

# MATERIAL SAFETY DATA SHEET

FOR COATINGS, RESINS AND RELATED MATERIALS

NPCA 1-72

(Similar to Form OSHA-20)

Date of PREP: 08/06/84

## SECTION I

Manufacturer's Name: PPG Industries, Inc. Coatings & Resins Group  
Address: 3800 W. 143rd Street -Cleveland, Oh 44111  
Attn: Technical Manager, AutoRefinish  
Emergency Telephone: (304) 843-1300

Product Class: POLYISOCYANATE

Manufacturer Code: **DXR80**

Trade Name: DELTHANE ULTRA

(060484D)

## SECTION II - HAZARDOUS INGREDIENTS

INGREDIENTS	% WEIGHT	*TLV(1984)	**PPG IPEL	CASNO	LEL	V.P.
POLYMERIC ISOCYANATE	85	.NE	.	N.E.	N/A	N/A
PROPYLENE GLYCOL METHYL ETHER ACETATE	15	.NE	.	108-65-6	1.3	3.7
HEXAMETHYLENE DIISOCYANATE	< 5	.NE	.	822-06-0	N/A	N/A

## SECTION III - PHYSICAL DATA

Boiling Range: 146 DEG.C. Vapor Density - HEAVIER THAN AIR  
Evaporation Rate = SLOWER THAN ETHER % Volatile/Vol: 17.27 Wt/Gal: 9.25

## SECTION IV - FIRE AND EXPLOSION HAZARD DATA

DOT Category: COMBUSTIBLE Flashpoint: 147 DEG.F. PMCC LEL: 1.3  
Extinguishing Media:

USE NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) CLASS B EXTINGUISHERS (CARBON DIOXIDE, DRY CHEMICAL OR FOAM) DESIGNED TO EXTINGUISH NFPA CLASS IIIA COMBUSTIBLE LIQUID FIRES.

### Unusual Fire & Explosion Hazards:

KEEP CONTAINERS TIGHTLY CLOSED. ISOLATE FROM HEAT, ELECTRICAL EQUIPMENT, SPARKS AND OPEN FLAME. CLOSED CONTAINERS MAY EXPLODE WHEN EXPOSED TO EXTREME HEAT. DO NOT APPLY ON 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 - HEALTH HAZARD DATA

Threshold Limit Value: SEE SEC. II

### Effects of Overexposure:

INHALATION OF VAPOR AND SPRAY MIST OF COATINGS CONTAINING ISOCYANATES MAY BE ACCOMPANIED BY LUNG IRRITATION OR AN ALLERGIC RESPIRATORY REACTION CHARACTERIZED BY TIGHTNESS OF THE CHEST AND BREATHING DIFFICULTIES. EXPOSURE TO SOLVENT VAPORS AT OR ABOVE LEVELS RECOMMENDED IN SECTION II MAY RESULT, WITH INCREASING EXPOSURE, IN THE FOLLOWING PROGRESSIVE SYMPTOMS: RESPIRATORY TRACT IRRITATION, HEADACHE, DIZZINESS, STAGGERING GAIT, AND, IN EXTREME CASES, UNCONSCIOUSNESS AND/OR COMA. MAY CAUSE SKIN AND EYE IRRITATION.

### Emergency and First Aid Procedures:

IF AFFECTED BY INHALATION OF VAPOR OR SPRAY MIST, REMOVE TO FRESH AIR. IF BREATHING DIFFICULTY PERSISTS, OR OCCURS LATER CONSULT A PHYSICIAN AND HAVE LABEL/MSDS INFORMATION AVAILABLE. IN CASE OF EYE CONTACT, FLUSH IMMEDIATELY WITH PLENTY OF WATER FOR 15 MINUTES. CALL A PHYSICIAN. IN CASE OF SKIN CONTACT WASH THOROUGHLY WITH SOAP AND WATER.

## SECTION VI - REACTIVITY DATA

STABILITY: STABLE Conditions to Avoid: UNKNOWN

Incompatibility (Materials to Avoid):

WATER, ALCOHOLS, AND STRONG BASES.

Hazardous Decomposition Products:

May produce hazardous fumes when heated to decomposition as in welding.  
Fumes may contain: Carbon Monoxide and  
Oxides of Nitrogen, Hydrogen cyanide, Hexamethylene diisocyanate,

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NOTE: \* = Threshold Limit Value established by American Conference of Governmental Industrial Hygienists  
\*\* = PPG'S Internal Permissible Exposure Limit

Hazardous Polymerization - MAY OCCUR  
**CONDITIONS TO AVOID:**

SEE COMMENTS FOLLOWING SECTION IX.

## **SECTION VII - SPILL OR LEAK PROCEDURES**

**Steps to be Taken in Case Material is Released or Spilled:**

REMOVE ALL SOURCES OF IGNITION (FLAMES, HOT SURFACES, AND ELECTRICAL, STATIC, OR FRICTIONAL SPARKS). AVOID BREATHING VAPORS. VENTILATE AREA. REMOVE WITH INERT ABSORBENT AND NON-SPARKING TOOLS.

**Waste Disposal Method:**

DISPOSE IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS. DO NOT INCINERATE CLOSED CONTAINERS.

## **SECTION VIII - SPECIAL PROTECTION INFORMATION**

**Respiratory Protection:**

USE A POSITIVE PRESSURE AIR SUPPLIED RESPIRATOR APPROVED UNDER NIOSH/MSHA SCHEDULE TC19C. IF NOT AVAILABLE, USE A VAPOR/PARTICULATE RESPIRATOR THAT THE RESPIRATOR SUPPLIER RECOMMENDS AS EFFECTIVE FOR ISOCYANATE VAPORS AND MISTS.

**Ventilation:**

PROVIDE GENERAL DILUTION OR LOCAL EXHAUST VENTILATION IN VOLUME AND PATTERN TO KEEP THE CONCENTRATIONS OF THE HAZARDOUS INGREDIENTS LISTED IN SECTION II BELOW THE LOWEST SUGGESTED EXPOSURE LIMITS, THE LEL IN SECTION IV BELOW STATED LIMIT, AND TO REMOVE DECOMPOSITION PRODUCTS DURING WELDING OR FLAME CUTTING ON SURFACES COATED WITH THIS PRODUCT. (NIOSH RECOMMENDS AN EXPOSURE LIMIT OF .005 PPM FOR HEXAMETHYLENE DIISOCYANATE.)

**Protective Gloves:**

REQUIRED FOR PROLONGED OR REPEATED CONTACT.

**Eye Protection:**

USE SAFETY EYEWEAR DESIGNED TO PROTECT AGAINST SPLASH OF LIQUIDS.

**Other Protective Equipment:**

PREVENT PROLONGED SKIN CONTACT TO CONTAMINATED CLOTHING.

## **SECTION IX - SPECIAL PRECAUTIONS**

**Precautions to be Taken in Handling and Storing:**

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

**Other Precautions:**

REPEATED OVEREXPOSURES TO SOLVENT VAPORS MAY CAUSE PERMANENT BRAIN AND NERVOUS SYSTEM DAMAGE. INTENTIONAL MISUSE BY DELIBERATELY CONCENTRATING AND INHALING THE CONTENTS CAN BE HARMFUL OR FATAL. EYE WATERING, HEADACHES, OR DIZZINESS ARE INDICATIONS THAT SOLVENT LEVELS ARE TOO HIGH. OVEREXPOSURE MAY BE PREVENTED BY ENSURING VENTILATION CONTROLS, VAPOR EXHAUST OR FRESH AIR ENTRY. PROTECTIVE DEVICES SUCH AS A RESPIRATOR (MINIMUM NIOSH/MSHA TC-23C SPECIFICATION), GLOVES AND CLOTHING MAY ALSO LIMIT EXPOSURE.

DO NOT TAKE INTERNALLY. CONTAINERS SHOULD BE GROUNDED WHEN POURING. AVOID FREE FALL OF LIQUID IN EXCESS OF A FEW INCHES. DO NOT FLAME CUT, BRAZE OR WELD WITHOUT NIOSH APPROVED RESPIRATORS OR APPROPRIATE VENTILATION.

EXPOSURE TO TEMPERATURES GREATER THAN 50 C (122 F) MAY CAUSE THIS PRODUCT TO POLYMERIZE.