MATERIAL SAFETY DATA SHEET

FOR COATINGS, RESINS AND RELATED MATERIALS

Date of PREP: 9/13/84 (Similar to Form OSHA-20)

NPCA 1-72

SECTION I

Address:

Manufacturer's Name:

PPG Industries, Inc. Coatings & Resins Group 3800 W. 143rd Street -Cleveland, Oh 44111

Attn: Technical Manager, AutoRefinish

Emergency Telephone: (304) 843-1300

Product Class: POLYISOCYANATE

Manufacturer Code: DPU301A

to the said

Trade Name: DURETHANE PRIMER CATALYST

(082184D)

SECTION II – HAZARDOUS INGREDIENTS

CASNO LEL V.P. \*\*PPG IPEL % WEIGHT \*TLV(1984) **TNGREDIENTS** 50 150.00 123-86-4 1.3 10 N-BUTYL ACETATE . NE N.E. N/A N/A 30 POLYMERIC ISOCYANATE 8032-32-4 1.0 . NE MINERAL SPIRITS-RULE 66 15 90438-79-2 0.5 1.0 OXO-HEPTYL ACETATE 5 .NE 4098-71-9 0.01 PPM N/A N/A ISOPHORONE DIISOCYANATE

SECTION III - PHYSICAL DATA

- HEAVIER THAN, AIR Vapor Density Boiling Range: 126-200 DEG.C. Evaporation Rate = SLOWER THAN ETHER . % Volatile/Volar73.11

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

DOT Category: FLAMMABLE

Flashpoint: 74 DEG.F. PMCC

LEL: 1.6

12.33

Extinguishing Media:

USE NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) CLASS B EXTINGUISHERS (CARBON DIOXIDE, DRY CHEMICAL OR FOAM) DESIGNED ... TO EXTINGUISH NFPA CLASS IC FLAMMABLE 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 WARDER 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 WATER FOR 15 MINUTES. CALL A PHYSIC WASH THOROUGHLY WITH SOAP AND WATER.

SECTION VI - REACTIVITY DATA

STABILITY: STABLE Conditions to Avoid: UNKNOWN Incompatibility (Materials to Avoid):

Continued on Page 2

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

Continuation of Manufacturer's Code DPU301A Date of Prep: 9/13/84 Page 2

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, Isophorone diisocyanate,

the tail of a -

Hazardous Polymerization - WILL NOT OCCUR

CONDITIONS TO AVOID: UNKNOWN

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:

out the ties

13. 17

Nº 50 6 12

Contraction of

PROVIDE GENERAL DILUTION OR LOCAL EXHAUST VENTILATION IN VOLUME AND PATTERN TO KEEP THE CONCENTRATION OF HAZARDOUS 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.

Protective Gloves:

REQUIRED.

Eye Protection:

REQUIRED.

Other Protective Equipment:

WEAR IMPERVIOUS CLOTHING AND EQUIPMENT TO PREVENT EYE AND SKIN CONTACT.

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 IC FLAMMABLE 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 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 WAY 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.

THE CONTENTS OF THIS PACKAGE MUST BE BLENDED WITH MPONTANT: THE CONTENTS OF THIS PACKAGE MUST BE BLENDED WITT OTHER COMPONENTS BEFORE THE PRODUCT CAN BE USED. BEFORE OPENING THE PACKAGES, BE SURE YOU UNDERSTAND THE WARNING MESSAGES ON THE LABELS OF ALL COMPONENTS SINCE THE MIXTURE WAY HAVE THE HAZARDS OF ALL ITS PARTS. OBSERVE ALL APPLICABLE PRECAUTIONS.