

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



**SECTION I - PRODUCT INFORMATION**

MANUFACTURER'S NAME: PPG INDUSTRIES INC. CODE/IDENTITY : DP401 (0814860)  
 PRODUCT SAFETY LOC.: 260 KAPPA DRIVE TRADE NAME: CATALYST FOR DP-40  
 PITTSBURGH, PA 15238 CHEMICAL FAMILY: POLYAMIDE  
 MSDS CONTACT: MANAGER, INDUSTRIAL HYGIENE AND PRODUCT SAFETY US-DOT: PAINT RELATED MATERIAL; FLAMMABLE 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	
TOLUENE	10	108-88-3	100.00PPM	200.00PPM	100.00PPM
XYLENE	10	1330-20-7	100.00PPM	100.00PPM	100.00PPM
ISOPROPYL ALCOHOL, ANHYDROUS	40	67-63-0	400.00PPM	400.00PPM	400.00PPM
1-METHOXY-2-PROPANOL	10	107-98-2	100.00PPM	NOT EST.	100.00PPM
OXO-HEPTYL ACETATE	5	90438-79-2	NOT EST.	NOT EST.	NOT EST.
2-BUTOXY ETHYL ACETATE	10	112-07-2	NOT EST.	NOT EST.	NOT EST.
FILM FORMERS, RESINS, AND ADDITIVES	15	PROPRIETARY	NOT EST.	NOT EST.	NOT EST.

**SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS**

BOILING RANGE : 82 - 200 DEG.C SOLUBILITY IN WATER: 49.5 %  
 VAPOR PRESSURE: 23.8 mmHg WT/GAL (LBS): 7.18 (U.S.)  
 VAPOR DENSITY : HEAVIER THAN AIR pH: U/I  
 % VOL/VOLUME : 84.50 % SOLID BY WEIGHT: 17.41  
 EVAP RATE(BUOAc=100): 186 SPECIFIC GRAVITY: .86

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

US-DOT CATEGORY: FLAMMABLE  
 FLASHPOINT: 40 DEG. F PMCC  
 FLAMMABLE LIMITS: LEL 1.7 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 B FLAMMABLE 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: NOT EXPECTED TO OCCUR  
 INCOMPATIBILITY (MATERIALS AND CONDITIONS TO AVOID):

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

**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

**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:**

MAY CAUSE MODERATE SKIN IRRITATION.  
 MAY BE ABSORBED THROUGH THE SKIN.

**INHALATION:**

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VAPOR AND SPRAY MIST MAY BE HARMFUL IF INHALED.  
 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.

**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: NOT APPLICABLE

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

IF SWALLOWED, 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, REMOVE PROMPTLY BY WIPING, FOLLOWED BY WATERLESS HAND CLEANER AND 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.

**SKIN PROTECTION:**

WEAR PROTECTIVE CLOTHING, INCLUDING IMPERMEABLE APRON AND GLOVES CONSTRUCTED OF: NITRILE RUBBER, NEOPRENE RUBBER OR POLYVINYL ALCOHOL

**RESPIRATORY PROTECTION:**

OVEREXPOSURE TO VAPORS MAY BE PREVENTED BY ENSURING VENTILATION CONTROLS, VAPOR EXHAUST OR FRESH AIR ENTRY. NIOSH/MSHA-APPROVED (TC-23C-) PAINT SPRAY OR AIR SUPPLIED (TC-19C-) RESPIRATORS MAY ALSO REDUCE EXPOSURE. 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 IB FLAMMABLE 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

(CUSTOMER NO.) LOCATION : 87DP401/////1110

## Characteristics of Some Commonly Used Fillers

Filler	Characteristics
Silica.....	Inexpensive, hard, abrasive, lightweight, easily mixed in, good electrical properties, resistant to chemicals and weathering, difficult to machine, high loading possible
Calcium carbonate.....	Inexpensive, lightweight, improves machinability, high loadings possible with minimum viscosity increase, poor water and acid resistance, easily mixed in, poor electrical properties
Clay.....	Inexpensive, used as extender; some grades do not mix well
Aluminum oxide.....	Very hard, abrasive, castings are abrasion-resistant and must be ground to size, increases thermal conductivity, produces translucent compounds; some types used to help keep other fillers in suspension
Calcium silicate.....	Fibrous material increases impact strength
Glass spheres.....	Available in a variety of graded sizes, easily mixed in, good packing density, reduces thermal expansion
Hollow spheres.....	Glass, phenolic, thermoplastic available, reduces density, reduces thermal conductivity and dielectric constant
Fibers.....	Glass, asbestos, Dacron, * cotton, nylon, increases impact strength, high viscosity
Metal powders and particles.....	Heavy, settles rapidly, easy to mix in Aluminum-- powder and pellets, increased thermal conductivity, easy to machine, castings are malleable Silver--flakes and powder, silver-coated copper less expensive, high electrical and thermal conductivity Copper, bronze, brass--flakes and powder, increased thermal and electrical conductivity, pigment Stainless steel--flakes, weather resistance, moisture barrier
Finely divided silica.....	Thickens compounds to reduce sagging
Pigments.....	To produce color and opacity, most easily incorporated from dispersions in epoxy resins or plasticizers

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# VEHICLE MAINTENANCE

- GASOLINE & ADDITIVES
- DIESEL FUEL & ADDITIVES
- ENGINE EXHAUST

CARBON MONOXIDE

LEAD ALDEHYDE

NITROGEN OXIDES

SMOKE & OTHER HYDROCARBONS

- FLUIDS, CHEMICALS, & EXPOSURES

ANTI-FREEZE

WINDSHIELD WASHER SOLVENT

BATTERIES

ASBESTOS FROM BRAKE REPAIR

BRAKE FLUID & ADDITIVES

LUBRICATING OILS

GREASE