INDUSTRIES INC. CODE/IDENTITY : DXR80 (060484D)  
PRODUCT SAFETY LOC.: 260 KAPPA DRIVE TRADE NAME: DELTHANE ULTRA  
PITTSBURGH, PA 15238 CHEMICAL FAMILY: POLYISOCYANATE  
MSDS CONTACT: MANAGER, INDUSTRIAL HYGIENE AND PRODUCT SAFETY US-DOT: PAINT RELATED MATERIAL; COMBUSTIBLE LIQUID  
(412) 963-5822 DATE OF PREPARATION: 11/10/87  
EMERGENCY TELEPHONE: (304) 843-1300 CUSTOMER PART #:

**SECTION II - INGREDIENTS**

	APPROX. WGT.	CAS NO.	EXPOSURE LIMITS		
			ACGIH TLV	OSHA PEL	PPG IPEL
HEXAMETHYLENE DIISOCYANATE BASED ADDUCT	85	28182-81-2	NOT EST.	NOT EST.	NOT EST.
PROPYLENE GLYCOL MONOMETHYL ETHER ACETATE	15	108-65-6	NOT EST.	NOT EST.	NOT EST.

THE FOLLOWING HAZARDOUS MATERIALS ARE COMPONENTS OF ONE OR MORE OF THE ABOVE INGREDIENTS.

HEXAMETHYLENE DIISOCYANATE	1	822-06-0	.04Mg/M3	NOT EST.	.04Mg/M3
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**SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS**

BOILING RANGE : 145 - 146 DEG.C SOLUBILITY IN WATER: 2.9 %  
VAPOR PRESSURE: 3.7 mmHg WT/GAL (LBS): 9.24 (U.S.)  
VAPOR DENSITY : HEAVIER THAN AIR pH: U/I  
% VOL/VOLUME : 17.00 % SOLID BY WEIGHT: 85.00  
EVAP RATE(BUOAc=100): 35 SPECIFIC GRAVITY: 1.11

**SECTION IV - FIRE AND EXPLOSION HAZARD DATA**

US-DOT CATEGORY: COMBUSTIBLE  
FLASHPOINT: 105 DEG. F PMCC  
FLAMMABLE LIMITS: LEL U/I UEL U/I

**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 II COMBUSTIBLE LIQUID FIRES.

**UNUSUAL FIRE AND EXPLOSION HAZARDS:**

KEEP CONTAINERS TIGHTLY CLOSED. ISOLATE FROM HEAT, ELECTRICAL EQUIPMENT, SPARKS, AND OPEN FLAMES. CLOSED CONTAINERS MAY EXPLODE WHEN EXPOSED TO EXTREME HEAT. DO NOT APPLY ON HOT SURFACES. TOXIC GASES MAY FORM WHEN PRODUCT IS CONTACTED BY FLAME OR HOT SURFACES.

**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.

**SECTION V - REACTIVITY DATA**

STABILITY: STABLE HAZARDOUS POLYMERIZATION: MAY OCCUR

**INCOMPATIBILITY (MATERIALS AND CONDITIONS TO AVOID):**

AVOID CONTACT WITH STRONG ALKALIES, STRONG MINERAL ACIDS, OR STRONG OXIDIZING AGENTS. AVOID WATER AND ALCOHOLS.

**HAZARDOUS DECOMPOSITION PRODUCTS:**

MAY PRODUCE HAZARDOUS DECOMPOSITION PRODUCTS WHEN HEATED. WELDING, BRAZING, OR FLAME-CUTTING ON SURFACES COATED WITH THIS PRODUCT MAY PRODUCE FUMES INCLUDING: Carbon Monoxide, Oxides of Nitrogen, Hexamethylene diisocyanate, Hydrogen cyanide

**SECTION VI - SPILL OR LEAK PROCEDURES**

**STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:**

PROVIDE MAXIMUM VENTILATION. ONLY PERSONNEL EQUIPPED WITH PROPER RESPIRATORY AND SKIN AND EYE PROTECTION SHOULD BE PERMITTED IN THE AREA. REMOVE ALL SOURCES OF IGNITION. TAKE UP SPILLED MATERIAL WITH SAWDUST, VERMICULITE, OR OTHER ABSORBENT MATERIAL AND PLACE INTO CONTAINERS FOR DISPOSAL.

**WASTE DISPOSAL METHOD:**

WASTE MATERIAL MUST BE DISPOSED OF IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL ENVIRONMENTAL CONTROL REGULATIONS. EMPTY CONTAINERS SHOULD BE RECYCLED OR DISPOSED OF THROUGH AN APPROVED WASTE MANAGEMENT FACILITY.

**SECTION VII - HEALTH HAZARD DATA**

**EFFECTS OF OVEREXPOSURE FROM:**

**INGESTION:** HARMFUL OR FATAL IF SWALLOWED.  
**EYE CONTACT:** CAUSES SEVERE EYE IRRITATION.  
**SKIN CONTACT:** CAUSES PRIMARY SKIN IRRITATION. MAY BE HARMFUL IF ABSORBED THROUGH THE SKIN. PROLONGED OR REPEATED CONTACT MAY CAUSE AN ALLERGIC SKIN REACTION.  
**INHALATION:** VAPOR AND SPRAY MIST HARMFUL IF INHALED.

CONTINUED ON PAGE 2





MAY CAUSE IRRITATION AND/OR ALLERGIC RESPIRATORY REACTION IN LUNGS.  
VAPOR IRRITATES EYES, NOSE, AND THROAT.  
REPEATED EXPOSURE TO HIGH VAPOR CONCENTRATIONS MAY CAUSE IRRITATION OF THE RESPIRATORY SYSTEM AND PERMANENT BRAIN AND NERVOUS SYSTEM DAMAGE.  
INTENTIONAL MISUSE BY DELIBERATELY CONCENTRATING AND INHALING THE CONTENTS CAN BE HARMFUL OR FATAL.

**CHRONIC OVEREXPOSURE:**

AVOID LONG-TERM AND REPEATED CONTACT.  
THIS PRODUCT CONTAINS ISOCYANATES. INHALATION MAY CAUSE A BURNING SENSATION OF THE NOSE, THROAT AND LUNGS. ALLERGIC RESPIRATORY REACTIONS TO THESE MATERIALS ARE CHARACTERIZED BY ASTHMA-LIKE SYMPTOMS SUCH AS CHEST TIGHTNESS, WHEEZING, SHORTNESS OF BREATH AND COUGHING. THESE SYMPTOMS MAY FOLLOW REPEATED EXPOSURE OR A SINGLE MASSIVE EXPOSURE AND MAY BE DELAYED.

**SIGNS AND SYMPTOMS OF OVEREXPOSURE:**

EYE WATERING, HEADACHES, NAUSEA, DIZZINESS, AND LOSS OF COORDINATION ARE INDICATIONS THAT SOLVENT LEVELS ARE TOO HIGH.  
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:**

DO NOT USE IF YOU HAVE CHRONIC (LONG-TERM) LUNG OR BREATHING PROBLEMS, OR IF YOU HAVE EVER HAD A REACTION TO ISOCYANATES.

**SECTION VIII - FIRST AID PROCEDURES****INGESTION:**

IF SWALLOWED, GIVE 1 OR 2 GLASSES OF WATER, BUT DO NOT INDUCE VOMITING.

**EYE CONTACT:**

IN CASE OF EYE CONTACT, FLUSH EYES IMMEDIATELY WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES.

**SKIN CONTACT:**

IN CASE OF SKIN CONTACT, FLUSH IMMEDIATELY WITH PLENTY OF WATER 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 SUPPORTIVE MEASURES AS REQUIRED.

**OTHER:**

IF ANY OF THE FOLLOWING OCCUR DURING OR FOLLOWING USE OF THIS PRODUCT, CONTACT A POISON CONTROL CENTER, EMERGENCY ROOM OR PHYSICIAN IMMEDIATELY; HAVE MATERIAL SAFETY DATA SHEET INFORMATION AVAILABLE. \*INGESTION \*EXCESSIVE EXPOSURE TO A CORROSIVE MATERIAL.

\* PERSISTENT SKIN/EYE IRRITATION OR BREATHING DIFFICULTIES.

**SECTION IX - PROTECTION INFORMATION****PERSONAL PROTECTIVE EQUIPMENT FOR:****EYE PROTECTION:**

WEAR CHEMICAL-TYPE SPLASH GOGGLES OR FULL FACE SHIELD.

**SKIN PROTECTION:**

WEAR IMPERMEABLE PROTECTIVE CLOTHING CONSTRUCTED OF NITRILE, NEOPRENE OR LATEX RUBBER SUFFICIENT TO COVER THE ENTIRE BODY.

**RESPIRATORY PROTECTION:**

WHERE OVER-SPRAY IS PRESENT USE A POSITIVE PRESSURE AIR-SUPPLIED RESPIRATOR (NIOSH/MSHA TC-19C-). WEAR THE RESPIRATOR FOR THE WHOLE TIME OF SPRAYING AND UNTIL ALL VAPORS AND MISTS ARE GONE. READ RESPIRATOR MANUFACTURER'S INSTRUCTIONS AND LITERATURE CAREFULLY TO DETERMINE THE TYPE OF AIRBORNE CONTAMINANTS AGAINST WHICH THE RESPIRATOR IS EFFECTIVE AND HOW IT IS TO BE PROPERLY FITTED.

**OTHER EQUIPMENT:**

CLEAN OR DISCARD 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 II BELOW THE LOWEST SUGGESTED EXPOSURE LIMITS, THE LEL, IN SECTION IV BELOW THE STATED LIMIT, AND TO REMOVE DECOMPOSITION PRODUCTS DURING WELDING OR FLAME CUTTING ON SURFACES COATED WITH THIS PRODUCT.

**SECTION X - SPECIAL PRECAUTIONS****HANDLING AND STORAGE PRECAUTIONS:**

DO NOT STORE ABOVE 120 DEGREES F. STORE LARGE QUANTITIES IN BUILDINGS DESIGNED AND PROTECTED FOR STORAGE OF NFPA CLASS II COMBUSTIBLE LIQUIDS.

**OTHER PRECAUTIONS:**

IF THIS MATERIAL IS PART OF A MULTIPLE COMPONENT COATING 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.

ALL CHEMICAL SUBSTANCES IN THIS PRODUCT COMPLY WITH ALL APPLICABLE RULES OR ORDERS UNDER THE ENVIRONMENTAL PROTECTION AGENCY'S TOXIC SUBSTANCES CONTROL ACT.

THIS MATERIAL SAFETY DATA SHEET HAS BEEN PREPARED IN ACCORDANCE WITH THE OSHA HAZARD COMMUNICATION STANDARD (29 CFR 1910.1200)

U/I = UNKNOWN INFORMATION

N/A = NOT APPLICABLE

NOT EST. = NOT ESTABLISHED

