# SAFETY DATA SHEET

#### **SIGMADUR 550 BASE RAL 5015**



Date of issue 16 January 2025

Version 2.01

# 1. Product and company identification

: SIGMADUR 550 BASE RAL 5015 **Product name** 

**Product code** : 00463886 **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.

: PPG PMC Japan Co., Ltd., 8F, Shintetsu Bldg., 1-1, Daikaidori 1-chome, Kobe Supplier's details

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 EYE IRRITATION - Category 2A SKIN SENSITIZATION - Category 1 CARCINOGENICITY - Category 1B

TOXIC TO REPRODUCTION - Category 1B

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

**GHS label elements** 

**Hazard pictograms** 









Signal word : Danger

**Hazard statements** : Flammable liquid and vapor.

Causes skin irritation.

May cause an allergic skin reaction. Causes serious eye irritation.

May cause drowsiness or dizziness.

May cause cancer.

May damage fertility or the unborn child.

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# 2. Hazards identification

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 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

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 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. 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.

# 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
2-Propenoic acid, 2-methyl-, methyl ester, polymer with butyl 2-propenoate, ethenylbenzene, 1,2-propanediol mono(2-methyl-2-propenoate) and 2-propenoic acid	25 - <50	37237-99-3	6-1243
barium sulfate	20 - <25	7727-43-7	1-89
Solvent naphtha (petroleum), light aromatic	7 - <10	64742-95-6	Not available.
Ethyl Benzene	7 - <10	100-41-4	3-28; 3-60
Titanium dioxide (excluding nanoparticle)	5 - <7	13463-67-7	1-558; 5-5225
1,2,4-Trimethylbenzene	5 - <7	95-63-6	3-3427; 3-7
Butyl acetate	5 - <7	123-86-4	2-731
Xylene	3 - <5	1330-20-7	3-3; 3-60
Talc (containing no asbestos or quartz)	3 - <5	14807-96-6	Not available.
phthalocyanine blue	0.5 - <1	147-14-8	5-3299; 5-3300; 5-5216
Octadecanamide, N,N'-1,6-hexanediylbis [12-hydroxy-	0.5 - <1	55349-01-4	2-3055
bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate	0.2 - < 0.5	41556-26-7	5-5501
Cumene	0.1 - <0.2	98-82-8	3-22

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# 3. Composition/information on ingredients

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**: 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

**Eye contact** : Causes serious eye irritation.

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

dizziness.

**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 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

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# 4. First aid measures

### 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, CO<sub>2</sub>, 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".

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# 6. Accidental release measures

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

# **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.

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.

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# 8. Exposure controls/personal protection

# **Control parameters**

**Occupational exposure limits** 

(Japan, 5/2023) Absorbed through skin.  OEL-M 8 hours: 20 ppm. OEL-M 8 hours: 87 mg/m². Industrial Safety and Health Act (Japan, 6/2020) TWA 8 hours: 20 ppm. Japan Society for Occupational Health (Japan, 5/2023) [Ittanium dioxide] OEL-M 8 hours: 1.5 mg/m² (as Ti). Form: Respirable particulate matter. OEL-M 8 hours: 22 mg/m² (as Ti). Form: Total particulate matter, Japan Society for Occupational Health (Japan, 5/2023) [Ittanium dioxide] (nanoparticle) OEL-M 8 hours: 2.3 mg/m² (as Ti). Form: Total particulate matter. Japan Society for Occupational Health (Japan, 5/2023) OEL-M 8 hours: 0.3 mg/m². Form: nanoparticle. Japan Society for Occupational Health (Japan, 5/2023) OEL-M 8 hours: 120 mg/m². Japan Society for Occupational Health (Japan, 5/2023) OEL-M 8 hours: 100 ppm. OEL-M 8 hours: 500 ppm. OEL-M 8 hours: 500 ppm. OEL-M 8 hours: 50 mg/m². Form: Respirable dust (Class 1 Dust). Japan Society for Occupational Health (Japan, 5/2023) [Class 1 dusts (Activated charcoal, Alumina, Aluminium, Bentonite, Diatomite, Graphite, Kealinite, Pagodite, Pyrites, Pyrite cinder]) OEL-M 8 hours: 50 mg/m². Form: Respirable dust (Class 1 Dust). Japan Society for Occupational Health (Japan, 5/2023) [Copper and compounds] Skin sensitizer. Japan Society for Occupational Health (Japan, 5/2023) Absorbed through skin. OEL-M 8 hours: 50 mg/m².	Ingredient name	Exposure limits
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(Japan, 5/2023)  OEL-M 8 hours: 120 mg/m³.  DEL-M 8 hours: 120 mg/m³.  Japan Society for Occupational Health (Japan, 5/2023)  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: 150 ppm.  Japan Society for Occupational Health (Japan, 5/2023)  OEL-M 8 hours: 50 ppm.  OEL-M 8 hours: 50 ppm.  OEL-M 8 hours: 50 ppm.  Japan Society for Occupational Health (Japan, 5/2023)  Industrial Safety and Health Act (Japan, 6/2020) [xylene]  TWA 8 hours: 50 ppm.  Japan Society for Occupational Health (Japan, 5/2023) [Class 1 dusts (Activated charcoal, Alumina, Aluminium, Bentonite, Diatomite, Graphite, Kaolinite, Pagodite, Pyrites, Pyrite cinder)]  OEL-M 8 hours: 0.5 mg/m³. Form: Total dust (Class 1 Dust).  Japan Society for Occupational Health (Japan, 5/2023) [Copper and compounds]  Skin sensitizer.  Japan Society for Occupational Health (Japan, 5/2023) [Copper and compounds]  Skin sensitizer.  Japan Society for Occupational Health (Japan, 5/2023) Absorbed through skin.  OEL-M 8 hours: 10 ppm.  Technical Guideline Concerning the	1.2.4 trimothylbonzono	·
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OEL-M 8 hours: 120 mg/m³.  Japan Society for Occupational Health (Japan, 5/2023) OEL-M 8 hours: 100 ppm. OEL-M 8 hours: 175 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. Japan Society for Occupational Health (Japan, 5/2023) OEL-M 8 hours: 50 ppm. OEL-M 8 hours: 50 ppm. Japan Society for Occupational Health (Japan, 6/2020) [xylene] TWA 8 hours: 50 ppm. Japan Society for Occupational Health (Japan, 5/2023) [Class 1 dusts (Activated charcoal, Alumina, Aluminium, Bentonite, Diatomite, Graphite, Kaolinite, Pagodite, Pyrites, Pyrite cinder)] OEL-M 8 hours: 2 mg/m³. Form: Total dust (Class 1 Dust). OEL-M 8 hours: 0.5 mg/m³. Form: Respirable dust (Class 1 Dust). Japan Society for Occupational Health (Japan, 5/2023) [Copper and compounds] Skin sensitizer. Japan Society for Occupational Health (Japan, 5/2023) [Copper and compounds] Skin sensitizer. Japan Society for Occupational Health (Japan, 5/2023) [Copper and compounds] Skin sensitizer. Japan Society for Occupational Health (Japan, 5/2023) [Copper and compounds] Skin sensitizer. Japan Society for Occupational Health (Japan, 5/2023) [Copper and compounds] Skin sensitizer. Japan Society for Occupational Health (Japan, 5/2023) [Copper and compounds] Skin sensitizer. Japan Society for Occupational Health (Japan, 5/2023) [Copper and compounds] Skin sensitizer. Japan Society for Occupational Health (Japan, 5/2023) [Copper and compounds] Skin sensitizer. Japan Society for Occupational Health (Japan, 5/2023) Absorbed through skin. OEL-M 8 hours: 50 mg/m³. OEL-M 8 hours: 10 ppm.		
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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, 6/2020) [xylene]  TWA 8 hours: 50 ppm.  Japan Society for Occupational Health (Japan, 5/2023) [Class 1 dusts (Activated charcoal, Alumina, Aluminium, Bentonite, Diatomite, Graphite, Kaolinite, Pagodite, Pyrites, Pyrite cinder)]  OEL-M 8 hours: 2 mg/m³. Form: Total dust (Class 1 Dust).  OEL-M 8 hours: 0.5 mg/m³. Form: Respirable dust (Class 1 Dust).  Japan Society for Occupational Health (Japan, 5/2023) [Copper and compounds] Skin sensitizer.  Japan Society for Occupational Health (Japan, 5/2023) Absorbed through skin.  OEL-M 8 hours: 50 mg/m³.  OEL-M 8 hours: 10 ppm.  Technical Guideline Concerning the		` • ' ' '
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(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) [Class 1 dusts (Activated charcoal, Alumina, Aluminium, Bentonite, Diatomite, Graphite, Kaolinite, Pagodite, Pyrites, Pyrite cinder)]  OEL-M 8 hours: 2 mg/m³. Form: Total dust (Class 1 Dust).  OEL-M 8 hours: 0.5 mg/m³. Form: Respirable dust (Class 1 Dust).  Japan Society for Occupational Health (Japan, 5/2023) [Copper and compounds] Skin sensitizer.  Japan Society for Occupational Health (Japan, 5/2023) Absorbed through skin. OEL-M 8 hours: 50 mg/m³. OEL-M 8 hours: 50 mg/m³. OEL-M 8 hours: 10 ppm. Technical Guideline Concerning the	xvlene	· · ·
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) [Class 1 dusts (Activated charcoal, Alumina, Aluminium, Bentonite, Diatomite, Graphite, Kaolinite, Pagodite, Pyrites, Pyrite cinder)] OEL-M 8 hours: 2 mg/m³. Form: Total dust (Class 1 Dust). OEL-M 8 hours: 0.5 mg/m³. Form: Respirable dust (Class 1 Dust). Japan Society for Occupational Health (Japan, 5/2023) [Copper and compounds] Skin sensitizer.  Japan Society for Occupational Health (Japan, 5/2023) Absorbed through skin. OEL-M 8 hours: 50 mg/m³.	.,,	
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) [Class 1 dusts (Activated charcoal, Alumina, Aluminium, Bentonite, Diatomite, Graphite, Kaolinite, Pagodite, Pyrites, Pyrite cinder)] OEL-M 8 hours: 2 mg/m³. Form: Total dust (Class 1 Dust). OEL-M 8 hours: 0.5 mg/m³. Form: Respirable dust (Class 1 Dust).  Japan Society for Occupational Health (Japan, 5/2023) [Copper and compounds] Skin sensitizer.  Japan Society for Occupational Health (Japan, 5/2023) Absorbed through skin. OEL-M 8 hours: 50 mg/m³. OEL-M 8 hours: 10 ppm. Technical Guideline Concerning the		` • · · · /
Industrial Safety and Health Act (Japan, 6/2020) [xylene] TWA 8 hours: 50 ppm.  Japan Society for Occupational Health (Japan, 5/2023) [Class 1 dusts (Activated charcoal, Alumina, Aluminium, Bentonite, Diatomite, Graphite, Kaolinite, Pagodite, Pyrites, Pyrite cinder)]  OEL-M 8 hours: 2 mg/m³. Form: Total dust (Class 1 Dust).  OEL-M 8 hours: 0.5 mg/m³. Form: Respirable dust (Class 1 Dust).  Japan Society for Occupational Health (Japan, 5/2023) [Copper and compounds] Skin sensitizer.  Japan Society for Occupational Health (Japan, 5/2023) Absorbed through skin.  OEL-M 8 hours: 50 mg/m³.  OEL-M 8 hours: 10 ppm.  Technical Guideline Concerning the		
TWA 8 hours: 50 ppm.  Japan Society for Occupational Health (Japan, 5/2023) [Class 1 dusts (Activated charcoal, Alumina, Aluminium, Bentonite, Diatomite, Graphite, Kaolinite, Pagodite, Pyrites, Pyrite cinder)]  OEL-M 8 hours: 2 mg/m³. Form: Total dust (Class 1 Dust).  OEL-M 8 hours: 0.5 mg/m³. Form: Respirable dust (Class 1 Dust).  Japan Society for Occupational Health (Japan, 5/2023) [Copper and compounds]  Skin sensitizer.  Japan Society for Occupational Health (Japan, 5/2023) Absorbed through skin.  OEL-M 8 hours: 50 mg/m³.  OEL-M 8 hours: 10 ppm.  Technical Guideline Concerning the		
Talc , not containing asbestiform fibres  Japan Society for Occupational Health (Japan, 5/2023) [Class 1 dusts (Activated charcoal, Alumina, Aluminium, Bentonite, Diatomite, Graphite, Kaolinite, Pagodite, Pyrites, Pyrite cinder)]  OEL-M 8 hours: 2 mg/m³. Form: Total dust (Class 1 Dust).  OEL-M 8 hours: 0.5 mg/m³. Form: Respirable dust (Class 1 Dust).  Japan Society for Occupational Health (Japan, 5/2023) [Copper and compounds] Skin sensitizer.  Japan Society for Occupational Health (Japan, 5/2023) Absorbed through skin.  OEL-M 8 hours: 50 mg/m³.  OEL-M 8 hours: 10 ppm.  Technical Guideline Concerning the		
(Japan, 5/2023) [Class 1 dusts (Activated charcoal, Alumina, Aluminium, Bentonite, Diatomite, Graphite, Kaolinite, Pagodite, Pyrites, Pyrite cinder)]  OEL-M 8 hours: 2 mg/m³. Form: Total dust (Class 1 Dust).  OEL-M 8 hours: 0.5 mg/m³. Form: Respirable dust (Class 1 Dust).  Japan Society for Occupational Health (Japan, 5/2023) [Copper and compounds] Skin sensitizer.  Japan Society for Occupational Health (Japan, 5/2023) Absorbed through skin.  OEL-M 8 hours: 50 mg/m³.  OEL-M 8 hours: 10 ppm.  Technical Guideline Concerning the		TWA 8 hours: 50 ppm.
charcoal, Alumina, Aluminium, Bentonite, Diatomite, Graphite, Kaolinite, Pagodite, Pyrites, Pyrite cinder)] OEL-M 8 hours: 2 mg/m³. Form: Total dust (Class 1 Dust). OEL-M 8 hours: 0.5 mg/m³. Form: Respirable dust (Class 1 Dust).  Japan Society for Occupational Health (Japan, 5/2023) [Copper and compounds] Skin sensitizer.  Japan Society for Occupational Health (Japan, 5/2023) Absorbed through skin. OEL-M 8 hours: 50 mg/m³. OEL-M 8 hours: 10 ppm. Technical Guideline Concerning the	Talc , not containing asbestiform fibres	Japan Society for Occupational Health
Diatomite, Graphite, Kaolinite, Pagodite, Pyrites, Pyrite cinder)]  OEL-M 8 hours: 2 mg/m³. Form: Total dust (Class 1 Dust). OEL-M 8 hours: 0.5 mg/m³. Form: Respirable dust (Class 1 Dust).  Japan Society for Occupational Health (Japan, 5/2023) [Copper and compounds] Skin sensitizer.  Japan Society for Occupational Health (Japan, 5/2023) Absorbed through skin. OEL-M 8 hours: 50 mg/m³. OEL-M 8 hours: 10 ppm. Technical Guideline Concerning the	•	(Japan, 5/2023) [Class 1 dusts (Activated
Pyrites, Pyrite cinder)]  OEL-M 8 hours: 2 mg/m³. Form: Total dust (Class 1 Dust).  OEL-M 8 hours: 0.5 mg/m³. Form: Respirable dust (Class 1 Dust).  Japan Society for Occupational Health (Japan, 5/2023) [Copper and compounds] Skin sensitizer.  Japan Society for Occupational Health (Japan, 5/2023) Absorbed through skin.  OEL-M 8 hours: 50 mg/m³.  OEL-M 8 hours: 10 ppm.  Technical Guideline Concerning the		charcoal, Alumina, Aluminium, Bentonite,
OEL-M 8 hours: 2 mg/m³. Form: Total dust (Class 1 Dust). OEL-M 8 hours: 0.5 mg/m³. Form: Respirable dust (Class 1 Dust).  Japan Society for Occupational Health (Japan, 5/2023) [Copper and compounds] Skin sensitizer.  Japan Society for Occupational Health (Japan, 5/2023) Absorbed through skin. OEL-M 8 hours: 50 mg/m³. OEL-M 8 hours: 10 ppm. Technical Guideline Concerning the		Diatomite, Graphite, Kaolinite, Pagodite,
(Class 1 Dust). OEL-M 8 hours: 0.5 mg/m³. Form: Respirable dust (Class 1 Dust).  Japan Society for Occupational Health (Japan, 5/2023) [Copper and compounds] Skin sensitizer.  Japan Society for Occupational Health (Japan, 5/2023) Absorbed through skin. OEL-M 8 hours: 50 mg/m³. OEL-M 8 hours: 10 ppm.  Technical Guideline Concerning the		
OEL-M 8 hours: 0.5 mg/m³. Form: Respirable dust (Class 1 Dust).  Japan Society for Occupational Health (Japan, 5/2023) [Copper and compounds] Skin sensitizer.  Japan Society for Occupational Health (Japan, 5/2023) Absorbed through skin.  OEL-M 8 hours: 50 mg/m³.  OEL-M 8 hours: 10 ppm.  Technical Guideline Concerning the		<u> </u>
Respirable dust (Class 1 Dust).  Japan Society for Occupational Health (Japan, 5/2023) [Copper and compounds]  Skin sensitizer.  Japan Society for Occupational Health (Japan, 5/2023) Absorbed through skin.  OEL-M 8 hours: 50 mg/m³.  OEL-M 8 hours: 10 ppm.  Technical Guideline Concerning the		
Japan Society for Occupational Health (Japan, 5/2023) [Copper and compounds] Skin sensitizer.  Japan Society for Occupational Health (Japan, 5/2023) Absorbed through skin.  OEL-M 8 hours: 50 mg/m³.  OEL-M 8 hours: 10 ppm.  Technical Guideline Concerning the		
(Japan, 5/2023) [Copper and compounds] Skin sensitizer.  Japan Society for Occupational Health (Japan, 5/2023) Absorbed through skin.  OEL-M 8 hours: 50 mg/m³.  OEL-M 8 hours: 10 ppm.  Technical Guideline Concerning the		
Skin sensitizer.  Japan Society for Occupational Health (Japan, 5/2023) Absorbed through skin.  OEL-M 8 hours: 50 mg/m³.  OEL-M 8 hours: 10 ppm.  Technical Guideline Concerning the	29H,31H-phthalocyaninato(2-)-N29,N30,N31,N32 copper	
Japan Society for Occupational Health (Japan, 5/2023) Absorbed through skin.  OEL-M 8 hours: 50 mg/m³.  OEL-M 8 hours: 10 ppm.  Technical Guideline Concerning the		
(Japan, 5/2023) Absorbed through skin.  OEL-M 8 hours: 50 mg/m³.  OEL-M 8 hours: 10 ppm.  Technical Guideline Concerning the		
OEL-M 8 hours: 50 mg/m³. OEL-M 8 hours: 10 ppm. Technical Guideline Concerning the	cumene	
OEL-M 8 hours: 10 ppm.  Technical Guideline Concerning the		
Technical Guideline Concerning the		
		i echnical Guideline Concerning the
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# 8. Exposure controls/personal protection

Applications, etc. of Concentration Standard for Preventing Health Hazards (Japan, 4/2023)

TWA 8 hours: 10 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.

**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.

**Hand protection** 

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

**Gloves** 

: butyl rubber

**Body protection** 

: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.

Other skin protection

: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

**Respiratory protection** 

: Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. If workers are exposed to concentrations above the exposure limit, they must use appropriate, certified respirators. Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary.

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**Product name SIGMADUR 550 BASE RAL 5015** 

# 9. Physical and chemical properties

**Appearance** 

Product code 00463886

**Physical state** : Liquid. Color : Blue.

Odor : Characteristic. : >37.78°C (>100°F) **Boiling point** 

Flash point : Closed cup: 31°C (87.8°F)

**Relative density** : 1.34

Media Result Solubility(ies)

cold water Not soluble

# 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.

: Keep away from the following materials to prevent strong exothermic reactions: **Incompatible materials** 

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
2-Propenoic acid, 2-methyl-, methyl ester, polymer with butyl 2-propenoate, ethenylbenzene, 1,2-propanediol mono (2-methyl-2-propenoate)	LD50 Oral	Rat	>5000 mg/kg	-
and 2-propenoic acid barium sulfate	LD50 Dermal	Rat	>2000 mg/kg	
Darium Sunate	LD50 Definal	Rat	>2000 mg/kg >5000 mg/kg	-
Solvent naphtha (petroleum), light aromatic	LD50 Dermal	Rabbit	3.48 g/kg	-
	LD50 Oral	Rat	8400 mg/kg	-
Ethyl Benzene	LC50 Inhalation Vapor LD50 Dermal LD50 Oral	Rat Rabbit Rat	17.8 mg/l 17.8 g/kg 3.5 g/kg	4 hours -
Titanium dioxide (excluding nanoparticle)	LC50 Inhalation Dusts and mists	Rat	>6.82 mg/l	4 hours
	LD50 Dermal	Rabbit	>5000 mg/kg	-

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# 11. Toxicological information

	LD50 Oral	Rat	>5000 mg/kg	-
1,2,4-Trimethylbenzene	LC50 Inhalation Vapor	Rat	18000 mg/m <sup>3</sup>	4 hours
-	LD50 Oral	Rat	5 g/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	-
phthalocyanine blue	LD50 Dermal	Rat	>5000 mg/kg	-
	LD50 Oral	Rat	5.1 g/kg	-
bis(1,2,2,6,6-pentamethyl-	LD50 Oral	Rat	3.125 g/kg	-
4-piperidyl) sebacate				
Cumene	LC50 Inhalation Vapor	Rat	39000 mg/m <sup>3</sup>	4 hours
	LD50 Dermal	Rabbit	12.3 g/kg	-
	LD50 Oral	Rat	2260 mg/kg	-

# **Irritation/Corrosion**

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

# **Sensitization**

Product/ingredient name	Route of exposure	Species	Result
2-Propenoic acid, 2-methyl-, methyl ester, polymer with butyl 2-propenoate, ethenylbenzene, 1,2-propanediol mono (2-methyl-2-propenoate) and 2-propenoic acid	skin	Mouse	Sensitizing

# **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
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
Butyl acetate	Category 3	-	Respiratory tract irritation
	Category 3		Narcotic effects

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# 11. Toxicological information

Xylene	Category 1	-	central nervous
			system (CNS),
			kidneys, liver,
			respiratory organs
	Category 3		Narcotic effects
Talc (containing no asbestos or quartz)	Category 1	-	respiratory organs
Cumene	Category 1	-	nervous system
	Category 3		Respiratory tract
			irritation
	Category 3		Narcotic effects

# Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
barium sulfate	Category 1	-	respiratory organs
Ethyl Benzene	Category 1	-	hearing organs, nervous system
Titanium dioxide (excluding nanoparticle)	Category 1	-	respiratory organs
1,2,4-Trimethylbenzene	Category 1	-	central nervous system (CNS), respiratory organs
Xylene	Category 1	-	nervous system, respiratory organs
Talc (containing no asbestos or quartz)	Category 1	-	respiratory organs
Cumene	Category 2	-	respiratory organs

# **Aspiration hazard**

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

Information on the likely routes of exposure

: Not available.

# 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**: 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 or irritation watering redness

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# 11. Toxicological information

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

Adverse symptoms may include the following: Skin contact

> 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

**Short term exposure** 

**Potential immediate** 

effects

: Not available.

Potential delayed effects : Not available.

Long term exposure

**Potential immediate** 

: Not available.

effects

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.

: May cause cancer. Risk of cancer depends on duration and level of exposure. Carcinogenicity

: No known significant effects or critical hazards. Mutagenicity

: May damage fertility or the unborn child. Reproductive toxicity

### **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 RAL 5015	N/A	4203.1	N/A	58.6	N/A
barium sulfate	N/A	2500	N/A	N/A	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
Butyl acetate	10768	N/A	N/A	N/A	N/A
Xylene	4300	1700	N/A	11	N/A
phthalocyanine blue	5100	N/A	N/A	N/A	N/A

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# 11. Toxicological information

bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate	3125	N/A	N/A	N/A	N/A
Cumene	2260	12300	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
Solvent naphtha (petroleum), light aromatic	Acute LC50 8.2 mg/l	Fish	96 hours
Ethyl Benzene	Acute EC50 1.8 mg/l Fresh water Chronic NOEC 1 mg/l Fresh water	Daphnia Daphnia - <i>Ceriodaphnia dubia</i>	48 hours
Titanium dioxide (excluding nanoparticle)	Acute LC50 >100 mg/l Fresh water	Daphnia - <i>Daphnia magna</i>	48 hours
Butyl acetate phthalocyanine blue	Acute LC50 18 mg/l Acute LC50 >100 mg/l	Fish Fish	96 hours 96 hours

# Persistence/degradability

Product/ingredient name	Test	Result	Dose	Inoculum
Thyl Benzene Butyl acetate	- TEPA and OECD 301D	79 % - Readily - 10 days 83 % - Readily - 28 days	-	-

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
<b>E</b> thyl Benzene	-	-	Readily
Butyl acetate	-	-	Readily
Xylene	-	-	Readily

# **Bioaccumulative potential**

Product/ingredient name	LogPow	BCF	Potential
<b>E</b> thyl Benzene	3.6	79.43	Low
1,2,4-Trimethylbenzene	3.63	120.23	Low
Butyl acetate	2.3	-	Low
Xylene	3.12	7.4 to 18.5	Low
phthalocyanine blue	6.6	-	High
Cumene	3.55	35.48	Low

### **Mobility in soil**

Soil/water partition coefficient (Koc)

: Not available.

Mobility : Not available.

Other adverse effects : No known significant effects or critical hazards.

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Product name SIGMADUR 550 BASE RAL 5015

# 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**

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

# 15. Regulatory information

### **Fire Service Law**

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

### Pollutant Release and Transfer Registers (PRTR)

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# 15. Regulatory information

Ingredient name			
Ethylbenzene Trimethylbenzene	7.1 6.9	Class 1 Class 1	53 691
Xylene	4.4		80

# **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
Fetroleum naphtha	≤10	Listed	330
Ethylbenzene	≤10	Listed	70
Trimethylbenzene	≤10	Listed	404
Titanium(IV) oxide	≤10	Listed	191
Butyl acetate	≤10	Listed	181
Xylene	≤10	Listed	136

# **Chemicals requiring notification**

Ingredient name	%	Status	Reference number
<b>P</b> etroleum naphtha	≤10	Listed	330
Ethylbenzene	≤10	Listed	70
Trimethylbenzene	≤10	Listed	404
Titanium(IV) oxide	≤10	Listed	191
Butyl acetate	≤10	Listed	181
Xylene	≤10	Listed	136
Copper and its compounds	≤10	Listed	379
Cumene	≤10	Listed	138

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

None of the components are listed.

# **Mutagen**

None of the components are listed.

: Not listed **Corrosive liquid** 

**Occupational Safety and** 

**Health Law** 

: Inflammable, Combustible

Regulations on the

**Prevention of Tetraalkyl** 

**Lead Poisoning** 

: Not listed

**Harmful Substances** 

**Subject to Obtaining Permission for** 

: Not listed

Manufacturing Harmful Substances,

: Not listed

**Prohibited for Manufacturing** 

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Product name SIGMADUR 550 BASE RAL 5015

: Inflammable, Combustible

## Troduct name oromaport ood Base trae oo to

15. Regulatory information

ISHL Enforcement Order Appendix 1 - Dangerous

Product code 00463886

**Substances** 

Lead regulation: Not listedOrganic solvents: Class 2

poisoning prevention

### **Poisonous and Deleterious Substances**

None of the components are listed.

# **Chemical Substances Control Law (CSCL)**

Ingredient name	%	Status	Reference number
<b>E</b> thylbenzene	≤10	Priority assessment	50
1,2,4-Trimethylbenzene	≤10	Priority assessment	49
Xylene	≤10	Priority assessment	125
1,3,5-Trimethylbenzene	≤10	Priority assessment	201
Cumene	≤10	Priority assessment	126
Toluene	≤10	Priority assessment	46
Benzene	≤10	Priority assessment	45
Naphthalene	≤10	Priority assessment	76
1-Butanol	≤10	Priority assessment	124
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
2,6-Di-tert-butyl-4-methylphenol	≤10	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

# **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 : Not determined.

Road law : Not available.

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Product code 00463886 Date of issue 16 January 2025 Version 2.01

Product name SIGMADUR 550 BASE RAL 5015

# 16. Other information

**History** 

Date of issue/Date of

revision

: 16 January 2025

Date of previous issue : 5/9/2024
Version : 2.01
Prepared by : EHS

**Key to abbreviations** : ADN = European Provisions concerning the International Carriage of Dangerous

Goods by Inland Waterway

ADR = The European Agreement concerning the International Carriage of

Dangerous Goods by Road ATE = Acute Toxicity Estimate BCF = Bioconcentration Factor

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

IATA = International Air Transport Association IMDG = International Maritime Dangerous Goods

LogPow = logarithm of the octanol/water partition coefficient

MARPOL = International Convention for the Prevention of Pollution From Ships,

1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)

RID = The Regulations concerning the International Carriage of Dangerous Goods

by Rail

**UN = United Nations** 

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: 16/16