

MATERIAL SAFETY DATA SHEET

MANUFACTURER'S NAME  
THE SHERWIN-WILLIAMS COMPANY  
101 Prospect Avenue N.W.  
Cleveland, Ohio 44115  
DATE OF PREPARATION  
15-Apr-90

EMERGENCY TELEPHONE NO.  
(216) 566-2917

INFORMATION TELEPHONE NO.  
(216) 566-2902

Section I -- PRODUCT IDENTIFICATION

PRODUCT NUMBER  
V66 V 27 \* - Trade Mark

PRODUCT NAME  
POLANE\* B Catalyst

PRODUCT CLASS  
Coreactant for 2-package Polyurethane Coating

Section II -- HAZARDOUS INGREDIENTS

CAS No.	CONCENTRATION	% by WEIGHT	ACGIH-TLW	OSHA-PEL	UNITE	T.P.
108-65-6	1-Methoxy-2-Propanol Acetate	40	Not Established			1.0
Propriet.	Toluene Diisocyanate Polymer	40	Not Established			
584-84-9	Max. free Toluene Diisocyanate	0.4	0.005	C 0.02	PPH	

\* These ingredients are subject to the reporting requirements of Section 313, (Title III Superfund Amendments and Reauthorization Act) and 40 CFR Part 372.

Section III -- PHYSICAL DATA

PRODUCT WEIGHT -- 9.57 lb./gal.  
SPECIFIC GRAVITY -- 1.15  
BOILING RANGE -- 284-302 F  
VOLATILE VOLUME -- 48 %  
OC (Theoretical) -- 3.82 lb. 458 gm.

EVAPORATION RATE -- Slower than Ether  
VAPOR DENSITY -- Heavier than Air  
MELTING POINT -- N.A.  
SOLUBILITY IN WATER -- N.A.

Section IV -- FIRE AND EXPLOSION HAZARD DATA

FLAMMABILITY CLASSIFICATION  
Flash above 99 and below 200 F

FLASH POINT 108 F PMCC LEL 1.3 UEL 13.1

EXTINGUISHING MEDIA  
Carbon Dioxide, Dry Chemical, Foam

MUSCULAR FIRE AND EXPLOSION HAZARDS  
Keep containers tightly closed. Isolate from heat, electrical equipment, sparks, and open flame. Closed containers may explode when exposed to extreme heat. Application to hot surfaces requires special precautions. During emergency conditions overexposure to decomposition products may cause a health hazard. Symptoms may not be immediately apparent. Obtain medical attention.

SPECIAL FIRE FIGHTING PROCEDURES  
Full protective equipment including self-contained breathing apparatus should be used. Water spray may be ineffective. If water is used, fog nozzles are preferable. Water may be used to cool closed containers to prevent pressure build-up and possible autoignition or explosion when exposed to extreme heat.

Section V -- HEALTH HAZARD DATA

ROUTES OF EXPOSURE  
Exposure may be by INHALATION and/or SKIN or EYE contact, depending on conditions of use.

Continued on page 2

Alcohols and acetates can be absorbed through the skin. Follow recommendations for proper use, ventilation, and personal protective equipment to minimize exposure.

ACUTE Health Hazards  
EFFECTS OF OVEREXPOSURE  
Irritation of eyes, skin and respiratory system. May cause nervous system depression. Extreme overexposure may result in unconsciousness and possibly death.

SIGNS AND SYMPTOMS OF OVEREXPOSURE  
Headache, dizziness, nausea, and loss of coordination are indications of excessive exposure to vapors or spray mists.  
Redness and itching or burning sensation may indicate eye or excessive skin exposure.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE  
May cause allergic respiratory and/or skin reaction in susceptible persons or sensitization. This effect may be delayed several hours after exposure.

EMERGENCY AND FIRST AID PROCEDURES  
If INHALED: If any breathing problems occur during use, LEAVE THE AREA and get fresh air. If problems remain or occur later, IMMEDIATELY get medical attention.  
If on SKIN: Wash affected area thoroughly with soap and water. Remove contaminated clothing and launder before re-use.  
If in EYES: Flush eyes with large amounts of water for 15 minutes. Get medical attention.  
If SWALLOWED: Get medical attention.

CHRONIC Health Hazards  
Toluene Diisocyanate (TDI), listed by NTP, has been shown to cause cancer in laboratory animals when administered directly into the stomach. No evidence of cancer from exposure to TDI by inhalation has been reported.  
Prolonged overexposure to solvent ingredients in Section II may cause adverse effects to the liver, urinary, and blood forming systems.  
Persons sensitive to isocyanates will experience increased allergic reaction on repeated exposure.

Reports have associated repeated and prolonged overexposure to solvents with permanent brain and nervous system damage.

Section VI -- REACTIVITY DATA

STABILITY -- Stable  
INCOMPATIBILITY  
Contamination with Water, Alcohols, Amines and other compounds which react with isocyanates, may result in dangerous pressure in, and possible bursting of, closed containers.

HAZARDOUS DECOMPOSITION PRODUCTS  
By fire: Carbon Dioxide, Carbon Monoxide, Oxides of Nitrogen, possibility of Hydrogen Cyanide

HAZARDOUS POLYMERIZATION -- Will Not Occur

Section VII -- SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED  
Remove all sources of ignition. Ventilate the area. All personnel in the area should be protected as in Section VIII. Cover spill with absorbent material. Deactivate spilled material with a 10% ammonium hydroxide solution (household ammonia). After 10 minutes, collect in open containers and add more ammonia. Cover loosely. Wash spill area with soap and water.

WASTE DISPOSAL METHOD  
Waste from this product may be hazardous as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR 261. Waste must be tested for ignitability to determine the applicable EPA hazardous waste numbers.  
Incinerate in approved facility. Do not incinerate closed container. Dispose of in accordance with Federal, State, and Local regulations regarding pollution.

Continued on page 3

Section VIII -- PROTECTION INFORMATION

PRECAUTIONS TO BE TAKEN IN USE  
NO PERSON SHOULD USE THIS PRODUCT, OR BE IN THE AREA WHERE IT IS BEING USED, IF THEY HAVE CHRONIC (LONG-TERM) LUNG OR BREATHING PROBLEMS OR IF THEY EVER HAD A REACTION TO ISOCYANATES.  
Use only with adequate ventilation. Avoid breathing vapor and spray mist. Avoid contact with skin and eyes. Wash hands after using.

This coating may contain materials classified as nuisance particulates (listed "as Dust" in Section II) which may be present at hazardous levels only during sanding or abrading of the dried film. If no specific dusts are listed in Section II, the applicable limits for nuisance dusts are ACGIH TLV 10 mg./m3 (total dust), OSHA PEL 15 mg./m3 (total dust), 5 mg./m3 (respirable fraction).

VENTILATION  
Local exhaust preferable. General exhaust acceptable if the exposure to materials in Section II is maintained below applicable exposure limits. Refer to OSHA Standards 1910.94, 1910.107, 1910.108.

RESPIRATORY PROTECTION  
Where overspray is present, a positive pressure air supplied respirator (TC19C NIOSH/MSHA approved) should be worn. If unavailable, a properly fitted organic vapor/particulate respirator approved by NIOSH/MSHA for protection against materials in Section II may be effective. Follow respirator manufacturer's directions for use. Wear the respirator for the whole time of spraying and until all vapors and mists are gone. NO PERSONS SHOULD BE ALLOWED IN THE AREA WHERE THIS PRODUCT IS BEING USED UNLESS EQUIPPED WITH THE SAME RESPIRATOR PROTECTION RECOMMENDED FOR THE PAINTERS.

When sanding or abrading the dried film, wear a dust/mist respirator approved by NIOSH/MSHA for use which may be generated from this product, underlying paint, or the abrasive.

PROTECTIVE GLOVES  
Wear gloves which are recommended by glove supplier for protection against materials in Section II.

EYE PROTECTION  
Wear safety spectacles with unperforated sideshields.

OTHER PROTECTIVE EQUIPMENT  
Use barrier cream on exposed skin.

Section IX -- PRECAUTIONS

DO NOT STORAGE CATEGORY -- 2  
PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING  
Contents are COMBUSTIBLE. Keep away from heat and open flame.  
Consult NFPA Code. Use approved Bonding and Grounding procedures.

Keep container closed when not in use. Transfer only to approved containers with complete and appropriate labeling. Do not take internally. Keep out of the reach of children.

OTHER PRECAUTIONS  
This product must be mixed with other components before use. Before opening the packages, READ AND FOLLOW WARNING LABELS ON ALL COMPONENTS.

Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal.

HEALTH	2*
FLAMMABILITY	2
REACTIVITY	1

The above information pertains to this product as currently formulated, and is based on the information available at this time. Addition of reducers or other additives to this product may substantially alter the composition and hazards of the product. Since conditions of use are outside our control, we make no warranties, express or implied, and assume no liability in connection with any use of this information.

MANUFACTURER'S NAME  
THE SHERWIN-WILLIAMS COMPANY  
101 Prospect Avenue N.W.  
Cleveland, Ohio 44115

EMERGENCY TELEPHONE NO.  
(216) 566-2917

DATE OF PREPARATION  
15-Apr-90

INFORMATION TELEPHONE NO.  
(216) 566-2902

## Section I -- PRODUCT IDENTIFICATION

PRODUCT NUMBER  
V66 V 29 \* - Trade Mark

PRODUCT NAME  
POLANE<sup>®</sup> A Catalyst

PRODUCT CLASS  
Coreactant for 2-package Polyurethane Coating

## Section II -- HAZARDOUS INGREDIENTS

CAS No.	INTEGRITY	% BY WEIGHT	ACUTE-TOX	OSHA-PEL	UNITS	V.P.
123-86-4	n-Butyl Acetate.	25	150	150	PPM	10.0
			STEL 200	200	PPM	
Propriet.	Hexamethylene Diisocyanate Polymer.	75	Not Established			
522-06-0	Max. free Hexamethylene Diisocyanate	1.2	0.005		PPM	

This product contains no ingredients subject to the reporting requirements of section 313, (Title III Superfund Amendments and Reauthorization Act) and 40 CFR Part 372.

## Section III -- PHYSICAL DATA

PRODUCT WEIGHT -- 8.84 lb./gal.	EVAPORATION RATE -- Slower than Ether
SPECIFIC GRAVITY -- 1.06	VAPOR DENSITY -- Heavier than Air
BOILING RANGE -- 255-264 F	MELTING POINT -- N.A.
VOLATILE VOLUME -- 30 %	SOLUBILITY IN WATER -- N.A.
VOC (Theoretical) -- 2.21 lb. 264 gm.	

## Section IV -- FIRE AND EXPLOSION HAZARD DATA

FLAMMABILITY CLASSIFICATION FLASH POINT 95 F PNCC LEL 1.4 UEL 7.6  
RED LABEL -- Flammable, Flash below 100 F

## EXTINGUISHING MEDIA

Carbon Dioxide, Dry Chemical, Foam  
UNUSUAL FIRE AND EXPLOSION HAZARDS

Keep containers tightly closed. Isolate from heat, electrical equipment, sparks, and open flame. Closed containers may explode when exposed to extreme heat. Application to hot surfaces requires special precautions. During emergency conditions overexposure to decomposition products may cause a health hazard. Symptoms may not be immediately apparent. Obtain medical attention.

## SPECIAL FIRE FIGHTING PROCEDURES

Full protective equipment including self-contained breathing apparatus should be used. Water spray may be ineffective. If water is used, fog nozzles are preferable. Water may be used to cool closed containers to prevent pressure build-up and possible autoignition or explosion when exposed to extreme heat.

Continued on page 2

## ROUTES OF EXPOSURE

Exposure may be by INHALATION and/or SKIN or EYE contact, depending on conditions of use. To minimize exposure, follow recommendations for proper use, ventilation, and personal protective equipment.

## ACUTE Health Hazards

## EFFECTS OF OVEREXPOSURE

Irritation of eyes, skin and respiratory system. May cause nervous system depression. Extreme overexposure may result in unconsciousness and possibly death.

## SIGNS AND SYMPTOMS OF OVEREXPOSURE

Headache, dizziness, nausea, and loss of coordination are indications of excessive exposure to vapors or spray mists.

Redness and itching or burning sensation may indicate eye or excessive skin exposure.

## MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE

May cause allergic respiratory and/or skin reaction in susceptible persons or sensitized. This effect may be delayed several hours after exposure.

## EMERGENCY AND FIRST AID PROCEDURES

If INHALED: If any breathing problems occur during use, LEAVE THE AREA and get fresh air. If problems remain or occur later, IMMEDIATELY get medical attention.

If on SKIN: Wash affected area thoroughly with soap and water.

Remove contaminated clothing and launder before re-use.

If in EYES: Flush eyes with large amounts of water for 15 minutes. Get medical attention. If SWALLOWED: Get medical attention.

## CHRONIC Health Hazards

No ingredient in this product is an IARC, NTP or OSHA listed carcinogen.

Prolonged overexposure to solvent ingredients in Section II may cause adverse effects on the blood forming system.

Persons sensitive to isocyanates will experience increased allergic reaction on re-exposure.

Reports have associated repeated and prolonged overexposure to solvents with permanent and nervous system damage.

## Section VI -- REACTIVITY DATA

## STABILITY -- Stable

## INCOMPATIBILITY

Contamination with Water, Alcohols, Amines and other compounds which react with isocyanates, may result in dangerous pressures in, and possible bursting of, closed containers.

## HAZARDOUS DECOMPOSITION PRODUCTS

By fire: Carbon Dioxide, Carbon Monoxide, Oxides of Nitrogen, possibility of Hydrogen Cyanide

## HAZARDOUS POLYMERIZATION -- Will Not Occur

## Section VII -- SPILL OR LEAK PROCEDURES

## STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Remove all sources of ignition. Ventilate the area. All personnel in the area should be protected as in Section VIII. Cover spill with absorbent material. Deactivate spill material with a 10% ammonium hydroxide solution (household ammonia). After 10 minutes in open containers and add more ammonia. Cover loosely. Wash spill area with soap and water.

## WASTE DISPOSAL METHOD

Waste from this product may be hazardous as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR 261. Waste must be tested for ignitability to determine applicable EPA hazardous waste numbers.

Incinerate in approved facility. Do not incinerate closed container. Dispose of accordance with Federal, State, and Local regulations regarding pollution.

Continued on page 1

## Section VIII -- PROTECTION INFORMATION

## PRECAUTIONS TO BE TAKEN IN USE

NO PERSON SHOULD USE THIS PRODUCT, OR BE IN THE AREA WHERE IT IS BEING USED, IF THEY HAVE CHRONIC (LONG-TERM) LUNG OR BREATHING PROBLEMS OR IF THEY EVER HAD A REACTION TO ISOCYANATES.

Use only with adequate ventilation. Avoid breathing vapor and spray mist. Avoid contact with skin and eyes. Wash hands after using.

This coating may contain materials classified as nuisance particulates (listed "as Dust" in Section II) which may be present at hazardous levels only during sanding or abrading of the dried film. If no specific dusts are listed in Section II, the applicable limits for nuisance dusts are ACGIH TLV 10 mg./m<sup>3</sup> (total dust), OSHA PEL 15 mg./m<sup>3</sup> (total dust), 5 mg./m<sup>3</sup> (respirable fraction).

## VENTILATION

Local exhaust preferable. General exhaust acceptable if the exposure to materials in Section II is maintained below applicable exposure limits. Refer to OSHA Standards 1910.94, 1910.107, 1910.108.

## RESPIRATORY PROTECTION

Where overspray is present, a positive pressure air supplied respirator (TC19C NIOSH/MSHA approved) should be worn. If unavailable, a properly fitted organic vapor/particulate respirator approved by NIOSH/MSHA for protection against materials in Section II may be effective. Follow respirator manufacturer's directions for use. Wear the respirator for the whole time of spraying and until all vapors and mists are gone. NO PERSONS SHOULD BE ALLOWED IN THE AREA WHERE THIS PRODUCT IS BEING USED UNLESS EQUIPPED WITH THE SAME RESPIRATOR PROTECTION RECOMMENDED FOR THE PAINTERS.

When sanding or abrading the dried film, wear a dust/mist respirator approved by NIOSH/MSHA for dust which may be generated from this product, underlying paint, or the abrasive.

## PROTECTIVE GLOVES

Wear gloves which are recommended by glove supplier for protection against materials in Section II.

## EYE PROTECTION

Wear safety spectacles with unperforated sideshields.

## OTHER PROTECTIVE EQUIPMENT

Use barrier cream on exposed skin.

## Section IX -- PRECAUTIONS

## DOL STORAGE CATEGORY -- 1C

## PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

Contents are FLAMMABLE. Keep away from heat, sparks, and open flame.

During use and until all vapors are gone: Keep area ventilated - Do not smoke - Extinguish all flames, pilot lights, and heaters - Turn off stoves, electric tools and appliances, and any other sources of ignition.

Consult NFPA Code. Use approved Bonding and Grounding procedures.

Keep container closed when not in use. Transfer only to approved containers with complete and appropriate labeling. Do not take internally. Keep out of the reach of children.

## OTHER PRECAUTIONS

This product must be mixed with other components before use. Before opening the packages, READ AND FOLLOW WARNING LABELS ON ALL COMPONENTS.

Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal.

HEALTH	2*
FLAMMABILITY	3
REACTIVITY	1

The above information pertains to this product as currently formulated, and is based on the information available at this time. Addition of reducers or other additives to this product may substantially alter the composition and hazards of the product. Since conditions of use are outside our control, we make no warranties, express or implied, and assume no liability in connection with any use of this information.