SAFETY DATA SHEET

Date of issue/Date of revision : 20 November 2026 **Version** : 1.04

SECTION 1: Identification of the substance/mixture and of the company/ undertaking

1.1 Product identifier

Product name : SIGMADUR 540 BASE RAL 5011

Product code : 00359451

Product type : Liquid.

Other means of identification : Not available.

1.2 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 : Product is not intended, labelled or packaged for consumer use.

1.3 Details of the supplier of the safety data sheet

PPG Coatings Belgium BV/SRL
Tweemontstraat 104
B-2100 Deurne
Belgium
Telephone +32-33606311
Fax +32-33606435

e-mail address of person responsible for this SDS : Product.Stewardship.EMEA@ppg.com

1.4 Emergency telephone number

Supplier

+31 20 4075210

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : Mixture

Classification according to UK CLP/GHS

Flam. Liq. 3, H226
Eye Irrit. 2, H319
Skin Sens. 1, H317
Repr. 1B, H360D
Aquatic Chronic 3, H412

The product is classified as hazardous according to UK CLP Regulation SI 2019/720 as amended.

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

Hazard pictograms :



Signal word : Danger

SECTION 2: Hazards identification

Hazard statements : Flammable liquid and vapour.
May cause an allergic skin reaction.
Causes serious eye irritation.
May damage the unborn child.
Harmful to aquatic life with long lasting effects.

Precautionary statements

Prevention : 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. Avoid release to the environment.

Response : IF exposed or concerned: Get medical advice or attention.

Storage : Not applicable.

Disposal : Dispose of contents and container in accordance with all local, regional, national and international regulations.

P202, P280, P210, P273, P308 + P313, P501

Supplemental label elements : Not applicable.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles : Restricted to professional users.

Special packaging requirements

Containers to be fitted with child-resistant fastenings : Not applicable.

Tactile warning of danger : Not applicable.

2.3 Other hazards

Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII : This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

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

SECTION 3: Composition/information on ingredients

3.2 Mixtures : Mixture

Product/ingredient name	Identifiers	%	Classification	Type
n-butyl acetate	REACH #: 01-2119485493-29 EC: 204-658-1 CAS: 123-86-4 Index: 607-025-00-1	≥5.0 - ≤11	Flam. Liq. 3, H226 STOT SE 3, H336 EUH066	[1] [2]
xylene	REACH #: 01-2119488216-32 EC: 215-535-7 CAS: 1330-20-7 Index: 601-022-00-9	≥5.0 - ≤7.2	Flam. Liq. 3, H226 Acute Tox. 4, H312 Acute Tox. 4, H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335 Asp. Tox. 1, H304 Aquatic Chronic 3, H412	[1] [2]
Hydrocarbons, C9, aromatics < 0.1% cumene	REACH #: 01-2119455851-35 EC: 918-668-5 CAS: 128601-23-0	≥1.0 - ≤5.5	Flam. Liq. 3, H226 STOT SE 3, H335 STOT SE 3, H336 Asp. Tox. 1, H304	[1]

SECTION 3: Composition/information on ingredients

			Aquatic Chronic 2, H411 EUH066	
2-methylpropan-1-ol	REACH #: 01-2119484609-23 EC: 201-148-0 CAS: 78-83-1 Index: 603-108-00-1	≥0.30 - ≤2.7	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 3, H335 STOT SE 3, H336	[1] [2]
ethylbenzene	REACH #: 01-2119489370-35 EC: 202-849-4 CAS: 100-41-4 Index: 601-023-00-4	≥1.0 - ≤5.0	Flam. Liq. 2, H225 Acute Tox. 4, H332 STOT RE 2, H373 (hearing organs) Asp. Tox. 1, H304 Aquatic Chronic 3, H412	[1] [2]
Hexanoic acid, 2-ethyl-, zinc salt, basic	REACH #: 01-2119979093-30 EC: 286-272-3 CAS: 85203-81-2 Index: 607-230-00-6	<1.0	Eye Irrit. 2, H319 Repr. 1B, H360D Aquatic Chronic 3, H412	[1]
Reaction mass of bis (1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	REACH #: 01-2119491304-40 EC: 915-687-0 CAS: 1065336-91-5	≤1.0	Skin Sens. 1A, H317 Repr. 2, H361f Aquatic Acute 1, H400 (M=1) Aquatic Chronic 1, H410 (M=1)	[1]
n-butyl acrylate	REACH #: 01-2119453155-43 EC: 205-480-7 CAS: 141-32-2 Index: 607-062-00-3	<1.0	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 STOT SE 3, H335	[1] [2]
toluene	REACH #: 01-2119471310-51 EC: 203-625-9 CAS: 108-88-3 Index: 601-021-00-3	≤0.30	Flam. Liq. 2, H225 Skin Irrit. 2, H315 Repr. 2, H361d STOT SE 3, H336 STOT RE 2, H373 Asp. Tox. 1, H304 Aquatic Chronic 3, H412 **See Section 16 for the full text of the H statements declared above.**	[1] [2]

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, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

Xylene: Several REACH registrations cover the REACH registered substance with xylene isomers, ethylbenzene (and toluene). The other REACH Registrations include: 01-2119555267-33 reaction mass of ethylbenzene and m-xylene and p-xylene, 01-2119486136-34 Aromatic hydrocarbons, C8, 01-2119539452-40 reaction mass of ethylbenzene and xylene.

Type

[1] Substance classified with a health or environmental hazard
[2] Substance with a workplace exposure limit

Occupational exposure limits, if available, are listed in Section 8.

SUB codes represent substances without registered CAS Numbers.

SECTION 4: First aid measures

4.1 Description of 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 recognised skin cleanser. Do NOT use solvents or thinners.

Ingestion : If swallowed, seek medical advice immediately and show the container or label. Keep person warm and at rest. Do NOT induce vomiting.

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.

4.2 Most important symptoms and effects, both acute and delayed

Potential acute health effects

Eye contact : Causes serious eye irritation.

Inhalation : No known significant effects or critical hazards.

Skin contact : Defatting to the skin. May cause skin dryness and irritation. May cause an allergic skin reaction.

Ingestion : No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact : Adverse symptoms may include the following:
pain or irritation
watering
redness

Inhalation : Adverse symptoms may include the following:
reduced foetal weight
increase in foetal deaths
skeletal malformations

Skin contact : Adverse symptoms may include the following:
irritation
redness
dryness
cracking
reduced foetal weight
increase in foetal deaths
skeletal malformations

Ingestion : Adverse symptoms may include the following:
reduced foetal weight
increase in foetal deaths
skeletal malformations

4.3 Indication of any immediate medical attention and special treatment needed

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.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Use dry chemical, CO_2, water spray (fog) or foam.

Unsuitable extinguishing media : Do not use water jet.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture : Flammable liquid and vapour. 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 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 combustion products : Decomposition products may include the following materials:
carbon oxides
nitrogen oxides
sulfur oxides
metal oxide/oxides

5.3 Advice for firefighters

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. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to British standard BS EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1 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 spilt material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapour. Put on appropriate personal protective equipment. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate.

For emergency responders : If specialised 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".

6.2 Environmental precautions : Avoid dispersal of spilt 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.

6.3 Methods and material 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.

SECTION 6: Accidental release measures

Large spill : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach the 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 spilt product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

6.4 Reference to other sections : See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

7.1 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. 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 ingest. Avoid breathing vapour or mist. 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.

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.

7.2 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 oxidising 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 unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

7.3 Specific end use(s)

See Section 1.2 for Identified uses.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

Occupational exposure limits

Product/ingredient name	Exposure limit values
n-butyl acetate	**EH40/2005 WELs (United Kingdom (UK), 1/2020)** STEL 15 minutes: 966 mg/m³. STEL 15 minutes: 200 ppm. TWA 8 hours: 724 mg/m³. TWA 8 hours: 150 ppm.
xylene	**EH40/2005 WELs (United Kingdom (UK), 1/2020) [xylene, o-,m-,p- or mixed isomers]** Absorbed through skin. STEL 15 minutes: 441 mg/m³. TWA 8 hours: 50 ppm. TWA 8 hours: 220 mg/m³. STEL 15 minutes: 100 ppm.
2-methylpropan-1-ol	**EH40/2005 WELs (United Kingdom (UK), 1/2020)** STEL 15 minutes: 231 mg/m³. STEL 15 minutes: 75 ppm. TWA 8 hours: 154 mg/m³. TWA 8 hours: 50 ppm.
ethylbenzene	**EH40/2005 WELs (United Kingdom (UK), 1/2020)** Absorbed through skin. STEL 15 minutes: 552 mg/m³. STEL 15 minutes: 125 ppm. TWA 8 hours: 100 ppm. TWA 8 hours: 441 mg/m³.
n-butyl acrylate	**EH40/2005 WELs (United Kingdom (UK), 1/2020)** STEL 15 minutes: 26 mg/m³. STEL 15 minutes: 5 ppm. TWA 8 hours: 5 mg/m³. TWA 8 hours: 1 ppm.
toluene	**EH40/2005 WELs (United Kingdom (UK), 1/2020)** Absorbed through skin. STEL 15 minutes: 384 mg/m³. TWA 8 hours: 191 mg/m³. TWA 8 hours: 50 ppm. STEL 15 minutes: 100 ppm.

Biological exposure indices

Product/ingredient name	Exposure indices
xylene	**EH40/2005 BMGVs (United Kingdom (UK), 1/2020) [Xylene, o-, m-, p- or mixed isomers]** BGV: 650 mmol/mol creatinine, methyl hippuric acid [in urine]. Sampling time: post shift.

Recommended monitoring procedures : Reference should be made to monitoring standards, such as the following: British Standard BS EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) British Standard BS EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) British Standard BS EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

DNELs/DMELs

SECTION 8: Exposure controls/personal protection

n-butyl acetate	DNEL - Workers - Long term - Inhalation	*Systemic*	300 mg/m³
	DNEL - Workers - Long term - Dermal	*Systemic*	11 mg/m³
	DNEL - General population - Long term - Oral	*Systemic*	2 mg/kg bw/day
	DNEL - General population - Short term - Oral	*Systemic*	2 mg/kg bw/day
	DNEL - General population - Long term - Dermal	*Systemic*	3.4 mg/kg bw/day
	DNEL - General population - Short term - Dermal	*Systemic*	6 mg/kg bw/day
	DNEL - Workers - Long term - Dermal	*Systemic*	7 mg/kg bw/day
	DNEL - Workers - Short term - Dermal	*Systemic*	11 mg/kg bw/day
	DNEL - General population - Long term - Inhalation	*Systemic*	12 mg/m³
	DNEL - General population - Long term - Inhalation	*Local*	35.7 mg/m³
	DNEL - Workers - Long term - Inhalation	*Systemic*	48 mg/m³
	DNEL - General population - Short term - Inhalation	*Local*	300 mg/m³
	DNEL - General population - Short term - Inhalation	*Systemic*	300 mg/m³
	DNEL - Workers - Long term - Inhalation	*Local*	300 mg/m³
	DNEL - Workers - Short term - Inhalation	*Local*	600 mg/m³
	DNEL - Workers - Short term - Inhalation	*Systemic*	600 mg/m³
xylene	DNEL - General population - Long term - Oral	*Systemic*	5 mg/kg bw/day
	DNEL - General population - Long term - Inhalation	*Local*	65.3 mg/m³
	DNEL - General population - Long term - Inhalation	*Systemic*	65.3 mg/m³
	DNEL - General population - Long term - Dermal	*Systemic*	125 mg/kg bw/day
	DNEL - Workers - Long term - Dermal	*Systemic*	212 mg/kg bw/day
	DNEL - Workers - Long term - Inhalation	*Local*	221 mg/m³
	DNEL - Workers - Long term - Inhalation	*Systemic*	221 mg/m³
	DNEL - General population - Short term - Inhalation	*Local*	260 mg/m³
	DNEL - General population - Short term - Inhalation	*Systemic*	260 mg/m³
	DNEL - Workers - Short term - Inhalation	*Local*	442 mg/m³
	DNEL - Workers - Short term - Inhalation	*Systemic*	442 mg/m³
Hydrocarbons, C9, aromatics < 0.1% cumene	DNEL - Workers - Long term - Dermal	*Systemic*	25 mg/kg bw/day
	DNEL - Workers - Long term - Inhalation	*Systemic*	150 mg/m³
	DNEL - General population - Long term - Dermal	*Systemic*	11 mg/kg
	DNEL - General population - Long term - Oral	*Systemic*	11 mg/kg
	DNEL - General population - Long term - Inhalation	*Systemic*	32 mg/m³
2-methylpropan-1-ol	DNEL - General population - Long term - Inhalation	*Local*	55 mg/m³
	DNEL - Workers - Long term - Inhalation	*Local*	310 mg/m³
ethylbenzene	DMEL - Workers - Long term - Inhalation	*Local*	442 mg/m³
	DMEL - Workers - Short term - Inhalation	*Systemic*	884 mg/m³
	DNEL - General population - Long term - Oral	*Systemic*	1.6 mg/kg bw/day
	DNEL - General population - Long term - Inhalation	*Systemic*	15 mg/m³
	DNEL - Workers - Long term - Inhalation	*Systemic*	77 mg/m³
	DNEL - Workers - Long term - Dermal	*Systemic*	180 mg/kg bw/day
	DNEL - Workers - Short term - Inhalation	*Local*	293 mg/m³
Hexanoic acid, 2-ethyl-, zinc salt, basic	DNEL - General population - Long term - Oral	*Systemic*	3.21 mg/kg bw/day
	DNEL - General population - Long term - Dermal	*Systemic*	3.21 mg/kg bw/day
	DNEL - Workers - Long term - Dermal	*Systemic*	6.41 mg/kg bw/day
	DNEL - General population - Long term - Inhalation	*Systemic*	10.42 mg/m³
	DNEL - Workers - Long term - Inhalation	*Systemic*	20.83 mg/m³
n-butyl acrylate	DNEL - Workers - Long term - Inhalation	*Local*	11 mg/m³

SECTION 8: Exposure controls/personal protection

toluene	DNEL - General population - Long term - Oral	*Systemic*	8.13 mg/kg bw/day
	DNEL - General population - Long term - Inhalation	*Local*	56.5 mg/m³
	DNEL - General population - Long term - Inhalation	*Systemic*	56.5 mg/m³
	DNEL - Workers - Long term - Inhalation	*Local*	192 mg/m³
	DNEL - Workers - Long term - Inhalation	*Systemic*	192 mg/m³
	DNEL - General population - Long term - Dermal	*Systemic*	226 mg/kg bw/day
	DNEL - General population - Short term - Inhalation	*Local*	226 mg/m³
	DNEL - General population - Short term - Inhalation	*Systemic*	226 mg/m³
	DNEL - Workers - Long term - Dermal	*Systemic*	384 mg/kg bw/day
	DNEL - Workers - Short term - Inhalation	*Local*	384 mg/m³
	DNEL - Workers - Short term - Inhalation	*Systemic*	384 mg/m³

PNECs

Product/ingredient name	Compartment Detail - Method	Value
n-butyl acetate	Fresh water	0.18 mg/l
	Marine water	0.018 mg/l
	Fresh water sediment	0.981 mg/kg
	Marine water sediment	0.0981 mg/kg
	Sewage Treatment Plant	35.6 mg/l
	Soil	0.0903 mg/kg
xylene	Fresh water	0.327 mg/l
	Marine water	0.327 mg/l
	Sewage Treatment Plant	6.58 mg/l
	Fresh water sediment	12.46 mg/kg dwt
	Marine water sediment	12.46 mg/kg dwt
	Soil	2.31 mg/kg
2-methylpropan-1-ol	Fresh water - Assessment Factors	0.4 mg/l
	Marine water - Assessment Factors	0.04 mg/l
	Sewage Treatment Plant - Assessment Factors	10 mg/l
	Fresh water sediment - Equilibrium Partitioning	1.56 mg/kg dwt
	Marine water sediment	0.156 mg/kg dwt
	Soil - Equilibrium Partitioning	0.076 mg/kg dwt
ethylbenzene	Fresh water - Assessment Factors	0.1 mg/l
	Marine water - Assessment Factors	0.01 mg/l
	Sewage Treatment Plant - Assessment Factors	9.6 mg/l
	Fresh water sediment - Equilibrium Partitioning	13.7 mg/kg dwt
	Marine water sediment - Equilibrium Partitioning	1.37 mg/kg dwt
	Soil - Equilibrium Partitioning	2.68 mg/kg dwt
	Secondary Poisoning	20 mg/kg
toluene	Fresh water - Sensitivity Distribution	0.68 mg/l
	Marine water - Sensitivity Distribution	0.68 mg/l
	Sewage Treatment Plant - Sensitivity Distribution	13.61 mg/l
	Fresh water sediment - Equilibrium Partitioning	16.39 mg/kg dwt
	Marine water sediment	16.39 mg/kg dwt

8.2 Exposure controls

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, vapour or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Individual protection measures

SECTION 8: Exposure controls/personal protection

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/face protection : Chemical splash goggles.

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated. When prolonged or frequently repeated contact may occur, a glove with a protection class of 6 (breakthrough time greater than 480 minutes according to EN 374) is recommended. When only brief contact is expected, a glove with a protection class of 2 or higher (breakthrough time greater than 30 minutes according to EN 374) is recommended. The user must check that the final choice of type of glove selected for handling this product is the most appropriate and takes into account the particular conditions of use, as included in the user's risk assessment.
nitrile rubber, butyl rubber, PVC, Viton®

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. Wear a respirator conforming to EN140. Filter type: organic vapour (Type A) and particulate filter P3

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.

SECTION 9: Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

9.1 Information on basic physical and chemical properties

Appearance

Physical state : Liquid.

Colour : Blue.

Odour : Characteristic.

Odour threshold : Not available.

Melting point/freezing point :

Initial boiling point and boiling range : >37.78°C (>100°F)

Flammability (solid, gas) : liquid

SECTION 9: Physical and chemical properties

Upper/lower flammability or explosive limits : Not available.

Flash point : Closed cup: 26°C (78.8°F)

Auto-ignition temperature :

Ingredient name	°C	°F	Method
Hydrocarbons, C9, aromatics < 0.1% cumene	280 to 470	536 to 878	

pH : Not applicable.
Not applicable. insoluble in water.

Viscosity : Dynamic (room temperature): Not available.
Kinematic (room temperature): Not available.
Kinematic (40°C): >21 mm^2/s

Solubility(ies) :

Media	Result
cold water	Not soluble

Miscible with water : No.

Partition coefficient: n-octanol/ water : Not applicable.

Vapour pressure :

	Vapour Pressure at 20°C			Vapour pressure at 50°C		
Ingredient name	mm Hg	kPa	Method	mm Hg	kPa	Method
2-methylpropan-1-ol	<12.00102	<1.6	DIN EN 13016-2			

Relative density : 1.33

Explosive properties : The product itself is not explosive, but the formation of an explosible mixture of vapour or dust with air is possible.

Oxidising properties : Product does not present an oxidizing hazard.

Particle characteristics

Median particle size : Not applicable.

SECTION 10: Stability and reactivity

10.1 Reactivity : No specific test data related to reactivity available for this product or its ingredients.

10.2 Chemical stability : The product is stable.

10.3 Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

10.4 Conditions to avoid : When exposed to high temperatures may produce hazardous decomposition products.
Refer to protective measures listed in sections 7 and 8.

10.5 Incompatible materials : Keep away from the following materials to prevent strong exothermic reactions: oxidising agents, strong alkalis, strong acids.

10.6 Hazardous decomposition products : Depending on conditions, decomposition products may include the following materials: carbon oxides nitrogen oxides sulfur oxides metal oxide/oxides

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Dose / Exposure
n-butyl acetate	Rabbit - Dermal - LD50	>17600 mg/kg
	Rat - Oral - LD50	10.768 g/kg
	Rat - Inhalation - LC50 Vapour	2000 ppm [4 hours]
	Rat - Inhalation - LC50 Vapour	>21.1 mg/l [4 hours]
xylene	Rat - Oral - LD50	4.3 g/kg
	Rabbit - Dermal - LD50	1.7 g/kg
Hydrocarbons, C9, aromatics < 0.1% cumene	Rat - Oral - LD50	8400 mg/kg
	Toxic effects: Behavioral - Somnolence (general depressed activity) Behavioral - Tremor Lung, Thorax, or Respiration - Other changes	
	Rabbit - Male, Female - Dermal - LD50	>2000 mg/kg
2-methylpropan-1-ol	Rat - Oral - LD50	2830 mg/kg
	Rabbit - Dermal - LD50	2460 mg/kg
	Rat - Inhalation - LC50 Vapour	24.6 mg/l [4 hours]
ethylbenzene	Rat - Oral - LD50	3.5 g/kg
	Rabbit - Dermal - LD50	17.8 g/kg
	Rat - Inhalation - LC50 Vapour	17.8 mg/l [4 hours]
Reaction mass of bis (1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	Rat - Male, Female - Oral - LD50	3230 mg/kg
	Rat - Dermal - LD50	>3170 mg/kg
n-butyl acrylate	Rat - Oral - LD50	900 mg/kg
	Rabbit - Dermal - LD50	2 g/kg
	Rat - Inhalation - LC50 Gas.	2730 ppm [4 hours]
	Toxic effects: Olfaction - Other changes Eye - Other Lung, Thorax, or Respiration - Dyspnea	
	Rat - Inhalation - LC50 Vapour	1970 ppm [4 hours]
toluene	Rat - Oral - LD50	5580 mg/kg
	Rat - Inhalation - LC50 Vapour	49 g/m³ [4 hours]

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

Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapours) (mg/l)	Inhalation (dusts and mists) (mg/l)
SIGMADUR 540 BASE RAL 5011	N/A	23840.5	N/A	133.2	N/A
n-butyl acetate	10768	N/A	N/A	N/A	N/A
xylene	4300	1700	N/A	11	N/A
Hydrocarbons, C9, aromatics < 0.1% cumene	8400	N/A	N/A	N/A	N/A
2-methylpropan-1-ol	2830	2460	N/A	24.6	N/A
ethylbenzene	3500	17800	N/A	17.8	N/A
Reaction mass of bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	3230	N/A	N/A	N/A	N/A
toluene	5580	N/A	N/A	49	N/A

Irritation/Corrosion

Product/ingredient name	Result
xylene	Rabbit - Skin - Moderate irritant Amount/concentration applied: 500 mg Duration of treatment/exposure: 24 hours

Conclusion/Summary : Not available.

SECTION 11: Toxicological information

Skin : There are no data available on the mixture itself.

Eyes : There are no data available on the mixture itself.

Respiratory : There are no data available on the mixture itself.

Sensitisation

Conclusion/Summary

Skin : There are no data available on the mixture itself.

Respiratory : There are no data available on the mixture itself.

Mutagenicity

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

Carcinogenicity

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

Reproductive toxicity

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

Specific target organ toxicity (single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
n-butyl acetate	Category 3	-	Narcotic effects
xylene	Category 3	-	Respiratory tract irritation
Hydrocarbons, C9, aromatics < 0.1% cumene	Category 3	-	Respiratory tract irritation
-	Category 3	-	Narcotic effects
2-methylpropan-1-ol	Category 3	-	Respiratory tract irritation
-	Category 3	-	Narcotic effects
n-butyl acrylate	Category 3	-	Respiratory tract irritation
toluene	Category 3	-	Narcotic effects

Specific target organ toxicity (repeated exposure)

Product/ingredient name	Category	Route of exposure	Target organs
ethylbenzene	Category 2	-	hearing organs
toluene	Category 2	-	-

Aspiration hazard

Product/ingredient name	Result
xylene	ASPIRATION HAZARD - Category 1
Hydrocarbons, C9, aromatics < 0.1% cumene	ASPIRATION HAZARD - Category 1
ethylbenzene	ASPIRATION HAZARD - Category 1
toluene	ASPIRATION HAZARD - Category 1

Information on likely routes of exposure : Not available.

Potential acute health effects

Eye contact : Causes serious eye irritation.

Inhalation : No known significant effects or critical hazards.

Skin contact : Defatting to the skin. May cause skin dryness and irritation. May cause an allergic skin reaction.

Ingestion : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

SECTION 11: Toxicological information

Eye contact : Adverse symptoms may include the following:
pain or irritation
watering
redness

Inhalation : Adverse symptoms may include the following:
reduced foetal weight
increase in foetal deaths
skeletal malformations

Skin contact : Adverse symptoms may include the following:
irritation
redness
dryness
cracking
reduced foetal weight
increase in foetal deaths
skeletal malformations

Ingestion : Adverse symptoms may include the following:
reduced foetal weight
increase in foetal deaths
skeletal malformations

Delayed and immediate effects as well as 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 effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Conclusion/Summary : Not available.

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 : May damage the unborn child.

Other information

Not available.

SECTION 12: Ecological information

12.1 Toxicity

Product/ingredient name	Result	Species	Dose / Exposure
n-butyl acetate	Acute - LC50	Fish	18 mg/l [96 hours]
Hydrocarbons, C9, aromatics < 0.1% cumene	LC50	Fish	9.2 mg/l [96 hours]
2-methylpropan-1-ol	Acute - EC50	Daphnia	1100 mg/l [48 hours]
ethylbenzene	Acute - EC50 - Fresh water	Daphnia	1.8 mg/l [48 hours]
	Chronic - NOEC - Fresh water	Daphnia - *Ceriodaphnia dubia*	1 mg/l
Reaction mass of bis (1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and	LC50	Fish	0.9 mg/l [96 hours]

SECTION 12: Ecological information

methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	EC50	Algae	1.68 mg/l [72 hours]
n-butyl acrylate	Acute - EC50 - Marine water	Algae - Diatom - *Phaeodactylum tricornutum* - Exponential growth phase	45.908 mg/l [96 hours]
	Chronic - EC10 - Marine water	Algae - Green Flagellate - *Platymonas subcordiformis* - Exponential growth phase	7.924 mg/l [96 hours]
toluene	EC50	Daphnia	3.78 mg/l [48 hours]
	LC50	Fish	5.5 mg/l [96 hours]

Conclusion/Summary : Not available.

12.2 Persistence and degradability

Product/ingredient name	Test	Result	Dose / Inoculum
n-butyl acetate	TEPA and OECD 301D	83% [28 days] - Readily	
Hydrocarbons, C9, aromatics < 0.1% cumene	-	78% [28 days]	
ethylbenzene	-	79% [10 days] - Readily	

Conclusion/Summary : Not available.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
n-butyl acetate	-	-	Readily
xylene	-	-	Readily
Hydrocarbons, C9, aromatics < 0.1% cumene	-	-	Readily
ethylbenzene	-	-	Readily
toluene	-	-	Readily

12.3 Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
n-butyl acetate	2.3	-	Low
xylene	3.12	7.4 to 18.5	Low
Hydrocarbons, C9, aromatics < 0.1% cumene	3.7 to 4.5	10 to 2500	High
2-methylpropan-1-ol	1	-	Low
ethylbenzene	3.6	79.43	Low
n-butyl acrylate	2.38	-	Low
toluene	2.73	90	Low

12.4 Mobility in soil

Soil/water partition coefficient : Not available.

Mobility : Not available.

12.5 Results of PBT and vPvB assessment

Product/ingredient name	PBT	P	B	T	vPvB	vP	vB
n-butyl acetate	No	N/A	N/A	No	N/A	N/A	N/A
xylene	No	N/A	No	No	No	N/A	No
Hydrocarbons, C9, aromatics < 0.1% cumene	No	N/A	No	No	No	N/A	No
2-methylpropan-1-ol	No	N/A	N/A	No	N/A	N/A	N/A
ethylbenzene	No	N/A	No	Yes	No	N/A	No
Hexanoic acid, 2-ethyl-, zinc salt, basic	N/A	N/A	N/A	Yes	N/A	N/A	N/A
Reaction mass of bis (1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and	N/A	N/A	N/A	Yes	N/A	N/A	N/A

SECTION 12: Ecological information

methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate							
n-butyl acrylate	No	N/A	N/A	No	N/A	N/A	N/A
toluene	No	N/A	No	Yes	No	N/A	No

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

SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

13.1 Waste treatment methods

Product

Methods of disposal : The generation of waste should be avoided or minimised 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.

Hazardous waste

Waste catalogue

Waste code	Waste designation
08 01 11*	waste paint and varnish containing organic solvents or other hazardous substances

Packaging

Methods of disposal : The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

Type of packaging	Waste catalogue
Container	15 01 06 mixed packaging

Special precautions : 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. Vapour 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 spilt material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

	ADR/RID	ADN	IMDG	IATA
14.1 UN number	UN1263	UN1263	UN1263	UN1263
14.2 UN proper shipping name	PAINT	PAINT	PAINT	PAINT
14.3 Transport hazard class(es)	3	3	3	3
14.4 Packing group	III	III	III	III
14.5 Environmental hazards	No.	Yes.	No.	No.

SECTION 14: Transport information

Marine pollutant substances	Not applicable.	Not applicable.	Not applicable.	Not applicable.

Additional information

ADR/RID : None identified.

Tunnel code : (D/E)

ADN : The product is only regulated as an environmentally hazardous substance when transported in tank vessels.

IMDG : None identified.

IATA : None identified.

14.6 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.

14.7 Transport in bulk according to IMO instruments : Not available.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

UK (GB)/REACH

Annex XIV - List of substances subject to authorisation

Annex XIV

None of the components are listed.

Substances of very high concern

None of the components are listed.

Explosive precursors : Not applicable.

Ozone depleting substances

Not listed.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

Product/ingredient name	Entry Number (REACH)
SIGMADUR 540 BASE RAL 5011	3 30
Hexanoic acid, 2-ethyl-, zinc salt, basic	30
toluene	48

Labelling : Restricted to professional users.

Seveso Directive

This product is controlled under the Seveso Directive.

Danger criteria

Category
P5c

SECTION 16: Other information

Indicates information that has changed from previously issued version.

SECTION 16: Other information

Abbreviations and acronyms : ATE = Acute Toxicity Estimate
GB CLP = UK CLP (EC No 1272/2008) on the Classification, Labelling and Packaging of Substances and Mixtures as amended by (EU Exit) Regulations 2019 No. 720 and amendments
DMEL = Derived Minimal Effect Level
DNEL = Derived No Effect Level
EUH statement = GB CLP-specific Hazard statement
N/A = Not available
PBT = Persistent, Bioaccumulative and Toxic
PNEC = Predicted No Effect Concentration
RRN = REACH Registration Number
SGG = Segregation Group
vPvB = Very Persistent and Very Bioaccumulative

Procedure used to derive the classification

Classification	Justification
Flam. Liq. 3, H226	On basis of test data
Eye Irrit. 2, H319	Calculation method
Skin Sens. 1, H317	Calculation method
Repr. 1B, H360D	Calculation method
Aquatic Chronic 3, H412	Calculation method

Full text of abbreviated H statements

H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H360D	May damage the unborn child.
H361d	Suspected of damaging the unborn child.
H361f	Suspected of damaging fertility.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
EUH066	Repeated exposure may cause skin dryness or cracking.

Full text of classifications

Acute Tox. 4	ACUTE TOXICITY - Category 4
Aquatic Acute 1	SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 1
Aquatic Chronic 1	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 1
Aquatic Chronic 2	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2
Aquatic Chronic 3	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3
Asp. Tox. 1	ASPIRATION HAZARD - Category 1
Eye Dam. 1	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1
Eye Irrit. 2	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2
Flam. Liq. 2	FLAMMABLE LIQUIDS - Category 2
Flam. Liq. 3	FLAMMABLE LIQUIDS - Category 3
Repr. 1B	REPRODUCTIVE TOXICITY - Category 1B
Repr. 2	REPRODUCTIVE TOXICITY - Category 2
Skin Irrit. 2	SKIN CORROSION/IRRITATION - Category 2
Skin Sens. 1	SKIN SENSITISATION - Category 1
Skin Sens. 1A	SKIN SENSITISATION - Category 1A
STOT RE 2	SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 2
STOT SE 3	SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 3

SECTION 16: Other information

History

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Prepared by : EHS

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Disclaimer

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