

SAFETY DATA SHEET



Date of issue/Date of revision : 23 October 2023 Version : 1.01

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

1.1 Product identifier

Product name : SIGMA THINNER 21-25
EC number : 919-284-0
CAS number : Not available.
Product code : 00110869
Product description :
Product type : Liquid.
Other means of identification : Not available.

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses

Use in coatings-Professional

Product use : Professional applications, Used by spraying.
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 : UVCB

Classification according to UK CLP/GHS

Carc. 2, H351
STOT SE 3, H336
Asp. Tox. 1, H304
Aquatic Chronic 2, H411

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

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SECTION 2: Hazards identification

Hazard pictograms :



Signal word :

Danger

Hazard statements :

May be fatal if swallowed and enters airways.
May cause drowsiness or dizziness.
Suspected of causing cancer.
Toxic to aquatic life with long lasting effects.

Precautionary statements

Prevention :

Wear protective gloves: > 8 hours (breakthrough time): Viton®. Wear protective clothing. Wear eye or face protection. Avoid release to the environment.

Response :

Collect spillage. IF SWALLOWED: Immediately call a POISON CENTER or doctor. Do NOT induce vomiting.

Storage :

Not applicable.

Disposal :

Dispose of contents and container in accordance with all local, regional, national and international regulations.
P280, P273, P391, P301 + P310, P331, P501

Supplemental label elements :

Repeated exposure may cause skin dryness or cracking.

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

Not applicable.

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 :

PBT	P	B	T	vPvB	vP	vB
No	N/A	N/A	No	N/A	N/A	N/A

Other hazards which do not result in classification :

Prolonged or repeated contact may dry skin and cause irritation.

SECTION 3: Composition/information on ingredients

3.1 Substances : UVCB

Product/ingredient name	Identifiers	%	Classification	Type
Solvent naphtha (petroleum), heavy arom. Nota(s) P	REACH #: 01-2119451097-39 EC: 265-198-5 CAS: 64742-94-5 Index: 649-424-00-3	86.9	STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Chronic 2, H411 EUH066 See Section 16 for the full text of the H statements declared above.	[1]

There are no additional ingredients present which, within the current knowledge of the supplier, are classified and contribute to the classification of the substance and hence require reporting in this section.

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SECTION 3: Composition/information on ingredients

Type

[1] Constituent

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.

4.2 Most important symptoms and effects, both acute and delayed

Potential acute health effects

- Eye contact** : No known significant effects or critical hazards.
- Inhalation** : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness.
- Skin contact** : Defatting to the skin. May cause skin dryness and irritation.
- Ingestion** : Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways.

Over-exposure signs/symptoms

- Eye contact** : No specific data.
- Inhalation** : Adverse symptoms may include the following:
 nausea or vomiting
 headache
 drowsiness/fatigue
 dizziness/vertigo
 unconsciousness
- Skin contact** : Adverse symptoms may include the following:
 irritation
 dryness
 cracking
- Ingestion** : Adverse symptoms may include the following:
 nausea or vomiting

4.3 Indication of any immediate medical attention and special treatment needed

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.

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SECTION 5: Firefighting measures

5.1 Extinguishing media

- Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.
- Unsuitable extinguishing media** : None known.

5.2 Special hazards arising from the substance or mixture

- Hazards from the substance or mixture** : In a fire or if heated, a pressure increase will occur and the container may burst. 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 combustion products** : Decomposition products may include the following materials: carbon 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.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

SECTION 6: Accidental release measures

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. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- 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. Collect spillage.

6.3 Methods and material for containment and cleaning up

- Small spill** : Stop leak if without risk. Move containers from spill area. 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. 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.

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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). Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not swallow. Avoid breathing vapour or mist. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. 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 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. 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

No exposure limit value known.

- Recommended monitoring procedures** : 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.

DNELs/DMELs

Product/ingredient name	Type	Exposure	Value	Population	Effects
Solvent naphtha (petroleum), heavy arom. Nota(s) P	DNEL	Long term Oral	0.03 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	0.28 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	0.69 mg/m ³	General population	Local
	DNEL	Long term Inhalation	0.69 mg/m ³	General population	Systemic
	DNEL	Long term Dermal	0.95 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	2.31 mg/m ³	Workers	Local
	DNEL	Long term Inhalation	2.31 mg/m ³	Workers	Systemic
	DNEL	Short term Oral	25.6 mg/kg bw/day	General population	Systemic
	DNEL	Short term Inhalation	143.5 mg/m ³	General population	Local
	DNEL	Short term Inhalation	160.23 mg/m ³	Workers	Local
	DNEL	Short term Inhalation	226 mg/m ³	General population	Systemic
	DNEL	Short term Inhalation	384 mg/m ³	Workers	Systemic

PNECs

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SECTION 8: Exposure controls/personal protection

No PNECs available

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.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety glasses with side shields.

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.

Gloves : For prolonged or repeated handling, use the following type of gloves:

Recommended: 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.

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 : Colourless.
Odour : Characteristic.

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SECTION 9: Physical and chemical properties

Odour threshold	: Not available.
Melting point/freezing point	: May start to solidify at the following temperature: -43.77°C (-46.8°F) This is based on data for the following ingredient: 1,2,4-trimethylbenzene. Weighted average: -50.59°C (-59.1°F)
Initial boiling point and boiling range	: >37.78°C (>100°F)
Flammability (solid, gas)	: liquid
Upper/lower flammability or explosive limits	: Greatest known range: Lower: 0.6% Upper: 7% (Solvent naphtha (petroleum), heavy arom.)
Flash point	: Closed cup: 61°C (141.8°F)
Auto-ignition temperature	: 508°C (946.4°F)
Decomposition temperature	:
pH	: Not applicable. Not applicable. insoluble in water.
Viscosity	: Kinematic (40°C): <14 mm ² /s
Solubility(ies)	:

Media	Result
cold water	Not soluble

Miscible with water	: No.
Partition coefficient: n-octanol/ water	: Not applicable.
Vapour pressure	: Not available.
Relative density	: 0.9
Vapour density	: Highest known value: 4.62 (Air = 1) (p-cymene). Weighted average: 4.38 (Air = 1)
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

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SECTION 11: Toxicological information**11.1 Information on toxicological effects****Acute toxicity**

Product/ingredient name	Result	Species	Dose	Exposure
Solvent naphtha (petroleum), heavy arom. Nota(s) P	LC50 Inhalation Dusts and mists	Rat	>5.2 mg/l	4 hours
	LD50 Oral	Rat	>5 g/kg	-

Conclusion/Summary : Not available.**Acute toxicity estimates**

N/A

Irritation/Corrosion**Conclusion/Summary** : Not available.**Skin** : Not available.**Eyes** : Not available.**Respiratory** : Not available.**Sensitisation****Conclusion/Summary****Skin** : Not available.**Respiratory** : Not available.**Mutagenicity****Conclusion/Summary** : Not available.**Carcinogenicity****Conclusion/Summary** : Not available.**Reproductive toxicity****Conclusion/Summary** : Not available.**Teratogenicity****Conclusion/Summary** : Not available.**Specific target organ toxicity (single exposure)**

Product/ingredient name	Category	Route of exposure	Target organs
Solvent naphtha (petroleum), heavy arom. Nota(s) P	Category 3	-	Narcotic effects

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Product/ingredient name	Result
Solvent naphtha (petroleum), heavy arom. Nota(s) P	ASPIRATION HAZARD - Category 1

Information on likely routes of exposure : Not available.**Potential acute health effects****Eye contact** : No known significant effects or critical hazards.**Inhalation** : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness.**Skin contact** : Defatting to the skin. May cause skin dryness and irritation.**Ingestion** : Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways.

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SECTION 11: Toxicological information

Symptoms related to the physical, chemical and toxicological characteristics

- Eye contact** : No specific data.
- Inhalation** : Adverse symptoms may include the following:
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness
- Skin contact** : Adverse symptoms may include the following:
irritation
dryness
cracking
- Ingestion** : Adverse symptoms may include the following:
nausea or vomiting

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

Not available.

- Conclusion/Summary** : Not available.
- General** : Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis.
- Carcinogenicity** : Suspected of causing cancer. Risk of cancer depends on duration and level of exposure.
- Mutagenicity** : No known significant effects or critical hazards.
- Reproductive toxicity** : No known significant effects or critical hazards.

Other information : Not available.

SECTION 12: Ecological information

12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
 Solvent naphtha (petroleum), heavy arom. Nota(s) P	NOEL 0.48 mg/l Fresh water	Daphnia	21 days

Conclusion/Summary : Not available.

12.2 Persistence and degradability

Conclusion/Summary : Not available.

12.3 Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
 Solvent naphtha (petroleum), heavy arom. Nota(s) P	2.8 to 6.5	-	High

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SECTION 12: Ecological information

12.4 Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.

Mobility : Not available.

12.5 Results of PBT and vPvB assessment

Product/ingredient name	PBT	P	B	T	vPvB	vP	vB
SIGMA THINNER 21-25	No	N/A	N/A	No	N/A	N/A	N/A

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 : Yes.

Waste catalogue

Waste code	Waste designation
08 01 21*	waste paint or varnish remover

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. 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	UN3082	UN3082	UN3082	UN3082
14.2 UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Solvent naphtha (petroleum), heavy aromatic, naphthalene)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Solvent naphtha (petroleum), heavy aromatic, naphthalene)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Solvent naphtha (petroleum), heavy aromatic, naphthalene)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Solvent naphtha (petroleum), heavy aromatic, naphthalene)

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SECTION 14: Transport information

	(Solvent naphtha (petroleum), heavy aromatic, naphthalene)			
14.3 Transport hazard class(es)	9	9	9	9
14.4 Packing group	III	III	III	III
14.5 Environmental hazards	Yes.	Yes.	Yes.	Yes.
Marine pollutant substances	Not applicable.	Not applicable.	(Solvent naphtha (petroleum), heavy aromatic, naphthalene)	Not applicable.

Additional information

- ADR/RID** : This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.
- ADN** : This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.
- IMDG** : This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.
- IATA** : This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 5.0.2.4.1, 5.0.2.6.1.1 and 5.0.2.8.

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.

Ozone depleting substances

Not listed.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles : Not applicable.

Seveso Directive

This product is controlled under the Seveso Directive.

Danger criteria

Category

E2

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SECTION 16: Other information

Indicates information that has changed from previously issued version.

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
Carc. 2, H351	Calculation method
STOT SE 3, H336	Calculation method
Asp. Tox. 1, H304	Calculation method
Aquatic Chronic 2, H411	Calculation method

Full text of abbreviated H statements

H304	May be fatal if swallowed and enters airways.
H336	May cause drowsiness or dizziness.
H351	Suspected of causing cancer.
H411	Toxic to aquatic life with long lasting effects.
EUH066	Repeated exposure may cause skin dryness or cracking.

Full text of classifications

Aquatic Chronic 2	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2
Asp. Tox. 1	ASPIRATION HAZARD - Category 1
Carc. 2	CARCINOGENICITY - Category 2
STOT SE 3	SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 3

History

Date of issue/ Date of revision : 23 October 2023

Date of previous issue : 4 November 2022

Prepared by : EHS

Version : 1.01

Disclaimer

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 us, 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.

Annex to the extended Safety Data Sheet (eSDS)

Professional

Identification of the substance or mixture

Product definition : UVCB
Code : 00110869
Product name : SIGMA THINNER 21-25

Section 1 - Title

Short title of the exposure scenario : 64742-94-5 Use in coatings-Professional
List of use descriptors : **Identified use name:** Use in coatings-Professional
Process Category: PROC01, PROC02, PROC03, PROC04, PROC05, PROC08a, PROC08b, PROC10, PROC11, PROC13, PROC15, PROC19
Substance supplied to that use in form of: As such
Sector of end use: SU22
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC08a, ERC08d
Market sector by type of chemical product: PC09a

Environmental contributing scenarios :

Health Contributing scenarios : **General exposures (closed systems) - PROC01**
Filling of equipment from drums or containers - PROC02
Use in contained systems - PROC02
Use in contained batch processes - PROC03
Film formation - air drying - PROC04
Preparation of material for application - PROC05
Transfer of substance or mixture (charging and discharging) at non-dedicated facilities - PROC08a
Transfer of substance or mixture (charging and discharging) at dedicated facilities - PROC08b
Roller, spreader, flow application - PROC10
Manual spraying - PROC11
Dipping, immersion and pouring - PROC13
Laboratory activities - PROC15
Hand application - fingerpaints, pastels, adhesives - PROC19

Number of the ES	: 1
Industry Association	: CEPE
Processes and activities covered by the exposure scenario	: Covers the use in coatings (paints, inks, adhesives, etc) including exposures during use (including materials receipt, storage, preparation and transfer from bulk and semi-bulk, application by spray, roller, brush, spreader by hand or similar methods, and film formation), and equipment cleaning, maintenance and associated laboratory activities.

Section 2 - Exposure controls

Contributing scenario controlling environmental exposure for 1:	
Product characteristics	: Substance is complex UVCB. Predominantly hydrophobic
Amounts used	: Annual site tonnage: 0.054 Tonnes/year Fraction of EU tonnage used in region: 0.1 Fraction of Regional tonnage used locally: 1 Maximum daily site tonnage: 0.15 kg/day Regional use tonnage: 110 Tonnes/year
Frequency and duration of use	: Continuous release Emission days: 365 days per year

Date of issue/Date of revision : 2/20/2020

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Environment factors not influenced by risk management	: Local freshwater dilution factor: 10 Local marine water dilution factor: 100
Other conditions affecting environmental exposure	: Release fraction to air from process (initial release prior to RMM): 0.98 Release fraction to soil from process (initial release prior to RMM): 0.01 Release fraction to wastewater from process (initial release prior to RMM): 0.01
Technical conditions and measures at process level (source) to prevent release	: Common practices vary across sites thus conservative process release estimates used.
Technical on-site conditions and measures to reduce or limit discharges, air emissions and releases to soil	: If discharging to domestic sewage treatment plant, provide the required onsite wastewater removal efficiency of \geq (%): 0 % Risk from environmental exposure is driven by freshwater. Treat air emission to provide a typical removal efficiency of : Not applicable. Treat on-site wastewater (prior to receiving water discharge) to provide the required removal efficiency of \geq (%): 0 %
Organisational measures to prevent/limit release from site	: Do not apply industrial sludge to natural soils. Prevent discharge of undissolved substance to or recover from onsite wastewater. Sewage sludge should be incinerated, contained or reclaimed.
Conditions and measures related to sewage treatment plant	: Assumed domestic sewage treatment plant flow: 2000 m ³ /d Estimated substance removal from wastewater via municipal sewage treatment: 94.6 % Not applicable as there is no release to wastewater. Maximum allowable site tonnage (M_{Safe}) based on release following total wastewater treatment removal: 38 kg/day Total efficiency of removal from wastewater after on-site and off-site (municipal treatment plant) RMMs: 94.6 %
Conditions and measures related to external treatment of waste for disposal	: External treatment and disposal of waste should comply with applicable local and/or national regulations.
Conditions and measures related to external recovery of waste	: External recovery and recycling of waste should comply with applicable local and/or national regulations.

Contributing scenario controlling worker exposure for 2: General exposures (closed systems)

Product characteristics	: liquid
Concentration of substance in mixture or article	: Covers percentage substance in the product up to 100%
Frequency and duration of use/exposure	: Covers daily exposures up to 8 hours
Other conditions affecting workers exposure	: Assumes a good basic standard of occupational hygiene is implemented Assumes use at not more than 20°C above ambient temperature.
Product safety-related measures	: Handle substance within a closed system.

Conditions and measures related to personal protection, hygiene and health evaluation

Contributing scenario controlling worker exposure for 3: Filling of equipment from drums or containers

Product characteristics	: liquid
Concentration of substance in mixture or article	: Covers percentage substance in the product up to 100%
Frequency and duration of use/exposure	: Covers daily exposures up to 8 hours
Other conditions affecting workers exposure	: Assumes a good basic standard of occupational hygiene is implemented Assumes use at not more than 20°C above ambient temperature.
Product safety-related measures	: Use in contained systems Handle substance within a closed system.

Conditions and measures related to personal protection, hygiene and health evaluation

Contributing scenario controlling worker exposure for 4: Use in contained systems

Product characteristics	: liquid
Concentration of substance in mixture or article	: Covers percentage substance in the product up to 100%
Frequency and duration of use/exposure	: Covers daily exposures up to 8 hours
Other conditions affecting workers exposure	: Assumes a good basic standard of occupational hygiene is implemented Assumes use at not more than 20°C above ambient temperature.
Product safety-related measures	: General exposures (closed systems) Handle substance within a closed system.

Conditions and measures related to personal protection, hygiene and health evaluation**Contributing scenario controlling worker exposure for 5: Use in contained batch processes**

Product characteristics	: liquid
Concentration of substance in mixture or article	: Covers percentage substance in the product up to 100%
Frequency and duration of use/exposure	: Covers daily exposures up to 8 hours
Other conditions affecting workers exposure	: Assumes a good basic standard of occupational hygiene is implemented Assumes use at not more than 20°C above ambient temperature.
Product safety-related measures	: Preparation of material for application No other specific measures identified.

Conditions and measures related to personal protection, hygiene and health evaluation**Contributing scenario controlling worker exposure for 6: Film formation - air drying**

Product characteristics	: liquid
Concentration of substance in mixture or article	: Covers percentage substance in the product up to 100%
Frequency and duration of use/exposure	: Covers daily exposures up to 8 hours
Other conditions affecting workers exposure	: Assumes a good basic standard of occupational hygiene is implemented Assumes use at not more than 20°C above ambient temperature.
Product safety-related measures	: Indoor or outdoor use No other specific measures identified.

Conditions and measures related to personal protection, hygiene and health evaluation**Contributing scenario controlling worker exposure for 7: Preparation of material for application**

Product characteristics	: liquid
Concentration of substance in mixture or article	: Covers percentage substance in the product up to 100%
Frequency and duration of use/exposure	: Covers daily exposures up to 8 hours
Other conditions affecting workers exposure	: Assumes a good basic standard of occupational hygiene is implemented Assumes use at not more than 20°C above ambient temperature.
Product safety-related measures	: Indoor use No other specific measures identified.

Conditions and measures related to personal protection, hygiene and health evaluation

Contributing scenario controlling worker exposure for 8: Transfer of substance or mixture (charging and discharging) at non-dedicated facilities

Product characteristics	: liquid
Concentration of substance in mixture or article	: Covers percentage substance in the product up to 100%
Frequency and duration of use/exposure	: Covers daily exposures up to 8 hours
Other conditions affecting workers exposure	: Assumes a good basic standard of occupational hygiene is implemented Assumes use at not more than 20°C above ambient temperature.
Product safety-related measures	: No other specific measures identified.

Conditions and measures related to personal protection, hygiene and health evaluation**Contributing scenario controlling worker exposure for 9: Transfer of substance or mixture (charging and discharging) at dedicated facilities**

Product characteristics	: liquid
Concentration of substance in mixture or article	: Covers percentage substance in the product up to 100%
Frequency and duration of use/exposure	: Covers daily exposures up to 8 hours
Other conditions affecting workers exposure	: Assumes a good basic standard of occupational hygiene is implemented Assumes use at not more than 20°C above ambient temperature.
Product safety-related measures	: No other specific measures identified.

Conditions and measures related to personal protection, hygiene and health evaluation**Contributing scenario controlling worker exposure for 10: Roller, spreader, flow application**

Product characteristics	: liquid
Concentration of substance in mixture or article	: Covers percentage substance in the product up to 100%
Frequency and duration of use/exposure	: Covers daily exposures up to 8 hours
Other conditions affecting workers exposure	: Assumes a good basic standard of occupational hygiene is implemented Assumes use at not more than 20°C above ambient temperature.
Product safety-related measures	: No other specific measures identified.

Conditions and measures related to personal protection, hygiene and health evaluation**Contributing scenario controlling worker exposure for 11: Manual spraying**

Product characteristics	: liquid
Concentration of substance in mixture or article	: Limit the substance content in the mixture to 50%.
Frequency and duration of use/exposure	: Covers daily exposures up to 8 hours
Other conditions affecting workers exposure	: Assumes a good basic standard of occupational hygiene is implemented Assumes use at not more than 20°C above ambient temperature.
Ventilation control measures	: Indoor use Provide a good standard of controlled ventilation (10 to 15 air changes per hour).
Product safety-related measures	: Outdoor use Ensure operation is undertaken outdoors. Avoid carrying out activities involving exposure for more than 4 hours per day.

Conditions and measures related to personal protection, hygiene and health evaluation

Respiratory protection	: Wear a respirator conforming to EN140 with type A filter or better.
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Contributing scenario controlling worker exposure for 12: Dipping, immersion and pouring

Product characteristics	: liquid
Concentration of substance in mixture or article	: Covers percentage substance in the product up to 100%
Frequency and duration of use/exposure	: Covers daily exposures up to 8 hours
Other conditions affecting workers exposure	: Assumes a good basic standard of occupational hygiene is implemented Assumes use at not more than 20°C above ambient temperature.
Product safety-related measures	: Indoor or outdoor use Avoid manual contact with wet work pieces.

Conditions and measures related to personal protection, hygiene and health evaluation**Contributing scenario controlling worker exposure for 13: Laboratory activities**

Product characteristics	: liquid
Concentration of substance in mixture or article	: Covers percentage substance in the product up to 100%
Frequency and duration of use/exposure	: Covers daily exposures up to 8 hours
Other conditions affecting workers exposure	: Assumes a good basic standard of occupational hygiene is implemented Assumes use at not more than 20°C above ambient temperature.
Product safety-related measures	: No other specific measures identified.

Conditions and measures related to personal protection, hygiene and health evaluation**Contributing scenario controlling worker exposure for 14: Hand application - fingerpaints, pastels, adhesives**

Product characteristics	: liquid
Concentration of substance in mixture or article	: Covers percentage substance in the product up to 100%
Frequency and duration of use/exposure	: Covers daily exposures up to 8 hours
Other conditions affecting workers exposure	: Assumes a good basic standard of occupational hygiene is implemented Assumes use at not more than 20°C above ambient temperature.
Ventilation control measures	: Indoor use Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour).
Product safety-related measures	: Outdoor use Ensure operation is undertaken outdoors.

Conditions and measures related to personal protection, hygiene and health evaluation**Section 3 - Exposure estimation and reference to its source**

Website: : Not applicable.

Exposure estimation and reference to its source - Environment: 1:

Exposure assessment (environment):	: Hydrocarbon Block Method (Petrorisk)
Exposure estimation and reference to its source	: Not available.

Exposure estimation and reference to its source - Workers: 2: General exposures (closed systems)

Exposure assessment (human):	: The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.
Exposure estimation and reference to its source	: Not available.

Exposure estimation and reference to its source - Workers: 3: Filling of equipment from drums or containers

Exposure assessment (human): : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

Exposure estimation and reference to its source : Not available.

Exposure estimation and reference to its source - Workers: 4: Use in contained systems

Exposure assessment (human): : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

Exposure estimation and reference to its source : Not available.

Exposure estimation and reference to its source - Workers: 5: Use in contained batch processes

Exposure assessment (human): : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

Exposure estimation and reference to its source : Not available.

Exposure estimation and reference to its source - Workers: 6: Film formation - air drying

Exposure assessment (human): : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

Exposure estimation and reference to its source : Not available.

Exposure estimation and reference to its source - Workers: 7: Preparation of material for application

Exposure assessment (human): : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

Exposure estimation and reference to its source : Not available.

Exposure estimation and reference to its source - Workers: 8: Transfer of substance or mixture (charging and discharging) at non-dedicated facilities

Exposure assessment (human): : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

Exposure estimation and reference to its source : Not available.

Exposure estimation and reference to its source - Workers: 9: Transfer of substance or mixture (charging and discharging) at dedicated facilities

Exposure assessment (human): : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

Exposure estimation and reference to its source : Not available.

Exposure estimation and reference to its source - Workers: 10: Roller, spreader, flow application

Exposure assessment (human): : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

Exposure estimation and reference to its source : Not available.

Exposure estimation and reference to its source - Workers: 11: Manual spraying

Exposure assessment (human): : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

Exposure estimation and reference to its source : Not available.

Exposure estimation and reference to its source - Workers: 12: Dipping, immersion and pouring

Exposure assessment (human): : The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

Exposure estimation and reference to its source : Not available.

Exposure estimation and reference to its source - Workers: 13: Laboratory activities

Exposure assessment (human):	: The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.
Exposure estimation and reference to its source	: Not available.

Exposure estimation and reference to its source - Workers: 14: Hand application - fingerpaints, pastels, adhesives

Exposure assessment (human):	: The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.
Exposure estimation and reference to its source	: Not available.

Section 4 - Guidance to DU to evaluate whether he works inside the boundaries set by the ES

Environment	: Further details on scaling and control technologies are provided in SPERC factsheet. Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures. Maximum Risk Characterization Ratios for air emissions: 5.8E-005 Maximum Risk Characterisation Ratios for waste water emissions: 0.0018 Required removal efficiency for air can be achieved using on-site technologies, either alone or in combination. Required removal efficiency for wastewater can be achieved using onsite/offsite technologies, either alone or in combination.
Health	: Predicted exposures are not expected to exceed the DN(M)EL when the risk management measures/operational conditions outlined in section 2 are implemented. Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

Additional good practice advice beyond the REACH CSA

Environment	: Not available.
Health	: Not available.