SAFETY DATA SHEET

Date of issue/Date of revision : 14 December 2018 **Version** : 1

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

1.1 Product identifier

Product name : SIGMA THINNER 21-04

Product code : 00114254

Index number : 601-021-00-3

EC number : 203-625-9

REACH Registration number

Registration number	Legal entity
01-2119471310-51	-

CAS number : 108-88-3

Product type : Liquid.

Other means of identification : Benzene, methyl-; Methylbenzene; Toluol; Phenyl methane; Methyl benzol; toluene, pure; preparation consisting of: — 80 % or more but not more than 90 % by weight of (S)-hydroxy-3-phenoxy-benzeneacetonitrile (CAS RN 61826-76-4) and — 10 % or more but not more than 20 % by weight of toluene (CAS RN108-88-3); toluene, crude; preparation containing by weight: — 15 % or more but not more than 60 % of styrene butadiene copolymers or styrene isoprene copolymers and — 10 % or more but not more than 30 % of pinene polymers or pentadiene copolymers dissolved in: — methyl ethyl ketone (CAS RN 78-93-3) — heptane (CAS RN 142-82-5), and — toluene (CAS RN 108-88-3) or light aliphatic solvent naphta (CAS RN 64742-89-8); methacide; 1-Methylbenzene

Chemical formula : C7-H8

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

Identified uses
Use in coatings-Professional Use in coatings-Consumer

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

1.3 Details of the supplier of the safety data sheet

Sigma Paint Saudi Arabia Ltd.
PO Box 7509
Dammam 31472
Saudi Arabia
Tel: 00966 138 47 31 00
Fax: 00966 138 47 17 34

e-mail address of person responsible for this SDS : ndpic@sfda.gov.sa

1.4 Emergency telephone number : 00966 138473100 extn 1001

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : Mono-constituent substance

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Flam. Liq. 2, H225
Skin Irrit. 2, H315
Repr. 2, H361d (Unborn child)
STOT SE 3, H336
STOT RE 2, H373
Asp. Tox. 1, H304

The product is classified as hazardous according to Regulation (EC) 1272/2008 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

Hazard statements : Highly flammable liquid and vapour.
Causes skin irritation.
Suspected of damaging the unborn child.
May be fatal if swallowed and enters airways.
May cause drowsiness or dizziness.
May cause damage to organs through prolonged or repeated exposure.

Precautionary statements

General : Keep out of reach of children. If medical advice is needed, have product container or label at hand.

Prevention : Wear protective gloves. Wear protective clothing. Wear eye or face protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not breathe vapour.

Response : IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF SWALLOWED: Immediately call a POISON CENTER or physician. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.

Storage : Store in a well-ventilated place. Keep cool.

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

Supplemental label elements : Not applicable.

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 : Yes, applicable.

Tactile warning of danger : Yes, applicable.

SECTION 2: Hazards identification

2.3 Other hazards

Substance meets the criteria for PBT : No.
P: Not available. B: No. T: Yes.

Substance meets the criteria for vPvB : No.
vP: Not available. vB: No.

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 : Mono-constituent substance

Product/ingredient name	Identifiers	% by weight	Classification Regulation (EC) No. 1272/2008 [CLP]	Type
toluene	EC: 203-625-9 CAS: 108-88-3 Index: 601-021-00-3	50 - 100	Flam. Liq. 2, H225 Skin Irrit. 2, H315 Repr. 2, H361d (Unborn child) STOT SE 3, H336 STOT RE 2, H373 Asp. Tox. 1, H304	[A]

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

Type

[A] Constituent
[B] Impurity
[C] Stabilising additive

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 : Causes skin irritation. Defatting to the skin.

SECTION 4: First aid measures

Ingestion : Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways.

Over-exposure signs/symptoms

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

Inhalation : Adverse symptoms may include the following:
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness
reduced 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:
nausea or vomiting
reduced foetal weight
increase in foetal deaths
skeletal malformations

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.

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 : Highly 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. The vapour/gas is heavier than air and will spread along the ground. Vapours may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back.

Hazardous combustion products : Decomposition products may include the following materials:
carbon oxides

5.3 Advice for firefighters

SECTION 5: Firefighting measures

Special precautions 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 European standard 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 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).

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.

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. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product.

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). 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. Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapour or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved

SECTION 7: Handling and storage

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 non-sparking tools. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by earthing and bonding containers and equipment before transferring material. 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 oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in 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.

Recommendations : Not available.

Industrial sector specific solutions : Not available.

SECTION 8: Exposure controls/personal protection

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).

8.1 Control parameters

Occupational exposure limits

Product/ingredient name	Exposure limit values
toluene	**EU OEL (Europe, 2/2017). Absorbed through skin.** STEL: 384 mg/m³ 15 minutes. STEL: 100 ppm 15 minutes. TWA: 192 mg/m³ 8 hours. TWA: 50 ppm 8 hours.

Recommended monitoring procedures : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard 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.

SECTION 8: Exposure controls/personal protection

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

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 : 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.

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

Recommended: polyvinyl chloride (PVC), Nitrile gloves.

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. Refer to European Standard EN 1149 for further information on material and design requirements and test methods.

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.

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

9.1 Information on basic physical and chemical properties

Appearance

Physical state	:	Liquid. [Watery liquid.]
Colour	:	Clear.
Odour	:	Characteristic.
Odour threshold	:	Not available.
pH	:	insoluble in water.
Melting point/freezing point	:	-95°C (-139°F)
Initial boiling point and boiling range	:	>37.78°C
Flash point	:	Closed cup: 4°C
Evaporation rate	:	2 (butyl acetate = 1)
Material supports combustion.	:	Yes.
Flammability (solid, gas)	:	Not available.
Upper/lower flammability or explosive limits	:	Lower: 1.1% Upper: 7.1%
Vapour pressure	:	3.1 kPa (23.2 mm Hg) (at 20°C)
Vapour density	:	3.1 (Air = 1)
Relative density	:	0.86
Solubility(ies)	:	Insoluble in the following materials: cold water.
Water Solubility at room temperature	:	0.573 g/l
Partition coefficient: n-octanol/ water	:	2.73
Auto-ignition temperature	:	552°C
Decomposition temperature	:	Stable under recommended storage and handling conditions (see Section 7).
Viscosity	:	Dynamic (room temperature): 0.56 mPa·s Kinematic (40°C): <0.14 cm^2/s
Explosive properties	:	Product does not present an explosion hazard.
Oxidising properties	:	Product does not present an oxidizing hazard.

9.2 Other information

Aerosol product

Heat of combustion	:	-40542180 J/kg

No additional information.

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.

SECTION 10: Stability and reactivity

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

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
TOLUENE	LC50 Inhalation Vapour LD50 Dermal LD50 Oral	Rat Rabbit Rat	49 g/m³ 8.39 g/kg 5580 mg/kg	4 hours - -

Conclusion/Summary : Not available.

Irritation/Corrosion

Conclusion/Summary

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
toluene	Category 3	Not applicable.	Narcotic effects

Specific target organ toxicity (repeated exposure)

Product/ingredient name	Category	Route of exposure	Target organs
toluene	Category 2	Not determined	Not determined

Aspiration hazard

Product/ingredient name	Result
toluene	ASPIRATION HAZARD - Category 1

Information on likely routes of exposure : Not available.

Potential acute health effects

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

SECTION 11: Toxicological information

Ingestion : Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways.

Skin contact : Causes skin irritation. Defatting to the skin.

Eye contact : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Inhalation : Adverse symptoms may include the following:
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness
reduced foetal weight
increase in foetal deaths
skeletal malformations

Ingestion : Adverse symptoms may include the following:
nausea or vomiting
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

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

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 : May cause damage to organs through prolonged or repeated exposure. Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis.

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : Suspected of damaging the unborn child.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Other information : Not available.

SECTION 11: Toxicological information

There are no data available on the mixture itself. The mixture has been assessed following the conventional method of the CLP Regulation (EC) No 1272/2008 and is classified for toxicological properties accordingly. See Sections 2 and 3 for details.

Exposure to component solvent vapour concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, loss of consciousness.
Solvents may cause some of the above effects by absorption through the skin. Repeated or prolonged contact with the mixture may cause removal of natural fat from the skin, resulting in non-allergic contact dermatitis and absorption through the skin.
If splashed in the eyes, the liquid may cause irritation and reversible damage.
Ingestion may cause nausea, diarrhea and vomiting.
This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

SECTION 12: Ecological information

12.1 Toxicity

Conclusion/Summary : Not available.

12.2 Persistence and degradability

Conclusion/Summary : Not available.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
toluene	-	-	Readily

12.3 Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
toluene	2.73	8.32	low

12.4 Mobility in soil

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

Mobility : Not available.

12.5 Results of PBT and vPvB assessment

PBT : No.
P: Not available. B: No. T: Yes.

vPvB : No.
vP: Not available. vB: 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 : Yes.

European waste catalogue (EWC)

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	European waste catalogue (EWC)	
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	IMDG	IATA
14.1 UN number	UN1294	UN1294	UN1294
14.2 UN proper shipping name	TOLUENE	TOLUENE	Toluene
14.3 Transport hazard class(es)	3	3	3
14.4 Packing group	II	II	II
14.5 Environmental hazards	No.	No.	No.
Marine pollutant substances	Not applicable.	Not applicable.	Not applicable.

Additional information

ADR/RID : None identified.

Tunnel code : (D/E)

IMDG : None identified.

IATA : None identified.

SECTION 14: Transport information

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 Annex II of Marpol and the IBC Code : Not applicable.

SECTION 15: Regulatory information

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

EU Regulation (EC) No. 1907/2006 (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.

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

Other national and international regulations.

Ozone depleting substances (1005/2009/EU)

Not listed.

15.2 Chemical safety assessment : No Chemical Safety Assessment has been carried out.

SECTION 16: Other information

Indicates information that has changed from previously issued version.

Abbreviations and acronyms : ATE = Acute Toxicity Estimate
CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
DNEL = Derived No Effect Level
EUH statement = CLP-specific Hazard statement
PNEC = Predicted No Effect Concentration
RRN = REACH Registration Number

Full text of abbreviated H statements :

H225	Highly flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H336	May cause drowsiness or dizziness.
H361d	Suspected of damaging the unborn child.
H373	May cause damage to organs through prolonged or repeated exposure.

Full text of classifications [CLP/GHS] :

Asp. Tox. 1, H304	ASPIRATION HAZARD - Category 1
Flam. Liq. 2, H225	FLAMMABLE LIQUIDS - Category 2
Repr. 2, H361d	REPRODUCTIVE TOXICITY (Unborn child) - Category 2
Skin Irrit. 2, H315	SKIN CORROSION/IRRITATION - Category 2
STOT RE 2, H373	SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 2
STOT SE 3, H336	SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (Narcotic effects) - Category 3

History

SECTION 16: Other information

Date of issue/ Date of revision : 14 December 2018

Date of previous issue : No previous validation

Prepared by : EHS

Version : 1

Other information : Solvent.

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 : Mono-constituent substance

Code : 00114254

Product name : SIGMA THINNER 21-04

Section 1 - Title

Short title of the exposure scenario : 108-88-3 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
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, ERC08b
Market sector by type of chemical product: PC09a

Environmental contributing scenarios :

Health Contributing scenarios : **General exposures (closed systems) -** PROC01, PROC02, PROC03
Filling/preparation of equipment from drums or containers - PROC04
Preparation of material for application - PROC04, PROC05
Film formation - air drying - PROC04, PROC05
Manual spraying - PROC05, PROC11
Material transfers - PROC08a, PROC08b
Roller, spreader, flow application - PROC10
Dipping, immersion and pouring - PROC13
Laboratory activities - PROC15
Hand application - fingerpaints, pastels, adhesives
Equipment cleaning and maintenance
Storage - PROC02

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) within closed or contained systems including incidental exposures during use (including materials receipt, storage, preparation and transfer from bulk and semi-bulk, application activities and film formation) and equipment cleaning, maintenance and associated laboratory activities.

Section 2 - Exposure controls

Contributing scenario controlling environmental exposure for 1:

Product characteristics : liquid
Water solubility (g/l): 0.573
Vapour pressure: 4030 Pa
Readily biodegradable

Amounts used : Fraction of EU tonnage used in region: 150000
Regional use tonnage: 15000
Fraction of Regional tonnage used locally: 0.002
Annual site tonnage: 300 Tonnes/year

Frequency and duration of use : Emission days: 365

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 wastewater from process (initial release prior to RMM): 0.01
Release fraction to soil from process (initial release prior to RMM): 0.01

Technical on-site conditions and measures to reduce or limit discharges, air emissions and releases to soil	:	Treat air emission to provide the required removal efficiency of 0 % Treat on-site wastewater (prior to receiving water discharge) to provide the required removal efficiency of >= (%): 93.3
Organisational measures to prevent/limit release from site	:	Do not apply industrial sludge to natural soils.
Conditions and measures related to sewage treatment plant	:	Estimated substance removal from wastewater via municipal sewage treatment: 93.3 % Total efficiency of removal from wastewater after on-site and off-site (municipal treatment plant) RMMs: 93.3 % Maximum allowable site tonnage (M_{Safe}) based on release following total wastewater treatment removal: 12700 kg/day Assumed domestic sewage treatment plant flow: 2000 m³/d
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)

Concentration of substance in mixture or article	:	Covers percentage substance in the product up to 100% (unless stated differently).
Physical state	:	Liquid, vapour pressure 0.5 - 10 kPa at Standard Temperature and Pressure
Amounts used	:	Not applicable.
Frequency and duration of use/exposure	:	Covers daily exposures up to 8 hours
Human factors not influenced by risk management	:	Not applicable.
Other conditions affecting workers exposure	:	Assumes use at not more than 20°C above ambient temperature, unless stated differently. Assumes a good basic standard of occupational hygiene is implemented Users are advised to consider national Occupational Exposure Limits or other equivalent values.
Product safety-related measures	:	Use in contained systems-No other specific measures identified.

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

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

Concentration of substance in mixture or article	:	Covers percentage substance in the product up to 100% (unless stated differently).
Physical state	:	Liquid, vapour pressure 0.5 - 10 kPa at Standard Temperature and Pressure
Amounts used	:	Not applicable.
Frequency and duration of use/exposure	:	Covers daily exposures up to 8 hours
Human factors not influenced by risk management	:	Not applicable.
Other conditions affecting workers exposure	:	Assumes use at not more than 20°C above ambient temperature, unless stated differently. Assumes a good basic standard of occupational hygiene is implemented Users are advised to consider national Occupational Exposure Limits or other equivalent values.
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 4: Preparation of material for application

Concentration of substance in mixture or article	:	Covers percentage substance in the product up to 100% (unless stated differently).
Physical state	:	Liquid, vapour pressure 0.5 - 10 kPa at Standard Temperature and Pressure
Amounts used	:	Not applicable.
Frequency and duration of use/exposure	:	Covers daily exposures up to 8 hours
Human factors not influenced by risk management	:	Not applicable.
Other conditions affecting workers exposure	:	Assumes use at not more than 20°C above ambient temperature, unless stated differently. Assumes a good basic standard of occupational hygiene is implemented Users are advised to consider national Occupational Exposure Limits or other equivalent values.
Product safety-related measures	:	Ensure operation is undertaken outdoors.-Avoid carrying out activities involving exposure for more than 4 hours.
Organisational measures to prevent/limit releases, dispersion and exposure	:	Indoor-Provide a good standard of controlled ventilation (10 to 15 air changes per hour).

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

Contributing scenario controlling worker exposure for 5: Film formation - air drying

Concentration of substance in mixture or article	:	Covers percentage substance in the product up to 100% (unless stated differently).
Physical state	:	Liquid, vapour pressure 0.5 - 10 kPa at Standard Temperature and Pressure
Amounts used	:	Not applicable.
Frequency and duration of use/exposure	:	Covers daily exposures up to 8 hours
Human factors not influenced by risk management	:	Not applicable.
Other conditions affecting workers exposure	:	Assumes use at not more than 20°C above ambient temperature, unless stated differently. Assumes a good basic standard of occupational hygiene is implemented Users are advised to consider national Occupational Exposure Limits or other equivalent values.
Product safety-related measures	:	Outdoor-Ensure operation is undertaken outdoors.
Organisational measures to prevent/limit releases, dispersion and exposure	:	Indoor-Provide a good standard of controlled ventilation (10 to 15 air changes per hour).

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

Contributing scenario controlling worker exposure for 6: Manual spraying

Concentration of substance in mixture or article	:	Covers percentage substance in the product up to 100% (unless stated differently).
Physical state	:	Liquid, vapour pressure 0.5 - 10 kPa at Standard Temperature and Pressure
Amounts used	:	Not applicable.
Frequency and duration of use/exposure	:	Covers daily exposures up to 8 hours
Human factors not influenced by risk management	:	Not applicable.
Other conditions affecting workers exposure	:	Assumes use at not more than 20°C above ambient temperature, unless stated differently. Assumes a good basic standard of occupational hygiene is implemented Users are advised to consider national Occupational Exposure Limits or other equivalent values.

Product safety-related measures	:	Indoor-Carry out in a vented booth or extracted enclosure. Outdoor-Ensure operation is undertaken outdoors.

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

Respiratory protection	:	Outdoor-Wear a respirator conforming to EN140 with type A/P2 filter or better.

Contributing scenario controlling worker exposure for 7: Material transfers

Concentration of substance in mixture or article	:	Covers percentage substance in the product up to 100% (unless stated differently).
Physical state	:	Liquid, vapour pressure 0.5 - 10 kPa at Standard Temperature and Pressure
Amounts used	:	Not applicable.
Frequency and duration of use/exposure	:	Covers daily exposures up to 8 hours
Human factors not influenced by risk management	:	Not applicable.
Other conditions affecting workers exposure	:	Assumes use at not more than 20°C above ambient temperature, unless stated differently. Assumes a good basic standard of occupational hygiene is implemented Users are advised to consider national Occupational Exposure Limits or other equivalent values.
Product safety-related measures	:	Drum/batch transfers-Use drum pumps or carefully pour from container.

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

Contributing scenario controlling worker exposure for 8: Roller, spreader, flow application

Concentration of substance in mixture or article	:	Covers percentage substance in the product up to 100% (unless stated differently).
Physical state	:	Liquid, vapour pressure 0.5 - 10 kPa at Standard Temperature and Pressure
Amounts used	:	Not applicable.
Frequency and duration of use/exposure	:	Covers daily exposures up to 8 hours
Human factors not influenced by risk management	:	Not applicable.
Other conditions affecting workers exposure	:	Assumes use at not more than 20°C above ambient temperature, unless stated differently. Assumes a good basic standard of occupational hygiene is implemented Users are advised to consider national Occupational Exposure Limits or other equivalent values.
Product safety-related measures	:	Outdoor-Ensure operation is undertaken outdoors.
Organisational measures to prevent/limit releases, dispersion and exposure	:	Indoor-Provide a good standard of controlled ventilation (10 to 15 air changes per hour).

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

Respiratory protection	:	Outdoor-Wear a respirator conforming to EN140 with type A/P2 filter or better.

Contributing scenario controlling worker exposure for 9: Dipping, immersion and pouring

Concentration of substance in mixture or article	:	Covers percentage substance in the product up to 100% (unless stated differently).
Physical state	:	Liquid, vapour pressure 0.5 - 10 kPa at Standard Temperature and Pressure
Amounts used	:	Not applicable.
Frequency and duration of use/exposure	:	Covers daily exposures up to 8 hours
Human factors not influenced by risk management	:	Not applicable.

Other conditions affecting workers exposure	:	Assumes use at not more than 20°C above ambient temperature, unless stated differently. Assumes a good basic standard of occupational hygiene is implemented Users are advised to consider national Occupational Exposure Limits or other equivalent values.
Product safety-related measures	:	Outdoor-Ensure operation is undertaken outdoors.
Organisational measures to prevent/limit releases, dispersion and exposure	:	Indoor-Provide extract ventilation to points where emissions occur.

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

Respiratory protection	:	Outdoor-Wear suitable respiratory protection (conforming to EN140 with type A filter or better) and gloves (type EN374) if regular skin contact likely.

Contributing scenario controlling worker exposure for 10: Laboratory activities

Concentration of substance in mixture or article	:	Covers percentage substance in the product up to 100% (unless stated differently).
Physical state	:	Liquid, vapour pressure 0.5 - 10 kPa at Standard Temperature and Pressure
Amounts used	:	Not applicable.
Frequency and duration of use/exposure	:	Covers daily exposures up to 8 hours
Human factors not influenced by risk management	:	Not applicable.
Other conditions affecting workers exposure	:	Assumes use at not more than 20°C above ambient temperature, unless stated differently. Assumes a good basic standard of occupational hygiene is implemented Users are advised to consider national Occupational Exposure Limits or other equivalent values.
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: Hand application - fingerpaints, pastels, adhesives

Concentration of substance in mixture or article	:	Covers percentage substance in the product up to 100% (unless stated differently).
Physical state	:	Liquid, vapour pressure 0.5 - 10 kPa at Standard Temperature and Pressure
Amounts used	:	Not applicable.
Frequency and duration of use/exposure	:	Covers daily exposures up to 8 hours
Human factors not influenced by risk management	:	Not applicable.
Other conditions affecting workers exposure	:	Assumes use at not more than 20°C above ambient temperature, unless stated differently. Assumes a good basic standard of occupational hygiene is implemented Users are advised to consider national Occupational Exposure Limits or other equivalent values.
Organisational measures to prevent/limit releases, dispersion and exposure	:	Indoor-Provide a good standard of controlled ventilation (10 to 15 air changes per hour).-Ensure doors and windows are opened. Outdoor-Ensure operation is undertaken outdoors.

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

Respiratory protection	:	Outdoor-Wear suitable respiratory protection (conforming to EN140 with type A filter or better) and gloves (type EN374) if regular skin contact likely.

Contributing scenario controlling worker exposure for 12: Equipment cleaning and maintenance

Concentration of substance in mixture or article	:	Covers percentage substance in the product up to 100% (unless stated differently).
Physical state	:	Liquid, vapour pressure 0.5 - 10 kPa at Standard Temperature and Pressure
Amounts used	:	Not applicable.
Frequency and duration of use/exposure	:	Covers daily exposures up to 8 hours
Human factors not influenced by risk management	:	Not applicable.
Other conditions affecting workers exposure	:	Assumes use at not more than 20°C above ambient temperature, unless stated differently. Assumes a good basic standard of occupational hygiene is implemented Users are advised to consider national Occupational Exposure Limits or other equivalent values.
Product safety-related measures	:	Drain down system prior to equipment break-in or maintenance.

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

Contributing scenario controlling worker exposure for 13: Storage

Concentration of substance in mixture or article	:	Covers percentage substance in the product up to 100% (unless stated differently).
Physical state	:	Liquid, vapour pressure 0.5 - 10 kPa at Standard Temperature and Pressure
Amounts used	:	Not applicable.
Frequency and duration of use/exposure	:	Covers daily exposures up to 8 hours
Human factors not influenced by risk management	:	Not applicable.
Other conditions affecting workers exposure	:	Assumes use at not more than 20°C above ambient temperature, unless stated differently. Assumes a good basic standard of occupational hygiene is implemented Users are advised to consider national Occupational Exposure Limits or other equivalent values.
Product safety-related measures	:	Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions-No other specific measures identified.

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):	:	not available
Exposure estimation and reference to its source	:	Predicted exposures are not expected to exceed the DN(M)EL when the risk management measures/operational conditions outlined in section 2 are implemented.

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

Exposure assessment (human):	:	not available
Exposure estimation and reference to its source	:	Predicted exposures are not expected to exceed the DN(M)EL when the risk management measures/operational conditions outlined in section 2 are implemented.

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

Exposure assessment (human):	:	not available
Exposure estimation and reference to its source	:	Predicted exposures are not expected to exceed the DN(M)EL when the risk management measures/operational conditions outlined in section 2 are implemented.

Exposure estimation and reference to its source - Workers: 4: Preparation of material for application

Exposure assessment (human): : not available

Exposure estimation and reference to its source : Predicted exposures are not expected to exceed the DN(M)EL when the risk management measures/operational conditions outlined in section 2 are implemented.

Exposure estimation and reference to its source - Workers: 5: Film formation - air drying

Exposure assessment (human): : not available

Exposure estimation and reference to its source : Predicted exposures are not expected to exceed the DN(M)EL when the risk management measures/operational conditions outlined in section 2 are implemented.

Exposure estimation and reference to its source - Workers: 6: Manual spraying

Exposure assessment (human): : not available

Exposure estimation and reference to its source : Predicted exposures are not expected to exceed the DN(M)EL when the risk management measures/operational conditions outlined in section 2 are implemented.

Exposure estimation and reference to its source - Workers: 7: Material transfers

Exposure assessment (human): : not available

Exposure estimation and reference to its source : Predicted exposures are not expected to exceed the DN(M)EL when the risk management measures/operational conditions outlined in section 2 are implemented.

Exposure estimation and reference to its source - Workers: 8: Roller, spreader, flow application

Exposure assessment (human): : not available

Exposure estimation and reference to its source : Predicted exposures are not expected to exceed the DN(M)EL when the risk management measures/operational conditions outlined in section 2 are implemented.

Exposure estimation and reference to its source - Workers: 9: Dipping, immersion and pouring

Exposure assessment (human): : not available

Exposure estimation and reference to its source : Predicted exposures are not expected to exceed the DN(M)EL when the risk management measures/operational conditions outlined in section 2 are implemented.

Exposure estimation and reference to its source - Workers: 10: Laboratory activities

Exposure assessment (human): : not available

Exposure estimation and reference to its source : Predicted exposures are not expected to exceed the DN(M)EL when the risk management measures/operational conditions outlined in section 2 are implemented.

Exposure estimation and reference to its source - Workers: 11: Hand application - fingerpaints, pastels, adhesives

Exposure assessment (human): : not available

Exposure estimation and reference to its source : Predicted exposures are not expected to exceed the DN(M)EL when the risk management measures/operational conditions outlined in section 2 are implemented.

Exposure estimation and reference to its source - Workers: 12: Equipment cleaning and maintenance

Exposure assessment (human): : not available

Exposure estimation and reference to its source : Predicted exposures are not expected to exceed the DN(M)EL when the risk management measures/operational conditions outlined in section 2 are implemented.

Exposure estimation and reference to its source - Workers: 13: Storage

Exposure assessment (human): : not available

Exposure estimation and reference to its source : Predicted exposures are not expected to exceed the DN(M)EL when the risk management measures/operational conditions outlined in section 2 are implemented.

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

Environment : not available

Health : not available

Additional good practice advice beyond the REACH CSA

Environment	:	not available
Health	:	not available

Annex to the extended Safety Data Sheet (eSDS)

Consumer

Identification of the substance or mixture

Product definition : Mono-constituent substance

Code : 00114254

Product name : SIGMA THINNER 21-04

Section 1 - Title

Short title of the exposure scenario : 108-88-3 Consumer

List of use descriptors :
Identified use name: Use in coatings-Consumer
Substance supplied to that use in form of: As such
Sector of end use: SU21
Subsequent service life relevant for that use: No.
Environmental Release Category: ERC09a, ERC09b
Market sector by type of chemical product: PC01, PC04, PC08, PC09a, PC09b, PC09c, PC15, PC18, PC23, PC24, PC31, PC34

Environmental contributing scenarios :

Health Contributing scenarios :
PC09 Coatings and Paints, Fillers, Putties, Thinners
Washing car window - PC04
Pouring into radiator - PC04
Lock de-icer - PC04
Laundry and dish-washing products - PC08
Cleaners, liquids (all purpose cleaners, sanitary products, floor cleaners, glass cleaners, carpet cleaners, metal cleaners) - PC08
Cleaners, trigger sprays (all purpose cleaners, sanitary products, glass cleaners) - PC08
Water-borne latex wall paint - PC09a, PC15
Solvent-rich, high-solid, water-borne paint - PC09a, PC15
Aerosol spray can - PC09a, PC15
Removers (paint-, glue-, wall paper-, sealant-remover) - PC09a, PC15
Fillers and putty - PC09b
Plasters and floor equalisers - PC09b
Modelling clay - PC09b
Finger paints - PC09c
Inks and toners - PC18
Polishes, wax/cream (floor, furniture, shoes) - PC23, PC31
Polishes, spray (furniture, shoes) - PC23, PC31
Liquids - PC24
Pastes - PC24
Sprays - PC24
Textile dyes and impregnating products - PC34

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 product transfer and preparation, application by brush, spray by hand or similar methods) and equipment cleaning.

Section 2 - Exposure controls

Contributing scenario controlling environmental exposure for 1:

Product characteristics : liquid
Water solubility (g/l): 0.573
Vapour pressure: 4030 Pa
Readily biodegradable

Amounts used : Fraction of EU tonnage used in region: 150000
Regional use tonnage: 15000 Tonnes/year
Fraction of Regional tonnage used locally: 0.002
Annual site tonnage: 30 Tonnes/year

Frequency and duration of use	:	Emission days: 365
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): 0.985 Release fraction to wastewater from process (initial release prior to RMM): 0.01 Release fraction to soil from process (initial release prior to RMM): 0.005
Conditions and measures related to sewage treatment plant	:	Risk from environmental exposure is driven by freshwater. Estimated substance removal from wastewater via municipal sewage treatment: 93.3% Maximum allowable site tonnage (M_{Safe}) based on release following total wastewater treatment removal: 13600 kg/day Assumed domestic sewage treatment plant flow: 2000 m³/d
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 consumer exposure for 2: PC09 Coatings and Paints, Fillers, Putties, Thinners

Concentration of substance in mixture or article	:	Unless otherwise stated. Covers concentrations up to 100 %
Physical state	:	liquid
Amounts used	:	Unless otherwise stated. Covers skin contact area up to 13800g Covers skin contact area up to 857.2 cm²
Frequency and duration of use/exposure	:	Unless otherwise stated. Covers use up to 1 application per day Covers exposure up to 6 Hours per shift
Other given operational conditions affecting consumers exposure	:	Unless otherwise stated. Assumes activities are at ambient temperature (unless stated differently). Covers use in room size of 20 m³ Provide adequate ventilation.

Conditions and measures related to personal protection and hygiene

Contributing scenario controlling consumer exposure for 3: Washing car window

Concentration of substance in mixture or article	:	Unless otherwise stated. Covers concentrations up to 1 %
Amounts used	:	For each use event, covers use amounts up to 0.5g
Frequency and duration of use/exposure	:	Covers use up to 365 days per year Covers use up to 1 application per day
Other given operational conditions affecting consumers exposure	:	Covers use in a one car garage (34 m³) under typical ventilation. Covers use in room size of 34 m³ For each use event, covers use amounts up to0.02 hour
Conditions and measures related to information and behavioural advice to consumers	:	No specific risk management measure identified beyond those operational conditions stated.

Conditions and measures related to personal protection and hygiene

Contributing scenario controlling consumer exposure for 4: Pouring into radiator

Concentration of substance in mixture or article	:	Unless otherwise stated. Covers concentrations up to 10 %
Amounts used	:	Covers skin contact area up to 428.00 cm² For each use event, covers use amounts up to 2000g
Frequency and duration of use/exposure	:	Covers use up to 365 days per year Covers use up to 1 application per day
Other given operational conditions affecting consumers exposure	:	Covers use in a one car garage (34 m³) under typical ventilation. Covers use in room size of 34 m³ For each use event, covers use amounts up to 0.17 hour

Conditions and measures related to information and behavioural advice to consumers	:	No specific risk management measure identified beyond those operational conditions stated.

Conditions and measures related to personal protection and hygiene

Contributing scenario controlling consumer exposure for 5: Lock de-icer

Concentration of substance in mixture or article	:	Unless otherwise stated. Covers concentrations up to 50 %
Amounts used	:	Covers skin contact area up to 214 cm² For each use event, covers use amounts up to 4g
Frequency and duration of use/exposure	:	Covers use up to 365 days per year Covers use up to 1 application per day
Other given operational conditions affecting consumers exposure	:	Covers use in a one car garage (34 m³) under typical ventilation. Covers use in room size of 34 m³ For each use event, covers use amounts up to 0.25 hour
Conditions and measures related to information and behavioural advice to consumers	:	No specific risk management measure identified beyond those operational conditions stated.

Conditions and measures related to personal protection and hygiene

Contributing scenario controlling consumer exposure for 6: Laundry and dish-washing products

Concentration of substance in mixture or article	:	Unless otherwise stated. Covers concentrations up to 5 %
Amounts used	:	Covers skin contact area up to 857.5 cm² For each use event, covers use amounts up to 15g
Frequency and duration of use/exposure	:	Covers use up to 365 days per year Covers use up to 1 application per day
Other given operational conditions affecting consumers exposure	:	Covers use under typical household ventilation. Covers use in room size of 20 m³ For each use event, covers use amounts up to 0.5 hour
Conditions and measures related to information and behavioural advice to consumers	:	No specific risk management measure identified beyond those operational conditions stated.

Conditions and measures related to personal protection and hygiene

Contributing scenario controlling consumer exposure for 7: Cleaners, liquids (all purpose cleaners, sanitary products, floor cleaners, glass cleaners, carpet cleaners, metal cleaners)

Concentration of substance in mixture or article	:	Unless otherwise stated. Covers concentrations up to 5 %
Amounts used	:	Covers skin contact area up to 857.5cm² For each use event, covers use amounts up to 27g
Frequency and duration of use/exposure	:	Covers use up to 128 days per year Covers use up to 1 application per day
Other given operational conditions affecting consumers exposure	:	Covers use under typical household ventilation. Covers use in room size of 20 m³ For each use event, covers use amounts up to 0.33 hour
Conditions and measures related to information and behavioural advice to consumers	:	No specific risk management measure identified beyond those operational conditions stated.

Conditions and measures related to personal protection and hygiene

Contributing scenario controlling consumer exposure for 8: Cleaners, trigger sprays (all purpose cleaners, sanitary products, glass cleaners)

Concentration of substance in mixture or article	:	Unless otherwise stated. Covers concentrations up to 15 %
Amounts used	:	Covers skin contact area up to 428.00 cm² For each use event, covers use amounts up to 35g
Frequency and duration of use/exposure	:	Covers use up to 128 days per year Covers use up to 1 application per day
Other given operational conditions affecting consumers exposure	:	Covers use under typical household ventilation. Covers use in room size of 20 m³ For each use event, covers use amounts up to 0.17 hour
Conditions and measures related to information and behavioural advice to consumers	:	No specific risk management measure identified beyond those operational conditions stated.

Conditions and measures related to personal protection and hygiene

Contributing scenario controlling consumer exposure for 9: Water-borne latex wall paint

Concentration of substance in mixture or article	:	Unless otherwise stated. Covers concentrations up to 1.5 %
Amounts used	:	Covers skin contact area up to 428.75 cm² For each use event, covers use amounts up to 2760g
Frequency and duration of use/exposure	:	Covers use up to 4 days per year Covers use up to 1 application per day
Other given operational conditions affecting consumers exposure	:	Covers use under typical household ventilation. Covers use in room size of 20 m³ For each use event, covers use amounts up to 2.20 hour
Conditions and measures related to information and behavioural advice to consumers	:	No specific risk management measure identified beyond those operational conditions stated.

Conditions and measures related to personal protection and hygiene

Contributing scenario controlling consumer exposure for 10: Solvent-rich, high-solid, water-borne paint

Concentration of substance in mixture or article	:	Coatings and paints, thinners, paint removers-Unless otherwise stated. Covers concentrations up to 2.5 % Non-metal surface treatment products-Unless otherwise stated. Covers concentrations up to 27.5 %
Amounts used	:	Covers skin contact area up to 428.75 cm² For each use event, covers use amounts up to 744g
Frequency and duration of use/exposure	:	Covers use up to 6 days per year Covers use up to 1 application per day
Other given operational conditions affecting consumers exposure	:	Covers use under typical household ventilation. Covers use in room size of 20 m³ For each use event, covers use amounts up to 2.2 hour
Conditions and measures related to information and behavioural advice to consumers	:	No specific risk management measure identified beyond those operational conditions stated.

Conditions and measures related to personal protection and hygiene

Contributing scenario controlling consumer exposure for 11: Aerosol spray can

Concentration of substance in mixture or article	:	Unless otherwise stated. Covers concentrations up to 50 %
Amounts used	:	Covers use up to 215g
Frequency and duration of use/exposure	:	Covers use up to 2 days per year Covers use up to 1 application per day
Other given operational conditions affecting consumers exposure	:	Covers use in a one car garage (34 m³) under typical ventilation. Covers use in room size of 34 m³ For each use event, covers use amounts up to 0.33 hour

Conditions and measures related to information and behavioural advice to consumers	:	No specific risk management measure identified beyond those operational conditions stated.

Conditions and measures related to personal protection and hygiene

Contributing scenario controlling consumer exposure for 12: Removers (paint-, glue-, wall paper-, sealant-remover)

Concentration of substance in mixture or article	:	Unless otherwise stated. Covers concentrations up to 50 %
Amounts used	:	Covers skin contact area up to 857.5 cm² For each use event, covers use amounts up to 491g
Frequency and duration of use/exposure	:	Covers use up to 3 days per year Covers use up to 1 application per day
Other given operational conditions affecting consumers exposure	:	Covers use under typical household ventilation. Covers use in room size of 20 m³ For each use event, covers use amounts up to 2.00 hour
Conditions and measures related to information and behavioural advice to consumers	:	No specific risk management measure identified beyond those operational conditions stated.

Conditions and measures related to personal protection and hygiene

Contributing scenario controlling consumer exposure for 13: Fillers and putty

Concentration of substance in mixture or article	:	Unless otherwise stated. Covers concentrations up to 2 %
Amounts used	:	Covers skin contact area up to 35.73 cm² For each use event, covers use amounts up to 85g
Frequency and duration of use/exposure	:	Covers use up to 12 days per year Covers use up to 1 application per day
Other given operational conditions affecting consumers exposure	:	Covers use under typical household ventilation. Covers use in room size of 20 m³ For each use event, covers use amounts up to 4.00 hour
Conditions and measures related to information and behavioural advice to consumers	:	No specific risk management measure identified beyond those operational conditions stated.

Conditions and measures related to personal protection and hygiene

Contributing scenario controlling consumer exposure for 14: Plasters and floor equalisers

Concentration of substance in mixture or article	:	Unless otherwise stated. Covers concentrations up to 2 %
Amounts used	:	Covers skin contact area up to 857.50 cm² For each use event, covers use amounts up to 13800g
Frequency and duration of use/exposure	:	Covers use up to 12 days per year Covers use up to 1 application per day
Other given operational conditions affecting consumers exposure	:	Covers use under typical household ventilation. Covers use in room size of 20 m³ For each use event, covers use amounts up to 2.00 hour
Conditions and measures related to information and behavioural advice to consumers	:	No specific risk management measure identified beyond those operational conditions stated.

Conditions and measures related to personal protection and hygiene

Contributing scenario controlling consumer exposure for 15: Modelling clay

Concentration of substance in mixture or article	:	Unless otherwise stated. Covers concentrations up to 1 %
Amounts used	:	Covers skin contact area up to 254.4 cm² For each use event, assumes swallowed amount of 1g
Frequency and duration of use/exposure	:	Covers use up to 365 days per year Covers use up to 1 application per day
Conditions and measures related to information and behavioural advice to consumers	:	No specific risk management measure identified beyond those operational conditions stated.

Conditions and measures related to personal protection and hygiene

Contributing scenario controlling consumer exposure for 16: Finger paints

Concentration of substance in mixture or article	:	Unless otherwise stated. Covers concentrations up to 50 %
Amounts used	:	Covers skin contact area up to 254.4 cm² For each use event, assumes swallowed amount of 1.35g
Frequency and duration of use/exposure	:	Covers use up to 365 days per year Covers use up to 1 application per day
Conditions and measures related to information and behavioural advice to consumers	:	Avoid using at a product concentration greater than 5 %

Conditions and measures related to personal protection and hygiene

Contributing scenario controlling consumer exposure for 17: Inks and toners

Concentration of substance in mixture or article	:	Unless otherwise stated. Covers concentrations up to 10 %
Amounts used	:	Covers skin contact area up to 71.40 cm² For each use event, covers use amounts up to 40g
Frequency and duration of use/exposure	:	Covers use up to 365 days per year Covers use up to 1 application per day
Other given operational conditions affecting consumers exposure	:	Covers use under typical household ventilation. Covers use in room size of 20 m³ For each use event, covers use amounts up to2.20 hour
Conditions and measures related to information and behavioural advice to consumers	:	No specific risk management measure identified beyond those operational conditions stated.

Conditions and measures related to personal protection and hygiene

Contributing scenario controlling consumer exposure for 18: Polishes, wax/cream (floor, furniture, shoes)

Concentration of substance in mixture or article	:	Unless otherwise stated. Covers concentrations up to 50 %
Amounts used	:	Covers skin contact area up to 430.00 cm² Leather treatment products-For each use event, covers use amounts up to 56g Polishes and wax blends-For each use event, covers use amounts up to 142g
Frequency and duration of use/exposure	:	Covers use up to 29 days per year Covers use up to 1 application per day
Other given operational conditions affecting consumers exposure	:	Covers use under typical household ventilation. Covers use in room size of m³ For each use event, covers use amounts up to 1.23 hour
Conditions and measures related to information and behavioural advice to consumers	:	No specific risk management measure identified beyond those operational conditions stated.

Conditions and measures related to personal protection and hygiene

Contributing scenario controlling consumer exposure for 19: Polishes, spray (furniture, shoes)

Concentration of substance in mixture or article	:	Unless otherwise stated. Covers concentrations up to 50 %
Amounts used	:	Covers skin contact area up to 430.00 cm² Leather treatment products-For each use event, covers use amounts up to 56g Polishes and wax blends-For each use event, covers use amounts up to 35g
Frequency and duration of use/exposure	:	Covers use up to 8 days per year Covers use up to 1 application per day
Other given operational conditions affecting consumers exposure	:	Covers use under typical household ventilation. Covers use in room size of 20 m³ For each use event, covers use amounts up to 0.33 hour
Conditions and measures related to information and behavioural advice to consumers	:	No specific risk management measure identified beyond those operational conditions stated.

Conditions and measures related to personal protection and hygiene

Contributing scenario controlling consumer exposure for 20: Liquids

Concentration of substance in mixture or article	:	Unless otherwise stated. Covers concentrations up to 100 %
Amounts used	:	Covers skin contact area up to 468.00 cm² For each use event, covers use amounts up to 2200g
Frequency and duration of use/exposure	:	Covers use up to 4 days per year Covers use up to 1 application per day
Other given operational conditions affecting consumers exposure	:	Covers use in a one car garage (34 m³) under typical ventilation. Covers use in room size of 34 m³ For each use event, covers use amounts up to 0.17 Hours per shift
Conditions and measures related to information and behavioural advice to consumers	:	No specific risk management measure identified beyond those operational conditions stated.

Conditions and measures related to personal protection and hygiene

Contributing scenario controlling consumer exposure for 21: Pastes

Concentration of substance in mixture or article	:	Unless otherwise stated. Covers concentrations up to 20 %
Amounts used	:	Covers skin contact area up to 468.00 cm² For each use event, covers use amounts up to 34g
Frequency and duration of use/exposure	:	Covers use up to 10 days per year Covers use up to 1 application per day
Conditions and measures related to information and behavioural advice to consumers	:	No specific risk management measure identified beyond those operational conditions stated.

Conditions and measures related to personal protection and hygiene

Contributing scenario controlling consumer exposure for 22: Sprays

Concentration of substance in mixture or article	:	Unless otherwise stated. Covers concentrations up to 50 %
Amounts used	:	Covers skin contact area up to 428.75 cm² For each use event, covers use amounts up to 73g
Frequency and duration of use/exposure	:	Covers use up to 6 days per year Covers use up to 1 application per day
Other given operational conditions affecting consumers exposure	:	Covers use under typical household ventilation. Covers use in room size of 20 m³ Covers exposure up to 0.17 hour

Conditions and measures related to information and behavioural advice to consumers	:	No specific risk management measure identified beyond those operational conditions stated.
Conditions and measures related to personal protection and hygiene		

Contributing scenario controlling consumer exposure for 23: Textile dyes and impregnating products

Concentration of substance in mixture or article	:	Unless otherwise stated. Covers concentrations up to 10 %
Amounts used	:	Covers skin contact area up to 857.50 cm^2 For each use event, covers use amounts up to 115g
Frequency and duration of use/exposure	:	Covers use up to 365 days per year Covers use up to 1 application per day
Other given operational conditions affecting consumers exposure	:	Covers use under typical household ventilation. Covers use in room size of 20 m^3 For each use event, covers use amounts up to 1 hour
Conditions and measures related to information and behavioural advice to consumers	:	No specific risk management measure identified beyond those operational conditions stated.
Conditions and measures related to personal protection and hygiene		

Section 3 - Exposure estimation and reference to its source

Website:	:	Not applicable.

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

Exposure assessment (environment):	:	Not available.
Exposure estimation and reference to its source	:	Predicted exposures are not expected to exceed the DN(M)EL when the risk management measures/operational conditions outlined in section 2 are implemented.

Exposure estimation and reference to its source - Consumers: 2: PC09 Coatings and Paints, Fillers, Putties, Thinners

Exposure assessment (human):	:	Not available.
Exposure estimation and reference to its source	:	Predicted exposures are not expected to exceed the DN(M)EL when the risk management measures/operational conditions outlined in section 2 are implemented.

Exposure estimation and reference to its source - Consumers: 3: Washing car window

Exposure assessment (human):	:	Not available.
Exposure estimation and reference to its source	:	Predicted exposures are not expected to exceed the DN(M)EL when the risk management measures/operational conditions outlined in section 2 are implemented.

Exposure estimation and reference to its source - Consumers: 4: Pouring into radiator

Exposure assessment (human):	:	Not available.
Exposure estimation and reference to its source	:	Predicted exposures are not expected to exceed the DN(M)EL when the risk management measures/operational conditions outlined in section 2 are implemented.

Exposure estimation and reference to its source - Consumers: 5: Lock de-icer

Exposure assessment (human):	:	Not available.
Exposure estimation and reference to its source	:	Predicted exposures are not expected to exceed the DN(M)EL when the risk management measures/operational conditions outlined in section 2 are implemented.

Exposure estimation and reference to its source - Consumers: 6: Laundry and dish-washing products

Exposure assessment (human):	:	Not available.
Exposure estimation and reference to its source	:	Predicted exposures are not expected to exceed the DN(M)EL when the risk management measures/operational conditions outlined in section 2 are implemented.

Exposure estimation and reference to its source - Consumers: 7: Cleaners, liquids (all purpose cleaners, sanitary products, floor cleaners, glass cleaners, carpet cleaners, metal cleaners)

Exposure assessment (human): : Not available.

Exposure estimation and reference to its source : Predicted exposures are not expected to exceed the DN(M)EL when the risk management measures/operational conditions outlined in section 2 are implemented.

Exposure estimation and reference to its source - Consumers: 8: Cleaners, trigger sprays (all purpose cleaners, sanitary products, glass cleaners)

Exposure assessment (human): : Not available.

Exposure estimation and reference to its source : Predicted exposures are not expected to exceed the DN(M)EL when the risk management measures/operational conditions outlined in section 2 are implemented.

Exposure estimation and reference to its source - Consumers: 9: Water-borne latex wall paint

Exposure assessment (human): : Not available.

Exposure estimation and reference to its source : Predicted exposures are not expected to exceed the DN(M)EL when the risk management measures/operational conditions outlined in section 2 are implemented.

Exposure estimation and reference to its source - Consumers: 10: Solvent-rich, high-solid, water-borne paint

Exposure assessment (human): : Not available.

Exposure estimation and reference to its source : Predicted exposures are not expected to exceed the DN(M)EL when the risk management measures/operational conditions outlined in section 2 are implemented.

Exposure estimation and reference to its source - Consumers: 11: Aerosol spray can

Exposure assessment (human): : Not available.

Exposure estimation and reference to its source : Predicted exposures are not expected to exceed the DN(M)EL when the risk management measures/operational conditions outlined in section 2 are implemented.

Exposure estimation and reference to its source - Consumers: 12: Removers (paint-, glue-, wall paper-, sealant-remover)

Exposure assessment (human): : Not available.

Exposure estimation and reference to its source : Predicted exposures are not expected to exceed the DN(M)EL when the risk management measures/operational conditions outlined in section 2 are implemented.

Exposure estimation and reference to its source - Consumers: 13: Fillers and putty

Exposure assessment (human): : Not available.

Exposure estimation and reference to its source : Predicted exposures are not expected to exceed the DN(M)EL when the risk management measures/operational conditions outlined in section 2 are implemented.

Exposure estimation and reference to its source - Consumers: 14: Plasters and floor equalisers

Exposure assessment (human): : Not available.

Exposure estimation and reference to its source : Predicted exposures are not expected to exceed the DN(M)EL when the risk management measures/operational conditions outlined in section 2 are implemented.

Exposure estimation and reference to its source - Consumers: 15: Modelling clay

Exposure assessment (human): : Not available.

Exposure estimation and reference to its source : Predicted exposures are not expected to exceed the DN(M)EL when the risk management measures/operational conditions outlined in section 2 are implemented.

Exposure estimation and reference to its source - Consumers: 16: Finger paints

Exposure assessment (human): : Not available.

Exposure estimation and reference to its source : Predicted exposures are not expected to exceed the DN(M)EL when the risk management measures/operational conditions outlined in section 2 are implemented.

Exposure estimation and reference to its source - Consumers: 17: Inks and toners

Exposure assessment (human): : Not available.

Exposure estimation and reference to its source : Predicted exposures are not expected to exceed the DN(M)EL when the risk management measures/operational conditions outlined in section 2 are implemented.

Exposure estimation and reference to its source - Consumers: 18: Polishes, wax/cream (floor, furniture, shoes)

Exposure assessment (human): : Not available.

Exposure estimation and reference to its source : Predicted exposures are not expected to exceed the DN(M)EL when the risk management measures/operational conditions outlined in section 2 are implemented.

Exposure estimation and reference to its source - Consumers: 19: Polishes, spray (furniture, shoes)

Exposure assessment (human): : Not available.

Exposure estimation and reference to its source : Predicted exposures are not expected to exceed the DN(M)EL when the risk management measures/operational conditions outlined in section 2 are implemented.

Exposure estimation and reference to its source - Consumers: 20: Liquids

Exposure assessment (human): : Not available.

Exposure estimation and reference to its source : Predicted exposures are not expected to exceed the DN(M)EL when the risk management measures/operational conditions outlined in section 2 are implemented.

Exposure estimation and reference to its source - Consumers: 21: Pastes

Exposure assessment (human): : Not available.

Exposure estimation and reference to its source : Predicted exposures are not expected to exceed the DN(M)EL when the risk management measures/operational conditions outlined in section 2 are implemented.

Exposure estimation and reference to its source - Consumers: 22: Sprays

Exposure assessment (human): : Not available.

Exposure estimation and reference to its source : Predicted exposures are not expected to exceed the DN(M)EL when the risk management measures/operational conditions outlined in section 2 are implemented.

Exposure estimation and reference to its source - Consumers: 23: Textile dyes and impregnating products

Exposure assessment (human): : Not available.

Exposure estimation and reference to its source : Predicted exposures are not expected to exceed the DN(M)EL when the risk management measures/operational conditions outlined in section 2 are implemented.

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

Environment : not available

Health : not available

Additional good practice advice beyond the REACH CSA

Environment : not available

Health : not available