

# MATERIAL SAFETY DATA SHEET

V93V26  
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DATE OF PREPARATION  
Feb 24, 2015

## SECTION 1 — PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NUMBER**

V93V26

**PRODUCT NAME**

MIL-PRF-85285E, Type I, Class H, Ordnance Polyurethane High Solids Catalyst, Component B

**MANUFACTURER'S NAME**

THE SHERWIN-WILLIAMS COMPANY  
101 Prospect Avenue N.W.  
Cleveland, OH 44115

**Telephone Numbers and Websites**

<b>Product Information</b>	www.sherwin-williams.com/ aerospace
<b>Regulatory Information</b>	(216) 566-2902
<b>Medical Emergency</b>	(216) 566-2917
<b>Transportation Emergency*</b>	(800) 424-9300
<i>*for Chemical Emergency ONLY (spill, leak, fire, exposure, or accident)</i>	

## SECTION 2 — COMPOSITION/INFORMATION ON INGREDIENTS

% by Weight	CAS Number	Ingredient	Units	Vapor Pressure
1	64742-95-6	<b>Light Aromatic Hydrocarbons</b>		
		ACGIH TLV	Not Available	3.8 mm
		OSHA PEL	Not Available	
2	95-63-6	<b>1,2,4-Trimethylbenzene</b>		
		ACGIH TLV	25 PPM	2.03 mm
		OSHA PEL	25 PPM	
4	141-78-6	<b>Ethyl Acetate</b>		
		ACGIH TLV	400 PPM	86 mm
		OSHA PEL	400 PPM	
5	123-86-4	<b>n-Butyl Acetate</b>		
		ACGIH TLV	150 PPM	10 mm
		ACGIH TLV	200 PPM STEL	
		OSHA PEL	150 PPM	
		OSHA PEL	200 PPM STEL	
0.1	822-06-0	<b>Hexamethylene Diisocyanate (max.)</b>		
		ACGIH TLV	0.005 PPM	0.05 mm
		OSHA PEL	Not Available	
86	28182-81-2	<b>Hexamethylene Diisocyanate Polymer</b>		
		ACGIH TLV	Not Available	
		OSHA PEL	Not Available	

## SECTION 3 — HAZARDS IDENTIFICATION

**ROUTES OF EXPOSURE**

INHALATION of vapor or spray mist.  
EYE or SKIN contact with the product, vapor or spray mist.

**EFFECTS OF OVEREXPOSURE**

**EYES:** Irritation.  
**SKIN:** Prolonged or repeated exposure may cause irritation.  
**INHALATION:** Irritation of the upper respiratory system.

**HMIS Codes**

<b>Health</b>	2*
<b>Flammability</b>	3
<b>Reactivity</b>	1

May cause nervous system depression. Extreme overexposure may result in unconsciousness and possibly death.  
Prolonged overexposure to hazardous ingredients in Section 2 may cause adverse chronic effects to the following organs or systems:

- the liver
- the urinary system
- the hematopoietic (blood-forming) system

- the reproductive system

#### **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.

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

#### **CANCER INFORMATION**

For complete discussion of toxicology data refer to Section 11.

### **SECTION 4 — FIRST AID MEASURES**

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

**SKIN:** Wash affected area thoroughly with soap and water.  
Remove contaminated clothing and laundry before re-use.

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

**INGESTION:** Do not induce vomiting. Get medical attention immediately.

### **SECTION 5 — FIRE FIGHTING MEASURES**

#### **FLASH POINT**

94 °F PMCC

#### **LEL**

0.7

#### **UEL**

10.7

#### **FLAMMABILITY CLASSIFICATION**

RED LABEL -- Flammable, Flash below 100 °F (38 °C)

#### **EXTINGUISHING MEDIA**

Carbon Dioxide, Dry Chemical, Foam

#### **UNUSUAL FIRE AND EXPLOSION HAZARDS**

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 the area.

All personnel in the area should be protected as in Section 8.

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**

#### **STORAGE CATEGORY**

DOL Storage Class IC

#### **PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE**

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.

### **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 contact with skin and eyes. Avoid breathing vapor and spray mist.

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 manufacturers 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**

To prevent skin contact, 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.

**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.

<b>SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES</b>
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<b>PRODUCT WEIGHT</b>	9.34 lb/gal	1119 g/l
<b>SPECIFIC GRAVITY</b>	1.12	
<b>BOILING POINT</b>	163 - 360 °F	72 - 182 °C
<b>MELTING POINT</b>	Not Available	
<b>VOLATILE VOLUME</b>	17%	
<b>EVAPORATION RATE</b>	Slower than ether	
<b>VAPOR DENSITY</b>	Heavier than air	
<b>SOLUBILITY IN WATER</b>	Not Available	
<b>VOLATILE ORGANIC COMPOUNDS (VOC Theoretical - As Packaged)</b>		
	1.27 lb/gal	152 g/l
	1.27 lb/gal	152 g/l
	Less Water and Federally Exempt Solvents	
	Emitted VOC	

<b>SECTION 10 — STABILITY AND REACTIVITY</b>
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**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

**HAZARDOUS POLYMERIZATION**

Will not occur

<b>SECTION 11 — TOXICOLOGICAL INFORMATION</b>
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**CHRONIC HEALTH HAZARDS**

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

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 Available
		LD50 RAT		Not Available
95-63-6	1,2,4-Trimethylbenzene	LC50 RAT	4HR	Not Available
		LD50 RAT		Not Available
141-78-6	Ethyl Acetate	LC50 RAT	4HR	Not Available
		LD50 RAT		5600 mg/kg
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 Available
		LD50 RAT		738 mg/kg
28182-81-2	Hexamethylene Diisocyanate Polymer	LC50 RAT	4HR	Not Available
		LD50 RAT		Not Available

**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**

Multi-modal shipping descriptions are provided for informational purposes and do not consider container sizes. The presence of a shipping description for a particular mode of transport (ocean, air, etc.), does not indicate that the product is packaged suitably for that mode of transport. All packaging must be reviewed for suitability prior to shipment, and compliance with the applicable regulations is the sole responsibility of the person offering the product for transport.

**US Ground (DOT)**

5 Liters (1.3 Gallons) and Less may be Classed as LTD. QTY. (PAINT OR RELATED).

Larger Containers are Regulated as:

UN1263, PAINT RELATED MATERIAL, 3, PG III, (ERG#128)

**Bulk Containers may be Shipped as:**

UN1263, PAINT RELATED MATERIAL, 3, PG III, (ERG#128)

**Canada (TDG)**

UN1263, PAINT RELATED MATERIAL, CLASS 3, PG III, LIMITED QUANTITY, (ERG#128)

**IMO**

5 Liters (1.3 Gallons) and Less may be Shipped as Limited Quantity.

UN1263, PAINT RELATED MATERIAL, CLASS 3, PG III, (34 C c.c.), EmS

F-E, S-E

**IMO**

5 Liters (1.3 Gallons) and Less may be Shipped as Limited Quantity.

UN1263, PAINT RELATED MATERIAL, CLASS 3, PG III, (34 C c.c.), EmS

F-E, S-E

**IATA/ICAO**

UN1263, PAINT RELATED MATERIAL, 3, PG III

**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.

**SECTION 16 — OTHER INFORMATION**

This product has been classified in accordance with the hazard criteria of the Canadian Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

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.