SAFETY DATA SHEET

SIGMADUR 550 BASE GREY 5177



Date of issue 8 October 2021

Version 6

1. Product and company identification

Product name	: SIGMADUR 550 BASE GREY 5177
Product code	: 00373864
Product type	: Liquid.

Relevant identified uses of the substance or mixture and uses advised against	
Product use	: Professional applications, Used by spraying.
Use of the substance/ mixture	: Coating.
Uses advised against	: Not applicable.
Supplier's details	: PPG PMC Japan Co., Ltd. 8F, Shintetsu Bldg., 1-1, Daikaidori 1-chome, Kobe 652-0803 Tel : +81 78 574 2777 Fax : +81 78 576 0035
Emergency telephone number	: 078 574 2777

2. Hazards identification

GHS Classification	
	: FLAMMABLE LIQUIDS - Category 3 SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A CARCINOGENICITY - Category 1A TOXIC TO REPRODUCTION - Category 1B SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 1 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 1 AQUATIC HAZARD (ACUTE) - Category 2 AQUATIC HAZARD (LONG-TERM) - Category 2
GHS label elements	
Hazard pictograms	
Signal word	: Danger

2. Hazards identification

	respiratory system)
	Causes damage to organs through prolonged or repeated exposure. (nervous system, respiratory system)
	Toxic to aquatic life with long lasting effects.
Precautionary statements	
Prevention	: Øbtain 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. Use only outdoors or in a well-ventilated area. Avoid release to the environment. Do not breathe vapor. Do not eat, drink or smoke when using this product. Wash thoroughly after handling.
Response	: Collect spillage. IF exposed or concerned: Call a POISON CENTER or doctor. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor if you feel unwell. 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 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. Store in a well-ventilated place. Keep container tightly closed.
Disposal	: Dispose of contents and container in accordance with all local, regional, national and international regulations.
Other hazards which do not	: Prolonged or repeated contact may dry skin and cause irritation.

Other hazards which do not result in classification

3. Composition/information on ingredients

Substance/mixture

: Mixture

CAS number/other identifiers

CAS number	
CSCL number	

: Not applicable. : Not available.

Ingredient name	%	CAS number	CSCL
X ylene	20 - <25	1330-20-7	3-3; 3-60
barium sulfate	15 - <20	7727-43-7	1-89
titanium dioxide (excluding nanoparticle)	12.5 - <15	13463-67-7	1-558; 5-5225
Butyl acetate	5 - <7	123-86-4	2-731
Talc (containing no asbestos or quartz)	3 - <5	14807-96-6	Not available.
ethyl benzene	3 - <5	100-41-4	3-28; 3-60
Reaction products of 12-hydroxyoctadecanoic acid and octadecanoic acid and 1,3-phenylenedimethanamine	0.5 - <1	911674-82-3	Not available.
carbon black animal or vegetable origin	0.2 - <0.5	1333-86-4	5-3328; 5-5222
bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate	0.2 - <0.5	41556-26-7	5-5501
Silica silicon dioxide containing crystalline and amorphous	0.1 - <0.2	7631-86-9	1-548
Toluene	0.1 - <0.2	108-88-3	3-2; 3-60

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.

4. First aid measures

Description of necess	ary 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.
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	5	
Eye contact	:	Causes serious eye irritation.
Inhalation	:	Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness.
Skin contact	:	Causes damage to organs following a single exposure in contact with skin. Causes skin irritation. Defatting to the skin.
Ingestion	:	Causes damage to organs following a single exposure if swallowed. Can cause central nervous system (CNS) depression.
Over-exposure signs/sympto	on	<u>15</u>
Eye contact	:	Adverse symptoms may include the following: pain or irritation watering redness
Inhalation	:	Adverse symptoms may include the following: nausea or vomiting headache drowsiness/fatigue dizziness/vertigo unconsciousness reduced fetal weight increase in fetal deaths skeletal malformations
Skin contact	:	Adverse symptoms may include the following: irritation redness dryness cracking reduced fetal weight increase in fetal deaths skeletal malformations
Ingestion	:	Adverse symptoms may include the following: reduced fetal weight increase in fetal deaths skeletal malformations
Indication of immediate medic	a	l 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.

4. First aid measures

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)

5. Fire-fighting m	easures
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 toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
Hazardous thermal decomposition products	: Decomposition products may include the following materials: carbon oxides 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.

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). Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage.

Methods and materials for containment and cleaning up

6. Accidental release measures

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.

7. Handling and storage

Precautions for safe handling	: Vut on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. 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. Avoid release to the environment. 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.
Conditions for safe storage	: 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.

8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
₩ylene titanium dioxide (excluding nanoparticle)	ISHL (Japan, 6/2020). TWA: 50 ppm 8 hours. Japan Society for Occupational Health (Japan, 5/2020). OEL-M: 50 ppm 8 hours. OEL-M: 217 mg/m ³ 8 hours. Japan Society for Occupational Health (Japan, 5/2020). OEL-M: 1 mg/m ³ 8 hours. Form: Respirable dust (Class 2 Dust) OEL-M: 4 mg/m ³ 8 hours. Form: Total dust
	Japan Page: 5/15

8. Exposure controls/personal protection

Butyl acetate Japan Society for Occupational Health (Japan, 5/220). Taic (containing no asbestos or quartz) DEL-M: 47 mg/m³ 8 hours. OEL-M: 475 mg/m³ 8 hours. Taic (containing no asbestos or quartz) Japan Society for Occupational Health (Japan, 5/220). Telk (containing no asbestos or quartz) Japan Society for Occupational Health (Japan, 5/220). oEL-M: 475 mg/m³ 8 hours. Form: Respirable dust (Class 1 Dust) oEL-M: 50 mg/m³ 8 hours. Form: Total dust (Class 1 Dust) ethyl benzene Japan Society for Occupational Health (Japan, 5/220). carbon black animal or vegetable origin Japan Society for Occupational Health (Japan, 5/220). Toluene Japan Society for Occupational Health (Japan, 5/220). TWA: 20 pm 8 hours. Form: Total dust (Class 2 Dust) oEL-M: 48 mg/m³ 8 hours. Form: Total dust (Class 2 Dust) oEL-M: 48 mg/m³ 8 hours. OEL-M: 48 mg/m³ 8 hours. oFfermet on biological monitoring may be required to determine the effectiveness atmasphere or biological monitoring may be required to determine the effectiveness atmasphere or biological monitoring may be required to determine thours or ther			(Class 2 Dust)
Take (containing no asbestos or quartz) TWA: 150 ppm 8 hours. Japan Society for Occupational Health (Japan, 5/2020). OEL-M: 0.5 mg/m² 8 hours. Form: Respirable dust (Class 1 Dust) ethyl benzene Japan Society for Occupational Health (Japan, 5/2020). carbon black animal or vegetable origin Japan Society for Occupational Health (Japan, 5/2020). carbon black animal or vegetable origin Japan Society for Occupational Health (Japan, 5/2020). Toluene DEL-M: 21 mg/m² 8 hours. OEL-M: 20 ppm 8 hours. Toluene DELM: 10 mg/m² 8 hours. OEL-M: 20 ppm 8 hours. Toluene DELM: 10 mg/m² 8 hours. OEL-M: 10 mg/m² 8 hours. OEL-M: 10 mg/m² 8 hours. OEL-M: 10 mg/m² 8 hours. OEL-M: 10 mg/m² 8 hours. Form: Total dust (Class 2 Dust) Recommended monitoring procedures : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required. Appropriate engineering controls : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to aibonne do keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation ro work process equipment should be checked to ensure they com	Butyl acetate		(Japan, 5/2020). OEL-M: 475 mg/m ³ 8 hours. OEL-M: 100 ppm 8 hours.
ethyl benzene OEL-M: 2 mg/m ² 8 hours. Form: Total dust (Class 1 Dust) Japan Society for Occupational Health (Japan, 5/2020). OEL-M: 50 pom 8 hours. OEL-M: 50 pom 8 hours. OEL-M: 50 pom 8 hours. OEL-M: 20 pom 8 hours. Japan Society for Occupational Health (Japan, 5/2020). carbon black animal or vegetable origin Japan Society for Occupational Health (Japan, 5/2020). Toluene Japan Society for Occupational Health (Japan, 5/2020). Toluene Japan Society for Occupational Health (Japan, 5/2020). Recommended monitoring : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required. 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 gay, suppor of ventilation equipment. Environmental exposure controls : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep of environmental protection legistaton. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.	Talc (containing no asbestos o	or quartz)	TWA: 150 ppm 8 hours. Japan Society for Occupational Health (Japan, 5/2020). OEL-M: 0.5 mg/m ³ 8 hours. Form:
carbon black animal or vegetable origin ^o EL-M: 217 mg/m ² 8 hours. OEL-M: 20 ppm 8 hours. Japan Society for Occupational Health (Japan, 6/2020). TWA: 20 ppm 8 hours. Japan Society for Occupational Health (Japan, 5/2020). OEL-M: 1 mg/m ² 8 hours. Form: Respirable dust (Class 2 Dust) OEL-M: 1 mg/m ² 8 hours. OEL-M: 10 ppm 8 hours. IstH. (Japan, 6/2020). TWA: 20 ppm 8 hours. OEL-M: 10 ppm 8 hours. OEL-M: 10 ppm 8 hours. IstH. (Mapan, 6/2020). TWA: 20 ppm 8 hours. IstH. (Mapan, 6/2020). TWA: 20 ppm 8 hours. OEL-M: 10 ppm 8 hours. OEL-M: 10 ppm 8 hours. OEL-M: 10 ppm 8 hours. Istendrage. Appropriate engineering controls	ethyl benzene		OEL-M: 2 mg/m ³ 8 hours. Form: Total dust (Class 1 Dust) Japan Society for Occupational Health
carbon black animal or vegetable origin Japan Society for Occupational Health (Japan, 5/2020). Toluene OEL.M: 1 mg/m³ 8 hours. Form: Respirable dust (Class 2 Dust) OEL.M: 4 mg/m³ 8 hours. Form: Total dust (Class 2 Dust) Toluene Japan Society for Occupational Health (Japan, 5/2020). Absorbed through skin. OEL.M: 188 mg/m³ 8 hours. ISHL (Japan, 6/2020). Recommended monitoring procedures : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required. 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 vertilation 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 measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating,			OEL-M: 217 mg/m ³ 8 hours. OEL-M: 50 ppm 8 hours. ISHL (Japan, 6/2020).
Toluene Japan Society for Occupational Health (Japan, 5/2020). Absorbed through skin. OEL-M: 188 mg/m³ 8 hours. OEL-M: 50 ppm 8 hours. ISHL (Japan, 6/2020). TWA 20 ppm 8 hours. Recommended monitoring procedures : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required. 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 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 loc	carbon black animal or vegeta	able origin	Japan Society for Occupational Health (Japan, 5/2020). OEL-M: 1 mg/m ³ 8 hours. Form: Respirable dust (Class 2 Dust) OEL-M: 4 mg/m ³ 8 hours. Form: Total dust
proceduresatmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.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 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 measures 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.	Toluene		Japan Society for Occupational Health (Japan, 5/2020). Absorbed through skin. OEL-M: 188 mg/m ³ 8 hours. OEL-M: 50 ppm 8 hours. ISHL (Japan, 6/2020).
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8. Exposure controls/personal protection

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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	: For prolonged or repeated handling, use the following type of gloves:
	Recommended: neoprene, natural rubber (latex), polyvinyl alcohol (PVA), Viton® May be used: butyl rubber Not recommended: nitrile 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.

9. Physical and chemical properties

<u>Appearance</u>	
Physical state	: Liquid.
Color	: Gray.
Boiling point	: >37.78°C (>100°F)
Flash point	: Closed cup: 24°C (75.2°F)
Relative density	: 1.34
Solubility	: Insoluble in the following materials: cold water.
Viscosity	: Not Applicable

10. Stability and reactivity		
: No specific test data related to reactivity available for this product or its ingredients.		
: The product is stable.		
: Under normal conditions of storage and use, hazardous reactions will not occur.		
: When exposed to high temperatures may produce hazardous decomposition products.		

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Product name SIGMADUR 5	50 BASE GREY 5177		
10. Stability and r	eactivity		
Incompatible materials	: Keep away from the follow oxidizing agents, strong a	wing materials to prevent strong exother Ikalis, strong acids.	mic reactions:
Hazardous decomposition products		decomposition products may include th sulfur oxides metal oxide/oxides	e following

Information on toxicological effects

Acute toxicity

products

Product/ingredient name	Result	Species	Dose	Exposure
X ylene	LD50 Dermal	Rabbit	1.7 g/kg	-
	LD50 Oral	Rat	4.3 g/kg	-
barium sulfate	LD50 Dermal	Rat	>2000 mg/kg	-
	LD50 Oral	Rat	>5000 mg/kg	-
titanium dioxide (excluding nanoparticle)	LC50 Inhalation Dusts and mists	Rat	>6.82 mg/l	4 hours
	LD50 Dermal	Rabbit	>5000 mg/kg	-
	LD50 Oral	Rat	>5000 mg/kg	-
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	-
ethyl benzene	LC50 Inhalation Vapor	Rat	17.8 mg/l	4 hours
-	LD50 Dermal	Rabbit	17.8 g/kg	-
	LD50 Oral	Rat	3.5 g/kg	-
Reaction products of 12-hydroxyoctadecanoic acid and octadecanoic acid and	LC50 Inhalation Dusts and mists	Rat	>5.08 mg/l	4 hours
1,3-phenylenedimethanamine				
carbon black animal or vegetable origin	LD50 Oral	Rat	>10 g/kg	-
bis(1,2,2,6,6-pentamethyl- 4-piperidyl) sebacate	LD50 Oral	Rat	3.125 g/kg	-
Silica silicon dioxide containing crystalline and amorphous	LD50 Dermal	Rabbit	>5000 mg/kg	-
	LD50 Oral	Rat - Male, Female	>5000 mg/kg	-
Toluene	LC50 Inhalation Vapor	Rat	49 g/m³	4 hours
	LD50 Dermal	Rabbit	8.39 g/kg	-
	LD50 Oral	Rat	5580 mg/kg	-

Product/ingredient name Result **Species** Score Exposure **Observation** Skin - Moderate irritant Rabbit 24 hours 500 Xylene mg

Sensitization

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
▼ ylene	Category 1	-	central nervous system (CNS), kidneys, liver, respiratory system
	Category 3		Narcotic effects
Butyl acetate	Category 3	-	Respiratory tract irritation
	Category 3		Narcotic effects
Talc (containing no asbestos or quartz)	Category 1	-	respiratory system
ethyl benzene	Category 3	-	Respiratory tract irritation
	Category 3		Narcotic effects
Silica silicon dioxide containing crystalline and amorphous	Category 3	-	Respiratory tract irritation
Toluene	Category 1	-	central nervous system (CNS)
	Category 3		Respiratory tract irritation
	Category 3		Narcotic effects

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
X ylene	Category 1	-	nervous system, respiratory system
barium sulfate	Category 1	-	respiratory system
titanium dioxide (excluding nanoparticle)	Category 1	-	respiratory system
Talc (containing no asbestos or quartz)	Category 1	-	respiratory system
ethyl benzene	Category 2	-	hearing organs
carbon black animal or vegetable origin	Category 1	-	respiratory system
Silica silicon dioxide containing crystalline and amorphous	Category 1	-	immune system, kidneys, respiratory system
Toluene	Category 1	-	central nervous system (CNS), kidneys

Aspiration hazard

Name	Result
Xylene	ASPIRATION HAZARD - Category 1
ethyl benzene	ASPIRATION HAZARD - Category 1
Toluene	ASPIRATION HAZARD - Category 1

Information on the likely : Not available.

routes of exposure

Potential acute health effects

Eye contact

: Causes serious eye irritation.

Inhalation	 Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness.
Skin contact	: Causes damage to organs following a single exposure in contact with skin. Causes skin irritation. Defatting to the skin.
Ingestion	: Causes damage to organs following a single exposure if swallowed. Can cause central nervous system (CNS) depression.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact	:	Adverse symptoms may include the following: pain or irritation watering redness
Inhalation	:	Adverse symptoms may include the following: nausea or vomiting headache drowsiness/fatigue dizziness/vertigo unconsciousness reduced fetal weight increase in fetal deaths skeletal malformations
Skin contact	:	Adverse symptoms may include the following: irritation redness dryness cracking reduced fetal weight increase in fetal deaths skeletal malformations
Ingestion	:	Adverse symptoms may include the following: reduced fetal weight increase in fetal deaths skeletal malformations

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

<u>Short term exposure</u>		
Potential immediate effects	Not available.	
Potential delayed effects	Not available.	
Long term exposure		
Potential immediate effects	Not available.	
Potential delayed effects	Not available.	
Potential chronic health eff	is a second s	
General	Causes damage to organs through prolonged or repeated exposure. Prolonged repeated contact can defat the skin and lead to irritation, cracking and/or dermat	
Carcinogenicity	May cause cancer. Risk of cancer depends on duration and level of exposure.	
Mutagenicity	No known significant effects or critical hazards.	
Reproductive toxicity	May damage fertility or the unborn child.	

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)
SIGMADUR 550 BASE GREY 5177	N/A	4739.7	N/A	41.7	N/A
Xylene	4300	1700	N/A	11	N/A
barium sulfate	N/A	2500	N/A	N/A	N/A
Butyl acetate	10768	N/A	N/A	N/A	N/A
ethyl benzene	3500	17800	N/A	17.8	N/A
bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate	3125	N/A	N/A	N/A	N/A
Toluene	5580	8390	N/A	11	N/A

Other information

Prolonged or repeated contact may dry skin and cause irritation. Sanding and grinding dusts may be harmful if inhaled. 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.

12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
International dioxide (excluding nanoparticle)	Acute LC50 >100 mg/l Fresh water	Daphnia - Daphnia magna	48 hours
Butyl acetate	Acute LC50 18 mg/l	Fish	96 hours
ethyl benzene	Acute EC50 1.8 mg/l Fresh water	Daphnia	48 hours
	Chronic NOEC 1 mg/l Fresh water	Daphnia - Ceriodaphnia dubia	-
Reaction products of	Acute LC50 >100 mg/l	Fish	96 hours
12-hydroxyoctadecanoic			
acid and octadecanoic acid			
and			
1,3-phenylenedimethanamine			
Silica silicon dioxide containing crystalline and	Acute LC50 >10000 mg/l	Fish	96 hours
amorphous			

Persistence/degradability

Product/ingredient name	Test	Result		Dose		Inoculum
Butyl acetate	TEPA and OECD 301D	83 % - Readily - 28 days		-		-
ethyl benzene	-	79 % - Readily - 10 days		-		-
Product/ingredient name	Aquatic half-life		Photolysis		Biodeg	radability
₩ylene Butyl acetate ethyl benzene Toluene	- - - -		- - - -		Readily Readily Readily Readily	/ /

Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
X ylene	3.12	7.4 to 18.5	low
Butyl acetate	2.3	-	low
ethyl benzene	3.6	79.43	low
Toluene	2.73	8.32	low

<u>Mobility in soil</u>	
Soil/water partition coefficient (Koc)	: Not available.
Mobility	: Not available.
Other adverse effects	: No known significant effects or critical hazards.

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. 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
	internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

14. Transport information

	UN	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

UN	: None identified.
IMDG	: None identified.
ΙΑΤΑ	: None identified.

14. Transport information

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

15. Regulatory information

Fire Service Law

Category	Substance name/Type	Danger category	Signal word	Designated quantity
Category IV	Class II petroleums	III	Flammable - Keep Fire Away	1000 L

Pollutant Release and Transfer Registers (PRTR)

Ingredient name	%	Status	Reference number
	23.751	Class 1	80
	4.2384	Class 1	53

ISHL

Use of specified chemical substances

Ingredient name	%	Status	Reference number
Ethyl benzene		Group-2 Substances under Supervision	3-3

Substances requiring labelling

Ingredient name	%	Status	Reference number
	≥10 - ≤25	Listed	136
	≥10 - ≤25	Listed	191
	≤10	Listed	181
	≤5.0	Listed	70
	≤0.30	Listed	165-2

Chemicals requiring notification

Ingredient name	%	Status	Reference number
X ylene	≥10 - ≤25	Listed	136
Titanium(IV) oxide	≥10 - ≤25	Listed	191
Butyl acetate	≤10	Listed	181
Ethylbenzene	≤5.0	Listed	70
Carbon black	≤1.0	Listed	130
Crystalline silica	≤0.30	Listed	165-2
Toluene	<0.30	Listed	407

Carcinogen

Ingredient name	%		Reference number
ethylbenzene	≤5.0	Listed	-

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Product name SIGMADUR 550 BASE GRET 51

15. Regulatory information

<u>Mutagen</u>

None of the components are listed.

Corrosive liquid	: Not listed
Occupational Safety and Health Law	: Flammable liquid Class 3
Regulations on the Prevention of Tetraalkyl Lead Poisoning	: Not listed
Harmful Substances Subject to Obtaining Permission for Manufacturing	: Not listed
Harmful Substances, Prohibited for Manufacturing	: Not listed
Dangerous Substances	: Inflammable
Lead regulation	: Not listed
Organic solvents poisoning prevention	: Class 2

Poisonous and Deleterious Substances

None of the components are listed.

Chemical Substances Control Law (CSCL)

Ingredient name	%	Status	Reference number
X ylene	23.751	Priority assessment	125
Ethylbenzene	4.2384	Priority assessment	50
Toluene	0.1124	Priority assessment	46
1-Butanol	0.0156	Priority assessment	124
Benzene	0.0042175	Priority assessment	45
2-Butoxyethanol	0.002	Priority assessment	109
Cumene	0.0013649	Priority assessment	126
2,2,4,4,6,6,8,8-Octamethyl-	0.00018	Monitoring	40
1,3,5,7,2,4,6,8-tetraoxatetrasilocane;		_	
Octamethylcyclotetrasiloxane			
Methanol	0.00000019102	Priority assessment	90
Acetaldehyde	0.0000019	Priority assessment	26
Formaldehyde	0.0000014	Priority assessment	25
Ethylene oxide; Oxirane	0.0000014	Priority assessment	19
1,4-Dioxane	0.0000008	Priority assessment	80
Chloromethane; Methyl chloride	0.0000008	Priority assessment	6
2,6-Di-tert-butyl-4-methylphenol	0.0000002115	Priority assessment	64

High Pressure Gas Control : Not available. Law

Explosives Control Law

None of the components are listed.

Law Concerning Prevention : Not available. of Pollution of the Ocean and Maritime Disaster

15. Regulatory information

Maritime Safety Law

Notification Regulating Transportation of Dangerous Materials by Sea

None of the components are listed.

Container class

None of the components are listed.

JSOH Carcinogen	: Group 1
List of Specially Controlled Industrial Waste	: Not listed
Japan inventory	: All components are listed or exempted.
Road law	: Not available.

16. Other information

<u>History</u>	
Date of issue/Date of revision	: 8 October 2021
Date of previous issue	: 12/24/2020
Version	: 6
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

V Indicates information that has changed from previously issued version.

Notice to reader

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.