



# West & Senior Limited

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## SAFETY DATA SHEET EP LF PASTEL ORANGE RAL2003 PIGMENT

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

#### 1.1. Product identifier

**Product name** EP LF PASTEL ORANGE RAL2003 PIGMENT

**Product number** WS33449C

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

**Identified uses** COLOURING OF EPOXIDE COMPOUNDS & SYSTEMS

#### 1.3. Details of the supplier of the safety data sheet

**Supplier** WEST AND SENIOR LIMITED.  
MILLTOWN STREET  
RADCLIFFE  
MANCHESTER. M26 1WE.  
TEL + 44 01617247131  
FAX + 44 01617249519  
[info@westsenior.co.uk](mailto:info@westsenior.co.uk)

#### 1.4. Emergency telephone number

**Emergency telephone** 24 HOUR EMERGENCY TELEPHONE NUMBER : + 44 (0) 7930 595916

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

##### Classification (EC 1272/2008)

**Physical hazards** Not Classified

**Health hazards** Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 Skin Sens. 1 - H317

**Environmental hazards** Aquatic Chronic 2 - H411

**Human health** See Section 11 for additional information on health hazards.

**Environmental** The product contains a substance which is harmful to aquatic organisms and which may cause long-term adverse effects in the aquatic environment.

#### 2.2. Label elements

##### Hazard pictograms



**Signal word** Warning

**Hazard statements** H315 Causes skin irritation.  
H319 Causes serious eye irritation.  
H317 May cause an allergic skin reaction.  
H411 Toxic to aquatic life with long lasting effects.

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<b>Precautionary statements</b>	<p>P261 Avoid breathing vapour/ spray.</p> <p>P264 Wash contaminated skin thoroughly after handling.</p> <p>P272 Contaminated work clothing should not be allowed out of the workplace.</p> <p>P273 Avoid release to the environment.</p> <p>P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.</p> <p>P302+P352 IF ON SKIN: Wash with plenty of water.</p> <p>P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</p> <p>P321 Specific treatment (see medical advice on this label).</p> <p>P332+P313 If skin irritation occurs: Get medical advice/ attention.</p> <p>P333+P313 If skin irritation or rash occurs: Get medical advice/ attention.</p> <p>P337+P313 If eye irritation persists: Get medical advice/ attention.</p> <p>P362+P364 Take off contaminated clothing and wash it before reuse.</p> <p>P391 Collect spillage.</p> <p>P501 Dispose of contents/ container in accordance with national regulations.</p>
<b>Supplemental label information</b>	EUH211 Warning! Hazardous respirable droplets may be formed when sprayed. Do not breathe spray or mist.
<b>Contains</b>	bis-[4-(2,3-epoxipropoxy)phenyl]propane, Formaldehyde, polymer with (chloromethyl)oxirane and phenol, mw <=700, oxirane, mono[(C12-14-alkyloxy)methyl] derivs.

### 2.3. Other hazards

This product does not contain any substances classified as PBT or vPvB.

## SECTION 3: Composition/information on ingredients

### 3.2. Mixtures

<b>bis-[4-(2,3-epoxipropoxy)phenyl]propane</b>		<b>30-60%</b>
CAS number: 1675-54-3	EC number: 216-823-5	REACH registration number: 01-2119456619-26
<b>Classification</b>		
Skin Irrit. 2 - H315		
Eye Irrit. 2 - H319		
Skin Sens. 1 - H317		
Aquatic Chronic 2 - H411		
<b>TITANIUM DIOXIDE</b>		<b>10-30%</b>
CAS number: 13463-67-7	EC number: 236-675-5	REACH registration number: 01-2119489379-17-0000
<b>Classification</b>		
Not Classified		

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<b>Formaldehyde, polymer with (chloromethyl)oxirane and phenol, mw &lt;=700</b>	<b>10-30%</b>
CAS number: 9003-36-5	EC number: 500-006-8
	REACH registration number: 01-2119454392-40-0000
<b>Classification</b>	
Skin Irrit. 2 - H315	
Skin Sens. 1 - H317	
Aquatic Chronic 2 - H411	
<b>oxirane, mono[(C12-14-alkyloxy)methyl] derivs.</b>	<b>5-10%</b>
CAS number: 68609-97-2	REACH registration number: 01-2119485289-22-0000
<b>Classification</b>	
Skin Irrit. 2 - H315	
Skin Sens. 1 - H317	
<b>Trimethylolpropane</b>	<b>&lt;1%</b>
CAS number: 77-99-6	EC number: 201-074-9
	REACH registration number: 01-2119486799-10-XXXX
<b>Classification</b>	
Repr. 2 - H361fd	
<b>CARBON BLACK</b>	<b>&lt;1%</b>
CAS number: 1333-86-4	EC number: 215-609-9
	REACH registration number: 01-2119384822-32-0000
<b>Classification</b>	
Not Classified	
<b>Amines, N-coco alkyltrimethylenedi-</b>	<b>&lt;1%</b>
CAS number: 61791-63-7	EC number: 263-195-3
M factor (Acute) = 10	
<b>Classification</b>	
Acute Tox. 4 - H302	
Skin Corr. 1A - H314	
Aquatic Acute 1 - H400	

The full text for all hazard statements is displayed in Section 16.

**Composition comments** This mixture contains ≥ 1% Titanium Dioxide (CAS 13463-67-7) The Annex VI classification of Titanium Dioxide does not apply to this mixture according to its Note 10.

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

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<b>Inhalation</b>	Move affected person to fresh air at once. If breathing stops, provide artificial respiration. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. Keep affected person warm and at rest. Get medical attention immediately.
<b>Ingestion</b>	Never give anything by mouth to an unconscious person. Do not induce vomiting. Rinse mouth thoroughly with water. Give milk instead of water if readily available. Get medical attention immediately.
<b>Skin contact</b>	Remove affected person from source of contamination. Remove contaminated clothing immediately and wash skin with soap and water. Get medical attention if any discomfort continues.
<b>Eye contact</b>	Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes and get medical attention. Get medical attention promptly if symptoms occur after washing.

### 4.2. Most important symptoms and effects, both acute and delayed

<b>Inhalation</b>	Vapours may irritate throat/respiratory system.
<b>Ingestion</b>	There may be soreness and redness of the mouth and throat.
<b>Skin contact</b>	Prolonged contact may cause redness, irritation and dry skin.
<b>Eye contact</b>	Irritating to eyes. Symptoms following overexposure may include the following: Redness. Pain.

### 4.3. Indication of any immediate medical attention and special treatment needed

<b>Notes for the doctor</b>	No specific recommendations. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.
<b>Specific treatments</b>	Provide eyewash station.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

<b>Suitable extinguishing media</b>	Use fire-extinguishing media suitable for the surrounding fire.
<b>Unsuitable extinguishing media</b>	Not known.

### 5.2. Special hazards arising from the substance or mixture

<b>Specific hazards</b>	Fire or high temperatures create: Toxic gases/vapours/fumes of: Carbon dioxide (CO <sub>2</sub> ). Carbon monoxide (CO). Thermal decomposition or combustion products may include the following substances: Toxic gases or vapours.
<b>Hazardous combustion products</b>	Carbon dioxide (CO <sub>2</sub> ). Carbon monoxide (CO). Halogenated hydrocarbons.

### 5.3. Advice for firefighters

<b>Protective actions during firefighting</b>	Isolate area. Very toxic to aquatic life. Control run-off water by containing and keeping it out of sewers and watercourses.
<b>Special protective equipment for firefighters</b>	Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing. Use air-supplied respirator, gloves and protective goggles.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

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**Personal precautions** For personal protection, see Section 8. Keep unnecessary and unprotected personnel from entering the area. Avoid inhalation of vapours. Isolate area.

### 6.2. Environmental precautions

**Environmental precautions** Avoid discharge into drains or watercourses or onto the ground. Spillages or uncontrolled discharges into watercourses must be reported immediately to the Environmental Agency or other appropriate regulatory body.

### 6.3. Methods and material for containment and cleaning up

**Methods for cleaning up** Stop leak if possible without risk. Absorb in vermiculite, dry sand or earth and place into containers. Avoid the spillage or runoff entering drains, sewers or watercourses. For waste disposal, see Section 13.

### 6.4. Reference to other sections

**Reference to other sections** Wear protective clothing as described in Section 8 of this safety data sheet. See Section 11 for additional information on health hazards. Collect and dispose of spillage as indicated in Section 13.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

**Usage precautions** Do not eat, drink or smoke when using this product. Persons susceptible to allergic reactions should not handle this product.  
Avoid contact with skin and eyes. Avoid inhalation of vapours and spray/mists.  
Store in tightly-closed, original container. Wear suitable protective clothing as protection against splashing or contamination.

### 7.2. Conditions for safe storage, including any incompatibilities

**Storage precautions** Store in tightly-closed, original container in a dry, cool and well-ventilated place.

**Storage class** Chemical storage.

### 7.3. Specific end use(s)

**Specific end use(s)** The identified uses for this product are detailed in Section 1.2.

## SECTION 8: Exposure controls/Personal protection

### 8.1. Control parameters

#### Occupational exposure limits

##### TITANIUM DIOXIDE

EH40 WEL, Time Weighted Average (TWA):, Inhalable dust. 10 mg/m<sup>3</sup>, 8 h

EH40 WEL, Time Weighted Average (TWA):, Respirable dust. 4 mg/m<sup>3</sup>, 8 h

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Argentina 3.5, TWA  
 Australia 3.0, TWA, inhalable  
 Belgium 3.6, TWA  
 Brazil 3.5, TWA  
 Canada (Ontario) 3.0 TWA, inhalable  
 China 4.0, TWA 8.0, TWA, STEL (15 min)  
 Colombia 3.0, TWA, inhalable  
 Czech Republic 2.0, TWA  
 Egypt 3.5, TWA  
 Finland 3.5, TWA; 7.0, STEL  
 France – INRS 3.5, TWA/VME inhalable  
 Germany – BeKGS527 0.5, TWA, respirable; 2.0, TWA, inhalable (DNEL values)  
 Hong Kong 3.5, TWA  
 Indonesia 3.5, TWA/NABs  
 Ireland 3.5, TWA; 7.0, STEL  
 Italy 3.5, TWA, inhalable  
 Japan – MHLW 3.0  
 Japan – SOH 4.0, TWA; 1.0, TWA, respirable  
 Korea 3.5, TWA  
 Malaysia 3.5, TWA  
 Mexico 3.5, TWA  
 Russia 4.0, TWA  
 Spain 3.5, TWA (VLA-ED)  
 Sweden 3.0, TWA  
 United Kingdom 3.5, TWA, inhalable; 7.0, STEL, inhalable  
 EU REACH DNEL 2.0, TWA, inhalable; 0.5, TWA respirable  
 United States 3.5, TWA, OSHA-PEL  
 3.0, TWA, ACGIH-TLV®, inhalable  
 3.5, TWA, NIOSH-REL

### bis-[4-(2,3-epoxipropoxy)phenyl]propane (CAS: 1675-54-3)

#### DNEL

Workers - Dermal; Short term systemic effects: 8.3 mg/kg, bw/day  
 Workers - Inhalation; Short term systemic effects: 12.3 mg/m<sup>3</sup>  
 Workers - Dermal; Long term systemic effects: 8.3 mg/kg, bw/day  
 Workers - Inhalation; Long term systemic effects: 12.3 mg/m<sup>3</sup>  
 General population - Dermal; Short term systemic effects: 3.6 mg/kg, bw/day  
 General population - Inhalation; Short term systemic effects: 0.75 mg/m<sup>3</sup>  
 General population - Oral; Short term systemic effects: 0.75 mg/kg, bw/day  
 General population - Dermal; Long term systemic effects: 3.6 mg/kg, bw/day  
 General population - Inhalation; Long term systemic effects: 0.75 mg/m<sup>3</sup>  
 General population - Oral; Long term systemic effects: 0.75 mg/kg, bw/day

#### PNEC

Fresh water; 3 µg/l  
 marine water; 0.3 µg/l  
 STP; 10 mg/l  
 Sediment (Freshwater); 0.5 mg/kg  
 Sediment (Marinewater); 0.5 mg/kg  
 Sediment; 0.05 mg/kg  
 Intermittent release; 0.013 mg/l

### TITANIUM DIOXIDE (CAS: 13463-67-7)

## EP LF PASTEL ORANGE RAL2003 PIGMENT

<b>DNEL</b>	Workers - Inhalation; Long term local effects: 10 mg/m <sup>3</sup> Professional - Inhalation; Long term local effects: 10 mg/m <sup>3</sup> Consumer - Oral; Long term systemic effects: 700 mg/kg/day
<b>PNEC</b>	marine water; 0.0184 mg/l Fresh water; 0.184 mg/l Intermittent release; 0.193 mg/l STP; 100 mg/l Sediment, marine water; 100 mg/kg Sediment, Fresh water; 1000 mg/kg Soil; 100 mg/kg

### Formaldehyde, polymer with (chloromethyl)oxirane and phenol, mw <=700 (CAS: 9003-36-5)

<b>DNEL</b>	Industry - Dermal; Short term local effects: 8.3 ppm Industry - Dermal; Long term systemic effects: 104.15 mg/kg/day Industry - Inhalation; Long term systemic effects: 29.39 mg/m <sup>3</sup> Consumer - Dermal; Long term systemic effects: 62.5 mg/kg/day Consumer - Inhalation; Long term systemic effects: 8.7 mg/m <sup>3</sup> Consumer - Oral; Long term systemic effects: 6.25 mg/kg/day
<b>PNEC</b>	- Fresh water; 0.003 mg/l - marine water; 0.0003 mg/l - Sediment (Freshwater); 0.294 mg/kg - Sediment (Marinewater); 0.0294 mg/kg - Soil; 0.237 mg/kg - Intermittent release; 0.0254

### oxirane, mono[(C12-14-alkyloxy)methyl] derivs. (CAS: 68609-97-2)

<b>DNEL</b>	Workers - Inhalation; Long term systemic effects: 3.6 mg/m <sup>3</sup> Workers - Dermal; Long term systemic effects: 1 mg/kg/day General population - Inhalation; Long term systemic effects: 0.87 mg/m <sup>3</sup> General population - Dermal; Long term systemic effects: 0.5 mg/kg/day General population - Oral; Long term systemic effects: 0.5 mg/kg/day
<b>PNEC</b>	Fresh water; 0.106 mg/l Fresh water, Intermittent release; 0.072 mg/l marine water; 0.011 mg/l STP; 10 mg/l Sediment (Freshwater), dw; 307.16 mg/kg Sediment (Marinewater), dw; 30.72 mg/kg Soil, dw; 1.234 mg/kg

### C.I. PIGMENT YELLOW 83 (CAS: 5567-15-7)

<b>DNEL</b>	Workers - Dermal; Long term systemic effects: 45 mg/kg/day Workers - Inhalation; Long term local effects: 3 mg/m <sup>3</sup> General population - Dermal; Long term systemic effects: 28 mg/kg/day General population - Oral; Long term systemic effects: 28 mg/kg/day
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### Trimethylolpropane (CAS: 77-99-6)

## EP LF PASTEL ORANGE RAL2003 PIGMENT

### DNEL

Workers - Inhalation; Long term systemic effects: 3.3 mg/m<sup>3</sup>  
 Workers - Dermal; Long term systemic effects: 0.94 mg/kg  
 Consumer - Inhalation; Long term systemic effects: 0.58 mg/m<sup>3</sup>  
 Consumer - Dermal; Long term systemic effects: 0.34 mg/kg  
 Consumer - Oral; Long term systemic effects: 0.34 mg/kg

### CARBON BLACK (CAS: 1333-86-4)

### DNEL

Workers - Inhalation; Long term : 0.5 mg/m<sup>3</sup>, respirable fraction  
 Workers - Inhalation; Long term : 2 mg/m<sup>3</sup>, inhalable fraction

## 8.2. Exposure controls

### Protective equipment



### Appropriate engineering controls

Provide adequate general and local exhaust ventilation.

### Eye/face protection

Unless the assessment indicates a higher degree of protection is required, the following protection should be worn: Chemical splash goggles.

### Hand protection

Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible.

### Other skin and body protection

Appropriate footwear and additional protective clothing complying with an approved standard should be worn if a risk assessment indicates skin contamination is possible.

### Hygiene measures

Provide eyewash station. Wash at the end of each work shift and before eating, smoking and using the toilet. Wash promptly if skin becomes contaminated. Promptly remove any clothing that becomes contaminated. When using do not eat, drink or smoke.

### Respiratory protection

If ventilation is inadequate, suitable respiratory protection must be worn. Check that the respirator fits tightly and the filter is changed regularly.

### Environmental exposure controls

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Appearance	Liquid. or Coloured paste.
Colour	Various colours.
Odour	Slight.
Odour threshold	Not available.
pH	Not available.
Melting point	Not determined.
Initial boiling point and range	Not determined.
Flash point	150°C
Evaporation rate	Not determined.



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<b>Evaporation factor</b>	Not available.
<b>Flammability (solid, gas)</b>	Not available.
<b>Upper/lower flammability or explosive limits</b>	Not determined.
<b>Other flammability</b>	Not available.
<b>Vapour pressure</b>	Not determined.
<b>Vapour density</b>	Not determined.
<b>Relative density</b>	Not available.
<b>Bulk density</b>	Not available.
<b>Solubility(ies)</b>	Not available.
<b>Partition coefficient</b>	Not available.
<b>Auto-ignition temperature</b>	(ASTM D 1929) 400°C
<b>Decomposition Temperature</b>	Not available.
<b>Viscosity</b>	Not determined.
<b>Explosive properties</b>	Not applicable.
<b>Explosive under the influence of a flame</b>	No
<b>Oxidising properties</b>	Not available.
<b>Comments</b>	Information given is applicable to the product as supplied.

### 9.2. Other information

**Other information** No information required.

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

**Reactivity** Stable at normal ambient temperatures and when used as recommended.

### 10.2. Chemical stability

**Stability** No particular stability concerns.

### 10.3. Possibility of hazardous reactions

**Possibility of hazardous reactions** Hazardous reactions or instability may occur under certain conditions of storage or use.

### 10.4. Conditions to avoid

**Conditions to avoid** Avoid releasing into the environment.

### 10.5. Incompatible materials

**Materials to avoid** No data recorded.

### 10.6. Hazardous decomposition products

**Hazardous decomposition products** Does not decompose when used and stored as recommended. This product contains a diaryl pigment. This product should not be used if the processing temperature exceeds 200°C because of possible thermal decomposition, which can, with prolonged exposure or further increased temperature, form e.g. traces of aromatic amines. 3,3'-Dichloro-benzidine.

## EP LF PASTEL ORANGE RAL2003 PIGMENT

### SECTION 11: Toxicological information

#### 11.1. Information on toxicological effects

##### Toxicological information on ingredients.

##### bis-[4-(2,3-epoxipropoxy)phenyl]propane

##### Acute toxicity - oral

**Notes (oral LD<sub>50</sub>)** LD<sub>50</sub> 11400 mg/kg, Oral, Rat

##### Acute toxicity - dermal

**Notes (dermal LD<sub>50</sub>)** LD<sub>50</sub> >2000 mg/kg, Dermal, Rabbit

##### Acute toxicity - inhalation

**Notes (inhalation LC<sub>50</sub>)** Unlikely to be hazardous by inhalation because of the low vapour pressure of the product at ambient temperature.

##### Skin corrosion/irritation

**Skin corrosion/irritation** Irritating to skin.

##### Serious eye damage/irritation

**Serious eye damage/irritation** Causes eye irritation.

##### Respiratory sensitisation

**Respiratory sensitisation** May cause sensitisation or allergic reactions in sensitive individuals.

##### Skin sensitisation

**Skin sensitisation** May cause an allergic skin reaction.

##### Germ cell mutagenicity

**Genotoxicity - in vitro** Based on available data the classification criteria are not met.

**Genotoxicity - in vivo** Based on available data the classification criteria are not met.

##### Carcinogenicity

**IARC carcinogenicity** IARC Group 3 Not classifiable as to its carcinogenicity to humans.

##### Reproductive toxicity

**Reproductive toxicity - fertility** Based on available data the classification criteria are not met.

##### Specific target organ toxicity - repeated exposure

**STOT - repeated exposure** Based on available data the classification criteria are not met.

##### Aspiration hazard

**Aspiration hazard** Based on available data the classification criteria are not met.

##### Formaldehyde, polymer with (chloromethyl)oxirane and phenol, mw <=700

##### Acute toxicity - oral

**Notes (oral LD<sub>50</sub>)** LD<sub>50</sub> >2000 mg/kg, Oral, Rat

##### Acute toxicity - inhalation

**Notes (inhalation LC<sub>50</sub>)** Not applicable.

##### Specific target organ toxicity - single exposure

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**STOT - single exposure** Not available.

oxirane, mono[(C12-14-alkyloxy)methyl] derivs.

**Acute toxicity - oral**

**Acute toxicity oral (LD<sub>50</sub> mg/kg)** 17,100.0

**Species** Rat

**ATE oral (mg/kg)** 17,100.0

**Acute toxicity - dermal**

**Notes (dermal LD<sub>50</sub>)** Not applicable.

**Acute toxicity - inhalation**

**Notes (inhalation LC<sub>50</sub>)** Not applicable.

**Skin corrosion/irritation**

**Animal data** Moderately irritating.

**Serious eye damage/irritation**

**Serious eye damage/irritation** Causes serious eye irritation.

**Skin sensitisation**

**Skin sensitisation** Severe skin irritation.

**Trimethylolpropane**

**Acute toxicity - oral**

**Acute toxicity oral (LD<sub>50</sub> mg/kg)** 14,700.0

**Species** Rat

**ATE oral (mg/kg)** 14,700.0

**Acute toxicity - dermal**

**Acute toxicity dermal (LD<sub>50</sub> mg/kg)** 10,000.0

**Species** Rabbit

**ATE dermal (mg/kg)** 10,000.0

**Reproductive toxicity**

**Reproductive toxicity - fertility** Suspected of damaging fertility. Suspected of damaging the unborn child.

**CARBON BLACK**

**Acute toxicity - oral**

**Notes (oral LD<sub>50</sub>)** LD<sub>50</sub> >8000 mg/kg, Oral, Rat

**Germ cell mutagenicity**

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<b>Summary</b>	In vivo mutagenicity in rats occurs by mechanisms secondary to a threshold effect and is a consequence of "lung overload," which leads to chronic inflammation and the release of genotoxic oxygen species. This mechanism is considered to be a secondary genotoxic effect and, thus, carbon black itself would not be considered to be mutagenic.
<b>Genotoxicity - in vitro</b>	Carbon black is not suitable to be tested directly in bacterial (Ames test) and other in vitro systems because of its insolubility. However, when organic solvent extracts of carbon black have been tested, results showed no mutagenic effects. Organic solvent extracts of carbon black can contain traces of polycyclic aromatic hydrocarbons (PAHs). A study to examine the bioavailability of these PAHs showed that they are very tightly bound to carbon black and are not bioavailable (Borm, 2005).
<b>Genotoxicity - in vivo</b>	In an experimental investigation, mutational changes in the hprt gene were reported in alveolar epithelial cells in the rat following inhalation exposure to carbon black (Driscoll, 1997). This observation is considered to be rat-specific and a consequence of "lung overload," which leads to chronic inflammation and release of reactive oxygen species. This is considered to be a secondary genotoxic effect and, thus, carbon black itself would not be considered to be mutagenic.
<b><u>Carcinogenicity</u></b>	
<b>IARC carcinogenicity</b>	IARC Group 2B Possibly carcinogenic to humans.

### SECTION 12: Ecological information

**Ecotoxicity** Dangerous for the environment. May cause long-term adverse effects in the aquatic environment.

#### Ecological information on ingredients.

##### bis-[4-(2,3-epoxypropoxy)phenyl]propane

**Ecotoxicity** Toxic to aquatic life.

#### 12.1. Toxicity

##### Ecological information on ingredients.

##### bis-[4-(2,3-epoxypropoxy)phenyl]propane

**Toxicity** WGK 2

##### Acute aquatic toxicity

**Acute toxicity - fish** LC<sub>50</sub>, 96 hours: 1.3 mg/l, Fish

**Acute toxicity - aquatic invertebrates** EC<sub>50</sub>, 48 hours: 2.1 mg/l, Ceriodaphnia dubia (water flea)

**Acute toxicity - aquatic plants** EC<sub>50</sub>, 72 hours: 11 mg/l, Algae

##### Formaldehyde, polymer with (chloromethyl)oxirane and phenol, mw <=700

##### Acute aquatic toxicity

**Acute toxicity - fish** LC<sub>50</sub>, 96 hours: 2.54 mg/l, Fish

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**Acute toxicity - aquatic invertebrates** EC<sub>50</sub>, 48 hours: 2.55 mg/l, Daphnia magna

**Acute toxicity - aquatic plants** EC<sub>50</sub>, 72 hours: >1000 mg/l, Algae

### oxirane, mono[(C12-14-alkyloxy)methyl] derivs.

#### Acute aquatic toxicity

**Acute toxicity - fish** LC<sub>50</sub>, 96 hours: > 1.8 mg/l, Oncorhynchus mykiss (Rainbow trout)

**Acute toxicity - aquatic invertebrates** EC<sub>50</sub>, 48 hours: 7.2 mg/l, Daphnia magna

**Acute toxicity - aquatic plants** EC<sub>50</sub>, 72 hours: ~ 844 mg/l, Freshwater algae

### Trimethylolpropane

#### Acute aquatic toxicity

**Acute toxicity - fish** LC<sub>50</sub>, 96 hours: >1,000 mg/l, Alburnus alburnus (bleak)

**Acute toxicity - aquatic invertebrates** EC<sub>50</sub>, 48 hours: 13,000 mg/l, Daphnia magna  
NOEC, 21 days: >1,000 mg/l, Daphnia magna

**Acute toxicity - aquatic plants** EC<sub>0</sub>, 48 hours: >102 mg/l, Daphnia magna  
EC<sub>50</sub>, 72 days: >1,000 mg/l, Pseudokirchneriella subcapitata

## 12.2. Persistence and degradability

**Persistence and degradability** There are no data on the degradability of this product.

### Ecological information on ingredients.

#### bis-[4-(2,3-epoxipropoxy)phenyl]propane

**Biodegradation** Not readily biodegradable.

#### Formaldehyde, polymer with (chloromethyl)oxirane and phenol, mw <=700

**Persistence and degradability** Not readily biodegradable.

### Trimethylolpropane

**Biodegradation** Activated sludge - Degradation 100%: 28 days

## 12.3. Bioaccumulative potential

**Bioaccumulative potential** No data available on bioaccumulation.

**Partition coefficient** Not available.

### Ecological information on ingredients.

#### bis-[4-(2,3-epoxipropoxy)phenyl]propane

**Bioaccumulative potential** log Pow: 2.65 - 3.78, BCF: 3 - 31 31.00,

#### Formaldehyde, polymer with (chloromethyl)oxirane and phenol, mw <=700

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**Bioaccumulative potential** log Pow: 3.3, BCF: 150 150.00,

### Trimethylolpropane

**Bioaccumulative potential** BCF: < 17, Cyprinus carpio (Common carp)

**Partition coefficient** log Pow: -0.47 (26°C)

#### 12.4. Mobility in soil

**Mobility** No data available.

#### 12.5. Results of PBT and vPvB assessment

**Results of PBT and vPvB assessment** This substance is not classified as PBT or vPvB according to current EU criteria.

#### 12.6. Other adverse effects

**Other adverse effects** Not known.

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

**General information** Waste should be treated as controlled waste. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

**Disposal methods** Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority. Residues and empty containers should be taken care of as hazardous waste according to local and national provisions. Avoid the spillage or runoff entering drains, sewers or watercourses.

**Waste class** EWC NUMBER : Allocation of a waste code number in accordance with the European Waste Catalogue, should be carried out in agreement with an EA authorised waste disposal company.

### SECTION 14: Transport information

**Road transport notes** SP375 – These substances when carried in Single or Combination packaging's containing a net Qty per single or inner packaging of 5ltr or less for liquids or having a net mass per single or inner packaging of 5kg or less for solids, are not subject to any provisions of ADR provided the packaging's meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8

**Sea transport notes** Chapter 2.10 – 2.10.2.7 – Marine Pollutants packaged in Single or Combination packaging's containing a net Qty per single or inner packaging of 5ltr or less for liquids or having a net mass per single or inner packaging of 5kg or less for solids, are not subject to any other provisions of this code relevant to Marine Pollutants, provided the packaging's meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8. In the case of Marine Pollutants also meeting the Criteria for inclusion in another class, all provisions of this code relevant to any additional hazards continue to apply

**Air transport notes** A197 - These substances when carried in Single or Combination packaging's containing a net Qty per single or inner packaging of 5ltr or less for liquids or having a net mass per single or inner packaging of 5kg or less for solids, are not subject to any other provisions of these regulations provided the packaging's meet the general provisions of 5.0.2.4.1, 5.0.2.6.1.1 and 5.0.2.8

#### 14.1. UN number

**UN No. (ADR/RID)** 3082

**UN No. (IMDG)** 3082

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UN No. (ICAO) 3082

UN No. (ADN) 3082

### 14.2. UN proper shipping name

**Proper shipping name (ADR/RID)** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Bisphenol A Bisphenol F Mixture)

**Proper shipping name (IMDG)** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Bisphenol A Bisphenol F Mixture)

**Proper shipping name (ICAO)** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Bisphenol A Bisphenol F Mixture)

**Proper shipping name (ADN)** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Bisphenol A Bisphenol F Mixture)

### 14.3. Transport hazard class(es)

ADR/RID class 9

ADR/RID classification code M6

ADR/RID label 9

IMDG class 9

ICAO class/division 9

ADN class 9

#### Transport labels



### 14.4. Packing group

ADR/RID packing group III

IMDG packing group III

ADN packing group III

ICAO packing group III

### 14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant



### 14.6. Special precautions for user

EmS F-A, S-F

ADR transport category 3

Emergency Action Code •3Z

Hazard Identification Number (ADR/RID) 90

Tunnel restriction code (E)

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### 14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

### SECTION 15: Regulatory information

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

<b>National regulations</b>	Control of Substances Hazardous to Health Regulations 2002 (as amended).
<b>EU legislation</b>	Commission Regulation (EU) 2015/830 of 28 May 2015 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, including amendments. Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 with amendments.
<b>Guidance</b>	A guide to local exhaust ventilation (LEV) HSG258 (as ammended) Workplace Exposure Limits EH40.

#### 15.2. Chemical safety assessment

Not applicable.

### SECTION 16: Other information

<b>Revision date</b>	10/01/2022
<b>Revision</b>	8
<b>Supersedes date</b>	21/04/2020
<b>Hazard statements in full</b>	H302 Harmful if swallowed. H314 Causes severe skin burns and eye damage. H315 Causes skin irritation. H317 May cause an allergic skin reaction. H318 Causes serious eye damage. H319 Causes serious eye irritation. H361fd Suspected of damaging fertility. Suspected of damaging the unborn child. H400 Very toxic to aquatic life. H411 Toxic to aquatic life with long lasting effects.

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