

**MATERIAL SAFETY DATA SHEET**GP4408A01  
05 00DATE OF PREPARATION  
May 6, 2014**SECTION 1 — PRODUCT AND COMPANY IDENTIFICATION****PRODUCT NUMBER**

GP4408A01

**PRODUCT NAME**

GENERAL POLYMERS® 4408 Water-Based Polyurethane Gloss Coating (Part A), Clear

**MANUFACTURER'S NAME**THE SHERWIN-WILLIAMS COMPANY  
101 Prospect Avenue N.W.  
Cleveland, OH 44115**Telephone Numbers and Websites**

<b>Regulatory Information</b>	(216) 566-2902 www.paintdocs.com
<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
3	5131-66-8	<b>Butoxypropanol</b> ACGIH TLV OSHA PEL	Not Available Not Available	0.6 mm
8	68609-97-2	<b>Alkyl Glycidyl Ether</b> ACGIH TLV OSHA PEL	Not Available Not Available	
2	102-71-6	<b>Triethanolamine</b> ACGIH TLV OSHA PEL	5 MG/M3 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.

In a confined area vapors in high concentration may cause headache, nausea or dizziness.

**SIGNS AND SYMPTOMS OF OVEREXPOSURE**

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.

**HMIS Codes**

<b>Health</b>	2*
<b>Flammability</b>	0
<b>Reactivity</b>	0

## 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.  
If irritation persists or occurs later, get medical attention.  
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	LEL	UEL	FLAMMABILITY CLASSIFICATION
200 °F PMCC	1.1	14.4	Not Applicable

### EXTINGUISHING MEDIA

Carbon Dioxide, Dry Chemical, Alcohol Foam

### UNUSUAL FIRE AND EXPLOSION HAZARDS

Closed containers may explode (due to the build-up of pressure) when exposed to extreme heat.

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.  
Remove with inert absorbent.

## SECTION 7 — HANDLING AND STORAGE

### STORAGE CATEGORY

DOL Storage Class IIIB

### PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE

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/m<sup>3</sup> (total dust), 3 mg/m<sup>3</sup> (respirable fraction), 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 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.

**SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES**

<b>PRODUCT WEIGHT</b>	8.78 lb/gal	1051 g/l
<b>SPECIFIC GRAVITY</b>	1.06	
<b>BOILING POINT</b>	212 - 339 °F	100 - 170 °C
<b>MELTING POINT</b>	Not Available	
<b>VOLATILE VOLUME</b>	60%	
<b>EVAPORATION RATE</b>	Slower than ether	
<b>VAPOR DENSITY</b>	Heavier than air	
<b>SOLUBILITY IN WATER</b>	Not Available	
<b>pH</b>	7.5	
<b>VOLATILE ORGANIC COMPOUNDS (VOC Theoretical - As Packaged)</b>		
	0.68 lb/gal	81 g/l
	0.29 lb/gal	35 g/l
		Less Water and Federally Exempt Solvents 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.

**TOXICOLOGY DATA**

CAS No.	Ingredient Name			
5131-66-8	Butoxypropanol	LC50 RAT	4HR	Not Available
		LD50 RAT		
68609-97-2	Alkyl Glycidyl Ether	LC50 RAT	4HR	Not Available
		LD50 RAT		
102-71-6	Triethanolamine	LC50 RAT	4HR	Not Available
		LD50 RAT		

**SECTION 12 — ECOLOGICAL INFORMATION****ECOTOXICOLOGICAL INFORMATION**

No data available.

**SECTION 13 — DISPOSAL CONSIDERATIONS****WASTE DISPOSAL METHOD**

Waste from this product is not hazardous as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR 261. 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)**

Not Regulated for Transportation.

**Canada (TDG)**

Not Regulated for Transportation.

**IMO**

Not Regulated for Transportation.

**IATA/ICAO**

Not Regulated for Transportation.

**SECTION 15 — REGULATORY INFORMATION**

**SARA 313 (40 CFR 372.65C) SUPPLIER NOTIFICATION**

CAS No.	CHEMICAL/COMPOUND	% by WT	% Element
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No ingredients in this product are subject to SARA 313 (40 CFR 372.65C) Supplier Notification.

**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.

# MATERIAL SAFETY DATA SHEET

GP4408W01  
06 00

DATE OF PREPARATION  
Mar 18, 2015

## SECTION 1 — PRODUCT AND COMPANY IDENTIFICATION

### PRODUCT NUMBER

GP4408W01

### PRODUCT NAME

GENERAL POLYMERS® 4408 Water-Based Polyurethane Gloss Coating (Part A), Gloss White

### MANUFACTURER'S NAME

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

### Telephone Numbers and Websites

Regulatory Information	(216) 566-2902 www.paintdocs.com
Medical Emergency	(216) 566-2917
Transportation Emergency*	(800) 424-9300
*for Chemical Emergency ONLY (spill, leak, fire, exposure, or accident)	

## SECTION 2 — COMPOSITION/INFORMATION ON INGREDIENTS

% by Weight	CAS Number	Ingredient	Units	Vapor Pressure
3	5131-66-8	<b>Butoxypropanol</b> ACGIH TLV OSHA PEL	Not Available Not Available	0.6 mm
7	68609-97-2	<b>Alkyl Glycidyl Ether</b> ACGIH TLV OSHA PEL	Not Available Not Available	
2	102-71-6	<b>Triethanolamine</b> ACGIH TLV OSHA PEL	5 MG/M3 Not Available	
9	13463-67-7	<b>Titanium Dioxide</b> ACGIH TLV OSHA PEL OSHA PEL	10 mg/m3 as Dust 10 mg/m3 Total Dust 5 mg/m3 Respirable Fraction	

## 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.

In a confined area vapors in high concentration may cause headache, nausea or dizziness.

### SIGNS AND SYMPTOMS OF OVEREXPOSURE

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.

### HMIS Codes

Health	2*
Flammability	0
Reactivity	0

## 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.  
If irritation persists or occurs later, get medical attention.  
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	LEL	UEL	FLAMMABILITY CLASSIFICATION
200 °F PMCC	1.1	14.4	Not Applicable

### EXTINGUISHING MEDIA

Carbon Dioxide, Dry Chemical, Alcohol Foam

### UNUSUAL FIRE AND EXPLOSION HAZARDS

Closed containers may explode (due to the build-up of pressure) when exposed to extreme heat.

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.  
Remove with inert absorbent.

## SECTION 7 — HANDLING AND STORAGE

### STORAGE CATEGORY

DOL Storage Class IIIB

### PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE

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/m<sup>3</sup> (total dust), 3 mg/m<sup>3</sup> (respirable fraction), 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 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.

**SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES**

<b>PRODUCT WEIGHT</b>	9.35 lb/gal	1120 g/l
<b>SPECIFIC GRAVITY</b>	1.12	
<b>BOILING POINT</b>	212 - 339 °F	100 - 170 °C
<b>MELTING POINT</b>	Not Available	
<b>VOLATILE VOLUME</b>	59%	
<b>EVAPORATION RATE</b>	Slower than ether	
<b>VAPOR DENSITY</b>	Heavier than air	
<b>SOLUBILITY IN WATER</b>	Not Available	
<b>pH</b>	> 2.0, < 11.5	
<b>VOLATILE ORGANIC COMPOUNDS (VOC Theoretical - As Packaged)</b>		
	0.62 lb/gal	74 g/l
	0.27 lb/gal	33 g/l
	Less Water and Federally Exempt Solvents	
	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**

IARC's Monograph No. 93 reports there is sufficient evidence of carcinogenicity in experimental rats exposed to titanium dioxide but inadequate evidence for carcinogenicity in humans and has assigned a Group 2B rating. In addition, the IARC summary concludes, "No significant exposure to titanium dioxide is thought to occur during the use of products in which titanium is bound to other materials, such as paint."

**TOXICOLOGY DATA**

<b>CAS No.</b>	<b>Ingredient Name</b>			
5131-66-8	Butoxypropanol	LC50 RAT	4HR	Not Available
		LD50 RAT		1900 mg/kg
68609-97-2	Alkyl Glycidyl Ether	LC50 RAT	4HR	Not Available
		LD50 RAT		Not Available
102-71-6	Triethanolamine	LC50 RAT	4HR	Not Available
		LD50 RAT		9100. mg/kg
13463-67-7	Titanium Dioxide	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 is not hazardous as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR 261. 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)

Not Regulated for Transportation.

### Canada (TDG)

Not Regulated for Transportation.

### IMO

Not Regulated for Transportation.

### IMO

Not Regulated for Transportation.

### IATA/ICAO

Not Regulated for Transportation.

## SECTION 15 — REGULATORY INFORMATION

### SARA 313 (40 CFR 372.65C) SUPPLIER NOTIFICATION

CAS No.	CHEMICAL/COMPOUND	% by WT	% Element
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No ingredients in this product are subject to SARA 313 (40 CFR 372.65C) Supplier Notification.

### 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.



# MATERIAL SAFETY DATA SHEET

GP4408T04  
07 00

DATE OF PREPARATION  
May 6, 2014

## SECTION 1 — PRODUCT AND COMPANY IDENTIFICATION

### PRODUCT NUMBER

GP4408T04

### PRODUCT NAME

GENERAL POLYMERS® 4408 Water-Based Polyurethane Gloss Coating (Part A), Ultradeep Base

### MANUFACTURER'S NAME

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

### Telephone Numbers and Websites

Regulatory Information	(216) 566-2902 www.paintdocs.com
Medical Emergency	(216) 566-2917
Transportation Emergency*	(800) 424-9300
*for Chemical Emergency ONLY (spill, leak, fire, exposure, or accident)	

## SECTION 2 — COMPOSITION/INFORMATION ON INGREDIENTS

% by Weight	CAS Number	Ingredient	Units	Vapor Pressure
3	5131-66-8	<b>Butoxypropanol</b> ACGIH TLV OSHA PEL	Not Available Not Available	0.6 mm
6	68609-97-2	<b>Alkyl Glycidyl Ether</b> ACGIH TLV OSHA PEL	Not Available Not Available	
2	102-71-6	<b>Triethanolamine</b> ACGIH TLV OSHA PEL	5 MG/M3 Not Available	
17	7727-43-7	<b>Barium Sulfate</b> ACGIH TLV OSHA PEL OSHA PEL	10 mg/m3 as Dust 10 mg/m3 Total Dust 5 mg/m3 Respirable Fraction	

## 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.

In a confined area vapors in high concentration may cause headache, nausea or dizziness.

### SIGNS AND SYMPTOMS OF OVEREXPOSURE

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.

### HMIS Codes

Health	2*
Flammability	0
Reactivity	0

## 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.  
If irritation persists or occurs later, get medical attention.  
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	LEL	UEL	FLAMMABILITY CLASSIFICATION
200 °F PMCC	1.1	14.4	Not Applicable

### EXTINGUISHING MEDIA

Carbon Dioxide, Dry Chemical, Alcohol Foam

### UNUSUAL FIRE AND EXPLOSION HAZARDS

Closed containers may explode (due to the build-up of pressure) when exposed to extreme heat.

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.  
Remove with inert absorbent.

## SECTION 7 — HANDLING AND STORAGE

### STORAGE CATEGORY

DOL Storage Class IIIB

### PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE

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/m<sup>3</sup> (total dust), 3 mg/m<sup>3</sup> (respirable fraction), 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 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.

**SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES**

<b>PRODUCT WEIGHT</b>	10.10 lb/gal	1210 g/l
<b>SPECIFIC GRAVITY</b>	1.22	
<b>BOILING POINT</b>	212 - 339 °F	100 - 170 °C
<b>MELTING POINT</b>	Not Available	
<b>VOLATILE VOLUME</b>	56%	
<b>EVAPORATION RATE</b>	Slower than ether	
<b>VAPOR DENSITY</b>	Heavier than air	
<b>SOLUBILITY IN WATER</b>	Not Available	
<b>pH</b>	7.5	
<b>VOLATILE ORGANIC COMPOUNDS (VOC Theoretical - As Packaged)</b>		
	0.60 lb/gal	72 g/l
	0.28 lb/gal	33 g/l
		Less Water and Federally Exempt Solvents 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.

**TOXICOLOGY DATA**

CAS No.	Ingredient Name			
5131-66-8	Butoxypropanol	LC50 RAT	4HR	Not Available
		LD50 RAT		
68609-97-2	Alkyl Glycidyl Ether	LC50 RAT	4HR	Not Available
		LD50 RAT		
102-71-6	Triethanolamine	LC50 RAT	4HR	Not Available
		LD50 RAT		
7727-43-7	Barium Sulfate	LC50 RAT	4HR	Not Available
		LD50 RAT		

**SECTION 12 — ECOLOGICAL INFORMATION**

**ECOTOXICOLOGICAL INFORMATION**

No data available.

**SECTION 13 — DISPOSAL CONSIDERATIONS**

**WASTE DISPOSAL METHOD**

Waste from this product is not hazardous as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR 261. 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)

Not Regulated for Transportation.

### Canada (TDG)

Not Regulated for Transportation.

### IMO

Not Regulated for Transportation.

### IATA/ICAO

Not Regulated for Transportation.

## SECTION 15 — REGULATORY INFORMATION

### SARA 313 (40 CFR 372.65C) SUPPLIER NOTIFICATION

CAS No.	CHEMICAL/COMPOUND	% by WT	% Element
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No ingredients in this product are subject to SARA 313 (40 CFR 372.65C) Supplier Notification.

### 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.

# MATERIAL SAFETY DATA SHEET

GP4408B01  
02 00

DATE OF PREPARATION  
Aug 13, 2014

## SECTION 1 — PRODUCT AND COMPANY IDENTIFICATION

### PRODUCT NUMBER

GP4408B01

### PRODUCT NAME

GENERAL POLYMERS® 4408 Water-Based Polyurethane Gloss Hardener (Part B)

### MANUFACTURER'S NAME

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

### Telephone Numbers and Websites

Regulatory Information	(216) 566-2902 www.paintdocs.com
Medical Emergency	(216) 566-2917
Transportation Emergency*	(800) 424-9300
*for Chemical Emergency ONLY (spill, leak, fire, exposure, or accident)	

## SECTION 2 — COMPOSITION/INFORMATION ON INGREDIENTS

% by Weight	CAS Number	Ingredient	Units	Vapor Pressure
0.3	822-06-0	Hexamethylene Diisocyanate (max.)	0.005 PPM	0.05 mm
		ACGIH TLV	Not Available	
		OSHA PEL	Not Available	
4	Proprietary	Blocked Polyisocyanate	Not Available	
		ACGIH TLV	Not Available	
		OSHA PEL	Not Available	
96	28182-81-2	Hexamethylene Diisocyanate Polymer	Not Available	
		ACGIH TLV	Not Available	
		OSHA PEL	Not Available	

## SECTION 3 — HAZARDS IDENTIFICATION

### ROUTES OF EXPOSURE

EYE or SKIN contact with product.

### EFFECTS OF OVEREXPOSURE

**EYES:** Irritation.

**SKIN:** Prolonged or repeated exposure may cause irritation.

**INHALATION:** Irritation of the upper respiratory system.

### HMIS Codes

Health	2*
Flammability	1
Reactivity	1

### SIGNS AND SYMPTOMS OF OVEREXPOSURE

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.

**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

<b>FLASH POINT</b>	<b>LEL</b>	<b>UEL</b>	<b>FLAMMABILITY CLASSIFICATION</b>
> 200 °F PMCC	Not Applicable	Not Applicable	Not Applicable
			<b>EXTINGUISHING MEDIA</b>

Carbon Dioxide, Dry Chemical, Foam

### UNUSUAL FIRE AND EXPLOSION HAZARDS

Closed containers may explode (due to the build-up of pressure) when exposed to extreme heat.

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

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 IIIB

### PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE

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/m<sup>3</sup> (total dust), 3 mg/m<sup>3</sup> (respirable fraction), 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 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.

**SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES**

<b>PRODUCT WEIGHT</b>	9.60 lb/gal	1150 g/l
<b>SPECIFIC GRAVITY</b>	1.16	
<b>BOILING POINT</b>	Not Applicable	
<b>MELTING POINT</b>	Not Available	
<b>VOLATILE VOLUME</b>	0%	
<b>EVAPORATION RATE</b>	Not Available	
<b>VAPOR DENSITY</b>	Not Available	
<b>SOLUBILITY IN WATER</b>	Not Available	
<b>VOLATILE ORGANIC COMPOUNDS (VOC Theoretical - As Packaged)</b>		
	0.00 lb/gal	0 g/l
	0.00 lb/gal	0 g/l
		Less Water and Federally Exempt Solvents
		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

**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.

**TOXICOLOGY DATA**

CAS No.	Ingredient Name			
822-06-0	Hexamethylene Diisocyanate (max.)	LC50 RAT	4HR	Not Available
		LD50 RAT		738 mg/kg
Proprietary	Blocked Polyisocyanate	LC50 RAT	4HR	Not Available
		LD50 RAT		Not Available
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 is not hazardous as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR 261. 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)**

Not Regulated for Transportation.

**DOT (Dept of Transportation) Hazardous Substances & Reportable Quantities**

Hexamethylene 1,6-diisocyanate 100 lb RQ

**Canada (TDG)**

Not Regulated for Transportation.

**IMO**

Not Regulated for Transportation.

**IATA/ICAO**

Not Regulated for Transportation.

**SECTION 15 — REGULATORY INFORMATION**

**SARA 313 (40 CFR 372.65C) SUPPLIER NOTIFICATION**

CAS No.	CHEMICAL/COMPOUND	% by WT	% Element
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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**

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.



# MATERIAL SAFETY DATA SHEET

GP4409A01  
07 00

DATE OF PREPARATION  
Feb 24, 2015

## SECTION 1 — PRODUCT AND COMPANY IDENTIFICATION

### PRODUCT NUMBER

GP4409A01

### PRODUCT NAME

GENERAL POLYMERS® 4409 Water-Based Polyurethane Satin Coating (Part A), Clear

### MANUFACTURER'S NAME

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

### Telephone Numbers and Websites

Regulatory Information	(216) 566-2902 www.paintdocs.com
Medical Emergency	(216) 566-2917
Transportation Emergency*	(800) 424-9300
*for Chemical Emergency ONLY (spill, leak, fire, exposure, or accident)	

## SECTION 2 — COMPOSITION/INFORMATION ON INGREDIENTS

% by Weight	CAS Number	Ingredient	Units	Vapor Pressure
1	5131-66-8	<b>Butoxypropanol</b> ACGIH TLV OSHA PEL	Not Available Not Available	0.6 mm
1	107-21-1	<b>Ethylene Glycol</b> ACGIH TLV OSHA PEL	100 MG/M3 CEILING (aerosol) 50 PPM CEILING	0.12 mm
4	68609-97-2	<b>Alkyl Glycidyl Ether</b> ACGIH TLV OSHA PEL	Not Available 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.

In a confined area vapors in high concentration may cause headache, nausea or dizziness.  
Prolonged overexposure to hazardous ingredients in Section 2 may cause adverse chronic effects to the following organs or systems:

- the liver
- the urinary system

### SIGNS AND SYMPTOMS OF OVEREXPOSURE

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.

### HMIS Codes

Health	2*
Flammability	0
Reactivity	0

## 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.  
If irritation persists or occurs later, get medical attention.  
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	LEL	UEL	FLAMMABILITY CLASSIFICATION
200 °F PMCC	1.1	15.3	Not Applicable

### EXTINGUISHING MEDIA

Carbon Dioxide, Dry Chemical, Alcohol Foam

### UNUSUAL FIRE AND EXPLOSION HAZARDS

Closed containers may explode (due to the build-up of pressure) when exposed to extreme heat.

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.  
Remove with inert absorbent.

## SECTION 7 — HANDLING AND STORAGE

### STORAGE CATEGORY

DOL Storage Class IIIB

### PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE

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/m<sup>3</sup> (total dust), 3 mg/m<sup>3</sup> (respirable fraction), 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 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.

**SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES**

<b>PRODUCT WEIGHT</b>	8.72 lb/gal	1044 g/l
<b>SPECIFIC GRAVITY</b>	1.05	
<b>BOILING POINT</b>	212 - 388 °F	100 - 197 °C
<b>MELTING POINT</b>	Not Available	
<b>VOLATILE VOLUME</b>	67%	
<b>EVAPORATION RATE</b>	Slower than ether	
<b>VAPOR DENSITY</b>	Heavier than air	
<b>SOLUBILITY IN WATER</b>	Not Available	
<b>pH</b>	> 2.0, < 11.5	
<b>VOLATILE ORGANIC COMPOUNDS (VOC Theoretical - As Packaged)</b>		
	0.66 lb/gal	80 g/l
	0.23 lb/gal	28 g/l
	Less Water and Federally Exempt Solvents 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.

Ethylene Glycol is considered an animal teratogen. It has been shown to cause birth defects in rats and mice at high doses when given in drinking water or by gavage. There is no evidence to indicate it causes birth defects in humans.

**TOXICOLOGY DATA**

CAS No.	Ingredient Name			
5131-66-8	Butoxypropanol	LC50 RAT	4HR	Not Available
		LD50 RAT		1900 mg/kg
107-21-1	Ethylene Glycol	LC50 RAT	4HR	Not Available
		LD50 RAT		4700 mg/kg
68609-97-2	Alkyl Glycidyl Ether	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 is not hazardous as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR 261. 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)

Not Regulated for Transportation.

### Canada (TDG)

Not Regulated for Transportation.

### IMO

Not Regulated for Transportation.

### IMO

Not Regulated for Transportation.

### IATA/ICAO

Not Regulated for Transportation.

## SECTION 15 — REGULATORY INFORMATION

### SARA 313 (40 CFR 372.65C) SUPPLIER NOTIFICATION

CAS No.	CHEMICAL/COMPOUND	% by WT	% Element
107-21-1	Ethylene Glycol	1	

### 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.

# MATERIAL SAFETY DATA SHEET

GP4409W01  
07 00

DATE OF PREPARATION  
Mar 18, 2015

## SECTION 1 — PRODUCT AND COMPANY IDENTIFICATION

### PRODUCT NUMBER

GP4409W01

### PRODUCT NAME

GENERAL POLYMERS® 4409 Water-Based Polyurethane Satin Coating (Part A), Satin White

### MANUFACTURER'S NAME

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

### Telephone Numbers and Websites

Regulatory Information	(216) 566-2902 www.paintdocs.com
Medical Emergency	(216) 566-2917
Transportation Emergency*	(800) 424-9300
*for Chemical Emergency ONLY (spill, leak, fire, exposure, or accident)	

## SECTION 2 — COMPOSITION/INFORMATION ON INGREDIENTS

% by Weight	CAS Number	Ingredient	Units	Vapor Pressure
2	68609-97-2	Alkyl Glycidyl Ether		
		ACGIH TLV	Not Available	
		OSHA PEL	Not Available	
9	13463-67-7	Titanium Dioxide		
		ACGIH TLV	10 mg/m3 as Dust	
		OSHA PEL	10 mg/m3 Total Dust	
		OSHA PEL	5 mg/m3 Respirable Fraction	

## 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.

In a confined area vapors in high concentration may cause headache, nausea or dizziness.

### SIGNS AND SYMPTOMS OF OVEREXPOSURE

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.

### HMIS Codes

Health	2*
Flammability	0
Reactivity	0

## 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.  
If irritation persists or occurs later, get medical attention.  
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

<b>FLASH POINT</b> 200 °F PMCC	<b>LEL</b> Not Applicable	<b>UEL</b> Not Applicable	<b>FLAMMABILITY CLASSIFICATION</b> Not Applicable
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### EXTINGUISHING MEDIA

Carbon Dioxide, Dry Chemical, Alcohol Foam

### UNUSUAL FIRE AND EXPLOSION HAZARDS

Closed containers may explode (due to the build-up of pressure) when exposed to extreme heat.

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.

Remove with inert absorbent.

## SECTION 7 — HANDLING AND STORAGE

### STORAGE CATEGORY

DOL Storage Class IIIB

### PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE

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/m<sup>3</sup> (total dust), 3 mg/m<sup>3</sup> (respirable fraction), 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 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.

**SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES**

<b>PRODUCT WEIGHT</b>	9.34 lb/gal	1118 g/l
<b>SPECIFIC GRAVITY</b>	1.12	
<b>BOILING POINT</b>	212 - 213 °F	100 - 100 °C
<b>MELTING POINT</b>	Not Available	
<b>VOLATILE VOLUME</b>	64%	
<b>EVAPORATION RATE</b>	Slower than ether	
<b>VAPOR DENSITY</b>	Heavier than air	
<b>SOLUBILITY IN WATER</b>	Not Available	
<b>pH</b>	> 2.0, < 11.5	
<b>VOLATILE ORGANIC COMPOUNDS (VOC Theoretical - As Packaged)</b>		
	0.52 lb/gal	63 g/l
	0.20 lb/gal	24 g/l
	Less Water and Federally Exempt Solvents	
	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**

IARC's Monograph No. 93 reports there is sufficient evidence of carcinogenicity in experimental rats exposed to titanium dioxide but inadequate evidence for carcinogenicity in humans and has assigned a Group 2B rating. In addition, the IARC summary concludes, "No significant exposure to titanium dioxide is thought to occur during the use of products in which titanium is bound to other materials, such as paint."

**TOXICOLOGY DATA**

CAS No.	Ingredient Name			
68609-97-2	Alkyl Glycidyl Ether	LC50 RAT	4HR	Not Available
		LD50 RAT		Not Available
13463-67-7	Titanium Dioxide	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 is not hazardous as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR 261. 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)**

Not Regulated for Transportation.

**Canada (TDG)**

Not Regulated for Transportation.

**IMO**

Not Regulated for Transportation.

**IMO**

Not Regulated for Transportation.

**IATA/ICAO**

Not Regulated for Transportation.

**SECTION 15 — REGULATORY INFORMATION****SARA 313 (40 CFR 372.65C) SUPPLIER NOTIFICATION**

CAS No.	CHEMICAL/COMPOUND	% by WT	% Element
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No ingredients in this product are subject to SARA 313 (40 CFR 372.65C) Supplier Notification.

**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.



# MATERIAL SAFETY DATA SHEET

GP4409T04  
07 00

DATE OF PREPARATION  
May 6, 2014

## SECTION 1 — PRODUCT AND COMPANY IDENTIFICATION

### PRODUCT NUMBER

GP4409T04

### PRODUCT NAME

GENERAL POLYMERS® 4409 Water-Based Polyurethane Satin Coating (Part A), Ultradeep Base

### MANUFACTURER'S NAME

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

### Telephone Numbers and Websites

Regulatory Information	(216) 566-2902 www.paintdocs.com
Medical Emergency	(216) 566-2917
Transportation Emergency*	(800) 424-9300
*for Chemical Emergency ONLY (spill, leak, fire, exposure, or accident)	

## SECTION 2 — COMPOSITION/INFORMATION ON INGREDIENTS

% by Weight	CAS Number	Ingredient	Units	Vapor Pressure
1	5131-66-8	Butoxypropanol		0.6 mm
		ACGIH TLV	Not Available	
		OSHA PEL	Not Available	
3	68609-97-2	Alkyl Glycidyl Ether		
		ACGIH TLV	Not Available	
		OSHA PEL	Not Available	
17	7727-43-7	Barium Sulfate		
		ACGIH TLV	10 mg/m3 as Dust	
		OSHA PEL	10 mg/m3 Total Dust	
		OSHA PEL	5 mg/m3 Respirable Fraction	

## 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.

In a confined area vapors in high concentration may cause headache, nausea or dizziness.

### SIGNS AND SYMPTOMS OF OVEREXPOSURE

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.

### HMIS Codes

Health	2*
Flammability	0
Reactivity	0

## 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.  
If irritation persists or occurs later, get medical attention.  
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	LEL	UEL	FLAMMABILITY CLASSIFICATION
200 °F PMCC	1.1	14.4	Not Applicable

### EXTINGUISHING MEDIA

Carbon Dioxide, Dry Chemical, Alcohol Foam

### UNUSUAL FIRE AND EXPLOSION HAZARDS

Closed containers may explode (due to the build-up of pressure) when exposed to extreme heat.

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.  
Remove with inert absorbent.

## SECTION 7 — HANDLING AND STORAGE

### STORAGE CATEGORY

DOL Storage Class IIIB

### PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE

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/m<sup>3</sup> (total dust), 3 mg/m<sup>3</sup> (respirable fraction), 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 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.

**SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES**

<b>PRODUCT WEIGHT</b>	10.02 lb/gal	1201 g/l
<b>SPECIFIC GRAVITY</b>	1.21	
<b>BOILING POINT</b>	212 - 339 °F	100 - 170 °C
<b>MELTING POINT</b>	Not Available	
<b>VOLATILE VOLUME</b>	62%	
<b>EVAPORATION RATE</b>	Slower than ether	
<b>VAPOR DENSITY</b>	Heavier than air	
<b>SOLUBILITY IN WATER</b>	Not Available	
<b>pH</b>	7.5	
<b>VOLATILE ORGANIC COMPOUNDS (VOC Theoretical - As Packaged)</b>		
	0.55 lb/gal	66 g/l
	0.22 lb/gal	27 g/l
		Less Water and Federally Exempt Solvents 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.

**TOXICOLOGY DATA**

CAS No.	Ingredient Name			
5131-66-8	Butoxypropanol	LC50 RAT	4HR	Not Available
		LD50 RAT		1900 mg/kg
68609-97-2	Alkyl Glycidyl Ether	LC50 RAT	4HR	Not Available
		LD50 RAT		Not Available
7727-43-7	Barium Sulfate	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 is not hazardous as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR 261. 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)**

Not Regulated for Transportation.

**Canada (TDG)**

Not Regulated for Transportation.

**IMO**

Not Regulated for Transportation.

**IATA/ICAO**

Not Regulated for Transportation.

**SECTION 15 — REGULATORY INFORMATION**

**SARA 313 (40 CFR 372.65C) SUPPLIER NOTIFICATION**

CAS No.	CHEMICAL/COMPOUND	% by WT	% Element
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No ingredients in this product are subject to SARA 313 (40 CFR 372.65C) Supplier Notification.

**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.

# MATERIAL SAFETY DATA SHEET

GP4409B01  
02 00

DATE OF PREPARATION  
Aug 13, 2014

## SECTION 1 — PRODUCT AND COMPANY IDENTIFICATION

### PRODUCT NUMBER

GP4409B01

### PRODUCT NAME

GENERAL POLYMERS® 4409 Water-Based Polyurethane Satin Hardener (Part B)

### MANUFACTURER'S NAME

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

### Telephone Numbers and Websites

Regulatory Information	(216) 566-2902 www.paintdocs.com
Medical Emergency	(216) 566-2917
Transportation Emergency*	(800) 424-9300
*for Chemical Emergency ONLY (spill, leak, fire, exposure, or accident)	

## SECTION 2 — COMPOSITION/INFORMATION ON INGREDIENTS

% by Weight	CAS Number	Ingredient	Units	Vapor Pressure
0.3	822-06-0	Hexamethylene Diisocyanate (max.)		
		ACGIH TLV	0.005 PPM	0.05 mm
		OSHA PEL	Not Available	
4	Proprietary	Blocked Polyisocyanate		
		ACGIH TLV	Not Available	
		OSHA PEL	Not Available	
96	28182-81-2	Hexamethylene Diisocyanate Polymer		
		ACGIH TLV	Not Available	
		OSHA PEL	Not Available	

## SECTION 3 — HAZARDS IDENTIFICATION

### ROUTES OF EXPOSURE

EYE or SKIN contact with product.

### EFFECTS OF OVEREXPOSURE

**EYES:** Irritation.

**SKIN:** Prolonged or repeated exposure may cause irritation.

**INHALATION:** Irritation of the upper respiratory system.

### HMIS Codes

Health	2*
Flammability	1
Reactivity	1

### SIGNS AND SYMPTOMS OF OVEREXPOSURE

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.

**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

<b>FLASH POINT</b> > 200 °F PMCC	<b>LEL</b> Not Applicable	<b>UEL</b> Not Applicable	<b>FLAMMABILITY CLASSIFICATION</b> Not Applicable
			<b>EXTINGUISHING MEDIA</b> Carbon Dioxide, Dry Chemical, Foam

### UNUSUAL FIRE AND EXPLOSION HAZARDS

Closed containers may explode (due to the build-up of pressure) when exposed to extreme heat.

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

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 IIIB

### PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE

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/m<sup>3</sup> (total dust), 3 mg/m<sup>3</sup> (respirable fraction), 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 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.

**SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES**

<b>PRODUCT WEIGHT</b>	9.60 lb/gal	1150 g/l
<b>SPECIFIC GRAVITY</b>	1.16	
<b>BOILING POINT</b>	Not Applicable	
<b>MELTING POINT</b>	Not Available	
<b>VOLATILE VOLUME</b>	0%	
<b>EVAPORATION RATE</b>	Not Available	
<b>VAPOR DENSITY</b>	Not Available	
<b>SOLUBILITY IN WATER</b>	Not Available	
<b>VOLATILE ORGANIC COMPOUNDS (VOC Theoretical - As Packaged)</b>		
0.00 lb/gal	0 g/l	Less Water and Federally Exempt Solvents
0.00 lb/gal	0 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

**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.

**TOXICOLOGY DATA**

CAS No.	Ingredient Name			
822-06-0	Hexamethylene Diisocyanate (max.)	LC50 RAT	4HR	Not Available
		LD50 RAT		738 mg/kg
Proprietary	Blocked Polyisocyanate	LC50 RAT	4HR	Not Available
		LD50 RAT		Not Available
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 is not hazardous as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR 261. 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)**

Not Regulated for Transportation.

**DOT (Dept of Transportation) Hazardous Substances & Reportable Quantities**

Hexamethylene 1,6-diisocyanate 100 lb RQ

**Canada (TDG)**

Not Regulated for Transportation.

**IMO**

Not Regulated for Transportation.

**IATA/ICAO**

Not Regulated for Transportation.

**SECTION 15 — REGULATORY INFORMATION**

**SARA 313 (40 CFR 372.65C) SUPPLIER NOTIFICATION**

CAS No.	CHEMICAL/COMPOUND	% by WT	% Element
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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**

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.