SAFETY DATA SHEET



Date of issue	7 June 2020
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Version 5.01

Section 1. Product and company identification

Product name	
Product code	
Other means of identification	
Product type	

- : PHENGUARD SUBSEA 780 BASE RAL 1004
- : 00294609
- : Not available.
- : Liquid.

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

Identified uses

Coating. Paints. Painting-related materials.

Uses advised against	Reason		
Not applicable.			

Supplier's details:	
Supplier	 PPG Industrial do Brasil – Tintas e Vernizes Ltda Via Anhanguera KM 106, Bairro Sao Judas Tadeu Sumare / SP, Brasil 55 19 2103-6000 (Recepção e Portaria)
Email address:	: HazComLatam@ppg.com
Emergency telephone number	: 0800 707 1767 / 0800 707 7022 – Empresa Suatrans Cotec 0800 14 8110 – CEATOX - Centro de Assistência Toxicológica

Section 2. Hazards identification

Classification of the substance or mixture	: FLAMMABLE LIQUIDS - Category 3 ACUTE TOXICITY (dermal) - Category 5 ACUTE TOXICITY (inhalation) - Category 4
	SKIN IRRITATION - Category 2
	SERIOUS EYE DAMAGE - Category 1
	SKIN SENSITIZATION - Category 1
	CARCINOGENICITY - Category 1A
	SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2 AQUATIC HAZARD (LONG-TERM) - Category 3
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, the nervous system, upper respiratory tract, immune system, skin, central nervous system (CNS), ears, eye, lens or cornea.

English (US) Brazil	
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Section 2. Haz	zards i	dentification			
		Percentage of the mixture consisti 44.3% (Oral), 44.3% (Dermal), 80		unknown acute toxici	ity:
		Percentage of the mixture consisti aquatic environment: 68.3%	ing of ingredient(s) of ເ	unknown hazards to	the
GHS label elements					
Hazard pictograms	:				
Signal word	:	Danger			
Hazard statements	:	Flammable liquid and vapor. May be harmful in contact with ski Causes skin irritation. May cause an allergic skin reactio Causes serious eye damage. Harmful if inhaled. May cause cancer. May cause damage to organs thro Harmful to aquatic life with long la	n. ough prolonged or repe	eated exposure.	
Precautionary staten	nents		C C		
Prevention	:	Obtain special instructions before clothing. Wear eye or face protect open flames and other ignition sou ventilating or lighting equipment. static discharges. Avoid release to thoroughly after handling.	ion. Keep away from I urces. No smoking. Us Use non-sparking tools	heat, hot surfaces, s se explosion-proof el s. Take action to pre	parks, lectrical event
Response	:	Immediately call a POISON CENT wash it before reuse. IF ON SKIN cautiously with water for several m easy to do. Continue rinsing.	l: Wash with plenty of v	water. IF IN EYES: I	Rinse
Storage	:	Store in a well-ventilated place. Ke	eep cool.		
Disposal	:	Dispose of contents and container and international regulations.	r in accordance with al	l local, regional, natio	onal
Other hazards which or result in classification		Prolonged or repeated contact ma	ly dry skin and cause i	rritation.	

Section 3. Composition/information on ingredients

Substance/mixture	: Mixture
Other means of identification	: Not available.

CAS number/other identifiers		
CAS number	:	Not applicable.

Section 3. Composition/information on ingredients

Ingredient name	%	CAS number
barium sulfate	30 - <60	7727-43-7
Phenol, polymer with formaldehyde, glycidyl ether (MW<=700)	20 - <30	28064-14-4
xylene	10 - <12.5	1330-20-7
Mica-group minerals	5 - <7	12001-26-2
crystalline silica, respirable powder (>10 microns)	3 - <5	14808-60-7
2-methylpropan-1-ol	3 - <5	78-83-1
crystalline silica, respirable powder (<10 microns)	3 - <5	14808-60-7
ethylbenzene	2 - <3	100-41-4
titanium dioxide	1 - <2	13463-67-7

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.

SUB codes represent substances without registered CAS Numbers.

Section 4. First aid measures

Description of necessary first aid measures						
Eye contact	:	Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Seek immediate medical attention.				
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.				
Indication of immediate medi	<u>ca</u>	l attention and special treatment needed, if necessary				
Notes to physician Specific treatments		Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. 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.				
Potential acute health effects	Potential acute health effects					
Eye contact		Causes serious eye damage.				
Inhalation	4	Harmful if inhaled.				
Skin contact	1	May be harmful in contact with skin. Causes skin irritation. Defatting to the skin. May cause an allergic skin reaction.				
Ingestion	÷	No known significant effects or critical hazards.				

See toxicological information (Section 11)

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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. This material is harmful 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 sulfur oxides metal oxide/oxides
Special protective actions for fire-fighters	: 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. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
Special protective equipment for fire-fighters	 Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

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. Do not breathe 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). Water polluting material. May be harmful to the environment if released in large quantities.
Methods and materials for co	ntainment 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.

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.

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Section 6. A	ection 6. Accidental release measures	
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.	

Section 7. Handling and storage

Precautions for safe handling	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 ingest. Avoid breathing vapor or mist. 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 non-sparking tools. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Empty containers retain product residue and can be hazardous. Do not reuse container.
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 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. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

Control parameters Occupational exposure limits

Section 8. Exposure controls/personal protection

Ingredient name		Exposure limits
barium sulfate		ACGIH TLV (United States, 3/2019). TWA: 5 mg/m ³ 8 hours. Form: Inhalable
		fraction
xylene		Minsitry of Labor and Employement
		(Brazil, 11/2001).
		TWA: 340 mg/m ³ 8 hours.
		TWA: 78 ppm 8 hours.
Mica-group minerals		ACGIH TLV (United States, 3/2019). TWA: 3 mg/m ³ 8 hours. Form: Respirable
		fraction
crystalline silica, respirable p	owder (>10 microns)	ACGIH TLV (United States, 3/2019).
		TWA: 0.025 mg/m ³ 8 hours. Form:
		Respirable fraction
2-methylpropan-1-ol		Minsitry of Labor and Employement
		(Brazil, 11/2001).
		TWA: 115 mg/m ³ 8 hours.
an stalling siling require blan	evider (10 mierone)	TWA: 40 ppm 8 hours.
crystalline silica, respirable p	owaer (<10 microns)	ACGIH TLV (United States, 3/2019).
		TWA: 0.025 mg/m ³ 8 hours. Form:
		Respirable
ethylbenzene		Minsitry of Labor and Employement
		(Brazil, 11/2001).
		TWA: 340 mg/m ³ 8 hours. TWA: 78 ppm 8 hours.
titanium dioxide		ACGIH TLV (United States, 3/2019).
		TWA: 10 mg/m ³ 8 hours.
Recommended monitoring procedures	atmosphere or biological monito of the ventilation or other contro protective equipment. Reference	nts with exposure limits, personal, workplace oring may be required to determine the effectivenes I measures and/or the necessity to use respiratory se should be made to appropriate monitoring al guidance documents for methods for the stances will also be required.
Appropriate engineering controls	ventilation or other engineering contaminants below any recom	on. Use process enclosures, local exhaust controls to keep worker exposure to airborne nended or statutory limits. The engineering contro
		dust concentrations below any lower explosive
	limits. Use explosion-proof ven	
Environmental exposure controls	they comply with the requirement cases, fume scrubbers, filters o	ork process equipment should be checked to ensunts of environmental protection legislation. In some r engineering modifications to the process reduce emissions to acceptable levels.
dividual protection measu		·
Hygiene measures	before eating, smoking and usir Appropriate techniques should l Contaminated work clothing sho	e thoroughly after handling chemical products, og the lavatory and at the end of the working period be used to remove potentially contaminated clothin buld not be allowed out of the workplace. Wash using. Ensure that eyewash stations and safety ation location

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Section 8. Exposure controls/personal protection

Eye protection Skin protection	: Chemical splash goggles and face shield.
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	 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	: Yellow.
Odor	: Aromatic.
рН	: Not available.
Melting point	: Not available.
Boiling point	: >37.78°C (>100°F)
Flash point	: Closed cup: 26°C (78.8°F)
Evaporation rate	: Not available.
Flammability (solid, gas)	: Not available.
Lower and upper explosive (flammable) limits	: Not available.
Vapor pressure	: Not available.
Vapor density	: Not available.
Relative density	: 1.76
Solubility	: Insoluble in the following materials: cold water.
Partition coefficient: n- octanol/water	: Not available.
Auto-ignition temperature	: Not available.
Decomposition temperature	: Not available.

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Section 9. Ph	sical and chemical properti	es		
Viscosity	: Kinematic (room temperature): >4 cr Kinematic (40°C (104°F)): >0.21 cm ²	()		
Viscosity	: > 100 s (ISO 6mm)			
Section 10. S	ability and reactivity			
Reactivity	: No specific test data related to react	ivity available for this	product or its ing	jredients.
Chemical stability	: The product is stable.			
Possibility of hazardo reactions	us : Under normal conditions of storage a	and use, hazardous r	eactions will not	occur.
Conditions to avoid	: When exposed to high temperatures products.	may produce hazaro	dous decomposit	ion
Incompatible materia	s : Keep away from the following materi oxidizing agents, strong alkalis, strong		exothermic reac	tions:
Hazardous decompos products	ition : Decomposition products may include carbon dioxide, smoke, oxides of nite	5	als: carbon mon	oxide,

Information on toxicological effects

Ac	ute	tox	citv

Product/ingredient name	Result	Species	Dose	Exposure
barium sulfate	LD50 Dermal	Rat	>2000 mg/kg	-
	LD50 Oral	Rat	>5000 mg/kg	-
xylene	LD50 Dermal	Rabbit	1.7 g/kg	-
	LD50 Oral	Rat	4.3 g/kg	-
2-methylpropan-1-ol	LC50 Inhalation Vapor	Rat	24.6 mg/l	4 hours
	LD50 Dermal	Rabbit	2460 mg/kg	-
	LD50 Oral	Rat	2830 mg/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	-
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	-

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

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
xylene	Skin - Moderate irritant	Rabbit	-	24 hours 500 mg	-
Conclusion/Summary					
Skin	: There are no data avai	lable on the mi	xture itself.		
Eyes	: There are no data available on the mixture itself.				
Respiratory	: There are no data avai	lable on the mi	xture itself.		

Sensitization

Not available.

Conclusion/Summary	
Skin	: There are no data available on the mixture itself.
Respiratory	: There are no data available on the mixture itself.
<u>Mutagenicity</u>	
Not available.	

Conclusion/Summary

: There are no data available on the mixture itself.

Carcinogenicity

Not available.

Conclusion/Summary : T	here are no data available on the mixture itself.
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Classification

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

Not available.

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

Teratogenicity

Not available.

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

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
xylene	Category 3	-	Respiratory tract irritation
2-methylpropan-1-ol	Category 3	-	Respiratory tract irritation
	Category 3		Narcotic effects

Specific target organ toxicity (repeated exposure)

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Name	Category	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, the nervous system, upper respiratory tract, immune system, skin, central nervous system (CNS), ears, eye, lens or cornea.

Aspiration hazard

Name	Result
2-methylpropan-1-ol	ASPIRATION HAZARD - Category 1 ASPIRATION HAZARD - Category 2 ASPIRATION HAZARD - Category 1

Information on the likely routes of exposure	:	Not available.
Potential acute health effect	<u>s</u>	
Eye contact	1	Causes serious eye damage.
Inhalation	1	Harmful if inhaled.
Skin contact	:	May be harmful in contact with skin. Causes skin irritation. Defatting to the skin. May cause an allergic skin reaction.
Ingestion	:	No known significant effects or critical hazards.
Symptoms related to the phy	<u>/sic</u>	cal, chemical and toxicological characteristics
Eye contact	:	Adverse symptoms may include the following: pain watering redness
Inhalation	1	No specific data.
Skin contact	:	Adverse symptoms may include the following: pain or irritation redness dryness cracking blistering may occur
Ingestion	:	Adverse symptoms may include the following: stomach pains

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

Section 11. Toxicological information 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. For many PPG 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). 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 repeate exposure to organic solvent vapors in combination with constant loud noise can cause greater hearing loss than expected from exposure to noise alone. If splashe in the eyes, the liquid may cause irritation and dermal routes of exposure and eye contact. Short term exposure Potential immediate : There are no data available on the mixture itself. effects : There are no data available on the mixture itself. : There are no data available on the mixture itself. E	Code 00294609 Product name PHENGU	ARD SUBSEA 7	Date of issue 80 BASE RAL 1004	7 June 2020	Version	5.01
 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. For many PPG 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). 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 repeate exposure to organic solvent vapors in combination with constant loud noise can cause greater hearing loss than expected from exposure to noise alone. If splashe in the eyes, the liquid may cause irritation and dermal routes of exposure and eye contact. Short term exposure Potential immediate effects : There are no data available on the mixture itself. Long term exposure Potential immediate there are no data available on the mixture itself. effects 	Section 11. Toxic	cologica	l information			
Potential immediate : There are no data available on the mixture itself. effects Potential delayed effects : There are no data available on the mixture itself. Long term exposure Potential immediate : There are no data available on the mixture itself. Potential immediate : There are no data available on the mixture itself.	Conclusion/Summary	silica wh duration applicati coating product spray ap and requ enginee concent adverse and adv and sigr and, in e above e exposur cause g in the ey cause n delayed term and	nich can cause lung cance and level of exposure to formulation. In this case, gful potential for human ex- is applied with a brush or oplications may be harmfu uire the use of appropriate ring controls (see Section rations in excess of the st health effects such as mu- erse effects on the kidney hs include headache, dizzi extreme cases, loss of cor ffects by absorption throug reater hearing loss than e ves, the liquid may cause i ausea, diarrhea and vomir and immediate effects and d long-term exposure by con-	er or silicosis. The risk of dust from sanding surfa lucts, TiO2 is utilized as the TiO2 particles are b coosure to unbound par- roller. Sanding the coa- l depending on the dura e personal protective eq 8). Exposure to compo- ated occupational expos- ucous membrane and re- rs, liver and central nerv ness, fatigue, muscular nsciousness. Solvents of gh the skin. There is so rs in combination with co- xpected from exposure irritation and reversible of ting. This takes into acco- rd also chronic effects of	of cancer depend ces or mist from a raw material in yound in a matrix ticles of TiO2 wh ting surface or m ation and level of uipment and/or onent solvent vap sure limit may re- espiratory system ous system. Syn weakness, drow may cause some one evidence that onstant loud nois to noise alone. I damage. Ingesti count, where known	Is on the spray n a liquid with no een the nist from exposure oor sult in n irritation mptoms vsiness o of the at repeated se can If splashed on may own, om short-
effects Potential delayed effects : There are no data available on the mixture itself. Long term exposure Potential immediate : There are no data available on the mixture itself. effects		• There a	re no data available on the	e mixture itself		
Long term exposure Potential immediate : There are no data available on the mixture itself. effects		. more a				
Potential immediate : There are no data available on the mixture itself. effects	Potential delayed effects	: There a	re no data available on the	e mixture itself.		
effects	Long term exposure					
Potential delayed effects : There are no data available on the mixture itself.		: There a	re no data available on the	e mixture itself.		
	Potential delayed effects	: There a	re no data available on the	e mixture itself.		
	Not available					

Not available.

General	: May cause 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.
Teratogenicity	: No known significant effects or critical hazards.
Developmental effects	: No known significant effects or critical hazards.
Fertility effects	: No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

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Product/ingredient name	Oral (mg/ kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
PHENGUARD SUBSEA 780 BASE RAL 1004 barium sulfate	12386.8	2468.7	N/A	16.9	2.2
	N/A	2500	N/A	N/A	N/A
xylene	4300	1700	N/A	11	1.5
2-methylpropan-1-ol	2830	2460	N/A	24.6	N/A
ethylbenzene	3500	17800	N/A	17.8	1.5

Other information

: Not available.

Section 12. Ecological information

Ecotoxicity

Product/ingredient name	Result	Species	Exposure
2-methylpropan-1-ol	Acute EC50 1100 mg/l	Daphnia	48 hours
ethylbenzene	Acute LC50 150 to 200 mg/l Fresh water	Fish	96 hours
titanium dioxide	Acute LC50 >100 mg/l Fresh water	Daphnia - Daphnia magna	48 hours

Persistence/degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
xylene	-	-	Readily
ethylbenzene	-	-	Readily

Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
xylene	3.16	7.4 to 18.5	low
2-methylpropan-1-ol	0.76	-	low
ethylbenzene	3.15	79.43	low

Mobility in soil

Soil/water partition coefficient (Koc)

: Not available.

Other adverse effects

: No known significant effects or critical hazards.

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 landfill should only be considered when recycling is not feasible. This material

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Product nam	e	PHENGUARD SUBSEA 780 BASE RAL 1004			

Section 13. Disposal considerations

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.

Section 14. Transport information

	Brazil (ANTT)	IMDG	ΙΑΤΑ
UN number	UN1263	UN1263	UN1263
UN proper shipping name	PAINT	PAINT	PAINT
Transport hazard class(es)	3	3	3
Packing group		III	III
Environmental hazards	No.	No.	No.
Marine pollutant substances	Not applicable.	Not applicable.	Not applicable.

Additional information

Brazil	: None identified.
Risk number	: 30
IMDG	: This class 3 viscous liquid is not subject to regulation in packagings up to 450 L according to 2.3.2.5.
ΙΑΤΑ	: None identified.

Special precautions 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 according : Not applicable. to IMO instruments

Section 15. Regulatory information

Safety, health and environmental regulations specific for the product

: No known specific national and/or regional regulations applicable to this product (including its ingredients).

English	(US)	
Linghian		

7 June 2020

5.01

Section 16. Other information

<u>History</u>	
Date of previous issue	: 6/7/2020
Version	: 5.01
Prepared by	: EHS
Key to abbreviations	 ADN = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road ATE = Acute Toxicity Estimate BCF = Bioconcentration Factor GHS = Globally Harmonized System of Classification and Labelling of Chemicals IATA = International Air Transport Association 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) RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail UN = United Nations
References	: ABNT NBR 14725-4: 2014 ANTT - National Land Transportation Agency

Date of issue

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.