

B65XX MATERIAL SAFETY DATA SHEET

87
 MANUFACTURER'S NAME THE SHERWIN-WILLIAMS COMPANY
 101 Prospect Avenue N.W.
 Cleveland, Ohio 44115
 DATE OF PREPARATION 20-Oct-87
 EMERGENCY TELEPHONE NO. (216) 566-2917
 INFORMATION TELEPHONE NO. (216) 566-2902

Section I -- PRODUCT IDENTIFICATION

PRODUCT NAME Hi-Build Aliphatic Polyurethane Enamel Part A, Non-Lead Color
 PRODUCT NUMBERS AND COLORS
 B65 T 104 Ultradeep Base
 B65 W 101 Pure White
 B65 W 102 Midtone Base
 B65 W 103 Deepstone Base
 B65 W 10 Brilliant White

--- Including Non-Lead Containing Custom Colors ---

PRODUCT CLASS Pigmented component for 2-package Polyurethane Coating

Section II -- HAZARDOUS INGREDIENTS

OSHA No.	SYMBOL	% by WEIGHT	ACGIH-TLV	OSHA-PEL	SWTCS	P.P.
64742-47-8	Mineral Spirits.	<5	100	500	PFM	2.0
100-41-4	Ethylbenzene	<5	100	100	PFM	7.1
1330-20-7	Xylene.	30-35	100	100	PFM	5.9
64742-95-6	Light Aromatic Naphtha	<5	100		PFM	3.8
108-10-1	Methyl Isobutyl Ketone.	5-10	50	100	PFM	16.0
13463-67-7	Titanium Dioxide.	0-30	Not Established		as Dust	

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

Section III -- PHYSICAL DATA

EVAPORATION RATE -- Slower than Ether	VAPOR DENSITY -- Heavier than Air
BOILING RANGE 237-395 F	VOLATILE VOLUME 60 %
	WT/GAL 8.6-10.1 lb.

Section IV -- FIRE AND EXPLOSION HAZARD DATA

FLAMMABILITY CLASSIFICATION FLASH POINT 50 F PHCC LEL 0.7
 HED 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.

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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. 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 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.
 CHRONIC Health Hazards
 Prolonged overexposure to solvent ingredients in Section II may cause adverse effects to the liver, urinary, and reproductive systems.
 Persons sensitive to isocyanates will experience increased allergic reaction on repeated exposure.
 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
 HAZARDOUS DECOMPOSITION PRODUCTS
 By fire: Carbon Dioxide, Carbon Monoxide
 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 and remove with inert absorbent.
 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 and extractability 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.

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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, such as titanium dioxide or calcium carbonate (see ACGIH TLV List, Preface and Appendix D), 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 (TL10C 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 mask or particulate respirator.
 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 -- 1B
 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.

This Material Safety Data Sheet conforms to the Hazard Communication standard, 29 CFR 1910.1200(g)(4), for similar complex mixtures.
 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.

HMS

HEALTH	2
FLAMMABILITY	3
REACTIVITY	0

MANUFACTURER'S NAME: THERMIN-WILLIAMS COMPANY, EMERGENCY TELEPHONE NO. (216) 566-2917, 20-Oct-87

Section I -- PRODUCT IDENTIFICATION

PRODUCT NAME: Hi-Bild Custom Polyurethane Enamel Part A, Lead Colors. PRODUCT NUMBERS AND COLORS: B65 X 19 Safety Orange, B65 R 18 Safety Red, B65 Y 17 Safety Yellow.

Section II -- HAZARDOUS INGREDIENTS

Table with columns: CAS No., INGESTION, by WEIGHT, ASKIN-HELP, OSHA-FEL, HWTS, W.P. Lists ingredients like Mineral Spirits, Ethylbenzene, Xylene, etc.

Section III -- PHYSICAL DATA

EVAPORATION RATE -- Slower than Ether. VAPOR DENSITY -- Heavier than Air. BOILING RANGE: 237-395 F.

Section IV -- FIRE AND EXPLOSION HAZARD DATA

FLAMMABILITY CLASSIFICATION: Flash Point 50 F PWCC. LEL 0.7. UNUSUAL FIRE AND EXPLOSION HAZARDS: Keep containers tightly closed.

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SPECIAL FIRE FIGHTING PROCEDURES: Full protective equipment including self-contained breathing apparatus should be used.

Section V -- HEALTH HAZARD DATA

ROUTES OF EXPOSURE: Exposure may be by INHALATION and/or SKIN or EYE contact. ACUTE Health Hazards: EFFECTS OF OVEREXPOSURE.

Chronic overexposure to Lead may result in damage to the blood-forming, nervous, urinary, and reproductive systems. Includes medical conditions aggravated by exposure and chronic overexposure effects.

Section VI -- REACTIVITY DATA

STABILITY -- Stable. HAZARDOUS DECOMPOSITION PRODUCTS: Carbon Dioxide, Carbon Monoxide, Oxides of Metals in Section II.

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Section VII -- SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Remove all sources of ignition. WASTE DISPOSAL METHOD: Waste from this product may be hazardous.

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. CHRONIC (LONG-TERM) LUNG OR BREATHING PROBLEMS OR IF THEY EVER HAD A REACTION TO ISOCYANATES.

VENTILATION: Local exhaust preferable. General exhaust acceptable if the exposure to materials in Section II is maintained below applicable exposure limits.

RESPIRATORY PROTECTION: Where overexposure is present, a positive pressure air supplied respirator (TC19C NIOSH/MSHA approved) should be worn. PROTECTIVE GLOVES: Wear gloves which are recommended by glove supplier.

Section IX -- PRECAUTIONS

DOL STORAGE CATEGORY -- 1B. PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: Contents are FLAMMABLE. Keep away from heat, sparks, and open flame.

HMIS

Table with 2 columns: Hazard Category (HEALTH, FLAMMABILITY, REACTIVITY) and Rating (2*, 3, 0).

Continued on page 4

This Material Safety Data Sheet conforms to the Hazard Communication standard, 29 CFR 1910.1200(g)(4), for similar complex mixtures. The above information pertains to this product as currently formulated...

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

EMERGENCY TELEPHONE NO.
(216) 566-2917

INFORMATION TELEPHONE NO.
(216) 566-2902

DATE OF PREPARATION
18-Oct-87

Section I -- PRODUCT IDENTIFICATION

PRODUCT NUMBER
B60 V 2

* - Trade Mark

PRODUCT NAME
Hi-Bild Aliphatic Polyurethane Hardener, Part B

PRODUCT CLASS
Corrosant for 2-package Polyurethane Coating

Section II -- HAZARDOUS INGREDIENTS

OSHA ID	INGREDIENTS	% BY WEIGHT	ACGIH-TLV	OSHA-PEL	MSDS	P.P.
100-41-4	Ethylbenzene	43	100	100	PFM	7.1
1330-20-7	Xylene.	25	100	100	PFM	5.9
110-43-0	Methyl n-Amyl Ketone.	25	50	100	PFM	2.1
Propriet.	Hexamethylene Diisocyanate Polymer.	50	Not Established			
	Max. free Hexamethylene Diisocyanate	0.8	0.005		PFM	

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

Section III -- PHYSICAL DATA

EVAPORATION RATE -- Slower than Ether

BOILING RANGE VOLATILE VOLUME VAPOR DENSITY -- Heavier than Air

WT/GAL	VOC (Theoretical)
277-308 F	60.0 %
	7.97 lb.
	4.18 lb. 501 gm.

Section IV -- FIRE AND EXPLOSION HAZARD DATA

FLAMMABILITY CLASSIFICATION FLASH POINT 85 F PWCC LEL 1.0

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 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.

CHRONIC Health Hazards
Prolonged overexposure to solvent ingredients in Section II may cause adverse effects to the liver, urinary, 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 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 number.
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, such as titanium dioxide or calcium carbonate (see ACGIH TLV List, Preface and Appendix D), 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 mask or particulate respirator.

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 containers 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.

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.

HMIS

HEALTH	2*
FLAMMABILITY	3
REACTIVITY	1