SAFETY DATA SHEET



Date of issue 5/18/2021 (month/day/year)

Version 8

Section 1. Chemical product and company identification

Α.	Product name	:	SOLENDOKOTE SL SEALER BASE
	Product code	1	00250627

B. Relevant identified uses of the substance or mixture and uses advised against

	Product use Use of the substance/ mixture		Professional applications, Used by spraying. Coating.
	Uses advised against	:	Product is not intended, labelled or packaged for consumer use.
C.	Supplier's information	:	PPG SSC (680-090) 19, Yeocheon-ro 217beon-gil, Nam-gu, Ulsan, Korea Tel: +82-52-210-8222
	Email Address		Korea.MSDS@PPG.COM
	Emergency telephone number:	:	+82-52-210-8222

Section 2. Hazards identification

A. Hazard classification	: ACUTE TOXICITY (inhalation) - Category 4
	SKIN CORROSION/IRRITATION - Category 2
	SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2
	SKIN SENSITIZATION - Category 1
	AQUATIC HAZARD (LONG-TERM) - Category 2
This product is classified in	accordance with the Industrial Safety and Health Act and the Chemical Control Act.

B. GHS label elements, including precautionary statements



Signal word **Hazard statements**

- : Warning : H315 - Causes skin irritation.
 - H317 May cause an allergic skin reaction.
 - H319 Causes serious eye irritation.
 - H332 Harmful if inhaled.
 - H411 Toxic to aquatic life with long lasting effects.

Precautionary statements

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Section 2. Hazards identification

Prevention	 P280 - Wear protective gloves. Wear eye or face protection. P273 - Avoid release to the environment. P261 - Avoid breathing vapor. P264 - Wash thoroughly after handling.
Response	 P391 - Collect spillage. P304 + P312 - IF INHALED: Call a POISON CENTER or doctor if you feel unwell. P362 + P364 - Take off contaminated clothing and wash it before reuse. P302 + P352 - IF ON SKIN: Wash with plenty of water. P333 + P313 - If skin irritation or rash occurs: Get medical advice or attention. P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337 + P313 - If eye irritation persists: Get medical advice or attention.
Storage	: Not applicable.
Disposal	: P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

C. Other hazards which do : Mone known. not result in classification

Section 3. Composition/information on ingredients

CAS number/other identifiers

CAS number : Not applicable.

Chemical name	Common name	Identifiers	%
bis-[4-(2,3-epoxipropoxi)phenyl]propane	Bisphenol A diglycidyl ether	CAS: 1675-54-3	70 - <80
benzyl alcohol	BENZYL ALCOHOL	CAS: 100-51-6	10 -<20
1,6-bis(2,3-epoxypropoxy)hexane	1,6-HEXANDIOLGLYCIDETHER	CAS: 16096-31-4	5 - <10
Phenol, methylstyrenated	Phenol, methylstyrenated	CAS: 68512-30-1	1 - <5

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Α.	Eye contact	:	Remove contact lenses, irrigate copiously with clean, fresh water, holding the eyelids apart for at least 10 minutes and seek immediate medical advice.
В.	Skin contact	:	Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognized skin cleanser. Do NOT use solvents or thinners.
C.	Inhalation	:	Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.
D.	Ingestion	:	If swallowed, seek medical advice immediately and show this container or label. Keep person warm and at rest. Do NOT induce vomiting.

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Section 4. First aid measures

Έ.	Notes to physician	:	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	Specific treatments	1	No specific treatment.
	Protection of first-aiders	:	No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Α.	Extinguishing media		
	Suitable extinguishing media	1	Use an extinguishing agent suitable for the surrounding fire.
	Unsuitable extinguishing media	:	None known.
В.	Specific hazards arising from the chemical	:	In a fire or if heated, a pressure increase will occur and the container may burst. This material is toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
	Hazardous thermal decomposition products	-	Decomposition products may include the following materials: carbon oxides
C.	Special equipment for fire-fighting	:	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
	Fire-fighting procedures	:	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Section 6. Accidental release measures

A. Personal precautions, protective equipment and emergency procedures	: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
B. Environmental precautions	: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage.
C. Methods and materials for	r containment and cleaning up
Small spill	: Stop leak if without risk. Move containers from spill area. Dilute with water and mor up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a

licensed waste disposal contractor.

Section 6. Accidental release measures

Large spill	: Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section
	13 for waste disposal.

Section 7. Handling and storage

hand	ling		

A. Precautions for safe

: Put on appropriate personal protective equipment (see Section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Avoid release to the environment. Refer to special instructions/safety data sheet. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

B. Conditions for safe storage, including any incompatibilities
 Store between the following temperatures: 0 to 35°C (32 to 95°F). Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

A. Occupational exposure limits None.

F

	Recommended monitoring procedures	:	If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.
3.	Appropriate engineering controls	:	Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.
	Environmental exposure controls	:	Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

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Section 8. Exposure controls/personal protection

С.	C. Personal protective equipment					
	Respiratory protection		Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. If workers are exposed to concentrations above the exposure limit, they must use appropriate, certified respirators. Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Chemical splash goggles.			
	Hand protection	:	Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.			
	Gloves	1	butyl rubber			
	Body protection	:	Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.			
	Hygiene measures	:	Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.			

Section 9. Physical and chemical properties

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Ν.	Relative density	4	1.13
Μ.	Vapor density	1	Not available.
	Solubility in water	1	Not available.
L.	Solubility	1	Insoluble in the following materials: cold water.
Κ.	Vapor pressure	1	Not available.
J.	Lower and upper explosive (flammable) limits	:	Greatest known range: Lower: 1.3% Upper: 13% (benzyl alcohol)
Т.	Flammability (solid, gas)	1	Not available.
н.	Evaporation rate	4	Not available.
G.	Flash point	1	Closed cup: 100°C (212°F)
F.	Boiling point/boiling range	1	>37.78°C (>100°F)
Е.	J J J J J J J J J J J J J J J J J J J	- 1	Not available.
D.	рН	4	Not applicable.
С.	Odor threshold	1	Not available.
В.	Odor	1	Characteristic.
	Color	1	Not available.
	Physical state	1	Liquid.
Α.	Appearance		

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Section 9. Physical and chemical properties

0	Partition coefficient: n- octanol/water	: Not applicable.
Ρ.	Auto-ignition temperature	: Not available.
Q	Decomposition temperature	: Not available.
R	Viscosity	: ₭nematic (40°C (104°F)): >21 mm²/s (>21 cSt)
S.	Molecular weight	: Not applicable.

Section 10. Stability and reactivity

Α.	Chemical stability	:	The product is stable.
	Possibility of hazardous reactions	:	Under normal conditions of storage and use, hazardous reactions will not occur.
В.	Conditions to avoid	:	When exposed to high temperatures may produce hazardous decomposition products.
C.	Incompatible materials	:	Keep away from the following materials to prevent strong exothermic reactions: oxidizing agents, strong alkalis, strong acids.
D.	Hazardous decomposition products	:	Depending on conditions, decomposition products may include the following materials: carbon oxides

Section 11. Toxicological information

Α.	Information on the likely routes of exposure	/ : Not available.
<u>P</u>	otential acute health effe	<u>cts</u>
	Inhalation :	Harmful if inhaled.
	Ingestion :	No known significant effects or critical hazards.
	Skin contact :	Causes skin irritation. May cause an allergic skin reaction.
	Eye contact :	Causes serious eye irritation.
<u>0</u>	ver-exposure signs/sym	<u>otoms</u>
	Inhalation :	No specific data.
	Ingestion :	No specific data.
	Skin contact :	Adverse symptoms may include the following: irritation redness
	Eye contact :	Adverse symptoms may include the following: pain or irritation watering redness

B. Health hazards

Acute toxicity

Section 11. Toxicological information

Product/ingredient name	Result	Species	Dose	Exposure
s-[4-(2,3-epoxipropoxi)phenyl]propane	LD50 Dermal	Rabbit	23000 mg/kg	-
	LD50 Oral	Rat	15000 mg/kg	-
benzyl alcohol	LC50 Inhalation Dusts and	Rat	>4178 mg/m ³	4 hours
	mists			
	LD50 Dermal	Rabbit	2000 mg/kg	-
	LD50 Oral	Rat	1.23 g/kg	-
Phenol, methylstyrenated	LD50 Dermal	Rabbit	>2000 mg/kg	-
	LD50 Oral	Rat	>2000 mg/kg	-

Conclusion/Summary : There are no data available on the mixture itself.

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
bis-[4-(2,3-epoxipropoxi)phenyl] propane	Eyes - Redness of the coniunctivae	Rabbit	0.4	24 hours	-
F F	Eyes - Mild irritant Skin - Erythema/Eschar	Rabbit Rabbit	- 0.8	24 hours 4 hours	-
	Skin - Edema Skin - Mild irritant	Rabbit Rabbit	0.5 -	4 hours 4 hours	-

<u>Conclusion/Summary</u>	
Skin	: There are no data available on the mixture itself.
Eyes	: There are no data available on the mixture itself.
Respiratory	: There are no data available on the mixture itself.

Sensitization

Product/ingredient name	Route of exposure	Species	Result			
bis-[4-(2,3-epoxipropoxi) phenyl]propane	skin	Mouse	Sensitizing			
Conclusion/Summary						
Skin :	There are no data a	available on the mixture itself.				
Respiratory :	There are no data a	available on the mixture itself.				
Mutagenicity Conclusion/Summary :						
Carcinogenicity Conclusion/Summary						
Reproductive toxicity Conclusion/Summary : There are no data available on the mixture itself.						
<u>Teratogenicity</u> Conclusion/Summary	: There are no data	available on the mixture itself.				
<u>Specific target organ toxicity (single exposure)</u> Not available						

Not available.

Section 11. Toxicological information

Specific target organ toxicity (repeated exposure) Not available.

Aspiration hazard

Name	Result
benzyl alcohol	ASPIRATION HAZARD - Category 2

Potential chronic health effects

General	: Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
Carcinogenicity	: No known significant effects or critical hazards.
Mutagenicity	: No known significant effects or critical hazards.
Reproductive toxicity	: 📈 known significant effects or critical hazards.

Additional information

Repeated exposure to high vapor concentrations may cause irritation of the respiratory system and permanent brain and nervous system damage. Inhalation of vapor/aerosol concentrations above the recommended exposure limits causes headaches, drowsiness and nausea and may lead to unconsciousness or death.

Chemical name	Common name	CAS #	GHS Classification
ቓเร-[4-(2,3-epoxipropoxi) phenyl]propane	Bisphenol A diglycidyl ether	CAS: 1675-54-3	SKIN CORROSION/IRRITATION - Category 2 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2 SKIN SENSITIZATION - Category 1 AQUATIC HAZARD (LONG-TERM) - Category 2
benzyl alcohol	BENZYL ALCOHOL	CAS: 100-51-6	ACUTE TOXICITY (oral) - Category 4
			ACUTE TOXICITY (dermal) - Category 4 ACUTE TOXICITY (inhalation) - Category 4 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2 ASPIRATION HAZARD - Category 2
1,6-bis(2,3-epoxypropoxy) hexane	1,6-HEXANDIOLGLYCIDETHER	CAS: 16096-31-4	SKIN CORROSION/IRRITATION - Category 2 SERIOUS EYE DAMAGE/ EYE
			IRRITATION - Category 2 SKIN SENSITIZATION - Category 1 AQUATIC HAZARD (LONG-TERM) - Category 3
Phenol, methylstyrenated	Phenol, methylstyrenated	CAS: 68512-30-1	SKIN CÓRROSION/IRRITATION - Category 2 SKIN SENSITIZATION - Category 1 AQUATIC HAZARD (LONG-TERM) - Category 3

Section 12. Ecological information

A. Ecotoxicity

Product/ingredient name	Result	Species	Exposure
bis-[4-(2,3-epoxipropoxi) phenyl]propane	Acute LC50 1.8 mg/l Fresh water	Daphnia - daphnia magna	48 hours
	Chronic NOEC 0.3 mg/l	Daphnia	21 days

B. Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
s-[4-(2,3-epoxipropoxi)	-	-	Not readily
benzyl alcohol	-	-	Readily

C. Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
enzyl alcohol	0.87	-	low
1,6-bis(2,3-epoxypropoxy) hexane	0.822	-	low
Phenol, methylstyrenated	3.627	-	low

D. Mobility in soil

Soil/water partition : Not available. coefficient (K_{oc})

E. <u>Other adverse effects</u> : No known significant effects or critical hazards.

Section 13. Disposal considerations

and any regional local authority requirements. Dispose of surplus and non- recyclable products via a licensed waste disposal contractor. Waste should no disposed of untreated to the sewer unless fully compliant with the requirements	Α.	Disposal methods	recyclable products via a licensed waste disposal contractor. Waste should not disposed of untreated to the sewer unless fully compliant with the requirements all authorities with jurisdiction. Waste packaging should be recycled. Incineration
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B. Disposal precautions This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

	UN	IMDG	ΙΑΤΑ
A. UN number	UN3082	UN3082	UN3082
B. UN proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.		ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
	(bis-[4-(2,3-epoxipropoxi) phenyl]propane)	(bis-[4-(2,3-epoxipropoxi) phenyl]propane)	(bis-[4-(2,3-epoxipropoxi) phenyl]propane)
C. Transport 9 hazard class(es)		9	9
D. Packing group III		III	III
Environmental hazards	Yes.	Yes.	Yes.
E. Marine pollutant substances	Not applicable.	(bis-[4-(2,3-epoxipropoxi) phenyl]propane)	Not applicable.

Additional information

UN	: This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.
IMDG	: This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.
ΙΑΤΑ	: This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 5.0.2.4.1, 5.0.2.6.1.1 and 5.0.2.8.

F. Special precaution which a user to be aware of or needs to comply with in connection with transport or transportation

Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according : Not applicable. to IMO instruments

Section 15. Regulatory information

Α.	Regulation according to ISHA			
	ISHA article 117 (Harmful substances prohibited from manufacture)	: None of the components are listed.		
	ISHA article 118 (Harmful substances requiring permission)	: None of the components are listed.		
	Article 2 of Youth Protection Act on Substances Hazardous to Youth	: It is not allowed to sell to persons under the age of 19		

Exposure Limits of Chemical Substances and Physical Factors

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Section 15. Regulatory information

None of the components have an OEL.

	ISHA Enforcement Regs Annex 19 (Exposure standards established for harmful factors)	:	None of the components are listed.
	ISHA Enforcement Regs Annex 11-5 (Harmful factors subject to Work Environment Measurement)	-	None of the components are listed.
	ISHA Enforcement Regs Annex 22 (Harmful Factors Subject to Special Health Check- up)	:	None of the components are listed.
	Standard of Industrial Safety and Health Annex 12 (Hazardous substances subject to control)	:	None of the components are listed.
В.	Regulation according to	Ch	emicals Control Act
	CCA Article 11 (TRI)	:	None of the components are listed.
	CCA Article 18 Prohibited (K-Reach Article 27)	:	None of the components are listed.
	CCA Article 19 Subject to authorization (K- Reach Article 25)	:	None of the components are listed.
	CCA Article 20 Restricted (K-Reach Article 27)	:	None of the components are listed.
	CCA Article 20 Toxic Chemicals (K-Reach Article 20)	:	Not applicable
	Korea inventory	1	All components are listed or exempted.
	CCA Article 39 (Accident Precaution Chemicals)	:	None of the components are listed.
C.	Dangerous Materials Safety Management Act	:	Not applicable.
D.	Wastes regulation	1	Dispose of contents and container in accordance with all local, regional, national and international regulations.
Ε.	Regulation according to		-
	Safety, health and environmental regulations specific for the product	:	No known specific national and/or regional regulations applicable to this product (including its ingredients).

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Section 16. Other information

A. References	 Korean Ministry of Environment; Chemical Control Act Korean Ministry of Labor; Industrial Safety and Health Act NIER Notice Registry of Toxic Effects of Chemical Substances (RTECS) U.S. Environmental Protection Agency, AQUIRE (Aquatic toxicity Information Retrieval) ECOTOX Database System.
B. Date of issue/Date of revision	: 5/18/2021
C. Version	: 8
Prepared by	: EHS

D. Other

Indicates information that has changed from previously issued version.

Disclaimer

The information contained in this data sheet is based on present scientific and technical knowledge. The purpose of this information is to draw attention to the health and safety aspects concerning the products supplied by PPG, and to recommend precautionary measures for the storage and handling of the products. No warranty or guarantee is given in respect of the properties of the products. No liability can be accepted for any failure to observe the precautionary measures described in this data sheet or for any misuse of the products.