SAFETY DATA SHEET



Date of issue/Date of revision24 August 2016Version 7.01

Section 1. Identification	
Product name	: EVOLUTION PEARL BASE2 866502
Product code	: 00413621
Other means of identification	: Not available.
Product type	: Liquid.
Relevant identified uses o	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.
Manufacturer	: PPG Industries, Inc. One PPG Place Pittsburgh, PA 15272
Emergency telephone number	: (412) 434-4515 (U.S.) (514) 645-1320 (Canada) 01-800-00-21-400 (Mexico)

Technical Phone Number : 1-800-441-9695 (8:00 am to 5:00 pm EST)

Section 2. Hazards identification	
OSHA/HCS status	: This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
Classification of the substance or mixture	: CARCINOGENICITY - Category 2
	Percentage of the mixture consisting of ingredient(s) of unknown toxicity: 25.5%
GHS label elements	
Hazard pictograms	
Signal word	: Warning
Hazard statements	: Suspected of causing cancer.
Precautionary statements	

Product name EVOLUTION PEARL BASE2 866502

Section 2. Hazards identification

Prevention	: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves. Wear eye or face protection. Wear protective clothing.
Response	: IF exposed or concerned: Get medical attention. Photosensitive agents : In case of accidental eye contact, avoid concurrent exposure to the sun or other sources of UV light which may increase the sensitivity of the eyes. In case of accidental skin contact, avoid concurrent exposure to the sun or other sources of UV light which may increase the sensitivity of skin.
Storage	: Store locked up.
Disposal	 Dispose of contents and container in accordance with all local, regional, national and international regulations.
Supplemental label elements	: Emits toxic fumes when heated.
Hazards not otherwise classified	: None known.

Section 3. Composition/information on ingredients

Substance/mixture	1	Mixture
Product name	1	EVOLUTION PEARL BASE2 866502

Ingredient name	%	CAS number
titanium dioxide	≥5.0 - ≤10	13463-67-7

SUB codes represent substances without registered CAS Numbers.

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

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. In case of accidental eye contact, avoid concurrent exposure to the sun or other sources of UV light which may increase the sensitivity of the eyes.
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. In case of accidental skin contact, avoid concurrent exposure to the sun or other sources of UV light which may increase the sensitivity of skin.
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Section 4. First aid measures

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	<u>n effects</u>
Eye contact	: No known significant effects or critical hazards.
Inhalation	: No known significant effects or critical hazards.
Skin contact	: No known significant effects or critical hazards.
Ingestion	: No known significant effects or critical hazards.
Over-exposure signs	/symptoms
Eye contact	: No specific data.
Inhalation	: No specific data.
Skin contact	: No specific data.
Ingestion	: No specific data.

Indication of immediate me	dical attention and special treatment needed, if necessary
Notes to physician	 Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific treatments	: No specific treatment.
Protection of first-aiders	: No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media	
Suitable extinguishing media	: Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media	: None known.
Specific hazards arising from the chemical	: In a fire or if heated, a pressure increase will occur and the container may burst.
Hazardous thermal decomposition products	: Decomposition products may include the following materials: carbon dioxide carbon monoxide 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.
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.
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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. 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 containment and cleaning up

Small spill	: Stop leak if without risk. Move containers from spill area. 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. 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

Protective measures	: Put on appropriate personal protective equipment (see Section 8). 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 ingest. Avoid breathing vapor or mist. 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.
Special precautions	: 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.
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Section 7. Handling and storage

Conditions for safe storage,	: Do not store below the following temperature: 5°C (41°F). Store in accordance with
including any	local regulations. Store in original container protected from direct sunlight in a dry, cool
incompatibilities	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.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingre	dient name	Exposure limits		
titanium dioxide		OSHA PEL (United States, 2/2013). TWA: 15 mg/m ³ 8 hours. Form: Total dust ACGIH TLV (United States, 3/2015). TWA: 10 mg/m ³ 8 hours.		
	Key to abbreviatio	uns		
А	= Acceptable Maximum Peak	S = Potential skin absorption		
ACGIH	= American Conference of Governmental Industrial Hygienists.	SR = Respiratory sensitization		
С	= Ceiling Limit	SS = Skin sensitization		
F	= Fume	STEL = Short term Exposure limit values		
IPEL	 Internal Permissible Exposure Limit 	TD = Total dust		
OSHA	 Occupational Safety and Health Administration. 	TLV = Threshold Limit Value		

TWA

= Time Weighted Average

R = Respirable

Z = OSHA 29 CFR 1910.1200 Subpart Z - Toxic and Hazardous Substances

Consult local authorities for acceptable exposure limits.

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Eye/face protection	:	Safety glasses with side shields.
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. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
Individual protection meas		
Environmental exposure controls	:	airborne contaminants below any recommended or statutory limits. 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.
Appropriate engineering controls	:	If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to
Recommended monitorin procedures	J -	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 standard Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

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Section 8. Exposure controls/personal protection

Skin protection	
Hand protection	: Chemical- worn at all necessary during use

: 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 : polyethylene

Body protection	1	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.
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- 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

Appearance		
Physical state	1	Liquid.
Color	1	Various
Odor	1	Characteristic.
Odor threshold	1	Not available.
рН	1	9
Melting point	1	Not available.
Boiling point	1	100°C (212°F)
Flash point	1	Closed cup: Not applicable. [Product does not sustain combustion.]
Auto-ignition temperature	:	Not available.
Decomposition temperature	1	Not available.
Flammability (solid, gas)	1	Not available.
Lower and upper explosive (flammable) limits	:	Upper: 0%
Evaporation rate	:	0.05 (butyl acetate = 1)
Vapor pressure	:	3.3 kPa (25 mm Hg) [room temperature]
Vapor density	:	Not available.
Relative density	:	1.21
Density(lbs / gal)	1	10.1
Solubility	:	Partially soluble in the following materials: cold water.
Partition coefficient: n- octanol/water	:	Not available.
Viscosity	1	Kinematic (40°C (104°F)): >0.21 cm²/s (>21 cSt)

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Section 9. Physical and chemical properties

Volatility

: 69% (v/v), 56.933% (w/w)

% Solid. (w/w) : 43.067

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	: Decomposition products may include the following materials: carbon monoxide, carbon dioxide, smoke, oxides of nitrogen.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity **Product/ingredient name** Result **Species** Dose **Exposure** titanium dioxide LD50 Oral Rat >11 g/kg **Conclusion/Summary** : There are no data available on the mixture itself. Irritation/Corrosion **Conclusion/Summary** Skin : There are no data available on the mixture itself. **Eyes** : There are no data available on the mixture itself. : There are no data available on the mixture itself. Respiratory **Sensitization** Conclusion/Summary Skin : There are no data available on the mixture itself. : There are no data available on the mixture itself. Respiratory **Mutagenicity** : There are no data available on the mixture itself. **Conclusion/Summary Carcinogenicity Conclusion/Summary** : There are no data available on the mixture itself. **Classification**

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Section 11. Toxicological information

Product/ingredient name	OSHA	IARC	NTP				
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							
Conclusion/Summary	There are	e no data a	vailable on the mixture itself.				
<u>Feratogenicity</u>							
Conclusion/Summary	There are	e no data a	vailable on the mixture itself.				
Specific target organ toxicity	<u>(single ex</u>	<u>posure)</u>					
Not available.							
Specific target organ toxicity	(repeated	<u>exposure)</u>					
Not available.							
Target organs	Contains	material w	hich causes damage to the following organs: eyes. hich may cause damage to the following organs: lungs, upper n, stomach.				
Aspiration hazard							
Not available.							
formation on the likely route	s of expos	uro					
Potential acute health effects		uic					
		n significan	t effects or critical hazards.				
-		-	t effects or critical hazards.				
Skin contact		•	t effects or critical hazards.				
		•	t effects or critical hazards.				
Over-exposure signs/sympto	<u>ms</u>	Ū					
Eye contact	No speci	fic data.					
Inhalation	No speci	fic data.					
Skin contact	No speci	fic data.					
Ingestion	No speci	fic data.					
elayed and immediate effects	and also	<u>chronic eff</u>	ects from short and long term exposure				
Conclusion/Summary	have irrit membrar May caus droplets nausea, liquid ma known, d	ating prope ne may resu se allergic s or aerosols weakness a ny cause irri lelayed and m and long-	vailable on the mixture itself. Acrylate components of the mixture rties. Prolonged or repeated contact with skin or mucous ult in irritation symptoms, such as redness, blistering, dermatitis etc. skin reactions with repeated exposure. The inhalation of airborne may cause irritation of the respiratory tract. Ingestion may cause and central nervous system effects. If splashed in the eyes, the tation and reversible damage. This takes into account, where immediate effects and also chronic effects of components from term exposure by oral, inhalation and dermal routes of exposure				

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Section 11. Toxicological information

<u>Short term exposure</u>		
Potential immediate effects	:	There are no data available on the mixture itself.
Potential delayed effects	1	There are no data available on the mixture itself.
<u>Long term exposure</u>		
Potential immediate effects	:	There are no data available on the mixture itself.
Potential delayed effects	1	There are no data available on the mixture itself.
Potential chronic health effe	octs	<u>à</u>
General	1	No known significant effects or critical hazards.
Carcinogenicity	:	Suspected of causing cancer. Risk of cancer depends on duration and level of exposure.
Mutagenicity	1	No known significant effects or critical hazards.
Teratogenicity	1	No known significant effects or critical hazards.
Developmental effects	1	No known significant effects or critical hazards.
Fertility effects	1	No known significant effects or critical hazards.
Numerical measures of toxic	<u>ity</u>	
Acute toxicity estimates		
Not available.		

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
titanium dioxide	Acute LC50 >100 mg/l Fresh water	Daphnia - Daphnia magna	48 hours

Persistence and degradability

Not available.

Bioaccumulative potential

Not available.

Mobility in soil

Soil/water partition coefficient (Koc)

: Not available.

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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 non-recyclable 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 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.

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

14. Transport information

	DOT	IMDG	ΙΑΤΑ
UN number	Not regulated.	Not regulated.	Not regulated.
UN proper shipping name	-	-	-
Transport hazard class (es)	-	-	-
Packing group	-	-	-
Environmental hazards	No.	No.	No.
Marine pollutant substances	Not applicable.	Not applicable.	Not applicable.

Additional information

- DOT : None identified. IMDG : None identified.
- IATA : 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.

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Section 15. Regulatory information

United States

United States inventory (TSCA 8b) : All components are listed or exempted.

SARA 302/304

SARA 304 RQ : Not applicable.

Composition/information on ingredients

No products were found.

SARA 311/312

Classification : Delayed (chronic) health hazard

Composition/information on ingredients

Name	hazard	Sudden release of pressure		(acute) health	Delayed (chronic) health hazard
titanium dioxide	No.	No.	No.	No.	Yes.

Additional environmental information is contained on the Environmental Data Sheet for this product, which can be obtained from your PPG representative.

Section 16. Other information

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

Health : 1 * Flammability : 0 Physical hazards : 0

(*) - 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 are not required on MSDSs 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 mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

The customer is responsible for determining the PPE code for this material.

National Fire Protection Asso	ciation (U.S.A.)	
Health : 1 Flammab	pility : 0 Instability : 0	
Date of previous issue	: 5/1/2016	
Organization that prepared the MSDS	: 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 = International Air Transport Association IBC = 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) UN = United Nations	
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Indicates information that has changed from previously issued version.

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Section 16. Other information

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.