SAFETY DATA SHEET



The information in this Safety Data Sheet is required pursuant to Hazardous Product Regulations 2015.

Date of issue/Date of revision 8 September 2023 Version 9.01

Section 1. Identif	fication							
Product name	: KEELOCK HI-SOLIDS EPOXY TANGERINE							
Product code	: KL96002473							
Other means of identification	: Not available.							
Product type	: Liquid.							
Relevant identified uses of	f the substance or mixture and uses advised against							
Product use	: Industrial applications, Used by spraying.							
Use of the substance/ mixture	: Coating.							
Uses advised against	: Not applicable.							
Supplier	 PPG Architectural Coatings Canada, Inc. 1550, rue Ampère, bureau 500 Boucherville (Québec) J4B 7L4 Canada +1 450-655-3121 							
	PPG Industries, Inc. One PPG Place Pittsburgh, PA 15272							
Emergency telephone number	: (412) 434-4515 (U.S.) (514) 645-1320 (Canada) SETIQ Interior de la República: 800-00-214-00 (México) SETIQ Ciudad de México: (55) 5559-1588 (México)							
Technical Phone Number	: 888-977-4762							

Section 2. Hazard identification

Classification of the substance or mixture	 FLAMMABLE LIQUIDS - Category 3 SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A SKIN SENSITIZATION - Category 1B CARCINOGENICITY - Category 1 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 1 Health Hazards Not Otherwise Classified - Category 1
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Product name KEELOCK HI-SOLIDS EPOXY TANGERINE

Section 2. Hazard identification

This product contains TiO2 which has been classified as a GHS Carcinogen Category 2 based on its IARC 2B classification. For many products, TiO2 is utilized as a raw material in a liquid coating formulation. In this case, the TiO2 particles are bound in a matrix with no meaningful potential for human exposure to unbound particles of TiO2 when the product is applied with a brush or roller. Sanding the coating surface or mist from spray applications may be harmful depending on the duration and level of exposure and require the use of appropriate personal protective equipment and/or engineering controls (see Section 8).

GHS label elements	
Hazard pictograms	
Signal word	: Danger
Hazard statements	 Flammable liquid and vapor. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation. May cause cancer. Causes damage to organs through prolonged or repeated exposure. Prolonged or repeated contact may dry skin and cause irritation.
Precautionary statements	
Prevention	: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves, protective clothing and eye or face protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not breathe vapor. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace.
Response	: IF exposed or concerned: Get medical advice or attention. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. IF ON SKIN: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice or attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice or attention.
Storage	: Store locked up.
Disposal	: Dispose of contents and container in accordance with all local, regional, national and international regulations.
Supplemental label elements	 Sanding and grinding dusts may be harmful if inhaled. This product contains crystalline silica which can cause lung cancer or silicosis. The risk of cancer depends on the duration and level of exposure to dust from sanding surfaces or mist from spray applications. 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. Avoid contact with skin and clothing. Wash thoroughly after handling. Emits toxic fumes when heated. Fercentage of the mixture consisting of ingredient(s) of unknown acute toxicity: 18.1% (oral), 37% (dermal), 67.4% (inhalation)

Product name KEELOCK HI-SOLIDS EPOXY TANGERINE

Section 3. Composition/information on ingredients

Substance/mixture	: Mixture
Product name	: KEELOCK HI-SOLIDS EPOXY TANGERINE
Other means of identification	: Not available.

CAS number/other identifiers

ofs-[4-(2,3-epoxipropoxi)phenyl] propane	2,2'-[(1-methylethylidene)bis	15 - 40	1675-54-3
	(4,1-phenyleneoxymethylene)]bisoxirane; Oxirane, 2,2'-[(1-methylethylidene)bis (4,1-phenyleneoxymethylene)]bis-; Bisphenol A diglycidyl ether; Bisphenol A, diglycidyl ether; Bis-[4-(2,3-epoxypropoxy) phenyl]propane; 2,2-bis[4- (2,3-epoxypropoxy)phenyl]propane; Propane, 2,2-bis(p-(2,3-epoxypropoxy) phenyl)-; diglycidyl ether of bisphenol-A; 2,2-bis(4-hydroxyphenyl) propane bis (2,3-epoxypropyl) ether; Araldite; DIPHENYLOL PROPANE DIGLYCIDYL ETHER		
crystalline silica, respirable powder (<10 microns)	alpha-quartz; Silica, crystalline (quartz); Silica, Crystalline Quartz; SILICA, CRYSTALLINE, QUARTZ; Silica- Crystalline, Quartz; Silica - Crystalline Quartz; Silica-Crystalline : Quartz; Silica, crystalline - quartz	10 - 30*	14808-60-7
itanium dioxide	Titanium oxide; Titanium oxide (TiO2); Cl 77891; Titanium peroxide; Rutile; C.I. Pigment White 6; titanium dioxide coated with isopropoxytitanium triisostearate, containing by weight 1,5 % or more but not more than 2,5 % of isopropoxytitanium triisostearate; glass flakes (CAS RN 65997-17-3): — of a thickness of 0,3 μ m or more but not more than 10 μ m, and — coated with titanium dioxide (CAS RN 13463-67-7) or iron oxide (CAS RN 18282- 10-5); titanium dioxide, other than those of heading 3206 11 00; C.I. 77891; E 171; titanium(IV) oxide, other than those of heading 3206 11 00	7 - 13*	13463-67-7
oxirane, mono[(C12-14-alkyloxy) methyl] derivs.	Oxirane, 2-[(C12-14-alkyloxy)methyl] derivs.; Alkyl (C12-C14) Glycidyl Ether; Oxirane, mono[(C12-14-alkyloxy)methyl] derivatives; (C12-14) Alkylglycidyl ether; Oxirane, mono((C12-14-alkyloxy)methyl) derivatives; Alkyl -C12-14-glycidyl ether; oxirane, mono[(C12-14-alkyloxy)methyl] derivs; Oxirane, mono[(alkyl(C=12-14)oxy)	5 - 10*	68609-97-2

Product name KEELOCK HI-SOLIDS EPOXY TANGERINE

Section 3. Composition/information on ingredients

		1	,
	C12-14-ALKYL GLYCIDYL ETHER; Alkyl (C12, C14) glycidyl ether		
1-methoxy-2-propanol	monopropylene glycol methyl ether; 1-methoxypropan-2-ol; 2-Propanol, 1-methoxy-; Propylene glycol monomethyl ether; Dowtherm 209; Propylene glycol methyl ether; 1-Methoxy- 2-hydroxypropane; 2-Methoxy- 1-methylethanol; PGME; mixture containing by weight: — 69 % or more but not more than 71 % of 1-methoxypropan- 2-ol (CAS RN 107-98-2), — 29 % or more but not more than 31 % of 2-methoxy- 1-methylethyl acetate (CAS RN 108-65-6); methoxyisopropanol	1 - 5*	107-98-2
n-butyl acetate	Acetic acid, butyl ester; Butyl Acetate; n- Butyl-acetate; Butyl ethanoate; n-Butyl ester of acetic acid; product composed of hydrocarbons (predominantly paraffinic and naphthenic) and n-butyl acetate; 1-butyl acetate; 1-Acetoxybutane; Butyl ester, Acetic acid; normal butyl acetate; Acetic acid, n-butyl ester	1 - 5*	123-86-4
ethylbenzene	Benzene, ethyl-; Phenylethane; Ethylbenzol; photosensitive emulsion consisting of cyclized polyisoprene containing: — 55 % or more but not more than 75 % by weight of xylene (CAS RN 1330-20-7) and — 12 % or more but not more than 18 % by weight of ethylbenzene (CAS RN 100-41-4); EB; Mono-(or di-) methyl (ethyl,bromoallyl, bromopropyloxycarbonyl orchloropropyloxycarbonyl) benzene	0.1 - 1*	100-41-4

*Ranges if listed above for hazardous ingredient(s) are prescribed ranges. The actual concentration(s) or actual concentration range(s) are being withheld as a trade secret.

SUB codes represent substances without registered CAS Numbers.

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

If ingestion, irritation, any type of overexposure or symptoms of overexposure occur during or persists after use of this product, contact a POISON CONTROL CENTER, EMERGENCY ROOM OR PHYSICIAN immediately; have Safety Data Sheet information available. Never give anything by mouth to an unconscious or convulsing person.

Description of necessary first aid measures

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.

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Section 4. First-aid measures

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.
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.
Ingestion	: If swallowed, seek medical advice immediately and show this container or label. Keep person warm and at rest. Do NOT induce vomiting.

Most important symptoms/effects, acute and delayed

Potential acute health effects	<u>s</u>	
Eye contact	:	Causes serious eye irritation.
Inhalation	:	No known significant effects or critical hazards.
Skin contact	:	Causes skin irritation. Defatting to the skin. May cause an allergic skin reaction.
Ingestion	:	No known significant effects or critical hazards.
Over-exposure signs/sympto	on	<u>15</u>
Eye contact	:	Adverse symptoms may include the following: pain or irritation watering redness
Inhalation	:	No specific data.
Skin contact	:	Adverse symptoms may include the following: irritation redness dryness cracking
Ingestion	:	No specific data.
Indication of immediate media	<u>ca</u>	l attention and special treatment needed, if necessary
Notes to physician	:	In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
Specific treatments	;	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

Extinguishing media	
Suitable extinguishing media	: Use dry chemical, CO ₂ , water spray (fog) or foam.
Unsuitable extinguishing media	: Do not use water jet.
Specific hazards arising from the chemical	: Flammable liquid and vapor. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion.

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Section 5. Fire-fighting measures

Hazardous thermal decomposition products	: Decomposition products may include the following materials: carbon oxides nitrogen oxides halogenated compounds metal oxide/oxides	
Special protective actions for fire-fighters	: Promptly isolate the scene by removing all persons from the vicinity of there is a fire. No action shall be taken involving any personal risk or visuitable training. Move containers from fire area if this can be done will use water spray to keep fire-exposed containers cool.	without
Special protective equipment for fire-fighters	: Fire-fighters should wear appropriate protective equipment and self-co breathing apparatus (SCBA) with a full face-piece operated in positive mode.	

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	:	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. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
For emergency responders	:	If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
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).
Methods and materials for co	ont	ainment and cleaning up
Small spill	:	Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop 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.
Large spill	-	Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. 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.

Product name KEELOCK HI-SOLIDS EPOXY TANGERINE

Section 7. Handling and storage

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Protective measures	:	Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.
Special precautions	:	Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Vapors are heavier than air and may spread along floors. If this material is part of a multiple component system, read the Safety Data Sheet(s) for the other component or components before blending as the resulting mixture may have the hazards of all of its parts.
Advice on general occupational hygiene	:	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. See also Section 8 for additional information on hygiene measures.
Conditions for safe storage, including any incompatibilities	:	Do not store above the following temperature: 50°C (122°F). Store in accordance with local regulations. Store in a segregated and approved area. 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. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. 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.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
S-[4-(2,3-epoxipropoxi)phenyl]propane crystalline silica, respirable powder (<10 microns)	None. CA British Columbia Provincial (Canada, 6/2022). [Silica, Crystalline - alpha quartz and Cristobalite Respirable] TWA: 0.025 mg/m ³ 8 hours. Form: Respirable CA Ontario Provincial (Canada, 6/2019). [Silica, Crystalline (Quartz/Tripoli)] TWA: 0.1 mg/m ³ 8 hours. Form: Respirable CA Quebec Provincial (Canada, 6/2022). [Silica Crystalline -Quartz] TWAEV: 0.1 mg/m ³ 8 hours. Form: Respirable dust.
	Canada Page: 7/17

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Section 8. Exposure controls/personal protection				
titanium dioxide	CA Alberta Provincial (Canada, 6/2018). 8 hrs OEL: 0.025 mg/m ³ 8 hours. Form: Respirable particulate CA Saskatchewan Provincial (Canada, 7/2013). TWA: 0.05 mg/m ³ 8 hours. Form: respirable fraction CA British Columbia Provincial (Canada, 6/2022). [Titanium dioxide] TWA: 10 mg/m ³ 8 hours. Form: Total dust TWA: 3 mg/m ³ 8 hours. Form: respirable fraction			
	 CA Quebec Provincial (Canada, 6/2022). TWAEV: 10 mg/m³ 8 hours. Form: Total dust. CA Alberta Provincial (Canada, 6/2018). Skin sensitizer. 8 hrs OEL: 10 mg/m³ 8 hours. CA Ontario Provincial (Canada, 6/2019). TWA: 10 mg/m³ 8 hours. Form: total dust CA Saskatchewan Provincial (Canada, 7/2013). STEL: 20 mg/m³ 15 minutes. TWA: 10 mg/m³ 8 hours. 			
oxirane, mono[(C12-14-alkyloxy)methyl] derivs. 1-methoxy-2-propanol	None. CA Alberta Provincial (Canada, 6/2018). 15 min OEL: 553 mg/m ³ 15 minutes. 15 min OEL: 150 ppm 15 minutes. 8 hrs OEL: 369 mg/m ³ 8 hours. 8 hrs OEL: 100 ppm 8 hours. CA British Columbia Provincial (Canada, 6/2022). STEL: 100 ppm 15 minutes. TWA: 50 ppm 8 hours. CA Ontario Provincial (Canada, 6/2019). STEL: 100 ppm 15 minutes. TWA: 50 ppm 8 hours. CA Quebec Provincial (Canada, 6/2022). STEV: 553 mg/m ³ 15 minutes. STEV: 553 mg/m ³ 8 hours. TWAEV: 369 mg/m ³ 8 hours. TWAEV: 369 mg/m ³ 8 hours. TWAEV: 100 ppm 8 hours. CA Saskatchewan Provincial (Canada, 7/2013). STEL: 150 ppm 15 minutes.			
n-butyl acetate	TWA: 100 ppm 8 hours. CA Alberta Provincial (Canada, 6/2018). Skin sensitizer. 15 min OEL: 950 mg/m ³ 15 minutes. 15 min OEL: 200 ppm 15 minutes. 8 hrs OEL: 713 mg/m ³ 8 hours. 8 hrs OEL: 150 ppm 8 hours. CA Saskatchewan Provincial (Canada, 7/2013). STEL: 200 ppm 15 minutes.			
	Canada Page: 8/1			

Product name KEELOCK HI-SOLIDS EPOXY TANGERINE

Section 8. Exposure controls/personal protection

	TWA: 150 ppm 8 hours. CA Ontario Provincial (Canada, 6/2019). [butyl acetates, all isomers] STEL: 150 ppm 15 minutes. TWA: 50 ppm 8 hours. CA British Columbia Provincial (Canada, 6/2022). [butyl acetate, all isomers]
	STEL: 150 ppm 15 minutes. TWA: 50 ppm 8 hours. CA Quebec Provincial (Canada, 6/2022). [butyl acetates (all isomers)] STEV: 150 ppm 15 minutes. TWAEV: 50 ppm 8 hours.
ethylbenzene	CA Alberta Provincial (Canada, 6/2018). 15 min OEL: 543 mg/m³ 15 minutes. 15 min OEL: 125 ppm 15 minutes. 8 hrs OEL: 434 mg/m³ 8 hours. 8 hrs OEL: 100 ppm 8 hours. CA British Columbia Provincial (Canada, 6/2022). TWA: 20 ppm 8 hours. CA Ontario Provincial (Canada, 6/2019). TWA: 20 ppm 8 hours. CA Quebec Provincial (Canada, 6/2022). TWAEV: 20 ppm 8 hours. CA Saskatchewan Provincial (Canada, 7/2013). STEL: 125 ppm 15 minutes. TWA: 100 ppm 8 hours.

Consult local authorities for acceptable exposure limits.

Recommended monitoring procedures		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.
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. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.
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.
Individual protection measure	es	
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.

Product name KEELOCK HI-SOLIDS EPOXY TANGERINE

Section 8. Exposure controls/personal protection

Eye/face protection		Chemical splash goggles.
Skin protection	-	
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	:	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. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.
Other skin protection	- 1	Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
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.

Section 9. Physical and chemical properties

Appearance		
Physical state	Liquid.	
Color	Not available.	
Odor	Characteristic.	
Odor threshold	Not available.	
рН	Not applicable.	
Melting point	Not available.	
Boiling point	>37.78°C (>100°F)	
Flash point	Closed cup: 36.67°C (98°F)	
Auto-ignition temperature	Not available.	
Decomposition temperature	Not available.	
Flammability	Not available.	
Lower and upper explosive (flammable) limits	Not available.	
Evaporation rate	0.79 (butyl acetate = 1)	
Vapor pressure	1.4 kPa (10.8 mm Hg)	
Vapor density	Not available.	
Relative density	1.39	
Density(lbs / gal)	11.6	
Solubility(ies)	Media Result	
oorabiiity(ies)	Pold water Not soluble	

Product name KEELOCK HI-SOLIDS EPOXY TANGERINE

Section 9. Physical and chemical properties

Partition coefficient: n- octanol/water	: Not applicable.
Viscosity	: Kinematic (40°C (104°F)): >21 mm²/s (>21 cSt)
Volatility	: 15% (v/v), 9.583% (w/w)
% Solid. (w/w)	: 90.417

Section 10. Stability and reactivity

Reactivity	: No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	: The product is stable.
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	 When exposed to high temperatures may produce hazardous decomposition products. Refer to protective measures listed in sections 7 and 8.
Incompatible materials	: Keep away from the following materials to prevent strong exothermic reactions: oxidizing agents, strong alkalis, strong acids.
Hazardous decomposition products	: Depending on conditions, decomposition products may include the following materia carbon oxides nitrogen oxides halogenated compounds metal oxide/oxides

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
ቓís-[4-(2,3-epoxipropoxi) phenyl]propane	LD50 Dermal	Rabbit	23000 mg/kg	-
	LD50 Oral	Rat	15000 mg/kg	-
titanium dioxide	LC50 Inhalation Dusts and mists	Rat	>6.82 mg/l	4 hours
	LD50 Dermal	Rabbit	>5000 mg/kg	-
	LD50 Oral	Rat	>5000 mg/kg	-
oxirane, mono[LD50 Oral	Rat	17100 mg/kg	-
(C12-14-alkyloxy)methyl]				
derivs.				
1-methoxy-2-propanol	LC50 Inhalation Vapor	Rat	>7000 ppm	6 hours
	LD50 Dermal	Rabbit	13 g/kg	-
	LD50 Oral	Rat	5.2 g/kg	-
n-butyl acetate	LC50 Inhalation Vapor	Rat	>21.1 mg/l	4 hours
-	LC50 Inhalation Vapor	Rat	2000 ppm	4 hours
	LD50 Dermal	Rabbit	>17600 mg/kg	-
	LD50 Oral	Rat	10.768 g/kg	-
ethylbenzene	LC50 Inhalation Vapor	Rat	17.8 mg/l	4 hours
-	LD50 Dermal	Rabbit	17.8 g/kg	-
	LD50 Oral	Rat	3.5 g/kg	_

Irritation/Corrosion

Product name KEELOCK HI-SOLIDS EPOXY TANGERINE

Section 11. Toxicological information

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

Conclusion/Summary

: There are no data available on the mixture itself.

: There are no data available on the mixture itself.

Eyes Respiratory

Skin

: There are no data available on the mixture itself.

Sensitization

Route of exposure	Species	Result
skin skin	Mouse Guinea pig	Sensitizing Sensitizing
: There are no da	ata available on the mixture itse	lf.
: There are no da	ata available on the mixture itse	lf.
: There are no da	ata available on the mixture itse	lf.
	exposure skin skin : There are no da : There are no da	exposure skin Mouse

Carcinogenicity

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

Classification

Product/ingredient name	OSHA	IARC	NTP
s-[4-(2,3-epoxipropoxi)phenyl]	-	3	-
crystalline silica, respirable powder (<10 microns)	-	1	Known to be a human carcinogen.
titanium dioxide ethylbenzene	-	2B 2B	-

Carcinogen Classification code:

IARC: 1, 2A, 2B, 3, 4

NTP: Known to be a human carcinogen; Reasonably anticipated to be a human carcinogen OSHA: + Not listed/not regulated: -

Reproductive toxicity

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

Teratogenicity

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

Specific target organ toxicity (single exposure)

Product name KEELOCK HI-SOLIDS EPOXY TANGERINE

Section 11. Toxicological information

Name		Route of exposure	Target organs
1-methoxy-2-propanol	Category 3		Narcotic effects
n-butyl acetate	Category 3		Narcotic effects

Specific target organ toxicity (repeated exposure)

Name		Route of exposure	Target organs
crystalline silica, respirable powder (<10 microns)	Category 1	inhalation	-
ethylbenzene	Category 2	-	hearing organs

Target organs

: Contains material which causes damage to the following organs: liver, spleen, brain, bone marrow.

Contains material which may cause damage to the following organs: kidneys, lungs, heart, upper respiratory tract, immune system, skin, central nervous system (CNS), eye, lens or cornea.

Aspiration hazard

Name	Result
ethylbenzene	ASPIRATION HAZARD - Category 1

Information on the likely routes of exposure

Potential acute health effects

Eye contact	: Causes serious eye irritation.
Inhalation	: No known significant effects or critical hazards.
Skin contact	: Causes skin irritation. Defatting to the skin. May cause an allergic skin reaction.
Ingestion	: No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact	: Adverse symptoms may include the following: pain or irritation watering redness
Inhalation	: No specific data.
Skin contact	: Adverse symptoms may include the following: irritation redness dryness cracking
Ingestion	: No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Conclusion/Summary : There are no data available on the mixture itself. This product contains crystalline silica which can cause lung cancer or silicosis. The risk of cancer depends on the duration and level of exposure to dust from sanding surfaces or mist from spray applications. This product contains TiO2 which has been classified as a GHS Carcinogen Category 2 based on its IARC 2B classification. For many products, TiO2 is utilized as a raw material in a liquid coating formulation. In this case, the TiO2 particles are bound in a matrix with no meaningful potential for human

Product name KEELOCK HI-SOLIDS EPOXY TANGERINE

Section 11. Toxicological information

		exposure to unbound particles of TiO2 when the product is applied with a brush or roller. Sanding the coating surface or mist from spray applications may be harmful depending on the duration and level of exposure and require the use of appropriate personal protective equipment and/or engineering controls (see Section 8). Exposure to component solvent vapor concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, loss of consciousness. Solvents may cause some of the above effects by absorption through the skin. There is some evidence that repeated exposure to organic solvent vapors in combination with constant loud noise can cause greater hearing loss than expected from exposure to noise alone. If splashed in the eyes, the liquid may cause irritation and reversible damage. Ingestion may cause nausea, diarrhea and vomiting. This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.
Short term exposure Potential immediate effects	:	There are no data available on the mixture itself.
Potential delayed effects	:	There are no data available on the mixture itself.
<u>Long term exposure</u>		
Potential immediate effects	1	There are no data available on the mixture itself.
Potential delayed effects	:	There are no data available on the mixture itself.
Potential chronic health effe	<u>ect</u>	<u>S</u>
General	:	Causes damage to organs through prolonged or repeated exposure. Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
Carcinogenicity	:	May cause cancer. Risk of cancer depends on duration and level of exposure.
Mutagenicity	:	No known significant effects or critical hazards.
Reproductive toxicity	:	No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Product/ingredient name	Oral (mg/ kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
bis-[4-(2,3-epoxipropoxi)phenyl]propane	15000	23000	N/A	N/A	N/A
oxirane, mono[(C12-14-alkyloxy)methyl] derivs.	17100	N/A	N/A	N/A	N/A
1-methoxy-2-propanol	5200	13000	N/A	N/A	N/A
n-butyl acetate	10768	N/A	N/A	N/A	N/A
ethylbenzene	3500	17800	N/A	17.8	1.5

Product name KEELOCK HI-SOLIDS EPOXY TANGERINE

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
s-[4-(2,3-epoxipropoxi)	Acute LC50 1.8 mg/l Fresh water	Daphnia - daphnia magna	48 hours
	Chronic NOEC 0.3 mg/l	Daphnia	21 days
titanium dioxide	Acute LC50 >100 mg/l Fresh water	Daphnia - <i>Daphnia magna</i>	48 hours
oxirane, mono[(C12-14-alkyloxy)methyl] derivs.	LC50 >100 mg/l	Fish	96 hours
1-methoxy-2-propanol	Acute LC50 23300 mg/l	Daphnia	48 hours
	Acute LC50 >4500 mg/l Fresh water	Fish	96 hours
n-butyl acetate	Acute LC50 18 mg/l	Fish	96 hours
ethylbenzene	Acute EC50 1.8 mg/l Fresh water Chronic NOEC 1 mg/l Fresh water	Daphnia Daphnia - <i>Ceriodaphnia dubia</i>	48 hours -

Persistence and degradability

Product/ingredient name	Test	Result		Dose	Inoculum
-butyl acetate	TEPA and OECD 301D	83 % - Readily - 28	days	-	-
ethylbenzene	-	79 % - Readily - 10	days	-	-
Product/ingredient name	Aquatic half-life		Photolysis		Biodegradability
ቓเร-[4-(2,3-epoxipropoxi) phenyl]propane			-		Not readily
n-butyl acetate ethylbenzene	-		-		Readily Readily

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
oxirane, mono[(C12-14-alkyloxy)methyl] derivs.	3.77	-	Low
1-methoxy-2-propanol n-butyl acetate ethylbenzene	<1 2.3 3.6	- - 79.43	Low Low Low

Mobility in soil

Soil/water partition coefficient (Koc)

: Not available.

Section 13. Disposal considerations

Disposal methods

: The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and nonrecyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or

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Product name KEELOCK HI-SOLIDS EPOXY TANGERINE

Section 13. Disposal considerations

landfill should only be considered when recycling is not feasible. 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. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations. Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees. Section 6. Accidental release measures

Section 14. Transport information

	TDG	IMDG	IATA
UN number	UN1263	UN1263	UN1263
UN proper shipping name	PAINT	PAINT	PAINT
Transport hazard class (es)	3	3	3
Packing group	III	III	III
Environmental hazards	Yes.	Yes.	Yes. The environmentally hazardous substance mark is not required.
Marine pollutant substances	(bis-[4-(2,3-epoxipropoxi) phenyl]propane)	(bis-[4-(2,3-epoxipropoxi) phenyl]propane)	Not applicable.

Additional inform TDG IMDG IATA	The marinThe marinThe environment	ne oni	pollutant mark is not required when transported by road or rail. pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg. mentally hazardous substance mark may appear if required by other transportation
Special precaution	regulation ns for user		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 to IMO instrument		:	Not applicable.
Proof of classifica statement	ition	:	Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.18-2.19 (Class 3), 2.7 (Marine pollutant mark).

Product name KEELOCK HI-SOLIDS EPOXY TANGERINE

Section 15. Regulatory information

National Inventory List

Canada inventory (DSL)

: All components are listed or exempted.

Section 16. Other information

Hazardous Material Information System (U.S.A.)

Health : 2 * Flammability : 3 Physical hazards : 1

(*) - Chronic effects

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on MSDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.

The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

National Fire Protection Asso	ociation (U.S.A.)
Health : 2 Flamma	bility : 3 Instability : 1
Date of issue/Date of revision	8 September 2023
Organization that prepared the SDS	: EHS
Key to abbreviations	 ATE = Acute Toxicity Estimate BCF = Bioconcentration Factor GHS = Globally Harmonized System of Classification and Labelling of Chemicals IATA = International Air Transport Association IBC = Internediate Bulk Container IMDG = International Maritime Dangerous Goods LogPow = logarithm of the octanol/water partition coefficient MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution) N/A = Not available SGG = Segregation Group UN = United Nations

Indicates information that has changed from previously issued version.

Disclaimer

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