SAFETY DATA SHEET

Date of issue/Date of revision : 25 October 2023 **Version** : 21

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

1.1 Product identifier

Product name : SIGMACOVER 300 BASE BLACK

Product code : 00138917

Other means of identification

Not available.

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

Product use : Professional applications, Used by spraying.

Use of the substance/ mixture : Coating.

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

1.3 Details of the supplier of the safety data sheet

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

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

1.4 Emergency telephone number

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
Muta. 1B, H340
Carc. 1A, H350
Repr. 1B, H360FD

SECTION 2: Hazards identification

Aquatic Acute 1, H400
Aquatic Chronic 1, H410

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 : Flammable liquid and vapour.
Causes skin irritation.
May cause an allergic skin reaction.
Causes serious eye irritation.
May cause genetic defects.
May cause cancer.
May damage fertility. May damage the unborn child.
Very toxic to aquatic life with long lasting effects.

Precautionary statements

Prevention : Wear protective gloves, protective clothing and eye or face protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Avoid release to the environment.

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

Storage : Not applicable.

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

P280, P210, P273, P391, P308 + P313, P501

Hazardous ingredients : Pitch, coal tar, high-temp.
bis-[4-(2,3-epoxipropoxi)phenyl]propane
Epoxy Resin (700<MW<=1100)
Creosote oil, acenaphthene fraction
Distillates (coal tar), heavy oils
Octadecanamide, N,N'-1,6-hexanediylbis[12-hydroxy-
benzo[a]pyrene

Supplemental label elements : Contains epoxy constituents. May produce an allergic reaction.

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

Special packaging requirements

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

Tactile warning of danger : Not applicable.

SECTION 2: Hazards identification

2.3 Other hazards

Product meets the criteria for PBT or vPvB : This mixture contains substances that are assessed to be a PBT or a vPvB, refer to Section 3.2.

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

SECTION 3: Composition/information on ingredients

3.2 Mixtures

: Mixture

Product/ingredient name	Identifiers	% by weight	Classification	Specific Conc. Limits, M-factors and ATEs	Type
Pitch, coal tar, high-temp.	REACH #: 01-2119541809-29 EC: 266-028-2 CAS: 65996-93-2 Index: 648-055-00-5	≥10 - ≤25	Muta. 1B, H340 Carc. 1A, H350 Repr. 1B, H360FD Aquatic Acute 1, H400 Aquatic Chronic 1, H410	M [Acute] = 1 M [Chronic] = 1	[1] [2] [3] [4]
xylene	EC: 215-535-7 CAS: 1330-20-7	≥5.0 - ≤10	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]
ethylbenzene	REACH #: 01-2119489370-35 EC: 202-849-4 CAS: 100-41-4 Index: 601-023-00-4	≥5.0 - <10	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]
bis-[4-(2,3-epoxipropoxi) phenyl]propane	REACH #: 01-2119456619-26 EC: 216-823-5 CAS: 1675-54-3 Index: 603-073-00-2	≥5.0 - ≤10	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 Aquatic Chronic 2, H411	Skin Irrit. 2, H315: C ≥ 5% Eye Irrit. 2, H319: C ≥ 5%	[1]
Epoxy Resin (700<MW <=1100)	CAS: 25036-25-3	≥1.0 - ≤5.0	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317	-	[1]
1-methoxy-2-propanol	REACH #: 01-2119457435-35 EC: 203-539-1 CAS: 107-98-2 Index: 603-064-00-3	≥1.0 - ≤5.0	Flam. Liq. 3, H226 STOT SE 3, H336	-	[1] [2]
Creosote oil, acenaphthene fraction	REACH #: 01-2119548393-35 EC: 292-605-3	≥1.0 - ≤5.0	Skin Irrit. 2, H315 Skin Sens. 1A, H317 Muta. 2, H341	-	[1]

SECTION 3: Composition/information on ingredients

	CAS: 90640-84-9 Index: 648-098-00-X		Carc. 1B, H350 STOT RE 2, H373 (lungs) Asp. Tox. 1, H304 Aquatic Chronic 2, H411		
Distillates (coal tar), heavy oils	REACH #: 01-2119539472-38 EC: 292-607-4 CAS: 90640-86-1 Index: 648-044-00-5	<1.0	Skin Irrit. 2, H315 Skin Sens. 1A, H317 Muta. 1B, H340 Carc. 1B, H350 Repr. 2, H361 Aquatic Chronic 3, H412	-	[1]
Octadecanamide, N, N'-1,6-hexanediylbis [12-hydroxy-	CAS: 55349-01-4	<1.0	Skin Sens. 1, H317 Aquatic Chronic 4, H413	-	[1]
phenanthrene	EC: 201-581-5 CAS: 85-01-8	<1.0	Acute Tox. 4, H302 Aquatic Acute 1, H400 Aquatic Chronic 1, H410	ATE [Oral] = 1800 mg/kg M [Acute] = 1 M [Chronic] = 1	[1] [2] [4]
pyrene	EC: 204-927-3 CAS: 129-00-0	≤1.0	Aquatic Acute 1, H400 Aquatic Chronic 1, H410	M [Acute] = 1 M [Chronic] = 1	[1] [3] [4]
naphthalene	REACH #: 01-2119561346-37 EC: 202-049-5 CAS: 91-20-3 Index: 601-052-00-2	<1.0	Acute Tox. 4, H302 Carc. 2, H351 Aquatic Acute 1, H400 Aquatic Chronic 1, H410	ATE [Oral] = 490 mg/kg M [Acute] = 1 M [Chronic] = 1	[1] [2]
benz[e]acephenanthrylene	EC: 205-911-9 CAS: 205-99-2 Index: 601-034-00-4	≤1.0	Carc. 1B, H350 Aquatic Acute 1, H400 Aquatic Chronic 1, H410	M [Acute] = 1 M [Chronic] = 1	[1] [2]
benzo[k]fluoranthene	EC: 205-916-6 CAS: 207-08-9 Index: 601-036-00-5	≤1.0	Carc. 1B, H350 Aquatic Acute 1, H400 Aquatic Chronic 1, H410	M [Acute] = 1 M [Chronic] = 1	[1] [2] [3] [4]
benz[a]anthracene	EC: 200-280-6 CAS: 56-55-3 Index: 601-033-00-9	≤0.30	Carc. 1B, H350 Aquatic Acute 1, H400 Aquatic Chronic 1, H410	M [Acute] = 100 M [Chronic] = 100	[1] [2] [3] [4]
chrysene	EC: 205-923-4 CAS: 218-01-9 Index: 601-048-00-0	≤0.30	Muta. 2, H341 Carc. 1B, H350 Aquatic Acute 1, H400 Aquatic Chronic 1, H410	M [Acute] = 1 M [Chronic] = 1	[1] [2] [3] [4]
benzo[a]pyrene	EC: 200-028-5 CAS: 50-32-8 Index: 601-032-00-3	<0.30	Skin Sens. 1, H317 Muta. 1B, H340 Carc. 1B, H350 Repr. 1B, H360FD Aquatic Acute 1, H400 Aquatic Chronic 1, H410	Carc. 1B, H350: C ≥ 0.01% M [Acute] = 100 M [Chronic] = 1	[1] [2] [3] [4]
benzo[e]pyrene	EC: 205-892-7 CAS: 192-97-2 Index: 601-049-00-6	≤0.30	Carc. 1B, H350 Aquatic Acute 1, H400 Aquatic Chronic 1, H410	M [Acute] = 1 M [Chronic] = 1	[1] [2]

SECTION 3: Composition/information on ingredients

biphenyl	EC: 202-163-5 CAS: 92-52-4 Index: 601-042-00-8	≤0.30	Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335 Aquatic Acute 1, H400 Aquatic Chronic 1, H410	M [Acute] = 1 M [Chronic] = 1	[1] [2]
dibenz[a,h]anthracene	EC: 200-181-8 CAS: 53-70-3 Index: 601-041-00-2	≤0.10	Carc. 1B, H350 Aquatic Acute 1, H400 Aquatic Chronic 1, H410 **See Section 16 for the full text of the H statements declared above.**	Carc. 1B, H350: C ≥ 0.01% M [Acute] = 100 M [Chronic] = 100	[1] [2]

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

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

Type

[1] Substance classified with a health or environmental hazard
[2] Substance with a workplace exposure limit
[3] Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII
[4] Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII

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.
In case of accidental eye contact, avoid direct exposure to the sun or other sources of UV light as severe irritation including burns may result. These reactions can be delayed – get medical attention if pain, irritation or blistering occurs after contact.

Inhalation : Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.

Skin contact : Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognised skin cleanser. Do NOT use solvents or thinners.

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

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

4.2 Most important symptoms and effects, both acute and delayed

Potential acute health effects

Eye contact : Causes serious eye irritation.

Inhalation : No known significant effects or critical hazards.

SECTION 4: First aid measures

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:
reduced foetal weight
increase in foetal deaths
skeletal malformations

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

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

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Specific treatments : No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

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

Unsuitable extinguishing media : Do not use water jet.

5.2 Special hazards arising from the substance or mixture

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

Hazardous combustion products : Decomposition products may include the following materials:
carbon oxides
nitrogen oxides
metal oxide/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). Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage.

6.3 Methods and material for containment and cleaning up

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

SECTION 7: Handling and storage

Protective measures : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapour or mist. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.

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

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

7.3 Specific end use(s)

See Section 1.2 for Identified uses.

SECTION 8: Exposure controls/personal protection

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
Pitch, coal tar, high-temp.	**NAOSH (Ireland, 5/2021).** OELV-8hr: 0.14 mg/m³, (as cyclohexane solubles) 8 hours. Form: gas
xylene	**NAOSH (Ireland, 5/2021). [xylene mixed isomers] Absorbed through skin.** OELV-15min: 442 mg/m³ 15 minutes. OELV-15min: 100 ppm 15 minutes. OELV-8hr: 221 mg/m³ 8 hours. OELV-8hr: 50 ppm 8 hours.
ethylbenzene	**NAOSH (Ireland, 5/2021). Absorbed through skin.** OELV-15min: 884 mg/m³ 15 minutes. OELV-15min: 200 ppm 15 minutes. OELV-8hr: 442 mg/m³ 8 hours.

SECTION 8: Exposure controls/personal protection

	OELV-8hr: 100 ppm 8 hours.
1-methoxy-2-propanol	**NAOSH (Ireland, 5/2021). Absorbed through skin.** OELV-15min: 568 mg/m³ 15 minutes. OELV-15min: 150 ppm 15 minutes. OELV-8hr: 375 mg/m³ 8 hours. OELV-8hr: 100 ppm 8 hours.
phenanthrene	**NAOSH (Ireland, 5/2021). [polycyclic aromatic hydrocarbon mixtures, particularly those containing benzo[a] pyrene] Absorbed through skin.**
naphthalene	**NAOSH (Ireland, 5/2021).** OELV-8hr: 50 mg/m³ 8 hours. OELV-8hr: 10 ppm 8 hours.
benz[e]acephenanthrylene	**EU OEL (Europe, 10/2019). [Polycyclic aromatic hydrocarbons mixtures particularly those containing benzo[a]pyrene, which are carcinogens within the meaning of this Directive] Absorbed through skin.**
benzo[k]fluoranthene	**NAOSH (Ireland, 5/2021). [polycyclic aromatic hydrocarbon mixtures, particularly those containing benzo[a] pyrene] Absorbed through skin.**
benz[a]anthracene	**EU OEL (Europe, 10/2019). [Polycyclic aromatic hydrocarbons mixtures particularly those containing benzo[a]pyrene, which are carcinogens within the meaning of this Directive] Absorbed through skin.**
chrysene	**NAOSH (Ireland, 5/2021). [polycyclic aromatic hydrocarbon mixtures, particularly those containing benzo[a] pyrene] Absorbed through skin.**
benzo[a]pyrene	**NAOSH (Ireland, 5/2021). Sensitization potential.**
benzo[e]pyrene	**NAOSH (Ireland, 5/2021). [polycyclic aromatic hydrocarbon mixtures, particularly those containing benzo[a] pyrene] Absorbed through skin.**
biphenyl	**NAOSH (Ireland, 5/2021).** OELV-8hr: 0.2 ppm 8 hours. OELV-8hr: 1.5 mg/m³ 8 hours.
dibenz[a,h]anthracene	**NAOSH (Ireland, 5/2021). [polycyclic aromatic hydrocarbon mixtures, particularly those containing benzo[a] pyrene] Absorbed through skin.**

Biological exposure indices

Product/ingredient name	Exposure indices
Pitch, coal tar, high-temp.	**NAOSH (Ireland, 1/2011) [Polycyclic aromatic hydrocarbons]** BMGV: 4 µmol/mol creatinine, 1-hydroxypyrene [in urine]. Sampling time: post shift.
xylene	**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.

SECTION 8: Exposure controls/personal protection

	BMGV: 0.7 g/g creatinine [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.], mandelic acid and phenylglyoxylic acid [in urine]. Sampling time: end of shift at end of workweek.
phenanthrene	**NAOSH (Ireland, 1/2011) [Polycyclic aromatic hydrocarbons]** BMGV: 4 µmol/mol creatinine, 1-hydroxypyrene [in urine]. Sampling time: post shift.
naphthalene	**NAOSH (Ireland, 1/2011) [Polycyclic aromatic hydrocarbons]** BMGV: 4 µmol/mol creatinine, 1-hydroxypyrene [in urine]. Sampling time: post shift.
benz[e]acephenanthrylene	**NAOSH (Ireland, 1/2011) [Polycyclic aromatic hydrocarbons]** BMGV: 4 µmol/mol creatinine, 1-hydroxypyrene [in urine]. Sampling time: post shift.
benzo[k]fluoranthene	**NAOSH (Ireland, 1/2011) [Polycyclic aromatic hydrocarbons]** BMGV: 4 µmol/mol creatinine, 1-hydroxypyrene [in urine]. Sampling time: post shift.
benz[a]anthracene	**NAOSH (Ireland, 1/2011) [Polycyclic aromatic hydrocarbons]** BMGV: 4 µmol/mol creatinine, 1-hydroxypyrene [in urine]. Sampling time: post shift.
chrysene	**NAOSH (Ireland, 1/2011) [Polycyclic aromatic hydrocarbons]** BMGV: 4 µmol/mol creatinine, 1-hydroxypyrene [in urine]. Sampling time: post shift.
benzo[a]pyrene	**NAOSH (Ireland, 1/2011) [Polycyclic aromatic hydrocarbons]** BMGV: 4 µmol/mol creatinine, 1-hydroxypyrene [in urine]. Sampling time: post shift.
benzo[e]pyrene	**NAOSH (Ireland, 1/2011) [Polycyclic aromatic hydrocarbons]** BMGV: 4 µmol/mol creatinine, 1-hydroxypyrene [in urine]. Sampling time: post shift.
dibenz[a,h]anthracene	**NAOSH (Ireland, 1/2011) [Polycyclic aromatic hydrocarbons]** BMGV: 4 µmol/mol creatinine, 1-hydroxypyrene [in urine]. Sampling time: post shift.

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

SECTION 8: Exposure controls/personal protection

Product/ingredient name	Type	Exposure	Value	Population	Effects
Pitch, coal tar, high-temp.	DMEL	Long term Oral	0.5 ng/kg bw/day	General population	Systemic
	DMEL	Long term Inhalation	0.000001 mg/m³	General population	Local
	DMEL	Long term Inhalation	0.000004 mg/m³	General population	Systemic
	DMEL	Long term Inhalation	0.0007 mg/m³	Workers	Local
	DMEL	Long term Inhalation	1680 ng/m³	Workers	Systemic
	DMEL	Long term Dermal	40 µg/cm²	Workers	Local
	DMEL	Long term Dermal	0.2 mg/kg bw/day	Workers	Systemic
xylene	DNEL	Short term Inhalation	260 mg/m³	General population	Systemic
	DNEL	Short term Inhalation	260 mg/m³	General population	Local
	DNEL	Long term Dermal	125 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	65.3 mg/m³	General population	Systemic
	DNEL	Long term Oral	12.5 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	221 mg/m³	Workers	Systemic
	DNEL	Short term Inhalation	442 mg/m³	Workers	Systemic
	DNEL	Long term Inhalation	221 mg/m³	Workers	Local
	DNEL	Short term Inhalation	442 mg/m³	Workers	Local
	DNEL	Long term Dermal	212 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	65.3 mg/m³	General population	Local
	DNEL	Short term Inhalation	260 mg/m³	General population	Local
	DNEL	Short term Inhalation	260 mg/m³	General population	Systemic
	DNEL	Long term Inhalation	221 mg/m³	Workers	Local
	DNEL	Long term Oral	12.5 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	65.3 mg/m³	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	Systemic
	DNEL	Short term Inhalation	442 mg/m³	Workers	Local
	DNEL	Short term Inhalation	442 mg/m³	Workers	Systemic
ethylbenzene	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/m³	Workers	Local
	DMEL	Long term Inhalation	442 mg/m³	Workers	Local
	DMEL	Short term Inhalation	884 mg/m³	Workers	Systemic
bis-[4-(2,3-epoxipropoxi) phenyl]propane	DNEL	Long term Inhalation	12.25 mg/m³	Workers	Systemic
	DNEL	Short term Inhalation	12.25 mg/m³	Workers	Systemic
	DNEL	Long term Dermal	8.33 mg/kg bw/day	Workers	Systemic
	DNEL	Short term Dermal	8.33 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Dermal	3.571 mg/kg bw/day	General population [Consumers]	Systemic
	DNEL	Short term Dermal	3.571 mg/kg bw/day	General population [Consumers]	Systemic
	DNEL	Long term Oral	0.75 mg/kg bw/day	General population [Consumers]	Systemic
	DNEL	Short term Oral	0.75 mg/kg bw/day	General population [Consumers]	Systemic
	DNEL	Long term Dermal	89.3 µg/kg bw/day	General population	Systemic
	DNEL	Long term Oral	0.5 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	0.75 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	0.87 mg/m³	General population	Systemic

SECTION 8: Exposure controls/personal protection

	DNEL	Long term Inhalation	4.93 mg/m³	Workers	Systemic
1-methoxy-2-propanol	DNEL	Long term Oral	33 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	43.9 mg/m³	General population	Systemic
	DNEL	Long term Dermal	78 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	183 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	369 mg/m³	Workers	Systemic
	DNEL	Short term Inhalation	553.5 mg/m³	Workers	Local
	DNEL	Short term Inhalation	553.5 mg/m³	Workers	Systemic
Creosote oil, acenaphthene fraction	DMEL	Long term Oral	0.06 µg/kg bw/day	General population	Systemic
	DMEL	Long term Inhalation	0.1 µg/m³	General population	Systemic
	DMEL	Long term Dermal	0.068 mg/kg bw/day	Workers	Systemic
	DMEL	Long term Inhalation	0.24 mg/m³	Workers	Systemic
naphthalene	DNEL	Long term Dermal	3.57 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	25 mg/m³	Workers	Local
	DNEL	Long term Inhalation	25 mg/m³	Workers	Systemic
biphenyl	DNEL	Long term Oral	1.9 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	3.3 mg/m³	General population	Systemic
	DNEL	Long term Inhalation	11.17 mg/m³	Workers	Systemic
	DNEL	Long term Dermal	38 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	63 mg/kg bw/day	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	-
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	-
bis-[4-(2,3-epoxipropoxi)phenyl] propane	-	Fresh water	0.006 mg/l	Assessment Factors
	-	Marine water	0.001 mg/l	Assessment Factors
	-	Fresh water sediment	0.996 mg/kg dwt	Equilibrium Partitioning
	-	Marine water sediment	0.1 mg/kg dwt	Equilibrium Partitioning
	-	Soil	0.196 mg/kg dwt	Equilibrium Partitioning
	-	Sewage Treatment Plant	10 mg/l	Assessment Factors
	-	Secondary Poisoning	11 mg/kg	Assessment Factors
1-methoxy-2-propanol	-	Fresh water	10 mg/l	Assessment Factors
	-	Marine water	1 mg/l	Assessment Factors
	-	Sewage Treatment Plant	100 mg/l	Assessment Factors
	-	Fresh water sediment	41.6 mg/kg	Equilibrium Partitioning
	-	Marine water sediment	4.17 mg/kg	Equilibrium Partitioning
	-	Soil	2.47 mg/kg	Equilibrium Partitioning

8.2 Exposure controls

SECTION 8: Exposure controls/personal protection

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 : Chemical splash goggles. Use eye protection according to EN 166.

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 : butyl rubber

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

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 : Not available.

Odour : Characteristic.

Odour threshold : Not available.

Melting point/freezing point : May start to solidify at the following temperature: 8 to 12°C (46.4 to 53.6°F) This is based on data for the following ingredient: bis-[4-(2,3-epoxipropoxi)phenyl]propane. Weighted average: -62.39°C (-80.3°F)

Initial boiling point and boiling range : >37.78°C

Flammability : Not available.

Upper/lower flammability or explosive limits : Greatest known range: Lower: 1.48% Upper: 13.74% (1-methoxy-2-propanol)

Flash point : Closed cup: 27°C

Auto-ignition temperature :

Ingredient name	°C	°F	Method
1-methoxy-2-propanol	270	518	

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

pH : Not applicable. insoluble in water.

Viscosity : Kinematic (40°C): >21 mm^2/s

Solubility(ies) :

Media	Result
cold water	Not soluble

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

Vapour pressure :

Ingredient name	Vapour Pressure at 20˚C			Vapour pressure at 50˚C		
	mm Hg	kPa	Method	mm Hg	kPa	Method
ethylbenzene	9.3	1.2				

Evaporation rate : Highest known value: 0.84 (ethylbenzene) Weighted average: 0.8compared with butyl acetate

Relative density : 1.32

Vapour density : Highest known value: 11.7 (Air = 1) (bis-[4-(2,3-epoxipropoxi)phenyl]propane). Weighted average: 5.81 (Air = 1)

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

Oxidising properties : Product does not present an oxidizing hazard.

Particle characteristics

Median particle size : Not applicable.

9.2 Other information

SECTION 9: Physical and chemical properties

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 nitrogen oxides metal oxide/oxides

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Pitch, coal tar, high-temp.	LD50 Dermal	Rabbit	>5000 mg/kg	-
	LD50 Oral	Rat	3300 mg/kg	-
xylene	LD50 Dermal	Rabbit	1.7 g/kg	-
	LD50 Oral	Rat	4.3 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	-
bis-[4-(2,3-epoxipropoxi)phenyl]propane	LD50 Dermal	Rabbit	23000 mg/kg	-
	LD50 Oral	Rat	15000 mg/kg	-
Epoxy Resin (700<MW<=1100)	LD50 Dermal	Rat	>2000 mg/kg	-
	LD50 Oral	Rat	>2000 mg/kg	-
1-methoxy-2-propanol	LC50 Inhalation Vapour	Rat	>7000 ppm	6 hours
	LD50 Dermal	Rabbit	13 g/kg	-
	LD50 Oral	Rat	5.2 g/kg	-
phenanthrene	LD50 Oral	Rat	1.8 g/kg	-
pyrene	LC50 Inhalation Dusts and mists	Rat	170 mg/m³	4 hours
	LD50 Oral	Rat	2.7 g/kg	-
naphthalene	LD50 Dermal	Rabbit	>20 g/kg	-
	LD50 Oral	Rat	490 mg/kg	-
biphenyl	LD50 Dermal	Rabbit	>5010 mg/kg	-
	LD50 Oral	Rat	2140 mg/kg	-

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

Irritation/Corrosion

SECTION 11: Toxicological information

Product/ingredient name	Result	Species	Score	Exposure	Observation
xylene	Skin - Moderate irritant	Rabbit	-	24 hours 500 mg	-
bis-[4-(2,3-epoxipropoxi)phenyl]propane	Eyes - Mild irritant	Rabbit	-	24 hours	-
	Eyes - Redness of the conjunctivae	Rabbit	0.4	24 hours	-
	Skin - Oedema	Rabbit	0.5	4 hours	-
	Skin - Erythema/Eschar	Rabbit	0.8	4 hours	-
	Skin - Mild irritant	Rabbit	-	4 hours	-

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

Product/ingredient name	Route of exposure	Species	Result
bis-[4-(2,3-epoxipropoxi)phenyl]propane	skin	Mouse	Sensitising

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	Category 3	-	Respiratory tract irritation
1-methoxy-2-propanol	Category 3	-	Narcotic effects
biphenyl	Category 3	-	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Product/ingredient name	Category	Route of exposure	Target organs
ethylbenzene	Category 2	-	hearing organs
Creosote oil, acenaphthene fraction	Category 2	-	lungs

Aspiration hazard

Product/ingredient name	Result
xylene	ASPIRATION HAZARD - Category 1
ethylbenzene	ASPIRATION HAZARD - Category 1
Creosote oil, acenaphthene fraction	ASPIRATION HAZARD - Category 1

Information on likely routes of exposure : Not available.

SECTION 11: Toxicological information

Potential acute health effects

Inhalation : No known significant effects or critical hazards.

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

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

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

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 : Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

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

Mutagenicity : May cause genetic defects.

Reproductive toxicity : May damage fertility. May damage the unborn child.

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.

SECTION 11: Toxicological information

11.2 Information on other hazards

11.2.1 Endocrine disrupting properties

Not available.

11.2.2 Other information

Not available.

SECTION 12: Ecological information

12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
ethylbenzene	Acute EC50 1.8 mg/l Fresh water	Daphnia	48 hours
	Chronic NOEC 1 mg/l Fresh water	Daphnia - *Ceriodaphnia dubia*	-
bis-[4-(2,3-epoxipropoxi)phenyl]propane	Acute LC50 1.8 mg/l Fresh water	Daphnia - *daphnia magna*	48 hours
	Chronic NOEC 0.3 mg/l	Daphnia	21 days
1-methoxy-2-propanol	Acute LC50 23300 mg/l	Daphnia	48 hours
	Acute LC50 >4500 mg/l Fresh water	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
ethylbenzene	-	79 % - Readily - 10 days	-	-

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

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
xylene	-	-	Readily
ethylbenzene	-	-	Readily
bis-[4-(2,3-epoxipropoxi)phenyl]propane	-	-	Not readily

12.3 Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
Pitch, coal tar, high-temp.	6.04	-	High
xylene	3.12	7.4 to 18.5	Low
ethylbenzene	3.6	79.43	Low
1-methoxy-2-propanol	<1	-	Low
phenanthrene	4.46	2511.89	High
pyrene	5.43	1513.56	High
naphthalene	3.4	85.11	Low
benz[e]acephenanthrylene	5.78	-	High
benzo[k]fluoranthene	6.11	-	High
benz[a]anthracene	5.76	257.04	Low
chrysene	5.81	-	High
benzo[a]pyrene	6.13	-	High
benzo[e]pyrene	6.44	-	High
biphenyl	4.008	436.52	Low
dibenz[a,h]anthracene	6.75	-	High

SECTION 12: Ecological information

12.4 Mobility in soil

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

Mobility : Not available.

12.5 Results of PBT and vPvB assessment

Product/ingredient name	PBT	P	B	T	vPvB	vP	vB
Pitch, coal tar, high-temp.	Annex XIV (Listed)	Specified	Specified	Specified	Annex XIV (Listed)	Specified	Specified
xylene	No	N/A	No	No	No	N/A	No
ethylbenzene	No	N/A	No	Yes	No	N/A	No
bis-[4-(2,3-epoxipropoxi) phenyl]propane	No	N/A	N/A	No	N/A	N/A	N/A
Epoxy Resin (700<MW <=1100)	No	N/A	N/A	No	N/A	N/A	N/A
1-methoxy-2-propanol	No	N/A	N/A	No	N/A	N/A	N/A
Octadecanamide, N, N'-1,6-hexanediylbis [12-hydroxy-	No	N/A	N/A	No	N/A	N/A	N/A
phenanthrene	No	N/A	Yes	No	SVHC (Candidate)	Specified	Specified
pyrene	SVHC (Candidate)	Specified	Specified	Specified	SVHC (Candidate)	Specified	Specified
naphthalene	No	N/A	No	No	No	N/A	No
benzo[k]fluoranthene	SVHC (Candidate)	Specified	Specified	Specified	SVHC (Candidate)	Specified	Specified
benz[a]anthracene	SVHC (Candidate)	Specified	Specified	Specified	SVHC (Candidate)	Specified	Specified
chrysene	SVHC (Candidate)	Specified	Specified	Specified	SVHC (Candidate)	Specified	Specified
benzo[a]pyrene	SVHC (Candidate)	Specified	Specified	Specified	SVHC (Candidate)	Specified	Specified
biphenyl	No	N/A	No	No	No	N/A	No

12.6 Endocrine disrupting properties

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.

SECTION 13: Disposal considerations

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
14.5 Environmental hazards	Yes.	Yes.	Yes.	Yes. The environmentally hazardous substance mark is not required.
Marine pollutant substances	Not applicable.	Not applicable.	(Pitch, coal tar, high-temp., bis-[4-(2,3-epoxipropoxi) phenyl]propane)	Not applicable.

Additional information

ADR/RID : The environmentally hazardous substance mark is not required when transported in sizes of ≤5 L or ≤5 kg.

Tunnel code : (D/E)

ADN : The environmentally hazardous substance mark is not required when transported in sizes of ≤5 L or ≤5 kg.

IMDG : The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg.

IATA : The environmentally hazardous substance mark may appear if required by other transportation regulations.

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 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

Intrinsic property	Ingredient name	Status	Reference number	Date of revision
Carcinogen	pitch, coal tar, high-temp. The residue from the distillation of high temperature coal tar. A black solid with an approximate softening point from 30°C to 180°C (86°F to 356°F). Composed primarily of a complex mixture of three or more membered condensed ring aromatic hydrocarbons.	Listed	41	7/3/2017
PBT	pitch, coal tar, high-temp. The residue from the distillation of high temperature coal tar. A black solid with an approximate softening point from 30°C to 180°C (86°F to 356°F). Composed primarily of a complex mixture of three or more membered condensed ring aromatic hydrocarbons.	Listed	41	7/3/2017
vPvB	pitch, coal tar, high-temp. The residue from the distillation of high temperature coal tar. A black solid with an approximate softening point from 30°C to 180°C (86°F to 356°F). Composed primarily of a complex mixture of three or more membered condensed ring aromatic hydrocarbons.	Listed	41	7/3/2017

Substances of very high concern

Intrinsic property	Ingredient name	Status	Reference number	Date of revision
Carcinogen	pitch, coal tar, high temp. The residue from the distillation of high temperature coal tar. A black solid with an approximate softening point from 30°C to 180°C (86°F to 356°F). Composed primarily of a complex mixture of three or more membered condensed ring aromatic hydrocarbons.	Recommended	ED/69/2013	7/3/2017
	benzo[k]fluoranthene	Candidate	ED/88/2018	1/15/2019
	benz[a]anthracene	Candidate	ED/01/2018	1/15/2018
	chrysene	Candidate	ED/01/2018	1/15/2018
	benzo[def]chrysene	Candidate	ED/21/2016	6/20/2016
Mutagen	benzo[def]chrysene	Candidate	ED/21/2016	6/20/2016
Toxic to reproduction	benzo[def]chrysene	Candidate	ED/21/2016	6/20/2016
PBT	pitch, coal tar, high temp. The residue from	Recommended	ED/69/2013	7/3/2017

SECTION 15: Regulatory information

	the distillation of high temperature coal tar. A black solid with an approximate softening point from 30°C to 180°C (86°F to 356°F). Composed primarily of a complex mixture of three or more membered condensed ring aromatic hydrocarbons.			
	pyrene	Candidate	ED/88/2018	1/15/2019
	benzo[k]fluoranthene	Candidate	ED/88/2018	1/15/2019
	benz[a]anthracene	Candidate	ED/01/2018	1/15/2018
	chrysene	Candidate	ED/01/2018	1/15/2018
	benzo[def]chrysene	Candidate	ED/21/2016	6/20/2016
vPvB	pitch, coal tar, high temp. The residue from the distillation of high temperature coal tar. A black solid with an approximate softening point from 30°C to 180°C (86°F to 356°F). Composed primarily of a complex mixture of three or more membered condensed ring aromatic hydrocarbons.	Recommended	ED/69/2013	7/3/2017
	phenanthrene	Candidate	ED/88/2018	1/15/2019
	pyrene	Candidate	ED/88/2018	1/15/2019
	benzo[k]fluoranthene	Candidate	ED/88/2018	1/15/2019
	benz[a]anthracene	Candidate	ED/01/2018	1/15/2018
	chrysene	Candidate	ED/01/2018	1/15/2018
	benzo[def]chrysene	Candidate	ED/21/2016	6/20/2016

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

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 E1

Product/ingredient name	List name	Name on list	Classification	Notes
Pitch, coal tar, high-temp.	Ireland Occupational Exposure Limits	Coal tar pitch volatiles as cyclohexane solubles	Carc..1B	-
phenanthrene	Ireland Occupational Exposure Limits	polycyclic aromatic hydrocarbon mixtures, particularly those containing benzo[a] pyrene	Carc.	-
pyrene	Ireland Occupational Exposure Limits	polycyclic aromatic hydrocarbon mixtures, particularly those containing benzo[a]	Carc.	-

SECTION 15: Regulatory information

		pyrene		
naphthalene	Ireland Occupational Exposure Limits	polycyclic aromatic hydrocarbon mixtures, particularly those containing benzo[a] pyrene	Carc.	-
benz[e]acephenanthrylene	Ireland Occupational Exposure Limits	benzo[β]fluoranthene	Carc..1B	-
benzo[k]fluoranthene	Ireland Occupational Exposure Limits	polycyclic aromatic hydrocarbon mixtures, particularly those containing benzo[a] pyrene	Carc.	-
benz[a]anthracene	Ireland Occupational Exposure Limits	benz[α]anthracene	Carc..1B	-
chrysene	Ireland Occupational Exposure Limits	polycyclic aromatic hydrocarbon mixtures, particularly those containing benzo[a] pyrene	Carc.	-
benzo[a]pyrene	Ireland Occupational Exposure Limits	benzo[α]pyrene	Carc..1B, Repro. Repr.1B, Muta.. 1B	-
benzo[e]pyrene	Ireland Occupational Exposure Limits	polycyclic aromatic hydrocarbon mixtures, particularly those containing benzo[a] pyrene	Carc.	-
dibenz[a,h]anthracene	Ireland Occupational Exposure Limits	polycyclic aromatic hydrocarbon mixtures, particularly those containing benzo[a] pyrene	Carc.	-

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
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]

SECTION 16: Other information

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
Muta. 1B, H340	Calculation method
Carc. 1A, H350	Calculation method
Repr. 1B, H360FD	Calculation method
Aquatic Acute 1, H400	Calculation method
Aquatic Chronic 1, H410	Calculation method

Full text of abbreviated H statements

H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
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.
H340	May cause genetic defects.
H341	Suspected of causing genetic defects.
H350	May cause cancer.
H351	Suspected of causing cancer.
H360FD	May damage fertility. May damage the unborn child.
H361	Suspected of damaging fertility or the unborn child.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

Full text of classifications [CLP/GHS]

Acute Tox. 4	ACUTE TOXICITY - Category 4
Aquatic Acute 1	SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 1
Aquatic Chronic 1	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 1
Aquatic Chronic 2	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2
Aquatic Chronic 3	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3
Aquatic Chronic 4	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 4
Asp. Tox. 1	ASPIRATION HAZARD - Category 1
Carc. 1A	CARCINOGENICITY - Category 1A
Carc. 1B	CARCINOGENICITY - Category 1B
Carc. 2	CARCINOGENICITY - Category 2
Eye Irrit. 2	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2
Flam. Liq. 2	FLAMMABLE LIQUIDS - Category 2
Flam. Liq. 3	FLAMMABLE LIQUIDS - Category 3
Muta. 1B	GERM CELL MUTAGENICITY - Category 1B
Muta. 2	GERM CELL MUTAGENICITY - Category 2
Repr. 1B	REPRODUCTIVE TOXICITY - Category 1B
Repr. 2	REPRODUCTIVE TOXICITY - Category 2
Skin Irrit. 2	SKIN CORROSION/IRRITATION - Category 2
Skin Sens. 1	SKIN SENSITISATION - Category 1

SECTION 16: Other information

Skin Sens. 1A	SKIN SENSITISATION - Category 1A
STOT RE 2	SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 2
STOT SE 3	SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 3

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