APPENDIX C

SHERMAN-WILLIAMS MATERIAL SAFETY DATA SHEETS

Section 3 — Physical Data

PRODUCT WEIGHT	See TABLE	*EVAPORATION RATE*	Slower than Ether
SPECIFIC GRAVITY	1.05-1.47	*VAPOR DENSITY*	Heavier than Air
BOILING RANGE	133-360°F	*MELTING POINT*	N.A.
VOLATILE VOLUME	12-100 %	*SOLUBILITY IN WATER*	N.A.

Section 4 — Fire And Explosion Hazard Data

FLAMMABILITY CLASSIFICATION *FLASH POINT* See TABLE *LEL* 1.7 *UEL* 12.6
See TABLE

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.

Section 5 — Health Hazard Data

ROUTES OF EXPOSURE
Exposure may be by INHALATION and/or SKIN or EYE contact, depending on conditions of use. 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
Redness and itching or burning sensation may indicate eye or excessive skin exposure.
Headache, dizziness, nausea, and loss of coordination are indications of excessive exposure to vapors or spray mists.

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
Carbon Black is classified by IARC as possibly carcinogenic to humans (group 2B) based on experimental animal data, however, there is insufficient evidence in humans for its carcinogenicity.
Crystalline Silica (Quartz, Cristobalite) is listed by IARC and NTP. Long term exposure to high levels of silica dust, which can occur only when sanding or abrading the dry film, may cause lung damage (silicosis) and possibly cancer.
Methyl Ethyl Ketone may increase the nervous system effects of other solvents.
Prolonged overexposure to solvent ingredients in Section 2 may cause adverse effects to the liver, urinary, blood forming and reproductive 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 6 — Reactivity Data

STABILITY – Stable

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

INCOMPATIBILITY
None known.

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

HAZARDOUS POLYMERIZATION – Will Not Occur

Section 7 — Spill Or Leak Procedures

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED
Remove all sources of ignition. Ventilate the area. Remove with inert absorbent

WASTE DISPOSAL METHOD
Waste from these products 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. Waste from products containing Methyl Ethyl Ketone may also require extractability testing.
Incinerate in approved facility. Do not incinerate closed container. Dispose of in accordance with Federal, State, and Local regulations regarding pollution.

Section 8 — Protection Information

PRECAUTIONS TO BE TAKEN IN USE
NO PERSON SHOULD USE THESE PRODUCTS, OR BE IN THE AREA WHERE THEY ARE 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.
These coatings may contain materials classified as nuisance particulates (listed "as Dust" in Section 2) which may be present at hazardous levels only during sanding or abrading of the dried film. If no specific dusts are listed in Section 2, the applicable limits for nuisance dusts are ACGIH TLV 10 mg./m3 (total dust), 3 mg./m3 (respirable fraction), 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 2 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 2 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 2.

EYE PROTECTION – Wear safety spectacles with unperforated sideshields.

OTHER PROTECTIVE EQUIPMENT – Use barrier cream on exposed skin.

Section 9 — Precautions

DOT STORAGE CATEGORY – See TABLE

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING
Keep away from heat, sparks, and open flame. Vapors will accumulate readily and may ignite explosively. 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
These products 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.

Section 10 — Other Regulatory Information

CALIFORNIA PROPOSITION 65
WARNING: F63B211 contains a chemical known to the State of California to cause cancer. R7K111 and U66V55 contain chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

TSCA CERTIFICATION
All chemicals in these products are listed, or are exempt from listing, on the TSCA Inventory.

The above information pertains to these products as currently formulated, and is based on the information available at this time. Addition of reducers or other additives to these products may substantially alter the composition and hazards of the products. 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.

— Section 1 —
Product Identification

Material Safety Data Sheet

The Sherwin-Williams Co.
101 Prospect Ave. N.W.
Cleveland, OH 44115

Emergency telephone number (216) 566-2917
Information telephone number (216) 566-2902
Date of preparation September 1, 1997

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POLANE® Reducers

SOL-POL

— Section 2 — CAS No.	Hazardous Ingredient (percent by weight)	ACGIH TLV <STEL>	OSHA PEL <STEL>	Units	Vapor Pressure (mm Hg)	MAK R6 K 30	Cyclohexanone R6K32	K69 Thinner R7 K 69	K84 Thinner R7 K 84	K94 Thinner R7 K 94	Retarder R7 K 216	Reducer R7 K B29	Reducer R7 K B60
						YES		530YES-2138 530-2146 530-2641	530YES-2153 530-2161 530-2652	530YES-2179 530-2187 530-2666	YES	yes	
108-88-3 §	Toluene.	50	100 <150>	PPM (Skin)	22.0			15	20	30		12	
100-41-4 §	Ethylbenzene	100 <125>	100 <125>	PPM	7.1			9				1	
1330-20-7 §	Xylene.	100 <150>	100 <150>	PPM	5.9			52			4	7	
78-93-3 §	Methyl Ethyl Ketone.	200 <300>	200 <300>	PPM	70.0					25		59	21
108-10-1 §	Methyl Isobutyl Ketone.	50 <75>	50 <75>	PPM	16.0			24					
110-43-0	Methyl n-Amyl Ketone.	50	100	PPM	2.1	100							35
108-94-1	Cyclohexanone	25	25	PPM (Skin)	2.0		100				71	6	
108-21-4	Isopropyl Acetate.	250 <310>	250 <310>	PPM	47.5				38	27			22
123-86-4	n-Butyl Acetate.	150 <200>	150 <200>	PPM	10.0				45	28	24	15	22
	Weight per Gallon (lbs.)					6.76	7.86	7.04	7.25	7.09	7.68	6.92	6.95
	VOC (Volatile Organic Compounds) - lbs./gal.					6.76	7.86	7.03	7.25	7.09	7.68	6.92	6.95
	Photochemically Reactive					No	No	Yes	No	No	No	No	No
	Flash Point (°F)					100	111	35	35	21	92	30	30
	DOL Storage Category					2	2	1B	1B	1B	1C	1B	1B
	Flammability Classification (Flammable - Combustible)					Combustible	Combustible	Flammable	Flammable	Flammable	Flammable	Flammable	Flammable
	HMIS (NFPA) Rating (health - flammability - reactivity)					2 2 0	3 2 0	2 3 0	2 3 0	2 3 0	3 3 0	3 3 0	2 3 0

PERCENT BY WEIGHT

§ Ingredient subject to the reporting requirements of the Superfund Amendments and Reauthorization Act (SARA) Section 313, 40 CFR 372.65 C

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POLANE® Reducers

Section 3 — Physical Data

PRODUCT WEIGHT	See TABLE	*EVAPORATION RATE*	Slower than Ether
SPECIFIC GRAVITY	0.81-0.95	*VAPOR DENSITY*	Heavier than Air
BOILING RANGE	174-320 °F	*MELTING POINT*	N.A.
VOLATILE VOLUME	100 %	*SOLUBILITY IN WATER*	N.A.

Section 4 — Fire And Explosion Hazard Data

FLAMMABILITY CLASSIFICATION *FLASH POINT* See TABLE *LEL* 1.0 *UEL* 10.0
See TABLE

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.

Section 5 — Health Hazard Data

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
None generally recognized.

EMERGENCY AND FIRST AID PROCEDURES

IF INHALED:	If affected, remove from exposure. Restore breathing. Keep warm and quiet.
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:	Never give anything by mouth to an unconscious person. DO NOT INDUCE VOMITING. Give conscious patient several glasses of water. Seek medical attention.

CHRONIC Health Hazards
No ingredient in these products is an IARC, NTP or OSHA listed carcinogen.
Reports have associated repeated and prolonged overexposure to solvents with permanent brain and nervous system damage.
Prolonged overexposure to solvent ingredients in the following products may cause adverse effects to organ systems:

* *Cyclohexanone & Methyl Amyl Ketone*	liver, urinary
* *K69 Thinner*	liver, urinary, cardiovascular, reproductive
* *R7KB50 & Retarder R7K216*	liver, urinary, blood forming, reproductive
* *K7R29, K84 Thinner & K34*	liver, urinary, blood forming, cardiovascular, reproductive

Section 6 — Reactivity Data

STABILITY — Stable

CONDITIONS TO AVOID
None known.

INCOMPATIBILITY
None known.

HAZARDOUS DECOMPOSITION PRODUCTS
By fire: Carbon Dioxide, Carbon Monoxide

HAZARDOUS POLYMERIZATION — Will Not Occur

Section 7 — Spill Or Leak Procedures

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED
Remove all sources of ignition. Ventilate and remove with inert absorbent.

WASTE DISPOSAL METHOD
Waste from these products 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. Waste from products containing Methyl Ethyl Ketone may also require testing for extractability.
Incinerate in approved facility. Do not incinerate closed container. Dispose of in accordance with Federal, State, and local regulations regarding pollution.

Section 8 — Protection Information

PRECAUTIONS TO BE TAKEN IN USE
Use only with adequate ventilation. Avoid breathing vapor and spray mist. Avoid contact with skin and eyes. Wash hands after using.

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
If personal exposure cannot be controlled below applicable limits by ventilation, wear a properly fitted organic vapor/particulate respirator approved by NIOSH/MSHA for protection against materials in Section II.

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.

Section 9 — Precautions

OSHA STORAGE CATEGORY — See TABLE

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING
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
Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal.

Section 10 — Other Regulatory Information

CALIFORNIA PROPOSITION 65
WARNING: K69 Thinner, K84 Thinner, K54 Thinner and R7KB29 contain chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

TSCA CERTIFICATION
All chemicals in these products are listed, or are exempt from listing, on the TSCA Inventory.

The above information pertains to these products as currently formulated, and is based on the information available at this time. Addition of additives or other coatings materials to these products may substantially alter the composition and hazards of the products. 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.

FROM : SHERWIN-WILLIAMS CEDAR FALLS FAX NO. : 319 277 5277 Aug. 22 2001 11:11AM P1

Rick

MATERIAL SAFETY DATA SHEET

R6K30
05 00

Section 1 -- PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NUMBER

R6K30

HMIS CODES

Health	2
Flammability	2
Reactivity	0

PRODUCT NAME
Methyl Amyl Ketone

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

EMERGENCY TELEPHONE NO.
(216) 566-2917

DATE OF PREPARATION
22-AUG-01

INFORMATION TELEPHONE NO.
(216) 566-2902

Section 2 -- COMPOSITION/INFORMATION ON INGREDIENTS

% by WT	CAS No.	INGREDIENT		UNITS	VAPOR PRESSURE
100	110-43-0	Methyl n-Amyl Ketone.			
		NOSIH TLV	50	ppm	2.14 mm
		OSHA PEL	100	ppm	

Section 3 -- HAZARDS IDENTIFICATION

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.

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
None generally recognized.

CANCER INFORMATION
For complete discussion of toxicology data refer to Section 11.

Section 4 -- FIRST AID MEASURES

If INHALED: If affected, remove from exposure. Restore breathing. Keep warm and quiet.

If on SKIN: Wash affected area thoroughly with soap and water. Remove contaminated clothing and launder before reuse.

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

If SWALLOWED: Do not induce vomiting. Get medical attention immediately.

Section 5 — FIRE FIGHTING MEASURES

FLASH POINT	LEL	UEL
100 F PMCC	1.1	7.9

FLAMMABILITY CLASSIFICATION

Combustible, Flash above 99 and below 200 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.

Section 6 — ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Remove all sources of ignition. Ventilate and remove with inert absorbent.

Section 7 — HANDLING AND STORAGE

DOL STORAGE CATEGORY

2

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE

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.

Section 8 — EXPOSURE CONTROLS/PERSONAL PROTECTION

PRECAUTIONS TO BE TAKEN IN USE

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

Continued on page 3

VENTILATION

Local exhaust preferable. General exhaust acceptable if the exposure to materials in Section 2 is maintained below applicable exposure limits. Refer to OSHA Standards 1910.94, 1910.107, 1910.108.

RESPIRATORY PROTECTION

If personal exposure cannot be controlled below applicable limits by ventilation, wear a properly fitted organic vapor/particulate respirator approved by NIOSH/MSHA for protection against materials in Section II.

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 2.

EYE PROTECTION

Wear safety spectacles with unperforated sideshields.

OTHER PRECAUTIONS

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

Section 9 — PHYSICAL AND CHEMICAL PROPERTIES

PRODUCT WEIGHT	6.76 lb/gal 810 g/l
SPECIFIC GRAVITY	0.81
BOILING POINT	297 - 308 F ; 147 - 153 C
MELTING POINT	Not Available
VOLATILE VOLUME	100 %
EVAPORATION RATE	Slower than ether
VAPOR DENSITY	Heavier than air
SOLUBILITY IN WATER	N.A.
VOLATILE ORGANIC COMPOUNDS (VOC Theoretical)	
6.76 lb/gal 810 g/l	Less Federally Exempt Solvents
6.76 lb/gal 810 g/l	Emitted VOC

Section 10 — STABILITY AND REACTIVITY

STABILITY — Stable

CONDITIONS TO AVOID

None known.

INCOMPATIBILITY

None known.

HAZARDOUS DECOMPOSITION PRODUCTS

By fire: Carbon Dioxide, Carbon Monoxide

HAZARDOUS POLYMERIZATION

Will not occur

Section 11 — TOXICOLOGICAL INFORMATION

CHRONIC HEALTH HAZARDS

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

Prolonged overexposure to solvent ingredients in Section 2 may cause adverse effects to the liver and urinary systems.

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

TOXICOLOGY DATA

Continued on page 4

CAS No.	Ingredient Name				
110-43-0	Methyl n-Amyl Ketone.	LC50	RAT	4HR	Not Established
		LD50	RAT		1670 mg/kg

Section 12 -- ECOLOGICAL INFORMATION

ECOTOXICOLOGICAL INFORMATION
No data available.

Section 13 -- DISPOSAL CONSIDERATIONS

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/Provincial, and Local regulations regarding pollution.

Section 14 -- TRANSPORT INFORMATION

No data available.

Section 15 -- REGULATORY INFORMATION

SARA 313 (40 CFR 372.65C) SUPPLIER NOTIFICATION

CAS No.	CHEMICAL/COMPOUND	% by WT	% Element

No ingredients in this product are subject to SARA 313 (40 CFR 372.65C) Supplier Notification.

TSCA CERTIFICATION
All chemicals in this product are listed, or are exempt from listing, on the TSCA Inventory.

Section 16 -- OTHER INFORMATION

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.

SHERWIN WILLIAMS® CHEMICAL COATINGS™

CC-D2(

POLANE® HS Plus Polyurethane Ename

Black	F63B80	Red Oxide	F63R64	White	F63W66
Orange	F63E51	Magenta	F63R65	Hi Hide Opaque Yellow GS	F63Y63
Green	F63G62	Brite Red	F63R66	Hi Hide Organic Yellow RS	F63Y65
Blue	F63L63	Silver	F63S65	Yellow Oxide	F63Y66
Hi Hide Organic Red	F63R62	Clear	F63V67	Catalyst	V66V55

DESCRIPTION

POLANE® HS Plus Polyurethane Enamel is a two component coating providing high gloss, excellent exterior durability and resistance properties along with high volume solids and 2.8 VOC compliance. The single pigment colors are designed for intermixing to achieve great versatility in color matching capability.

Advantages:

- Under 2.8 VOC with Polane HS Plus Catalyst V66V55
- Excellent exterior color and gloss retention with V66V55 catalyst
- Excellent exterior physical and chemical performance properties
- Excellent appearance over many types of metal and plastic substrates
- Ideal coating for machine tool industry with resistance to most lubricants and cutting oils
- High solids - high spreading rate
- Air dry or force dry curing
- Full range of colors may be custom blended
- Excellent hardness and impact resistance
- Excellent mar and abrasion resistance
- Apply by conventional, airless, air assisted airless, HVLP or electrostatic spray
- Much faster drying times acheived with the use of infratherm type ovens
- For interior use, Polane HS Plus may be catalyzed 2:1 with Polane Plus Catalyst V66V44 and reduced 24% MAK
- Free of lead and chromate hazards

CHARACTERISTICS

Gloss: Full, 90+ units
Volume Solids: 59 ± 2%
catalyzed and reduced, may vary by color
Viscosity: catalyzed and reduced
18-27 seconds #3 Zahn Cup
Recommended film thickness: 16-19
Mils Wet: 2.0 - 2.5 Mils Dry: 1.25 - 1.5
Spreading Rate (no application loss)
@ 1 mil dft 640-960 sq ft/gal
Air Drying (1.5 mils dft, 77°F, 50% RH):
To Touch: 1-1½ hours
To Handle: 10-12 hours
Tack Free: 8 hours
To Recoat: 5-6 hours
Force Dry: 30-60 min. at 140-160°F
Curing temperature must not exceed the heat distortion temperature of the plastic substrate.
Infratherm oven schedule to tack free: (Flash off 1 minute)
1.5 lb Gas: 3 min., 2.5 lb Gas: 7 min.
Mixing Ratio:

3 part	Polane HS Plus
1 part	Catalyst V66V55
0.48 part (12%)	MAK R6K30
Pot Life:	3 hours

Accelerated Drying:
Add up to .1 ounce of Polane Accelerator, V66VB11 per gallon of Polane HS Plus.

To Touch:	30-60 minutes
To Handle:	2-3 hours
Tack Free:	1-2 hours
To Recoat:	1-1½ hours
Force Dry:	30 min. at 140-160°F
Mixing Ratio:	
3 part	Polane HS Plus including Accelerator
1 part	Catalyst V66V55
0.48 part (12%)	MAK R6K30
Pot Life:	1 hour
Flash Point:	95°F Seta Flash Closed Cup
Package Life:	2 years, unopened

Air Quality Data:
Non-photochemically reactive
Volatile Organic Compounds (VOC)
as packaged, maximum
2.8 lb/gal, 335 g/L
catalyzed and reduced as above, maximum
2.8 lb/gal, 336 g/L
An Air Quality Data Sheet is available from your local Sherwin-Williams facility.

SPECIFICATIONS

General: Substrate should be free of grease, oil, dirt, fingerprints, drawing compounds, any contamination, and surface passivation treatments to ensure optimum adhesion and coating performance properties. Consult Metal Preparation Brochure CC-T1 for additional details.
Aluminum, untreated: Prime with Industrial Wash Primer, P60G2, or Kem Aqua Wash Primer, E61G520, followed by Polane Plus Sealer, E65A71 or 2.8 VOC Catalyzed Epoxy Primer, E61A280.
Galvanized Steel, untreated: Prime with Industrial Wash Primer, P60G2, or Kem Aqua Wash Primer, E61G520, followed by Polane Plus Sealer, E65A71 or 2.8 VOC Catalyzed Epoxy Primer, E61A280.
Plastic: Due to the diverse nature of plastic substrates, a coating or coating system must be tested for acceptable adhesion to the substrate prior to use in production. Reground and recycled plastics along with various fire retardants, flowing agents, mold release agents, and foaming/blowing agents will affect coating adhesion. A filler or primer/barrier coat may be required. Please consult your Sherwin-Williams Chemical Coatings Sales Representative for system recommendations.
Steel or Iron: Remove rust, mill scale, and oxidation products. For best results, treat the surface with a proprietary surface chemical treatment of zinc or iron phosphate to improve corrosion protection. For untreated metal: Prime with Industrial Wash Primer, P60G2, or Kem Aqua Wash Primer, E61G520, followed by Polane Plus Sealer, E65A71 or 2.8 VOC Catalyzed Epoxy Primer, E61A280.
For best corrosion resistance, prime treated steel with Polane Plus Sealer, E65A71 or 2.8 VOC Catalyzed Epoxy Primer, E61A280.
Wood (interior only): Must be clean, dry, and finish sanded. Seal with a full coat of Polane 2.8 Plus SprayFil, D61H75.

Testing: Due to the wide variety of substrates, surface preparation methods, application methods, and environments, the customer should test the complete system for adhesion and compatibility prior to full scale application.

continued on bac

POLANE® HS Plus Enamel

Section III — PHYSICAL DATA

PRODUCT WEIGHT — See TABLE
SPECIFIC GRAVITY — 0.8-1.4
BOILING RANGE — 323-395 °F
VOLATILE VOLUME — 33-100 %

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 POINT* See TABLE · LEL 0.7 UEL 8.1
See TABLE
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.

Section V — HEALTH HAZARD DATA

ROUTES OF EXPOSURE
Exposure may be by INHALATION and/or SKIN or EYE contact, depending on conditions of use. 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, blood forming, cardiovascular, and reproductive systems.
Persons sensitive to isocyanates will experience increased allergic reaction on repeated exposure.
Methyl Ethyl Ketone may increase the nervous system effects of other solvents.
Rats exposed to titanium dioxide dust at 250 mg./m3 developed lung cancer; however, such exposure levels are not attainable in the workplace.
Reports have associated repeated and prolonged overexposure to solvents with permanent brain and nervous system damage.

Section VI — REACTIVITY DATA

STABILITY — Stable
CONDITIONS TO AVOID
None known.
INCOMPATIBILITY
Contamination of Catalysts 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.
For COLORS and REDUCER: Remove with inert absorbent.
For CATALYST: 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 these products 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 RCRA hazardous waste numbers. Waste from products containing Methyl Ethyl Ketone may also require testing for extractability.
Incinerate in approved facility. Do not incinerate closed containers. Dispose of in accordance with Federal, State, and Local regulations regarding pollution.

Section VIII — PROTECTION INFORMATION

PRECAUTIONS TO BE TAKEN IN USE
NO PERSONS SHOULD USE THESE PRODUCTS, OR BE IN THE AREA WHERE THESE PRODUCTS ARE 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.
These coatings may contain materials classified as nuisance particulates (listed "as Dust" in Section II) which may be present at hazardous levels only during sanding or shreding 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 [PELPC NIOSH/OSHA approved] should be worn. If unavailable, a properly fitted organic vapor/particulate respirator approved by NIOSH/OSHA 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 THESE PRODUCTS ARE BEING USED UNLESS EQUIPPED WITH THE SAME RESPIRATOR PROTECTION RECOMMENDED FOR THE PAINTERS.
When sanding or shreding the dried film, wear a dust/mist respirator approved by NIOSH/OSHA 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

DOT STORAGE CATEGORY — See TABLE
PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING
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
These products 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.

Section X — OTHER REGULATORY INFORMATION

CALIFORNIA PROPOSITION 65
WARNING: V66V46, V66U55, and P81N85 contain a chemical(s) known to the State of California to cause cancer. POLANE® HS Plus Custom Colors and intermix colors, except F63X61, contain chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.
The above information pertains to these products as currently formulated, and is based on the information available at this time. Addition of reducers or other additives to these products may substantially alter the composition and hazards of the products.
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.

covers MSDS page F63J/1 and F63J/2

APPLICATION

Typical Setups

Note: Maximum total reduction is 12% by volume to maintain 2.8 VOC.

Conventional Spray:
Air Pressure ..... 40-50 psi
Fluid Pressure ..... 5-10 psi
Cap/Tip ..... .047

Airless Spray:
Pressure ..... 2000-2500 psi
Tip ..... .009 - .011"

Air Assisted Airless:
Air Pressure ..... 10-30 psi
Fluid Pressure ..... 500-900 psi
Cap/Tip ..... .009 - .011"

Electrostatic Spray:
Conductivity is 0.2-0.8 megohms resistance, which is suitable for all hand-held electrostatic spray setups.

HVLP:
Air Pressure ..... 3-5 psi
Fluid Pressure ..... 5-10 psi
Cap/Tip ..... .040

Dipping, brushing or flowcoat application is not recommended.

Cleanup:
Clean tools/equipment immediately after use with Polane Reducer, MEK, MIBK, or MAK.
Follow manufacturer's safety recommendations when using any solvent.

Performance Tests
Bonderite 1000 steel panels, F63W66 catalyzed and reduced, 1.5 mils dft, 30 minutes at 180°F, 14 days air cured

Salt Spray Test ..... 300 hours
1/8" rust creepage at scribe
Humidity 100°F, 100% RH ..... 300 hours
Impact Resistance, Direct ..... 80 in lb
Impact Resistance, Reverse ..... 80 in lb
Pencil Hardness ..... H
Taber Abrasion
CS 17 wheel, 1000 g, 1000 cycles <100 mg
Water Immersion ..... 24 hours
Adhesion, Crosshatch ..... Excellent
MEK, 100 double rubs ..... slight burnish
Heat Resistance, Dry ..... 250°F

Chemical Resistance
Lubricating & Cutting Oils ..... Excellent
Hydraulic Fluids ..... Excellent

SPECIFICATIONS

Product Limitations:

- Polane HS Plus coatings must be catalyzed with V66V55 for exterior application. Do not vary catalyst ratio. Maintain an exact ratio. The catalyst ratio has been established for optimum hardness, flexibility, gloss, chemical and solvent resistance.
- For low gloss exterior applications, use Polane S Plus coatings rather than lowering gloss of Polane HS Plus.
- Do not blend with polyurethane other than Polane HS Plus and S Plus for exterior applications. No other catalysts, colorants, flatting bases or reducers are recommended because foreign materials such as alcohols and glycols destroy performance properties. Lacquer thinners and alcohol containing solvent blends should not be used with Polane enamels.
- Organic colors have limited hiding by themselves and must be blended with other chromatics for use.
- Polane HS Plus coatings are not recommended for exterior use on wood.
- Do not spray hot. Heat shortens pot-life. Do not pump catalyzed materials from drums into circulating system. Friction heat developed by pumps and circulation will shorten potlife.
- Protect Polane Enamels, Catalyst and Reducer from moisture as water affects potlife and properties. Store indoors.
- Do not package Polane coated products in airtight plastic bags unless completely cured. Since Polane Enamels continue to cure for several weeks, the buildup of organic solvents and reaction by-products could cause improper cure and adhesion failure in use.
- Do not exceed 1.5 mil dry film with airless or air assisted airless equipment due to sagging tendencies.
- Silver F63S65 does not offer the same color and gloss retention as other colors because of the weathering effect of aluminum pigment. Do not use for applications requiring long term color and gloss retention.
- For SILVER ONLY, use MEK as a reducer rather than MAK. The faster evaporation helps the metallic pigment orientation.
- The Clear F63V67 is intended for custom color intermixing and should not be used as a clearcoat because of its potential for yellowing.
- When using the VIC™ process, coatings must be packaged in phenolic lined containers to prevent discoloration.

CAUTIONS

Thoroughly review product label for safety and cautions prior to using this product. A Material Safety Data Sheet is available from your local Sherwin-Williams facility. Please direct any questions or comments to your local Sherwin-Williams facility.

LABEL CAUTIONS

Contents are FLAMMABLE. Vapors may cause flash fires. 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.
SEE CONTENTS STATEMENT ON LABEL.
VAPOR HARMFUL. Use only with adequate ventilation. This product must be used with an appropriate catalyst. Follow the respirator requirement and instructions on the catalyst.
Avoid contact with eyes and skin. Wash hands after using. Keep container closed when not in use. Do not transfer contents to other containers for storage.
FIRST AID: If INHALED: If affected, remove from exposure. Restore breathing. Keep warm and quiet. If on SKIN: Wash affected area thoroughly with soap and water. Remove contaminated clothing. 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 immediately.
SPILL AND WASTE: Remove all sources of ignition. Ventilate and remove with inert absorbent. Incinerate in approved facility. Do not incinerate closed container. Dispose of in accordance with Federal, State, and Local regulation regarding pollution.
DELAYED EFFECTS FROM LONG TERM OVER-EXPOSURE. Contains solvents which can cause permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal.
This product must be mixed with other components before use. Before opening the packages, READ AND FOLLOW WARNING LABELS ON ALL COMPONENTS.
WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.
DO NOT TAKE INTERNALLY. KEEP OUT OF THE REACH OF CHILDREN. FOR INDUSTRIAL USE ONLY. SEE MATERIAL SAFETY DATA SHEET.
K05213 11/95

Catalyst CONTAINS ISOCYANATES. People who have chronic (long-term) lung or breathing problems or have had a reaction to isocyanates, must not be in the area where this product is being applied. Where overspray is present, a positive pressure air-supplied respirator should be worn. If unavailable, a properly fitted organic vapor/particulate respirator may be effective. Consult catalyst MSDS and product label for complete handling instructions.

Note: Product Data Sheets are periodically updated to reflect new information relating to the product. It is important that the customer obtain the most recent Product Data Sheet for the product being used. The information, rating, and opinions stated here pertain to the material currently offered and represent the results of tests believed to be reliable. However, due to variations in customer handling and methods of application which are not known or under our control, The Sherwin-Williams Company cannot make any warranties as to the end result.

Paint Mixing Guide Polane HS

White Polane	11.98 lbs/gal	1438 g/l
Catalyst	9.34 lbs/gal	1121 g/l
Reducer MAK	6.76 lbs/gal	811 g/l

To Mix: (ml		Paint (g)		Catalyst (g		Solvent (g)		Total Mass	
100		96.3		25		8.7		130	
250		240.75		62.5		21.75		325	
[illegible]									
750		722.25		187.5		65.25		975	
1000		963		250		87		1300	
1250		1203.75		312.5		108.75		1625	
[illegible]									
1750		1686.25		437.5		152.25		2275	
2000		1926		500		174		2600	
2250		2166.75		562.5		195.75		2925	
[illegible]									
2750		2649.25		687.5		239.25		3575	
3000		2889		750		261		3900	

Rick

MATERIAL SAFETY DATA SHEET

15
05 00

Section 1 — PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NUMBER
15 V66U55

HMIS CODES
Health 3*
Flammability 2
Reactivity 1

PRODUCT NAME
POLANE* HS Plus Exterior Catalyst

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

EMERGENCY TELEPHONE NO.
(216) 566-2917

DATE OF PREPARATION
22-AUG-01

INFORMATION TELEPHONE NO.
(216) 566-2902

Section 2 — COMPOSITION/INFORMATION ON INGREDIENTS

% by WT	CAS No.	INGREDIENT	UNITS	VAPOR PRESSURE
1	64742-95-6	Light Aromatic Hydrocarbons.		
		ACGIH TLV	Not Established	3.8 mm
		OSHA PEL	Not Established	
1	108-67-8	1,3,5-Trimethylbenzene		
		ACGIH TLV	25 ppm	2 mm
		OSHA PEL	25 ppm	
2	95-63-6	1,2,4-Trimethylbenzene		
		ACGIH TLV	25 ppm	2.03 mm
		OSHA PEL	25 ppm	
5	123-86-4	n-Butyl Acetate.		
		ACGIH TLV	150 ppm	10 mm
		ACGIH TLV	200 ppm STEL	
		OSHA PEL	150 ppm	
		OSHA PEL	200 ppm STEL	
0.2	822-06-0	Hexamethylene Diisocyanate (max.)		
		ACGIH TLV	0.005 ppm	0.05 mm
		OSHA PEL	Not Established	
90	28182-81-2	Hexamethylene Diisocyanate Polymer.		
		ACGIH TLV	Not Established	
		OSHA PEL	Not Established	

Section 3 — HAZARDS IDENTIFICATION

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.

EFFECTS OF OVEREXPOSURE

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

Continued on page 2

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.

CANCER INFORMATION

For complete discussion of toxicology data refer to Section 11.

Section 4 -- FIRST AID MEASURES

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:	Do not induce vomiting. Get medical attention immediately.

FLASH POINT	LEL	UEL
117 F PMCC	0.7	7.6

FLAMMABILITY CLASSIFICATION

Combustible, Flash above 99 and below 200 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.

Section 6 -- ACCIDENTAL RELEASE MEASURES

Continued on page 3

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.

Section 7 -- HANDLING AND STORAGE

DOL STORAGE CATEGORY

2

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE

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.

Section 8 -- EXPOSURE CONTROLS/PERSONAL PROTECTION

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 2) which may be present at hazardous levels only during sanding or abrading of the dried film. If no specific dusts are listed in Section 2, the applicable limits for nuisance dusts are ACGIH TLV 10 mg/m3 (total dust), 3 mg/m3 (respirable fraction), 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 2 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 2 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 2.

EYE PROTECTION

Wear safety spectacles with unperforated sideshields.

Continued on page 4

OTHER PROTECTIVE EQUIPMENT

Use barrier cream on exposed skin.

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.

Section 9 — PHYSICAL AND CHEMICAL PROPERTIES

PRODUCT WEIGHT	9.34 lb/gal	1119 g/l
SPECIFIC GRAVITY	1.12	
BOILING POINT	255 - 360 F	123 - 182 C
MELTING POINT	Not Available	
VOLATILE VOLUME	12 %	
EVAPORATION RATE	Slower than ether	
VAPOR DENSITY	Heavier than air	
SOLUBILITY IN WATER	N.A.	
VOLATILE ORGANIC COMPOUNDS (VOC Theoretical)		
0.93 lb/gal 111 g/l	Less Federally Exempt Solvents	
0.93 lb/gal 111 g/l	Emitted VOC	

Section 10 — STABILITY AND REACTIVITY

STABILITY — Stable

CONDITIONS TO AVOID

None known.

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

ed carcinogen.

Prolonged overexposure to solvent ingredients in Section 2 may cause adverse effects to the liver, urinary, blood forming and reproductive 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.

TOXICOLOGY DATA

CAS No.	Ingredient Name				
64742-95-6	Light Aromatic Hydrocarbons.				
		LC50	RAT	4HR	Not Established
		LD50	RAT		Not Established

Continued on page 5

108-67-8	1,3,5-Trimethylbenzene				
		LC50	RAT	4HR	Not Established
		LD50	RAT		Not Established
95-63-6	1,2,4-Trimethylbenzene				
		LC50	RAT	4HR	Not Established
		LD50	RAT		Not Established
123-86-4	n-Butyl Acetate.				
		LC50	RAT	4HR	2000 ppm
		LD50	RAT		13100 mg/kg
822-06-0	Hexamethylene Diisocyanate (max.)				
		LC50	RAT	4HR	Not Established
		LD50	RAT		738 mg/kg
28182-81-2	Hexamethylene Diisocyanate Polymer				
		LC50	RAT	4HR	Not Established
		LD50	RAT		Not Established

Section 12 -- ECOLOGICAL INFORMATION

ECOTOXICOLOGICAL INFORMATION

No data available.

Section 13 -- DISPOSAL CONSIDERATIONS

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/Provincial, and Local regulations regarding pollution.

Section 14 -- TRANSPORT INFORMATION

No data available.

Section 15 -- REGULATORY INFORMATION

SARA 313 (40 CFR 372.65C) SUPPLIER NOTIFICATION

CAS No.	CHEMICAL/COMPOUND	% by WT	% Element
95-63-6	1,2,4-Trimethylbenzene	2	

CALIFORNIA PROPOSITION 65

WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

TSCA CERTIFICATION

All chemicals in this product are listed, or are exempt from listing, on the TSCA Inventory.

Continued on page 6

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Section 16 -- OTHER INFORMATION

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 warrenties, express or implied, and assume no liability in connection with any use of this information.