SAFETY DATA SHEET



Date of issue/Date of revision : 1 July 2024 Version : 13.09

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

1.1 Product identifier

Product name : SIGMADUR 550 BASE BASE Z

Product code : 00238841

Other means of identification

Not available.

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

Product use : Professional applications, Used by spraying.

Use of the substance/

mixture

: Coating.

Uses advised against: Product is not intended, labelled or packaged for consumer use.

1.3 Details of the supplier of the safety data sheet

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

e-mail address of person

: Product.Stewardship.EMEA@ppg.com

responsible for this SDS

1.4 Emergency telephone number

National advisory body/Poison Centre

National Poison Information Centre at Beaumont Hospital. Tel: +353 1 8092566, email: npicdublin@beaumont.ie Supplier

+31 20 4075210

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition: Mixture

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

Flam. Liq. 3, H226 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 STOT SE 3, H335 Aquatic Chronic 3, H412

English (GB) Ireland 1/19

SIGMADUR 550 BASE BASE Z

SECTION 2: Hazards identification

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 : Warning

Hazard statements : Flammable liquid and vapour.

Causes skin irritation.

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

Harmful to aquatic life with long lasting effects.

Precautionary statements

Prevention : Wear protective gloves. Wear eye or face protection. Keep away from heat, hot

surfaces, sparks, open flames and other ignition sources. No smoking. Avoid release to

the environment.

Response : IF INHALED: Call a POISON CENTER or doctor if you feel unwell.

Storage : Store in a well-ventilated place. Keep container tightly closed.

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

international regulations.

P280, P210, P273, P304 + P312, P403 + P233, P501

: xylene **Hazardous ingredients**

Octadecanamide, N,N'-1,6-hexanediylbis[12-hydroxy-

Reaction mass of bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and methyl

1,2,2,6,6-pentamethyl-4-piperidyl sebacate

Supplemental label

elements

: Not applicable.

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

: Not applicable.

articles

Special packaging requirements

Containers to be fitted

with child-resistant

fastenings

: Not applicable.

Tactile warning of danger : Not applicable.

2.3 Other hazards

for PBT or vPvB

Product meets the criteria : This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

Ireland 2/19 English (GB)

Code : 00238841 Date of issue/Date of revision : 1 July 2024

SIGMADUR 550 BASE BASE Z

SECTION 2: Hazards identification

Other hazards which do not result in classification

English (GB)

: Prolonged or repeated contact may dry skin and cause irritation.

SECTION 3: Composition/information on ingredients

3.2 Mixtures : Mixture

| Product/ingredient name | Identifiers | % by weight | Classification | Specific Conc. Limits, M-factors and ATEs | Туре |
|---|---|----------------|--|---|---------|
| kylene | REACH #: 01-2119488216-32 EC: 215-535-7 CAS: 1330-20-7 | ≥25 - ≤49 | Flam. Liq. 3, H226 Acute Tox. 4, H312 Acute Tox. 4, H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335 Asp. Tox. 1, H304 Aquatic Chronic 3, H412 | ATE [Dermal] = 1700 mg/kg ATE [Inhalation (vapours)] = 11 mg/l | [1] [2] |
| n-butyl acetate | REACH #: 01-2119485493-29 EC: 204-658-1 CAS: 123-86-4 Index: 607-025-00-1 | ≥5.0 - ≤10 | Flam. Liq. 3, H226 STOT SE 3, H336 EUH066 | - | [1] [2] |
| ethylbenzene | REACH #: 01-2119489370-35 EC: 202-849-4 CAS: 100-41-4 Index: 601-023-00-4 | ≥1.0 - ≤5.0 | Flam. Liq. 2, H225 Acute Tox. 4, H332 STOT RE 2, H373 (hearing organs) Asp. Tox. 1, H304 Aquatic Chronic 3, H412 | ATE [Inhalation (vapours)] = 17.8 mg/l | [1] [2] |
| 2-methoxy-1-methylethyl acetate | REACH #: 01-2119475791-29 EC: 203-603-9 CAS: 108-65-6 Index: 607-195-00-7 | ≥1.0 - ≤5.0 | Flam. Liq. 3, H226 STOT SE 3, H336 | - | [1] [2] |
| Octadecanamide, N, N'-1,6-hexanediylbis [12-hydroxy- | CAS: 55349-01-4 | <1.0 | Skin Sens. 1, H317 Aquatic Chronic 4, H413 | - | [1] |
| Reaction mass of bis (1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate | REACH #: 01-2119491304-40 EC: 915-687-0 CAS: 1065336-91-5 | ≤1.0 | Skin Sens. 1A, H317 Repr. 2, H361f Aquatic Acute 1, H400 Aquatic Chronic 1, H410 | M [Acute] = 1 M [Chronic] = 1 | [1] |
| toluene | REACH #: 01-2119471310-51 EC: 203-625-9 CAS: 108-88-3 Index: 601-021-00-3 | ≤0.30 | Flam. Liq. 2, H225 Skin Irrit. 2, H315 Repr. 2, H361d STOT SE 3, H336 STOT RE 2, H373 Asp. Tox. 1, H304 | - | [1] [2] |

Ireland

3/19

Code : 00238841 Date of issue/Date of revision : 1 July 2024
SIGMADUR 550 BASE BASE Z

SECTION 3: Composition/information on ingredients

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

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

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

Type

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

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

SUB codes represent substances without registered CAS Numbers.

SECTION 4: First aid measures

4.1 Description of first aid measures

Eye contact: Remove contact lenses, irrigate copiously with clean, fresh water, holding the eyelids

apart for at least 10 minutes and seek immediate medical advice.

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

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

personnel.

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

or use recognised skin cleanser. Do NOT use solvents or thinners.

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

person warm and at rest. Do NOT induce vomiting.

Protection of first-aiders: No action shall be taken involving any personal risk or without suitable training. If it is

suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water

before removing it, or wear gloves.

4.2 Most important symptoms and effects, both acute and delayed

Potential acute health effects

Eye contact : Causes serious eye irritation.

Inhalation : May cause respiratory irritation.

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

Ingestion: No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact : Adverse symptoms may include the following:

pain or irritation watering redness

Inhalation : Adverse symptoms may include the following:

respiratory tract irritation

coughing

English (GB) Ireland 4/19

SIGMADUR 550 BASE BASE Z

SECTION 4: First aid measures

Skin contact : Adverse symptoms may include the following:

> irritation redness dryness cracking

: No specific data. Ingestion

4.3 Indication of any immediate medical attention and special treatment needed

: Treat symptomatically. Contact poison treatment specialist immediately if large Notes to physician

quantities have been ingested or inhaled.

: No specific treatment. Specific treatments

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing

media

: Use dry chemical, CO2, water spray (fog) or foam.

Unsuitable extinguishing

media

: Do not use water jet.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture : Flammable liquid and vapour. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. This material is harmful to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

Hazardous combustion

products

Decomposition products may include the following materials:

carbon oxides sulfur oxides metal oxide/oxides

5.3 Advice for firefighters

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 nonemergency personnel".

Ireland 5/19 English (GB)

SIGMADUR 550 BASE BASE Z

SECTION 6: Accidental release measures

6.2 Environmental precautions

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

6.3 Methods and material for containment and cleaning up

Small spill

: Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

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). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapour or mist. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene

: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities

: Store between the following temperatures: 0 to 35°C (32 to 95°F). Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidising materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

English (GB) Ireland 6/19

SIGMADUR 550 BASE BASE Z

SECTION 7: Handling and storage

7.3 Specific end use(s)

See Section 1.2 for Identified uses.

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 |
|---------------------------------|--|
| x ylene | NAOSH (Ireland, 5/2021). [xylene] Absorbed through skin. |
| | OELV: 442 mg/m³ 15 minutes. |
| | OELV: 100 ppm 15 minutes. |
| | OELV: 221 mg/m ³ 8 hours. |
| | OELV: 50 ppm 8 hours. |
| n-butyl acetate | NAOSH (Ireland, 5/2021). |
| | OELV: 723 mg/m³ 15 minutes. |
| | OELV: 150 ppm 15 minutes. |
| | OELV: 241 mg/m³ 8 hours. |
| | OELV: 50 ppm 8 hours. |
| ethylbenzene | NAOSH (Ireland, 5/2021). Absorbed through skin. |
| • | OELV: 884 mg/m³ 15 minutes. |
| | OELV: 200 ppm 15 minutes. |
| | OELV: 442 mg/m³ 8 hours. |
| | OELV: 100 ppm 8 hours. |
| 2-methoxy-1-methylethyl acetate | NAOSH (Ireland, 5/2021). Absorbed through skin. |
| | OELV: 550 mg/m³ 15 minutes. |
| | OELV: 100 ppm 15 minutes. |
| | OELV: 275 mg/m³ 8 hours. |
| | OELV: 50 ppm 8 hours. |
| toluene | NAOSH (Ireland, 5/2021). Absorbed through skin. |
| | OELV: 384 mg/m³ 15 minutes. |
| | OELV: 100 ppm 15 minutes. |
| | OELV: 192 mg/m³ 8 hours. |
| | OELV: 50 ppm 8 hours. |

Biological exposure indices

English (GB)

| Product/ingredient name | Exposure indices |
|-------------------------|---|
| kylene | NAOSH (Ireland, 1/2011) [Xylene] BMGV: 1.5 g/g creatinine, methylhippuric acids [in urine]. Sampling time: end of shift - As soon as possible after exposure ceases. |
| ethylbenzene | NAOSH (Ireland, 1/2011) BMGV: Semi-quantitative, the biological analyte is an indicator of exposure to the substance but the quantitative interpretation of the measurement is ambiguous. These analytes should be used as a screening test if a quantitative test is not practical; or as a confirmatory test if the quantitative test is not specific and the origin of the determinant is in question., ethylbenzene [in endexhaled air]. Sampling time: not critical. BMGV: 0.7 g/g creatinine [Semi-quantitative, the biological analyte is an indicator of exposure to the substance but the quantitative |

Ireland

7/19

SIGMADUR 550 BASE BASE Z

SECTION 8: Exposure controls/personal protection

interpretation of the measurement is ambiguous. These analytes should be used as a screening test if a quantitative test is not practical; or as a confirmatory test if the quantitative test is not specific and the origin of the determinant is in question.], mandelic acid and phenylglyoxylic acid [in urine]. Sampling time: end of shift at end of workweek.

toluene

NAOSH (Ireland, 1/2011)

BMGV: 0.3 mg/g creatinine, o-cresol [in urine]. Sampling time: end of shift - As soon as possible after exposure ceases.

BMGV: 0.03 mg/l, toluene [in urine]. Sampling time: end of shift - As soon as possible after exposure ceases.

BMGV: 0.02 mg/l, toluene [in blood]. Sampling time: prior to last shift of workweek.

Recommended monitoring procedures

: 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.

DNELs

| Product/ingredient name | Type | Exposure | Value | Population | Effects |
|-------------------------|-------------|-----------------------|------------------------|--------------------|----------|
| x ylene | DNEL | Long term Oral | 5 mg/kg bw/day | General population | Systemic |
| | DNEL | Long term Inhalation | 65.3 mg/m ³ | General population | Local |
| | DNEL | Long term Inhalation | 65.3 mg/m ³ | General population | Systemic |
| | DNEL | Long term Dermal | 125 mg/kg bw/day | General population | Systemic |
| | DNEL | Long term Dermal | 212 mg/kg bw/day | Workers | Systemic |
| | DNEL | Long term Inhalation | 221 mg/m³ | Workers | Local |
| | DNEL | Long term Inhalation | 221 mg/m ³ | Workers | Systemic |
| | DNEL | Short term Inhalation | 260 mg/m ³ | General population | Local |
| | DNEL | Short term Inhalation | 260 mg/m ³ | General population | Systemic |
| | DNEL | Short term Inhalation | 442 mg/m³ | Workers | Local |
| | DNEL | Short term Inhalation | 442 mg/m³ | Workers | Systemic |
| n-butyl acetate | DNEL | Long term Inhalation | 300 mg/m ³ | Workers | Systemic |
| • | DNEL | Long term Dermal | 11 mg/m³ | Workers | Systemic |
| | DNEL | Long term Oral | 2 mg/kg bw/day | General population | Systemic |
| | DNEL | Short term Oral | 2 mg/kg bw/day | General population | Systemic |
| | DNEL | Long term Dermal | 3.4 mg/kg bw/day | General population | |
| | DNEL | Short term Dermal | 6 mg/kg bw/day | General population | Systemic |
| | DNEL | Long term Dermal | 7 mg/kg bw/day | Workers | Systemic |
| | DNEL | Short term Dermal | 11 mg/kg bw/day | Workers | Systemic |
| | DNEL | Long term Inhalation | 12 mg/m³ | General population | Systemic |
| | DNEL | Long term Inhalation | 35.7 mg/m ³ | General population | |
| | DNEL | Long term Inhalation | 48 mg/m³ | Workers | Systemic |
| | DNEL | Short term Inhalation | 300 mg/m ³ | General population | Local |
| | DNEL | Short term Inhalation | 300 mg/m ³ | General population | Systemic |
| | DNEL | Long term Inhalation | 300 mg/m ³ | Workers | Local |
| | DNEL | Short term Inhalation | 600 mg/m ³ | Workers | Local |
| | DNEL | Short term Inhalation | 600 mg/m ³ | Workers | Systemic |
| ethylbenzene | DMEL | Long term Inhalation | 442 mg/m³ | Workers | Local |
| - | DMEL | Short term Inhalation | 884 mg/m³ | Workers | Systemic |

English (GB) Ireland 8/19

SIGMADUR 550 BASE BASE Z

SECTION 8: Exposure controls/personal protection

| | DNEL | Long term Oral | 1.6 mg/kg bw/day | General population | Systemic |
|-------------------------|------|-----------------------|-----------------------|--------------------|----------|
| | DNEL | Long term Inhalation | 15 mg/m³ | General population | Systemic |
| | DNEL | Long term Inhalation | 77 mg/m³ | Workers | Systemic |
| | DNEL | Long term Dermal | 180 mg/kg bw/day | Workers | Systemic |
| | DNEL | Short term Inhalation | 293 mg/m ³ | Workers | Local |
| 2-methoxy-1-methylethyl | DNEL | Long term Inhalation | 33 mg/m³ | General population | Local |
| acetate | | | | | |
| | DNEL | Long term Inhalation | 33 mg/m³ | General population | Systemic |
| | DNEL | Long term Oral | 36 mg/kg bw/day | General population | Systemic |
| | DNEL | Long term Inhalation | 275 mg/m³ | Workers | Systemic |
| | DNEL | Long term Dermal | 320 mg/kg bw/day | General population | Systemic |
| | DNEL | Short term Inhalation | 550 mg/m³ | Workers | Local |
| | DNEL | Long term Dermal | 796 mg/kg bw/day | Workers | Systemic |
| toluene | DNEL | Long term Oral | 8.13 mg/kg bw/day | General population | Systemic |
| | DNEL | Long term Inhalation | 56.5 mg/m³ | General population | Local |
| | DNEL | Long term Inhalation | 56.5 mg/m³ | General population | Systemic |
| | DNEL | Long term Inhalation | 192 mg/m³ | Workers | Local |
| | DNEL | Long term Inhalation | 192 mg/m³ | Workers | Systemic |
| | DNEL | Long term Dermal | 226 mg/kg bw/day | General population | Systemic |
| | DNEL | Short term Inhalation | 226 mg/m³ | General population | Local |
| | DNEL | Short term Inhalation | 226 mg/m³ | General population | Systemic |
| | DNEL | Long term Dermal | 384 mg/kg bw/day | Workers | Systemic |
| | DNEL | Short term Inhalation | 384 mg/m³ | Workers | Local |
| | DNEL | Short term Inhalation | 384 mg/m³ | Workers | Systemic |
| | | | | | |

PNECs

| Product/ingredient name | Type | Compartment Detail | Value | Method Detail |
|---------------------------------|------|------------------------|-----------------|--------------------------|
| xylene | - | Fresh water | 0.327 mg/l | - |
| | - | Marine water | 0.327 mg/l | - |
| | - | Sewage Treatment Plant | 6.58 mg/l | - |
| | - | Fresh water sediment | 12.46 mg/kg dwt | - |
| | - | Marine water sediment | 12.46 mg/kg dwt | - |
| | - | Soil | 2.31 mg/kg | - |
| n-butyl acetate | - | Fresh water | 0.18 mg/l | - |
| | - | Marine water | 0.018 mg/l | - |
| | - | Fresh water sediment | 0.981 mg/kg | - |
| | - | Marine water sediment | 0.0981 mg/kg | - |
| | - | Sewage Treatment Plant | 35.6 mg/l | - |
| | - | Soil | 0.0903 mg/kg | - |
| ethylbenzene | - | Fresh water | 0.1 mg/l | Assessment Factors |
| | - | Marine water | 0.01 mg/l | Assessment Factors |
| | - | Sewage Treatment Plant | 9.6 mg/l | Assessment Factors |
| | - | Fresh water sediment | 13.7 mg/kg dwt | Equilibrium Partitioning |
| | - | Marine water sediment | 1.37 mg/kg dwt | Equilibrium Partitioning |
| | - | Soil | 2.68 mg/kg dwt | Equilibrium Partitioning |
| | - | Secondary Poisoning | 20 mg/kg | - |
| 2-methoxy-1-methylethyl acetate | - | Fresh water | 0.635 mg/l | - |
| | - | Marine water | 0.0635 mg/l | - |
| | - | Fresh water sediment | 3.29 mg/kg | - |
| | - | Marine water sediment | 0.329 mg/kg | - |
| | - | Soil | 0.29 mg/kg | - |
| | - | Sewage Treatment Plant | 100 mg/l | - |
| toluene | - | Fresh water | 0.68 mg/l | Sensitivity Distribution |
| | - | Marine water | 0.68 mg/l | Sensitivity Distribution |
| | - | Sewage Treatment Plant | | Sensitivity Distribution |
| | - | Fresh water sediment | 16.39 mg/kg dwt | Equilibrium Partitioning |
| | - | Marine water sediment | 16.39 mg/kg dwt | - |

English (GB) Ireland 9/19

SIGMADUR 550 BASE BASE Z

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

Eye/face protection Skin protection : Chemical splash goggles. Use eye protection according to EN 166.

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 alcohol (PVA), Viton®, neoprene, natural rubber (latex), butyl

rubber

Not recommended: nitrile rubber May be used: Chloroprene

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

English (GB) Ireland 10/19

SIGMADUR 550 BASE BASE Z

SECTION 8: Exposure controls/personal protection

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 : Various Odour : Not available. : Not available. **Odour threshold**

: May start to solidify at the following temperature: -66°C (-86.8°F) This is based on Melting point/freezing point

data for the following ingredient: 2-methoxy-1-methylethyl acetate. Weighted

average: -94.01°C (-137.2°F)

Initial boiling point and

boiling range

: >37.78°C

Flammability : Not available.

Upper/lower flammability or

explosive limits

Greatest known range: Lower: 1.4% Upper: 7.6% (n-butyl acetate)

Flash point Closed cup: 25°C

Auto-ignition temperature

| Ingredient name | °C | °F | Method |
|-------------------------------|-----|-------|-----------|
| methoxy-1-methylethyl acetate | 333 | 631.4 | DIN 51794 |

: Stable under recommended storage and handling conditions (see Section 7).

Decomposition temperature

pН

Not applicable. insoluble in water.

Viscosity

Kinematic (room temperature): >400 mm²/s

Kinematic (40°C): >21 mm²/s

Solubility(ies)

| Media | Result |
|------------|-------------|
| cold water | Not soluble |

Partition coefficient: n-octanol/ : Not applicable.

water

Vapour pressure

| | Vapour Pressure at 20°C | | | Vapour pressure at 50°C | | |
|-----------------|-------------------------|-----|-------------------|-------------------------|-----|--------|
| Ingredient name | mm Hg | kPa | Method | mm Hg | kPa | Method |
| p-butyl acetate | 11.25096 | 1.5 | DIN EN 13016-2 | | | |

: Highest known value: 1 (n-butyl acetate) Weighted average: 0.81compared with **Evaporation rate**

butyl acetate

Relative density

Vapour density : Highest known value: 4.6 (Air = 1) (2-methoxy-1-methylethyl acetate). Weighted

average: 3.79 (Air = 1)

Explosive properties

Ireland 11/19 English (GB)

SIGMADUR 550 BASE BASE Z

SECTION 9: Physical and chemical properties

The product itself is not explosive, but the formation of an explosible mixture of

vapour or dust with air is possible.

: Product does not present an oxidizing hazard.

Oxidising properties

Particle characteristics

Median particle size

: Not applicable.

9.2 Other information

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.

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 sulfur oxides metal oxide/oxides

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008 <u>Acute toxicity</u>

| Product/ingredient name | Result | Species | Dose | Exposure |
|--|------------------------|-----------------------|--------------|----------|
| x ylene | LD50 Dermal | Rabbit | 1.7 g/kg | - |
| | LD50 Oral | Rat | 4.3 g/kg | - |
| n-butyl acetate | LC50 Inhalation Vapour | Rat | >21.1 mg/l | 4 hours |
| | LC50 Inhalation Vapour | Rat | 2000 ppm | 4 hours |
| | LD50 Dermal | Rabbit | >17600 mg/kg | - |
| | LD50 Oral | Rat | 10.768 g/kg | - |
| ethylbenzene | LC50 Inhalation Vapour | Rat | 17.8 mg/l | 4 hours |
| | LD50 Dermal | Rabbit | 17.8 g/kg | - |
| | LD50 Oral | Rat | 3.5 g/kg | - |
| 2-methoxy-1-methylethyl acetate | LC50 Inhalation Vapour | Rat | 30 mg/l | 4 hours |
| | LD50 Dermal | Rabbit | >5 g/kg | - |
| | LD50 Oral | Rat | 6190 mg/kg | - |
| Reaction mass of bis | LD50 Dermal | Rat | >3170 mg/kg | - |
| (1,2,2,6,6-pentamethyl-4-piperidyl) | | | | |
| sebacate and methyl | | | | |
| 1,2,2,6,6-pentamethyl-4-piperidyl sebacate | | | | |
| | LD50 Oral | Rat - Male, Female | 3230 mg/kg | - |
| toluene | LC50 Inhalation Vapour | Rat | 49 g/m³ | 4 hours |
| | LD50 Dermal | Rabbit | 8.39 g/kg | _ |
| | LD50 Oral | Rat | 5580 mg/kg | - |

English (GB) Ireland 12/19

Code : 00238841 Date of issue/Date of revision : 1 July 2024

SIGMADUR 550 BASE BASE Z

SECTION 11: Toxicological information

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

Acute toxicity estimates

| Route | ATE value |
|---|-----------------------------|
| of the property of the proper | 6199.73 mg/kg 36.14 mg/l |

Irritation/Corrosion

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

Conclusion/Summary

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

Sensitisation

Conclusion/Summary

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

Mutagenicity

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

Carcinogenicity

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

Reproductive toxicity

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

Teratogenicity

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

Specific target organ toxicity (single exposure)

| Product/ingredient name | Category | Route of exposure | Target organs |
|--|--|-------------------|---|
| xylene n-butyl acetate 2-methoxy-1-methylethyl acetate toluene | Category 3 Category 3 Category 3 Category 3 | - | Respiratory tract irritation Narcotic effects Narcotic effects Narcotic effects |

Specific target organ toxicity (repeated exposure)

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

Aspiration hazard

| Product/ingredient name | Result |
|-------------------------|---|
| xylene ethylbenzene | ASPIRATION HAZARD - Category 1 ASPIRATION HAZARD - Category 1 |
| toluene | ASPIRATION HAZARD - Category 1 |

Information on likely routes of exposure

: Not available.

English (GB) Ireland 13/19

Date of issue/Date of revision Code : 00238841 : 1 July 2024

SIGMADUR 550 BASE BASE Z

SECTION 11: Toxicological information

Potential acute health effects

Inhalation : May cause respiratory irritation.

Ingestion : No known significant effects or critical hazards.

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

Eye contact Causes serious eye irritation.

Symptoms related to the physical, chemical and toxicological characteristics

: Adverse symptoms may include the following: Inhalation

respiratory tract irritation

coughing

Ingestion : No specific data.

Skin contact : Adverse symptoms may include the following:

> irritation redness dryness cracking

redness

Eye contact Adverse symptoms may include the following:

> pain or irritation watering

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.

: Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or General

dermatitis. Once sensitized, a severe allergic reaction may occur when subsequently

exposed to very low levels.

Carcinogenicity No known significant effects or critical hazards. Mutagenicity No known significant effects or critical hazards. Reproductive toxicity : No known significant effects or critical hazards.

Other information : Not available.

Prolonged or repeated contact may dry skin and cause irritation. Sanding and grinding dusts may be harmful if inhaled. Repeated exposure to high vapor concentrations may cause irritation of the respiratory system and permanent brain and nervous system damage. Inhalation of vapour/aerosol concentrations above the recommended exposure limits causes headaches, drowsiness and nausea and may lead to unconsciousness or death. Avoid contact with skin and clothing.

11.2 Information on other hazards

11.2.1 Endocrine disrupting properties

Not available

11.2.2 Other information

Not available.

Ireland 14/19 English (GB)

Code : 00238841 Date of issue/Date of revision : 1 July 2024

SIGMADUR 550 BASE BASE Z

SECTION 12: Ecological information

12.1 Toxicity

| Product/ingredient name | Result | Species | Exposure |
|--|---------------------------------|----------------------------|----------|
| <mark>ଜ</mark> -butyl acetate | Acute LC50 18 mg/l | Fish | 96 hours |
| ethylbenzene | Acute EC50 1.8 mg/l Fresh water | Daphnia | 48 hours |
| | Chronic NOEC 1 mg/l Fresh | Daphnia - | - |
| | water | Ceriodaphnia dubia | |
| 2-methoxy-1-methylethyl acetate | Acute LC50 134 mg/l Fresh water | Fish - Oncorhynchus mykiss | 96 hours |
| Reaction mass of bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate | EC50 1.68 mg/l | Algae | 72 hours |
| | LC50 0.9 mg/l | Fish | 96 hours |

Conclusion/Summary

: There are no data available on the mixture itself.

12.2 Persistence and degradability

| Product/ingredient name | Test | Result | Dose | Inoculum |
|--|-----------------------|--|--------|----------|
| <mark>r-</mark> butyl acetate | TEPA and OECD 301D | 83 % - Readily - 28 days | - | - |
| ethylbenzene 2-methoxy-1-methylethyl acetate | - | 79 % - Readily - 10 days 83 % - Readily - 28 days | - - | - |

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

| Product/ingredient name | Aquatic half-life | Photolysis | Biodegradability |
|---------------------------------|-------------------|------------|------------------|
| x ylene | - | - | Readily |
| n-butyl acetate | - | - | Readily |
| ethylbenzene | - | - | Readily |
| 2-methoxy-1-methylethyl acetate | - | - | Readily |
| toluene | - | - | Readily |

12.3 Bioaccumulative potential

| Product/ingredient name | LogPow | BCF | Potential |
|---------------------------------|--------|-------------|-----------|
| xylene | 3.12 | 7.4 to 18.5 | Low |
| n-butyl acetate | 2.3 | - | Low |
| ethylbenzene | 3.6 | 79.43 | Low |
| 2-methoxy-1-methylethyl acetate | 1.2 | - | Low |
| toluene | 2.73 | 8.32 | Low |

12.4 Mobility in soil

Soil/water partition

: Not available.

coefficient (Koc)

Mobility : Not available.

12.5 Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

12.6 Endocrine disrupting properties

| English (GB) | Ireland | 15/19 |
|--------------|---------|-------|
| | | |

Code : 00238841 Date of issue/Date of revision : 1 July 2024

SIGMADUR 550 BASE BASE Z

SECTION 12: Ecological information

Not available.

12.7 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 11* | waste paint and varnish containing organic solvents or other hazardous substances |

Packaging

Methods of disposal

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

| Type of packaging | | 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.

14. Transport information

| | ADR/RID | ADN | IMDG | IATA |
|------------------------------------|---------|--------|--------|--------|
| 14.1 UN number or ID number | UN1263 | UN1263 | UN1263 | UN1263 |
| 14.2 UN proper shipping name | PAINT | PAINT | PAINT | PAINT |
| 14.3 Transport hazard class(es) | 3 | 3 | 3 | 3 |
| 14.4 Packing group | III | III | III | III |
| | | | | |
| | | | | |

| English (GB) | ireiand | 16/19 |
|----------------|---------|-------|
| Eligiisii (OD) | liciana | 10/13 |

| Code : 00238 SIGMADUR 550 BAS | | Date of issue/Da | Date of issue/Date of revision : 1 July 2024 | | | |
|----------------------------------|-----------------|------------------|--|-----------------|--|--|
| 14. Transport information | | | | | | |
| 14.5 Environmental hazards | No. | Yes. | No. | No. | | |
| Marine pollutant | Not applicable. | Not applicable. | Not applicable. | Not applicable. | | |

Additional information

substances

ADR/RID : This class 3 viscous liquid is not subject to regulation in packagings up to 450 L according to

2.2.3.1.5.1.

Tunnel code : (D/E)

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

vessels. This class 3 viscous liquid is not subject to regulation in packagings up to 450 L according

to 2.2.3.1.5.1.

IMDG : This class 3 viscous liquid is not subject to regulation in packagings up to 450 L according to 2.3.2.5.

IATA : None identified.

user

14.6 Special precautions for : 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 Maritime transport in

bulk according to IMO

instruments

: 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 : Not applicable.

on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

Explosive precursors : Not applicable.

Ozone depleting substances (1005/2009/EU)

Not listed.

Seveso Directive

This product is controlled under the Seveso Directive.

Danger criteria

| Category |
|----------|
| P5c |

Ireland 17/19 English (GB)

Code : 00238841 Date of issue/Date of revision : 1 July 2024

SIGMADUR 550 BASE BASE Z

SECTION 15: Regulatory information

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

assessment

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

PBT = Persistent, Bioaccumulative and Toxic

vPvB = Very Persistent and Very Bioaccumulative

ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road

ADN = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway

IMDG = International Maritime Dangerous Goods

IATA = International Air Transport Association

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

| Classification | Justification |
|-------------------------|-----------------------|
| Flam. Liq. 3, H226 | On basis of test data |
| Skin Irrit. 2, H315 | Calculation method |
| Eye Irrit. 2, H319 | Calculation method |
| Skin Sens. 1, H317 | Calculation method |
| STOT SE 3, H335 | Calculation method |
| Aquatic Chronic 3, H412 | Calculation method |

Full text of abbreviated H statements

| H225 | Highly flammable liquid and vapour. |
|--------|--|
| H226 | Flammable liquid and vapour. |
| H304 | May be fatal if swallowed and enters airways. |
| H312 | Harmful in contact with skin. |
| H315 | Causes skin irritation. |
| H317 | May cause an allergic skin reaction. |
| H319 | Causes serious eye irritation. |
| H332 | Harmful if inhaled. |
| H335 | May cause respiratory irritation. |
| H336 | May cause drowsiness or dizziness. |
| H361d | Suspected of damaging the unborn child. |
| H361f | Suspected of damaging fertility. |
| H373 | May cause damage to organs through prolonged or repeated |
| | exposure. |
| H400 | Very toxic to aquatic life. |
| H410 | Very toxic to aquatic life with long lasting effects. |
| H412 | Harmful to aquatic life with long lasting effects. |
| H413 | May cause long lasting harmful effects to aquatic life. |
| EUH066 | Repeated exposure may cause skin dryness or cracking. |
| | |

Full text of classifications [CLP/GHS]

English (GB) Ireland 18/19

Code : 00238841 Date of issue/Date of revision : 1 July 2024

SIGMADUR 550 BASE BASE Z

SECTION 16: Other information

Acute Tox. 4
Aquatic Acute 1
Aquatic Chronic 1
Aquatic Chronic 3
Aquatic Chronic 4
Asp. Tox. 1
Eye Irrit. 2

ACUTE TOXICITY - Category 4
SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 1
LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3
LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 4
ASPIRATION HAZARD - Category 1
SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2

Flam. Liq. 2
Flam. Liq. 2
Flam. Liq. 3
FLAMMABLE LIQUIDS - Category 2
FLAMMABLE LIQUIDS - Category 3
Repr. 2
FLAMMABLE LIQUIDS - Category 2
REPRODUCTIVE TOXICITY - Category 2

Skin Irrit. 2
Skin Sens. 1
Skin Sens. 1
Skin Sens. 1A

STOT RE 2 SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE -

Category 2

STOT SE 3 SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE -

Category 3

History

Date of issue/ Date of : 1 July 2024

revision

Date of previous issue : 1 February 2024

Prepared by : EHS Version : 13.09

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.

English (GB) Ireland 19/19