SAFETY DATA SHEET

SIGMADUR 540 BASE BASE Z



Date of issue 20 April 2025

Version 1

1. Product and company identification

Product name : SIGMADUR 540 BASE BASE Z

Product code : 000010024281
Other means of : 00445264
identification

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 Japan; Tel: +81-78-574-2777

Emergency telephone

number

: 078 574 2777

2. Hazards identification

GHS Classification : FLAMMABLE LIQUIDS - Category 3

SKIN IRRITATION - Category 2 SERIOUS EYE DAMAGE - Category 1 SKIN SENSITIZATION - Category 1

CARCINOGENICITY - Category 1
CARCINOGENICITY - Category 2
TOXIC TO REPRODUCTION - Category 1B

SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 2 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract

irritation) - Category 3

SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) -

Category 3

SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 1 HAZARDOUS TO THE AQUATIC ENVIRONMENT - ACUTE HAZARD - Category 2

HAZARDOUS TO THE AQUATIC ENVIRONMENT - CHRONIC HAZARD -

Category 3

GHS label elements

Hazard pictograms









Signal word : Danger

Japan Page: 1/17

2. Hazards identification

Hazard statements

: Flammable liquid and vapor.

Causes skin irritation.

May cause an allergic skin reaction.

Causes serious eye damage. May cause respiratory irritation.

May cause drowsiness or dizziness.

Suspected of causing cancer.

May damage fertility or the unborn child.

May cause damage to organs. (central nervous system (CNS), kidneys, liver,

respiratory organs)

Causes damage to organs through prolonged or repeated exposure. (central nervous system (CNS), hearing organs, nervous system, respiratory organs)

Toxic to aquatic life.

Harmful to aquatic life with long lasting effects.

Precautionary statements

Prevention

: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves, protective clothing and eye or face protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. 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. Contaminated work clothing should not be allowed out of the workplace.

Response

: 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 skin irritation or rash occurs: Get medical advice or attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor.

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.

and internation

Other hazards which do not result in classification

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

3. Composition/information on ingredients

Substance/mixture : Mixture

CAS number/other identifiers

CAS number : Not applicable.
CSCL number : Not available.

Ingredient name	%	CAS number	CSCL
barium sulfate	20 - <25	7727-43-7	1-89
Butyl acetate	10 - <12.5	123-86-4	2-731
Xylene	7 - <10	1330-20-7	3-3; 3-60
isobutyl alcohol	3 - <5	78-83-1	2-3049
Dimethyl glutarate	3 - <5	1119-40-0	2-857; 2-925
Solvent naphtha (petroleum), light aromatic	3 - <5	64742-95-6	Not available.
Ethyl Benzene	2 - <3	100-41-4	3-28; 3-60
1,2,4-Trimethylbenzene	2 - <3	95-63-6	3-3427; 3-7
Propylene glycol monomethyl ether acetate	1 - <2	108-65-6	2-3144
3-ethyltoluene	1 - <2	620-14-4	3-15
Dimethyl succinate	1 - <2	106-65-0	2-848

Japan Page: 2/17

3. Composition/information on ingredients

bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate	0.2 - <0.5	41556-26-7	5-5501
n-Butyl acrylate	0.2 - < 0.5	141-32-2	2-989
Hexanoic acid, 2-ethyl-, zinc salt, basic	0.2 - < 0.5	85203-81-2	2-615
Toluene	0.1 - <0.2	108-88-3	3-2; 3-60
methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	0.1 - <0.2	82919-37-7	5-5593

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 necessary first aid measures

Eye contact: Check for and remove any contact lenses. Immediately flush eyes with running

water for at least 15 minutes, keeping eyelids open. Seek immediate medical

attention.

Inhalation: Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is

irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by

trained personnel.

Skin contact: Remove contaminated clothing and shoes. Wash skin thoroughly with soap and

water or use recognized skin cleanser. Do NOT use solvents or thinners.

Ingestion: If swallowed, seek medical advice immediately and show this container or label.

Keep person warm and at rest. Do NOT induce vomiting.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : Causes serious eye damage.

Inhalation : Can cause central nervous system (CNS) depression. May cause drowsiness or

dizziness. May cause respiratory irritation.

Skin contact: May cause damage to organs following a single exposure in contact with skin.

Causes skin irritation. Defatting to the skin. May cause an allergic skin reaction.

Ingestion: May cause damage to organs following a single exposure if swallowed. Can cause

central nervous system (CNS) depression.

Over-exposure signs/symptoms

Eye contact: Adverse symptoms may include the following:

pain watering redness

Inhalation : Adverse symptoms may include the following:

respiratory tract irritation

coughing

nausea or vomiting

headache

drowsiness/fatigue dizziness/vertigo unconsciousness reduced fetal weight increase in fetal deaths skeletal malformations

Japan Page: 3/17

Product code 000010024281

Date of issue 20 April 2025

Version 1

Product name SIGMADUR 540 BASE BASE Z

4. First aid measures

Skin contact

: Adverse symptoms may include the following:

pain or irritation

redness dryness cracking

blistering may occur reduced fetal weight increase in fetal deaths skeletal malformations

Ingestion

: Adverse symptoms may include the following:

stomach pains reduced fetal weight increase in fetal deaths skeletal malformations

Indication of immediate medical 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. 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 measures

Extinguishing media

Suitable extinguishing

media

: Use dry chemical, CO₂, 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. This material is harmful to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

Hazardous thermal decomposition products

: Decomposition products may include the following materials:

carbon oxides sulfur oxides metal oxide/oxides

Special protective actions for fire-fighters

: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

Special protective equipment for fire-fighters

: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Japan Page: 4/17

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. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders: If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities.

Methods and materials for containment 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 noncombustible, 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

: Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Avoid exposure - obtain special instructions before use. 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.

> Japan Page: 5/17

7. Handling and storage

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

n-butyl acetate

xylene

2-methylpropan-1-ol

ethylbenzene

1,2,4-trimethylbenzene

n-butyl acrylate

Japan Society for Occupational Health (Japan, 5/2023)

OEL-M 8 hours: 100 ppm. OEL-M 8 hours: 475 mg/m³.

Industrial Safety and Health Act (Japan, 6/2020)

TWA 8 hours: 150 ppm.

Japan Society for Occupational Health

(Japan, 5/2023)

OEL-M 8 hours: 50 ppm. OEL-M 8 hours: 217 mg/m³.

Industrial Safety and Health Act (Japan, 6/2020) [xylene]

TWA 8 hours: 50 ppm.

Japan Society for Occupational Health (Japan, 5/2023)

OEL-M 8 hours: 50 ppm. OEL-M 8 hours: 150 mg/m³.

Industrial Safety and Health Act (Japan, 6/2020)

TWA 8 hours: 50 ppm.

Japan Society for Occupational Health (Japan, 5/2023) Absorbed through skin.

OEL-M 8 hours: 20 ppm. OEL-M 8 hours: 87 mg/m3.

Industrial Safety and Health Act (Japan, 6/2020)

TWA 8 hours: 20 ppm.

Japan Society for Occupational Health (Japan, 5/2023)

OEL-M 8 hours: 25 ppm. OEL-M 8 hours: 120 mg/m³.

Japan Society for Occupational Health

(Japan, 5/2023) Skin sensitizer.

Technical Guideline Concerning the Applications, etc. of Concentration Standard for Preventing Health Hazards (Japan, 6/2024)

TWA 8 hours: 2 ppm.

procedures

Recommended monitoring: 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.

> Japan Page: 6/17

8. Exposure controls/personal protection

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

Hygiene measures

: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period.

Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye protection Skin protection

: Chemical splash goggles and face shield.

Hand protection

: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

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

Appearance

Physical state : Liquid.

Color : Various

Boiling point : >37.78°C (>100°F)

Flash point : Closed cup: 30°C (86°F)

Relative density : 1.18

Solubility(ies) : Media Result

cold water Not soluble

Japan Page: 7/17

9. Physical and chemical properties

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

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 sulfur oxides metal oxide/oxides

11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
barium sulfate	LD50 Dermal	Rat	>2000 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	-
Xylene	LD50 Dermal	Rabbit	1.7 g/kg	-
	LD50 Oral	Rat	4.3 g/kg	-
isobutyl alcohol	LC50 Inhalation Vapor	Rat	24.6 mg/l	4 hours
	LD50 Dermal	Rabbit	2460 mg/kg	-
	LD50 Oral	Rat	2830 mg/kg	-
Dimethyl glutarate	LC50 Inhalation Dusts and mists	Rat	>11 mg/l	4 hours
	LD50 Dermal	Rabbit	>5000 mg/kg	-
	LD50 Oral	Rat	>5000 mg/kg	-
Solvent naphtha (petroleum),	LD50 Dermal	Rabbit	3.48 g/kg	-
light aromatic				
	LD50 Oral	Rat	8400 mg/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	-
1,2,4-Trimethylbenzene	LC50 Inhalation Vapor	Rat	18000 mg/m ³	4 hours
	LD50 Oral	Rat	5 g/kg	-
Propylene glycol	LC50 Inhalation Vapor	Rat	30 mg/l	4 hours
monomethyl ether acetate	-			
	LD50 Dermal	Rabbit	>5 g/kg	-
	LD50 Oral	Rat	6190 mg/kg	-
Dimethyl succinate	LC50 Inhalation Dusts and mists	Rat	>5900 mg/m ³	4 hours
	LD50 Dermal	Rabbit	>5000 mg/kg	-
	LD50 Oral	Rat	>5 g/kg	-
bis(1,2,2,6,6-pentamethyl- 4-piperidyl) sebacate	LD50 Oral	Rat	3.125 g/kg	-

Japan Page: 8/17

Product code 000010024281	Date of issue 20 April 2025	Version 1
Product name SIGMADUR 540 BASE BASE Z		

11. Toxicological information

n-Butyl acrylate	LC50 Inhalation Gas.	Rat	2730 ppm	4 hours	
	LC50 Inhalation Vapor	Rat	1970 ppm	4 hours	
	LD50 Dermal	Rabbit	2 g/kg	-	
	LD50 Oral	Rat	900 mg/kg	-	
Toluene	LC50 Inhalation Vapor	Rat	49 g/m³	4 hours	
	LD50 Oral	Rat	5580 mg/kg	-	
methyl	LD50 Oral	Rat	3.125 g/kg	-	
1,2,2,6,6-pentamethyl-			0 0		
4-piperidyl sebacate					

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Xylene	Skin - Moderate irritant	Rabbit	-	24 hours 500	-
				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
Butyl acetate	Category 3	-	Respiratory tract irritation
-	Category 3	-	Narcotic effects
Xylene	Category 1	-	central nervous system (CNS), kidneys, liver, respiratory organs
-	Category 3	-	Narcotic effects
isobutyl alcohol	Category 3	-	Respiratory tract irritation
-	Category 3	-	Narcotic effects
Dimethyl glutarate	Category 3	-	Narcotic effects
Solvent naphtha (petroleum), light aromatic	Category 3	-	Narcotic effects
Ethyl Benzene	Category 3	-	Respiratory tract irritation
-	Category 3	-	Narcotic effects
1,2,4-Trimethylbenzene	Category 3	-	Respiratory tract irritation
-	Category 3	-	Narcotic effects
Propylene glycol monomethyl ether acetate	Category 3	-	Respiratory tract irritation
-	Category 3	-	Narcotic effects
n-Butyl acrylate	Category 1	-	respiratory organs
Toluene	Category 1	-	central nervous system (CNS)
-	Category 3	-	Respiratory tract

Japan Page: 9/17

11. Toxicological information

			irritation
•	Category 3	-	Narcotic effects

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
barium sulfate	Category 1	-	respiratory organs
Xylene	Category 1	-	nervous system, respiratory organs
Dimethyl glutarate	Category 2	-	respiratory organs
Ethyl Benzene	Category 1	-	hearing organs, nervous system
1,2,4-Trimethylbenzene	Category 1	-	central nervous system (CNS), respiratory organs
Dimethyl succinate	Category 2	-	upper respiratory tract
n-Butyl acrylate	Category 1	-	respiratory organs
Toluene	Category 1	-	central nervous system (CNS), kidneys

Aspiration hazard

Name	Result
Xylene	ASPIRATION HAZARD - Category 1
Solvent naphtha (petroleum), light aromatic	ASPIRATION HAZARD - Category 1
Ethyl Benzene	ASPIRATION HAZARD - Category 1
1,2,4-Trimethylbenzene	ASPIRATION HAZARD - Category 1
3-ethyltoluene	ASPIRATION HAZARD - Category 1
Toluene	ASPIRATION HAZARD - Category 1

Information on the likely routes of exposure

: Not available.

Potential acute health effects

Eye contact : Causes serious eye damage.

Inhalation : Can cause central nervous system (CNS) depression. May cause drowsiness or

dizziness. May cause respiratory irritation.

Skin contact: May cause damage to organs following a single exposure in contact with skin.

Causes skin irritation. Defatting to the skin. May cause an allergic skin reaction.

Ingestion : May cause 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 watering redness

Inhalation : Adverse symptoms may include the following:

respiratory tract irritation

coughing

nausea or vomiting

headache

drowsiness/fatigue dizziness/vertigo unconsciousness reduced fetal weight

Japan Page: 10/17

Product code 000010024281 Date of issue 20 April 2025 Version 1

Product name SIGMADUR 540 BASE BASE Z

11. Toxicological information

increase in fetal deaths skeletal malformations

Skin contact: Adverse symptoms may include the following:

pain or irritation

redness dryness cracking

blistering may occur reduced fetal weight increase in fetal deaths skeletal malformations

Ingestion: Adverse symptoms may include the following:

stomach pains reduced fetal weight increase in fetal deaths skeletal malformations

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

Short term exposure

Potential immediate

effects

Potential delayed effects : Not available.

Long term exposure

Potential immediate

effects

: Not available.

: Not available.

Potential delayed effects : Not available.

Potential chronic health effects

General : Causes damage to organs through prolonged or repeated exposure. Prolonged or

repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis. Once sensitized, a severe allergic reaction may occur when subsequently exposed

to very low levels.

Carcinogenicity : Suspected of causing 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 540 BASE BASE Z	N/A	4277.6	N/A	43.3	N/A
barium sulfate	N/A	2500	N/A	N/A	N/A
Butyl acetate	10768	N/A	N/A	N/A	N/A
Xylene	4300	1700	N/A	11	N/A
isobutyl alcohol	2830	2460	N/A	11	N/A
Solvent naphtha (petroleum), light aromatic	8400	3480	N/A	N/A	N/A
Ethyl Benzene	3500	17800	N/A	17.8	N/A
1,2,4-Trimethylbenzene	5000	N/A	N/A	18	N/A
Propylene glycol monomethyl ether acetate	6190	N/A	N/A	30	N/A
bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate	3125	N/A	N/A	N/A	N/A
n-Butyl acrylate	N/A	2000	N/A	3	N/A
Toluene	5580	N/A	N/A	11	N/A

Japan Page: 11/17

11. Toxicological information

methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	3125	N/A	N/A	N/A	N/A
inoutly 1,2,2,0,0 pointainoutly 1 pipolitali cobacato	0120	1 4// 1	1 4// 1	1 4// 1	

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
Butyl acetate	Acute LC50 18 mg/l	Fish	96 hours
isobutyl alcohol	Acute EC50 1100 mg/l	Daphnia	48 hours
Solvent naphtha (petroleum), light aromatic		Fish	96 hours
Ethyl Benzene	Acute EC50 1.8 mg/l Fresh water Chronic NOEC 1 mg/l Fresh water	Daphnia Daphnia - Ceriodaphnia dubia	48 hours
Propylene glycol monomethyl ether acetate	Acute LC50 134 mg/l Fresh water	Fish - Oncorhynchus mykiss	96 hours
Toluene	EC50 3.78 mg/l LC50 5.5 mg/l	Daphnia Fish	48 hours 96 hours

Persistence/degradability

Product/ingredient name	Test	Result		Dose		Inoculum
Butyl acetate	TEPA and OECD 301D	83 % - Rea	adily - 28 days	-		-
Ethyl Benzene	-	79 % - Rea	adily - 10 days	-		-
Propylene glycol monomethyl ether acetate	-		adily - 28 days	-		-
Product/ingredient name	Aquatic half-lif	fe	Photolysis		Biodeg	radability
Butyl acetate	-		-		Readily	
Xylene	-		-		Readily	
Ethyl Benzene	-		_		Readily	
Propylene glycol monomethyl ether acetate	-		-		Readily	

Bioaccumulative potential

Toluene

Product/ingredient name	LogPow	BCF	Potential
Butyl acetate	2.3	-	Low
Xylene	3.12	7.4 to 18.5	Low
isobutyl alcohol	1	-	Low
Dimethyl glutarate	0.49	-	Low
Ethyl Benzene	3.6	79.43	Low
1,2,4-Trimethylbenzene	3.63	120.23	Low
Propylene glycol	1.2	-	Low
monomethyl ether acetate			
3-ethyltoluene	3.98	-	Low
Dimethyl succinate	0.33	-	Low
n-Butyl acrylate	2.38	-	Low
Toluene	2.73	90	Low

Japan Page: 12/17

Readily

Product code 000010024281

Date of issue 20 April 2025

Version 1

Product name SIGMADUR 540 BASE BASE Z

12. Ecological information

Mobility in soil

Soil/Water partition

coefficient

: 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, waterways, drains and sewers.

14. Transport information

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

Additional information

: None identified. UN **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.

Japan Page: 13/17

14. Transport information

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)

80
691 53

Industrial Safety and Health Act

Ordinance on the Prevention of the Hazard due to Specified Chemical Substances

Ingredient name	%		Reference number
ethyl benzene	≤10	Special Organic Solvents	3-3

Substance(s) requiring labelling

Ingredient name	%	Status	Reference number
Barium sulfate(2025-04)	≥20 - ≤30	Listed	2-2238 (2025-04)
Butyl acetate, (Butyl acetate (Includes isomers of alkyl groups.)(2025-04))	≥10 - ≤20	Listed	181, 2-603 (2025-04)
Xylene	≤10	Listed	136, 2-426 (2025-04)
Butanol, (Butanol (Includes isomers of alkyl groups.) (2025-04))	≤10	Listed	477, 2-1705 (2025-04)
Petroleum naphtha	≤10	Listed	330, 2-1142 (2025-04)
Trimethylbenzene	≤10	Listed	404, 2-1426 (2025-04)
Ethylbenzene	≤10	Listed	70, 2-247 (2025-04)
1-Methoxy-2-propyl acetate(2026-04)	≤10	Listed	2-610 (2026-04)
Dimethyl succinate(2026-04)	≤10	Listed	2-587 (2026-04)

Chemicals requiring notification

Japan Page: 14/17

15. Regulatory information

Ingredient name	%	Status	Reference number
Barium sulfate(2025-04)	≥20 - ≤30	Listed	2-2238 (2025-04)
Butyl acetate, (Butyl acetate (Includes isomers of alkyl groups.)(2025-04))	≥10 - ≤20	Listed	181, 2-603 (2025-04)
Xylene ''	≤10	Listed	136, 2-426 (2025-04)
Butanol, (Butanol (Includes isomers of alkyl groups.) (2025-04))	≤10	Listed	477, 2-1705 (2025-04)
Petroleum naphtha	≤10	Listed	330, 2-1142 (2025-04)
Trimethylbenzene	≤10	Listed	404, 2-1426 (2025-04)
Ethylbenzene	≤10	Listed	70, 2-247 (2025-04)
1-Methoxy-2-propyl acetate(2026-04)	≤10	Listed	2-610 (2026-04)
Dimethyl succinate(2026-04)	≤10	Listed	2-587 (2026-04)
n-Butyl acrylate	≤10	Listed	4, 2-13 (2025-04)
Toluene	≤10	Listed	407

Carcinogens based on Article 577-2 of the Ordinance on ISH

: Not listed

: Not listed

: Not listed

: Inflammable

None of the components are listed.

Mutagen

None of the components are listed.

Corrosive liquid : Not listed

Occupational Safety and : Inflammable

Health Law

Regulations on the Prevention of Tetraalkyl

Lead Poisoning

Harmful Substances

Subject to Obtaining Permission for Manufacturing

Harmful Substances,

Prohibited for Manufacturing

ISHL Enforcement Order

Appendix 1 - Dangerous

Substances

Lead regulation: Not listedOrganic solvents: Class 2

poisoning prevention

Poisonous and Deleterious Substances

None of the components are listed.

Japan Page: 15/17

Product code 000010024281 Date of issue 20 April 2025 Version 1

Product name SIGMADUR 540 BASE BASE Z

15. Regulatory information

Chemical Substances Control Law (CSCL)

Ingredient name	%	Status	Reference number
Xylene	≤10	Priority assessment	125
Ethylbenzene	≤10	Priority assessment	50
1,2,4-Trimethylbenzene	≤10	Priority assessment	49
1,3,5-Trimethylbenzene	≤10	Priority assessment	201
Toluene	≤10	Priority assessment	46
Cumene	≤10	Priority assessment	126
Benzene	≤10	Priority assessment	45
1-Butanol	≤10	Priority assessment	124
Naphthalene	≤10	Priority assessment	76
2,2,4,4,6,6,8,8-Octamethyl-	≤10	Monitoring	40
1,3,5,7,2,4,6,8-tetraoxatetrasilocane			
Acetaldehyde	≤10	Priority assessment	26
Formaldehyde	≤10	Priority assessment	25
Ethylene oxide	≤10	Priority assessment	19
1,4-Dioxane	≤10	Priority assessment	80
Chloromethane	≤10	Priority assessment	6

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

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 2B List of Specially Controlled : Not listed

Industrial Waste

Japan inventory : At least one component is not listed.

Road law : Not available.

16. Other information

History

Date of issue/Date of : 20 April 2025

revision

Date of previous issue : No previous validation

Version : 1
Prepared by : EHS

Japan Page: 16/17

Product code 000010024281 Date of issue 20 April 2025 Version 1

Product name SIGMADUR 540 BASE BASE Z

16. Other information

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

▼ 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.

Japan Page: 17/17