SAFETY DATA SHEET



Date of issue/Date of revision15 January 2025Version 5.04

Section 1. Identification		
Product code	: 00328640	
Product name	: SIGMADUR 550 BASE RAL 1014	
Product type	: Liquid.	
Relevant identified uses o	f the substance or mixture and uses advised against	
Product use	Coating. Professional applications, Used by spraying.	
Supplier's details	: PPG Industries (Singapore) Pte. Ltd., No. 1 Tuas Basin Close, Singapore 638803. Tel +65 68653737	
Emergency telephone number (with hours of operation)	: CHEMTREC +(65)-31581349 (CCN 17704)	

Section 2. Hazards identification

Classification of the substance or mixture	: FLAMMABLE LIQUIDS - Category 3 ACUTE TOXICITY (inhalation) - Category 4 SKIN CORROSION/IRRITATION - Category 2 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A SKIN SENSITIZATION - Category 1 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract
	irritation) - Category 3

GHS label elements, including precautionary statements

2

Hazard pictograms

Signal word	: Warning
Hazard statements	 Flammable liquid and vapor. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation. Harmful if inhaled. May cause respiratory irritation.
Precautionary statements	

Product name SIGMADUR 550 BASE RAL 1014

Section 2. Hazards identification

Prevention	 Wear protective gloves. Wear eye or face protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Avoid breathing vapor. Wash thoroughly after handling.
Response	FINHALED: Call a POISON CENTER or doctor if you feel unwell. IF ON SKIN: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice or attention. Take off contaminated clothing and wash it before reuse. 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 in a well-ventilated place. Keep container tightly closed.
Disposal	: Not applicable.

Other hazards which do not : Prolonged or repeated contact may dry skin and cause irritation.

result in classification

Section 3. Composition/information on ingredients

Substance/mixture	11	Mixture
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CAS number/other identifiers

CAS number: Not applicable.EC number: Mixture.		
Ingredient name	%	CAS number
x ylene	20 - <25	1330-20-7
n-butyl acetate	5 - <10	123-86-4
ethylbenzene	3 - <5	100-41-4
Talc, not containing asbestiform fibres	1 - <3	14807-96-6
Octadecanamide, N,N'-1,6-hexanediylbis[12-hydroxy	/- 1 - <3	55349-01-4
bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate	0.1 - <0.3	41556-26-7

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 measuresEye 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.

Singapore	English (US)	Page: 2/13
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Section 4. First aid measures

Most important symptoms/	ffects, acute and delayed	
Potential acute health effe	<u>cts</u>	
Eye contact	: Causes serious eye irritation.	
Inhalation	: Harmful if inhaled. May cause respiratory irritation.	
Skin contact	: Causes skin irritation. Defatting to the skin. May cause an allergic skin reaction.	
Ingestion	: No known significant effects or critical hazards.	
Over-exposure signs/sym	<u>otoms</u>	
Eye contact	: Adverse symptoms may include the following: pain or irritation watering redness	
Inhalation	: Adverse symptoms may include the following: respiratory tract irritation coughing	
Skin contact	: Adverse symptoms may include the following: irritation redness dryness cracking	
Ingestion	: No specific data.	
Indication of immediate medical attention and special treatment needed, if necessary		
Notes to physician	: In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.	
Specific treatments	: No specific treatment.	
Protection of first-aiders	: No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.	

See toxicological information (Section 11)

Section 5. Fire-fighting measures

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

Singapore	English (US)	Page: 3/13
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Product name SIGMADUR 550 BASE RAL 1014

Section 5. Fire-fighting measures

Hazardous thermal decomposition products	: Decomposition products may include the following materials: carbon oxides nitrogen 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

For non-emergency personnel	: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
For emergency responders	: If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
Environmental precautions	: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
Methods and materials for co	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. 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.

Section 7. Handling and storage

Precautions for safe handling

Protective measures	: Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. 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 only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.
Advice on general occupational hygiene	: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
Conditions for safe storage, including any incompatibilities	: 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

Ingredient name	Exposure limits		
xylene	Workplace Safety and Health Act (Singapore, 2/2006) [Xylene] PEL (long term) 8 hours: 100 ppm. PEL (long term) 8 hours: 434 mg/m ³ . PEL (short term) 15 minutes: 651 mg/m ³ . PEL (short term) 15 minutes: 150 ppm.		
n-butyl acetate	Workplace Safety and Health Act (Singapore, 2/2006) PEL (long term) 8 hours: 150 ppm. PEL (long term) 8 hours: 713 mg/m ³ . PEL (short term) 15 minutes: 950 mg/m ³ . PEL (short term) 15 minutes: 200 ppm.		
ethylbenzene	Workplace Safety and Health Act (Singapore, 2/2006)		
Singapore English (US) Page: 5/13			

6/13

Section 8. Exposure controls/personal protection

Talc , not containing asbestif	PEL (long term) 8 hours: 100 ppm. PEL (long term) 8 hours: 434 mg/m³. PEL (short term) 15 minutes: 543 mg/ PEL (short term) 15 minutes: 125 ppnfibresWorkplace Safety and Health Act (Singapore, 2/2006) PEL (long term) 8 hours: 2 mg/m³.			
Recommended monitoring procedures	Reference should be made to appropriate monitoring standards. Reference to ational guidance documents for methods for the determination of hazardous ubstances 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 imits. Use explosion-proof ventilation equipment.			
Environmental exposure controls	Emissions from ventilation or work process equipment should be checked to e they comply with the requirements of environmental protection legislation. In cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.			
Individual protection measur				
Hygiene measures	Wash hands, forearms and face thoroughly after handling chemical products, eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated cle Contaminated work clothing should not be allowed out of the workplace. Was contaminated clothing before reusing. Ensure that eyewash stations and safe showers are close to the workstation location.	othing. sh		
Eye/face protection	Chemical splash goggles.			
Skin protection				
Hand protection	Chemical-resistant, impervious gloves complying with an approved standard so be worn at all times when handling chemical products if a risk assessment inco- this is necessary. Considering the parameters specified by the glove manufact check during use that the gloves are still retaining their protective properties. 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 several substances, the protection time of the gloves cannot be accurately estimated.	dicates cturer, It		
Gloves	butyl rubber			
Body protection	Personal protective equipment for the body should be selected based on the t being performed and the risks involved and should be approved by a specialis before handling this product. When there is a risk of ignition from static electr wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.	st		
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 approved by a specialist before handling this product.	d be		

Singa	oore English (US)	Page: 0
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Product name SIGMADUR 550 BASE RAL 1014

Section 8. Exposure controls/personal protection

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.
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Section 9. Physical and chemical properties

<u>Appearance</u>		
Physical state	Liquid.	
Color	Yellow.	
рН	insoluble in water.	
Boiling point	>37.78°C (>100°F)	
Flash point	Closed cup: 34°C (93.2°F)	
Evaporation rate	Not available.	
Flammability (solid, gas)	liquid	
Vapor pressure	Not available.	
Vapor density		
Relative density	1.38	
Solubility(ies)	Media Result	
Solubility(ies)	cold water Not soluble	
Auto-ignition temperature	Not available.	I
Viscosity	Øynamic (room temperature): Not available. Kinematic (room temperature): Not available. Kinematic (40°C (104°F)): >21 mm²/s (>21 cSt)	

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.
Incompatible materials	: Keep away from the following materials to prevent strong exothermic reactions: oxidizing agents, strong alkalis, strong acids.
Hazardous decomposition products	: Depending on conditions, decomposition products may include the following materials: carbon oxides nitrogen oxides sulfur oxides metal oxide/oxides

Singapore	English (US)	Page: 7/13
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Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
xylene	LD50 Dermal	Rabbit	1.7 g/kg	-
	LD50 Oral	Rat	4.3 g/kg	-
n-butyl acetate	LC50 Inhalation Vapor	Rat	>21.1 mg/l	4 hours
-	LC50 Inhalation Vapor	Rat	2000 ppm	4 hours
	LD50 Dermal	Rabbit	>17600 mg/kg	-
	LD50 Oral	Rat	10.768 g/kg	-
ethylbenzene	LC50 Inhalation Vapor	Rat	17.8 mg/l	4 hours
-	LD50 Dermal	Rabbit	17.8 g/kg	-
	LD50 Oral	Rat	3.5 g/kg	-
bis(1,2,2,6,6-pentamethyl- 4-piperidyl) sebacate	LD50 Oral	Rat	3.125 g/kg	-

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

Irritation/Corrosion

Product/ingredient name	9	Result	Species	Score	Exposure	Observation
x ylene		Skin - Moderate irritant	Rabbit	-	24 hours 500 mg	-
Conclusion/Summary						•
Skin	:	There are no data available	on the mixtur	e itself.		
Eyes	1	There are no data available	on the mixtur	e itself.		
Respiratory	:	There are no data available	on the mixtur	e itself.		
Sensitization						
Conclusion/Summary						
Skin	:	There are no data available	on the mixtur	e itself.		
Respiratory	:	There are no data available	on the mixtur	e itself.		
Mutagenicity						
Conclusion/Summary	:	There are no data available	on the mixtu	re itself.		
Carcinogenicity						
Conclusion/Summary	:	There are no data available	e on the mixtu	re itself.		
Reproductive toxicity						
Conclusion/Summary	:	There are no data available	e on the mixtu	re itself.		
Teratogenicity						
Conclusion/Summary	:	There are no data available	e on the mixtu	re itself.		
Specific target organ toxi	<u>cit</u>	<u>y (single exposure)</u>				

Section 11. Toxicological information

Name	Category	Route of exposure	Target organs
xylene	Category 3	-	Respiratory tract irritation
n-butyl acetate Talc , not containing asbestiform fibres	Category 3 Category 3	-	Narcotic effects Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Name		Route of exposure	Target organs
ethylbenzene	Category 2	-	hearing organs

Aspiration hazard

Name	Result
	ASPIRATION HAZARD - Category 1 ASPIRATION HAZARD - Category 1

Information on the likely routes of exposure	: Not available.
Potential acute health effects	<u>5</u>
Eye contact	: Causes serious eye irritation.
Inhalation	: Harmful if inhaled. May cause respiratory irritation.
Skin contact	: 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 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: respiratory tract irritation coughing	
Skin contact	: Adverse symptoms may include the following: irritation redness dryness cracking	
Ingestion	: No specific data.	

<u>Delayed and immediate effects and also chronic effects from short and long term exposure</u> <u>Short term exposure</u>

Singapore	English (US)	Page: 9/13
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Section 11. Toxicological information

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	ects
General	 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	: No known significant effects or critical hazards.
Mutagenicity	: No known significant effects or critical hazards.
Reproductive toxicity	: No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Øermal	5904.18 mg/kg
Inhalation (vapors)	35.01 mg/l
Inhalation (dusts and mists)	4.5 mg/l

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.

Section 12. Ecological information

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Toxicity

Product/ingredient name	Result	Species	Exposure
n -butyl acetate	Acute LC50 18 mg/l	Fish	96 hours
ethylbenzene	Acute EC50 1.8 mg/l Fresh water	Daphnia Daphnia	48 hours
	Chronic NOEC 1 mg/l Fresh water	Daphnia - Ceriodaphnia dubia	-

Conclusion/Summary :

: There are no data available on the mixture itself.

Persistence/degradability

Singapore	English (US)	Page: 10/13
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Section 12. Ecological information

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Product/ingredient name	Test	Result	Dose	Inoculum
-butyl acetate	TEPA and OECD 301D	83 % - Readily - 28 days	-	-
ethylbenzene	-	79 % - Readily - 10 days	-	-
Conclusion/Summary : There are no data available on the mixture itself.				
Product/ingredient name	Aquatic half-lif	ie Phot	olysis	Biodegradability

Product/ingredient name	Aquatic nait-life	Photolysis	Biodegradability
xylene	-	-	Readily
n-butyl acetate	-	-	Readily
ethylbenzene	-	-	Readily

Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
₩ylene	3.12	7.4 to 18.5	Low
n-butyl acetate	2.3	-	Low
ethylbenzene	3.6	79.43	Low

Mobility in soil

Soil/water partition	: Not available.
coefficient (Koc)	

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 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, waterways, drains and sewers.

Section 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	II
Environmental hazards	No.	No.	No.
Marine pollutant substances	Not applicable.	Not applicable.	Not applicable.

Additional information

UN	: 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.

Transport in bulk according : Not applicable. to IMO instruments

Section 15. Regulatory information

Singapore - hazardous chemicals under government control

None.

International regulations

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants Not listed.

Section 16. Other information

<u>History</u>	
Date of issue/Date of revision	: 15 January 2025
Date of previous issue	: 2/5/2024
Version	: 5.04
Prepared by	: EHS
Key to abbreviations	 ATE = Acute Toxicity Estimate BCF = Bioconcentration Factor GHS = Globally Harmonized System of Classification and Labelling of Chemicals IATA = International Air Transport Association IBC = Internediate Bulk Container IMDG = International Maritime Dangerous Goods LogPow = logarithm of the octanol/water partition coefficient MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution) UN = United Nations

✓ 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.