Section 1: IDENTIFICATION

Product Name:	SP-2888® R.G. Brush Base
Product Identifier:	PART "A" BASE
Product Code:	850-280
Detail	Epoxy/Urethane. White.
Product Use:	Exterior coating for pipelines.
Restrictions on Use:	Not available.
Manufacturer/Supplier:	Specialty Polymer Coatings, Inc. 48 Bury Court Brantford, ON, N3S 0B1 Canada
24 Hour Emergency Phone:	In Canada, call CANUTEC: 1-613-996-6666 In USA, call CHEMTREC: 1-800-424-9300
Date of Preparation of SDS:	March 6, 2019

Section 2: HAZARD(S) IDENTIFICATION

GHS INFORMATION

Classification:
Skin Irritation, Category 2
Eye Irritation, Category 2A
Sensitization - Skin, Category 1
Carcinogenicity, Category 1A
Specific Target Organ Toxicity (Repeated Exposure), Category 1

LABEL ELEMENTS

Hazard Pictogram(s):

Signal Word: Danger

Hazard Statements:
Causes skin irritation. Causes serious eye irritation.
May cause an allergic skin reaction.
May cause cancer.
Causes damage to organs through prolonged or repeated exposure.

Precautionary Statements

Prevention:
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Do not breathe dust, mist, vapours, or spray.
Wash thoroughly after handling.
Do not eat, drink or smoke when using this product.
Contaminated work clothing should not be allowed out of the workplace.
Wear protective gloves, protective clothing and eye protection.

Response:
IF ON SKIN: Wash with plenty of water.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact

lenses, if present and easy to do. Continue rinsing.
Get medical advice/attention if you feel unwell.
If skin irritation or rash occurs: Get medical advice/attention.
If eye irritation persists: Get medical advice/attention.
Take off contaminated clothing and wash it before reuse.

Storage: Store locked up.

Disposal: Dispose of contents/container in accordance with applicable regional, national and local laws and regulations.

Hazards Not Otherwise Classified: Not applicable.

Ingredients with Unknown Toxicity: 10% of this product mixture consists of ingredient(s) of unknown acute toxicity.

This material is considered hazardous by the OSHA Hazard Communication Standard, (29 CFR 1910.1200).

This material is considered hazardous by the Hazardous Products Regulations, 2015.

Section 3: COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous Ingredient(s)	Common name / Synonyms	CAS No.	% wt./wt.
Oxirane, 2,2'-((1-methylethylidene)bis(4,1-phenyleneoxymethylene))bis-, homopolymer	Not available.	25085-99-8	30 - 40
Phenol, polymer with formaldehyde, glycidyl ether	Not available.	28064-14-4	10 - 15
Titanium oxide (TiO2)	Titanium dioxide	13463-67-7	4 - 6
Oxirane, 2,2'-[(2,2-dimethyl-1,3-propanediyl)bis(oxymethylene)]bis-	Neopentyl glycol diglycidyl ether	17557-23-2	3 - 4
Quartz (SiO2)	Quartz	14808-60-7	3 - 4
2-Propenenitrile, polymer with 1,3-butadiene, carboxy-terminated, polymer with 2,2'-[(2,2-dimethyl-1,3-propanediyl)bis(oxymethylene)]bis [oxirane]	Neopentylglycol glycidyl ether, carboxy terminated copolymer of acrylonitrile, butadiene adduct	68909-14-8	1 - 2
Oxirane, 2,2'-[1,4-cyclohexanediylbis (methyleneoxymethylene)]bis-	1,4-Bis(glycidyloxymethyl) cyclohexane	14228-73-0	1 - 2
Poly(oxy(methyl-1,2-ethanediyl)), alpha,alpha',alpha''-1,2,3-propanetriyltris(omega-(2-oxiranylmethoxy)-	Not available.	37237-76-6	1 - 2

Section 4: FIRST-AID MEASURES

Inhalation: If inhaled: Call a poison center or doctor if you feel unwell.

Acute and delayed symptoms and effects: May cause respiratory irritation. Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.

As supplied, inhalation of titanium dioxide or quartz from this product is unlikely. After installation and drying, activities such as grinding or sanding of material may generate airborne dust. Inhalation of Titanium dioxide may cause blood changes. Acute pneumoconiosis from overwhelming exposure to Silica (Quartz, SiO2) dust has occurred. Coughing and irritation of throat are early symptoms.

Eye Contact: If in eyes: Rinse cautiously with water for at least 20 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Acute and delayed symptoms and effects: Causes serious eye irritation. Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision.

Skin Contact: If on skin: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse.

Acute and delayed symptoms and effects: May cause an allergic skin reaction. Causes skin irritation. Signs/symptoms may include localized redness, swelling, and itching.

Ingestion: If swallowed: Call a poison center or doctor if you feel unwell. If vomiting occurs naturally, have victim lean forward to reduce the risk of aspiration. Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person.

Acute and delayed symptoms and effects: May cause gastrointestinal irritation. Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea. Ingestion of Titanium dioxide may cause ataxia (failure of muscular coordination), increased blood pressure, hallucinations, hypermotility, muscle contraction/spasticity, fatigue, psychosis, and tremors.

General Advice: In case of accident or if you feel unwell, seek medical advice immediately (show the label or SDS where possible).

Note to Physicians: Symptoms may not appear immediately.

Section 5: FIRE-FIGHTING MEASURES

FLAMMABILITY AND EXPLOSION INFORMATION

Not flammable or combustible by OSHA/WHMIS criteria.

Sensitivity to Mechanical Impact: This material is not sensitive to mechanical impact.

Sensitivity to Static Discharge: This material is not sensitive to static discharge.

MEANS OF EXTINCTION

Suitable Extinguishing Media: Small Fire: Dry chemical, CO2, water spray or regular foam.

Large Fire: Water spray, fog or regular foam. Move containers from fire area if you can do it without risk.

Unsuitable Extinguishing Media: Not available.

Products of Combustion:	Oxides of carbon. Oxides of nitrogen. Aldehydes.
Protection of Firefighters:	Runoff from fire control or dilution water may cause pollution. Wear positive pressure self-contained breathing apparatus (SCBA). Structural firefighters' protective clothing will only provide limited protection.

Section 6: ACCIDENTAL RELEASE MEASURES

Emergency Procedures:	Keep unauthorized personnel away. Stay upwind. Keep out of low areas. Ventilate closed spaces before entering.
Personal Precautions:	Do not touch or walk through spilled material. Use personal protection recommended in Section 8.
Environmental Precautions:	Keep out of drains, sewers, ditches, and waterways.
Methods for Containment:	Stop leak if without risk. Do not flush to sewer or allow to enter waterways.
Methods for Clean-Up:	Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers.
Other Information:	See Section 13 for disposal considerations.

Section 7: HANDLING AND STORAGE

Handling:
Do not swallow. Do not breathe dust, mist, vapours, or spray. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace. See Section 8 for information on Personal Protective Equipment.

Storage:
Store locked up. The acceptable shipping and storage temperature range is between 5 °C (41 °F) and 50 °C (122 °F). Store away from incompatible materials. See Section 10 for information on Incompatible Materials. Keep out of the reach of children.

Section 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines
Component

Oxirane, 2,2'-((1-methylethylidene)bis(4,1-phenyleneoxymethylene))bis-, homopolymer [CAS No. 25085-99-8]
ACGIH: No TLV established.
OSHA: No PEL established.

Phenol, polymer with formaldehyde, glycidyl ether [CAS No. 28064-14-4]
ACGIH: No TLV established.
OSHA: No PEL established.

Titanium dioxide [CAS No. 13463-67-7]
ACGIH: 10 mg/m³ (TWA); A4 (1992)
OSHA: 15 mg/m³ (Total dust) (TWA);
10 mg/m³ (TWA) (Total dust) [Vacated];

Neopentyl glycol diglycidyl ether [CAS No. 17557-23-2]
ACGIH: No TLV established.
OSHA: No PEL established.

Quartz [CAS No. 14808-60-7]
ACGIH: 0.025 mg/m³ (TWA); A2; Respirable fraction (2009)
OSHA: 30 / (%SiO2 + 2) mg/m³ Quartz (Total dust) (TWA), 10 / (%SiO2 + 2) mg/m³ Quartz (Respirable) & 250 / (%SiO2 + 5) mppcf Quartz (Respirable) (TWA); See Table Z3.
0.1 mg/m³ (As respirable quartz) (TWA) [Vacated];

Neopentylglycol glycidyl ether, carboxy terminated copolymer of acrylonitrile, butadiene adduct [CAS No. 68909-14-8]
ACGIH: No TLV established.
OSHA: No PEL established.

1,4-Bis(glycidyloxymethyl)cyclohexane [CAS No. 14228-73-0]
ACGIH: No TLV established.
OSHA: No PEL established.

Poly(oxy(methyl-1,2-ethanediyl)), alpha,alpha',alpha''-1,2,3-propanetriyltris(omega-(2-oxiranylmethoxy)- [CAS No. 37237-76-6]
ACGIH: No TLV established.
OSHA: No PEL established.

Engineering Controls: Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapour, gas, etc.) below recommended exposure limits.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Eye/Face Protection: Wear chemical safety glasses, goggles, and/or full face shield. Ensure that eyewash stations are close to the workstation location. Use equipment for eye protection that meets the standards referenced by CSA Standard CAN/CSA-Z94.3-92 and OSHA regulations in 29 CFR 1910.133 for Personal Protective Equipment.

Hand Protection: Chemical resistant gloves with a long cuff that will overlap the clothing sleeves should be worn when handling this product. The glove/clothing overlaps should be sealed by tape. Check with the glove manufacturer to determine the proper glove type.

Skin and Body Protection: Long-sleeved protective clothing is to be worn over regular clothing to cover all exposed areas of arms, legs or torso during mixing and application of the coating. Breathable clothing, such as cotton or disposable coveralls, is recommended.

Respiratory Protection: If engineering controls and ventilation are not sufficient to control exposure to below the allowable limits then an appropriate NIOSH/MSHA approved air-purifying respirator that meets the requirements of CSA Standard CAN/CSA-Z94.4-11, or self-contained breathing apparatus must be used. Supplied air breathing apparatus must be used when oxygen concentrations are low or if airborne concentrations exceed the limits of the air-purifying respirators. Wear a dust respirator for any activity such as sanding or grinding of cured coating.

General Hygiene Considerations: Handle according to established industrial hygiene and safety practices. Specialty Polymer Coatings, Inc. has consulted a competent industrial hygienist to determine hazard potential and/or the PPE manufacturers to ensure adequate protection. These measures are reflected in our comprehensive training of customer employees.

Other: A barrier cream may be used in conjunction with Personal Protective Equipment as an additional safeguard against skin contact.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Viscous liquid.
Colour:	White.
Odour:	Faint epoxy odour.
Odour Threshold:	Not available.
Physical State:	Liquid.
pH:	Not available.
Melting Point / Freezing Point:	Not available.
Initial Boiling Point:	> 300 °C (572 °F)
Boiling Range:	Not available.
Flash Point:	> 100 °C (212 °F) (SFCC)
Evaporation Rate:	Not available.
Flammability (solid, gas):	Not applicable.
Lower Flammability Limit:	Not available.
Upper Flammability Limit:	Not available.
Vapour Pressure:	Not available.
Vapour Density:	Not available.
Relative Density:	1.55 (Water = 1) at 25 °C (77 °F)
Solubilities:	Negligible solubility in water at 20 °C (68 °F).

Partition Coefficient: n-Octanol/Water:	Not available.
Auto-ignition Temperature:	Not available.
Decomposition Temperature:	Not available.
Viscosity:	Not available.
Percent Volatile, wt. %:	Not available.
VOC content, wt. %:	Not available.
Density:	Not available.
Coefficient of Water/Oil Distribution:	Not available.

Section 10: STABILITY AND REACTIVITY

Reactivity:	Contact with incompatible materials. Sources of ignition. Exposure to heat.
Chemical Stability:	Stable under normal storage conditions.
Possibility of Hazardous Reactions:	None known.
Conditions to Avoid:	Contact with incompatible materials. Sources of ignition. Exposure to heat.
Incompatible Materials:	Acids. Bases. Oxidizers. Amines.
Hazardous Decomposition Products:	Oxides of carbon. Oxides of nitrogen. Aldehydes.

Section 11: TOXICOLOGICAL INFORMATION

EFFECTS OF ACUTE EXPOSURE

Product Toxicity

Oral:	Not available.
Dermal:	Not available.
Inhalation:	Not available.

Component Toxicity

Component	CAS No.	LD_{50} oral	LD_{50} dermal	LC_{50}
Oxirane, 2,2'-((1-methylethylidene)bis(4,1-phenyleneoxymethylene)) bis-, homopolymer	25085-99-8	> 15000 mg/kg (rat)	23000 mg/kg (rabbit)	Not available.
Phenol, polymer with formaldehyde, glycidyl ether	28064-14-4	> 2000 mg/kg (rat)	> 2000 mg/kg (rat)	Not available.
Titanium dioxide	13463-67-7	Not available.	Not available.	Not available.
Neopentyl glycol diglycidyl ether	17557-23-2	4500 mg/kg (rat)	Not available	
Quartz	14808-60-7	Not available.	Not available.	0.3 mg/m³ (human); 10Y

Neopentylglycol glycidyl ether, carboxy terminated copolymer of acrylonitrile, butadiene adduct	68909-14-8	Not available.	Not available.	Not available.
1,4-Bis(glycidyloxymethyl) cyclohexane	14228-73-0	Not available.	Not available.	Not available.
Poly(oxy(methyl-1,2-ethanediyl)), alpha,alpha', alpha''-1,2,3-propanetriyltris (omega-(2-oxiranylmethoxy)-	37237-76-6	Not available.	Not available.	Not available.

Likely Routes of Exposure: Eye contact. Skin contact. Inhalation. Ingestion.

Target Organs: Skin. Eyes. Gastrointestinal tract. Respiratory system. Lungs.

Symptoms (including delayed and immediate effects)

Inhalation: May cause respiratory irritation. Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain. As supplied, inhalation of titanium dioxide or quartz from this product is unlikely. After installation and drying, activities such as grinding or sanding of material may generate airborne dust. Inhalation of Titanium dioxide may cause blood changes. Acute pneumoconiosis from overwhelming exposure to Silica (Quartz, SiO2) dust has occurred. Coughing and irritation of throat are early symptoms.

Eye: Causes serious eye irritation. Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision.

Skin: May cause an allergic skin reaction. Causes skin irritation. Signs/symptoms may include localized redness, swelling, and itching.

Ingestion: May cause gastrointestinal irritation. Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea. Ingestion of Titanium dioxide may cause ataxia (failure of muscular coordination), increased blood pressure, hallucinations, hypermotility, muscle contraction/spasticity, fatigue, psychosis, and tremors.

Skin Sensitization: Hazardous by OSHA/WHMIS criteria. May cause sensitization through skin contact.

Respiratory Sensitization: Not available.

Medical Conditions Aggravated By Exposure: Not available.

EFFECTS OF CHRONIC EXPOSURE (from short and long-term exposure)

Target Organs: Skin. Eyes. Gastrointestinal tract. Respiratory system. Lungs. Blood.

Chronic Effects: Hazardous by OSHA/WHMIS criteria. May cause chronic effects. Prolonged or repeated contact may dry skin and cause irritation. As supplied, inhalation of titanium dioxide or quartz from this product is unlikely. After installation and drying, activities such as grinding or sanding of material may generate airborne dust.

Prolonged or repeated exposure to Titanium dioxide may cause lung irritation, chest pain, and pulmonary edema. Repeated exposure to Silica (Quartz, SiO2) can cause silicosis, a form of lung scarring that can cause shortness of breath, reduced lung function, and in severe cases, death.

Carcinogenicity: May cause cancer. Respirable Silica (Quartz, SiO2) dust is classified as a human carcinogen.

Component Carcinogenicity

Component	ACGIH	IARC	NTP	OSHA	Prop 65
Titanium dioxide	A4	Group 2B	Not listed.	OSHA Carcinogen.	Listed.
Quartz	A2	Group 1	List 1	OSHA Carcinogen.	Listed.

Mutagenicity: Not available.

Reproductive Effects: Not available.

Developmental Effects

Teratogenicity: Not available.

Embryotoxicity: Not available.

Toxicologically Synergistic Materials: Not available.

Section 12: ECOLOGICAL INFORMATION

Ecotoxicity: Not available.

Persistence / Degradability: Not available.

Bioaccumulation / Accumulation: Not available.

Mobility in Environment: Not available.

Other Adverse Effects: Not available.

Section 13: DISPOSAL CONSIDERATIONS

Disposal Instructions: Disposal should be in accordance with applicable regional, national and local laws and regulations. Local regulations may be more stringent than regional or national requirements.

Section 14: TRANSPORT INFORMATION

U.S. Department of Transportation (DOT)

Proper Shipping Name: Not regulated.

Class: Not applicable.

UN Number: Not applicable.

Packing Group: Not applicable.

Label Code: Not applicable.

Canada Transportation of Dangerous Goods (TDG)

Proper Shipping Name:	Not regulated.
Class:	Not applicable.
UN Number:	Not applicable.
Packing Group:	Not applicable.
Label Code:	Not applicable.

ICAO/IATA

Proper Shipping Name:	UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Epoxy resin), 9, PG III
Class:	9
UN Number:	UN3082
Packing Group:	III
Label Code:	
Marine Pollutant:	Yes.

IMDG

Proper Shipping Name:	UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Epoxy resin), 9, PG III
Class:	9
UN Number:	UN3082
Packing Group:	III
Label Code:	
Marine Pollutant:	Yes.

Section 15: REGULATORY INFORMATION

Chemical Inventories

US (TSCA)
The components of this product are in compliance with the chemical notification requirements of TSCA.

Canada (DSL)
The components of this product are in compliance with the chemical notification requirements of the NSN Regulations under CEPA, 1999.

Federal Regulations

United States
This SDS has been prepared to meet the U.S. OSHA Hazard Communication Standard, 29 CFR 1910.1200.

SARA Title III

No components are listed.

State Regulations
Massachusetts
US Massachusetts Commonwealth's Right-to-Know Law (Appendix A to 105 Code of Massachusetts Regulations Section 670.000)

Component	CAS No.	RTK List
Titanium dioxide	13463-67-7	Listed.
Quartz	14808-60-7	E

Note: E = Extraordinarily Hazardous Substance

New Jersey
US New Jersey Worker and Community Right-to-Know Act (New Jersey Statute Annotated Section 34:5A-5)

Component	CAS No.	RTK List
Titanium dioxide	13463-67-7	Listed.
Quartz	14808-60-7	SHHS

Note: SHHS = Special Health Hazard Substance
Pennsylvania
US Pennsylvania Worker and Community Right-to-Know Law (34 Pa. Code Chap. 301-323)

Component	CAS No.	RTK List
Titanium dioxide	13463-67-7	Listed.
Quartz	14808-60-7	Listed.

California
California Prop 65:

WARNING This product can expose you to chemicals including Titanium dioxide, Quartz and Methanol, which are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Section 16: OTHER INFORMATION

Disclaimer:
The information contained in this document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. While Specialty Polymer Coatings, Inc. believes that the data contained herein are accurate and derived from qualified sources, the data are not to be taken as a warranty or representation for which Specialty Polymer Coatings, Inc. assumes legal responsibility. Any use of these data and information must be determined by the user to be in accordance with applicable governmental laws and regulations.

Date of Preparation of SDS:	March 6, 2019
Version:	1.8
GHS SDS Prepared by:	**Aegis Regulatory Inc.**
	Phone: (519) 488-0351

ABBREVIATIONS USED IN PREPARING THIS SDS

% (Percent)	< (Less than)	> (Greater than)	@ (at)

ACGIH	American Conference of Governmental Industrial Hygienists
ATE	Acute Toxicity Estimate
C	Celsius
CAS No.	CAS Registry Number
CANUTEC	Canadian Transport Emergency Centre
CEIL	Ceiling Limit
CEPA, 1999	Canadian Environmental Protection Act, 1999
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act (U.S.)
DOT	Department of Transportation (U.S.)
F	Fahrenheit
g/kg	Grams per Kilogram
GHS	Globally Harmonized System of Classification and Labelling of Chemicals
H	Hour
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods Code
Kg	Kilogram
Lb/gal	Pounds per Gallon
LC_{50}	Lethal Concentration (50% Death)
LD_{50}	Lethal Dose (50% Death)
mg/kg	Milligrams per Kilogram
mg/L	Milligrams per Litre
mg/m^3	Milligrams per Cubic Metre
ml/kg	Millilitres per Kilogram
mmHg	Millimetres of Mercury
mppcf	Millions of particles per Cubic Foot
MSHA	Mine Safety and Health Administration (U.S.)
NIOSH	National Institute for Occupational Safety and Health
NTP	National Toxicology Program (U.S.)
N.O.S.	Not Otherwise Specified
OSHA	Occupational Safety and Health Administration (U.S.)
PEL	Permissible Exposure Limit
PMCC	Pensky-Martens Closed Cup
ppm	Parts per million
RCRA	Resource Conservation and Recovery Act (U.S.)
SARA	Superfund Amendments and Reauthorization Act, 1986 (U.S.)
SDS	Safety Data Sheet
SFCC	Setaflash Closed Cup Tester
STEL	Short-Term Exposure Limit
TDG	Transportation of Dangerous Goods Regulations (Canada)
TLV	Threshold Limit Value
TWA	Time-Weighted Average
TSCA	Toxic Substances Control Act
µL/kg	Micro Litre per Kilogram
WHMIS	Workplace Hazardous Materials Information System (Canada)