



## SAFETY DATA SHEET

CHEMSET ES 8530, ES 8531, ES 8532, ES 8533, ES 8534, ES 8535,  
ES 8536 & ES 8537 GLOW-IN-THE-DARK EPOXY ENAMELLING RESINS

Page: 1

Compilation date: 29/11/2017

Revision date: 17/06/2022

Revision No: 2

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

#### 1.1. Product identifier

**Product name:** CHEMSET ES 8530, ES 8531, ES 8532, ES 8533, ES 8534, ES 8535, ES 8536 & ES  
8537 GLOW-IN-THE-DARK EPOXY ENAMELLING RESINS

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

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

**Company name:** R F Bright Enterprises Ltd  
Unit 6, Access 4.20  
New Hythe Business Park, Bellingham Way  
Aylesford  
Kent  
ME20 7HP  
United Kingdom  
**Tel:** 01622717141  
**Email:** [enquiries@rfbright.co.uk](mailto:enquiries@rfbright.co.uk)

#### 1.4. Emergency telephone number

**Emergency tel:** 08450563563 (24 hours)

### Section 2: Hazards identification

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

**Classification under CLP:** Aquatic Chronic 2: H411; Eye Irrit. 2: H319; Muta. 2: H341; Repr. 2: H361f; Skin Irrit. 2:  
H315; Skin Sens. 1: H317

**Most important adverse effects:** Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation.  
Suspected of causing genetic defects. Suspected of damaging fertility. Toxic to aquatic  
life with long lasting effects.

#### 2.2. Label elements

**Label elements:**

**Hazard statements:** H315: Causes skin irritation.  
H317: May cause an allergic skin reaction.  
H319: Causes serious eye irritation.  
H341: Suspected of causing genetic defects.  
H361f: Suspected of damaging fertility.  
H411: Toxic to aquatic life with long lasting effects.

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# SAFETY DATA SHEET

CHEMSET ES 8530, ES 8531, ES 8532, ES 8533, ES 8534, ES 8535,  
ES 8536 & ES 8537 GLOW-IN-THE-DARK EPOXY ENAMELLING RESINS

Page: 2

**Hazard pictograms:** GHS07: Exclamation mark

GHS08: Health hazard

GHS09: Environmental



**Signal words:** Warning

**Precautionary statements:** P280: Wear protective gloves/protective clothing/eye protection/face protection.

P302+P352: IF ON SKIN: Wash with plenty of soap and water.

P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P333+P313: If skin irritation or rash occurs: Get medical advice/attention.

P337+P313: If eye irritation persists: Get medical advice/attention.

P362+P364: Take off contaminated clothing and wash it before reuse.

## 2.3. Other hazards

**PBT:** This product is not identified as a PBT/vPvB substance.

## Section 3: Composition/information on ingredients

### 3.2. Mixtures

#### Hazardous ingredients:

##### BISPHENOL A-(EPICHLORHYDRIN) {REACTION PRODUCT}

EINECS	CAS	PBT / WEL	CLP Classification	Percent
500-033-5	25068-38-6	-	Eye Irrit. 2: H319; Skin Irrit. 2: H315; Skin Sens. 1: H317; Aquatic Chronic 2: H411	50-70%

REACTION PRODUCT OF 2-(CHLORMETHYL)OXIRANE & GLYCEROL - REACH registered number(s): 01-2119978955-13-0002

701-197-2	90529-77-4	-	Acute Tox. 4: H302; Skin Irrit. 2: H315; Eye Irrit. 2: H319; Muta. 2: H341; Repr. 2: H361f	10-30%
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BENZYL ALCOHOL - REACH registered number(s): 01-2119492630-38-XXXX

202-859-9	100-51-6	-	Acute Tox. 4: H332; Acute Tox. 4: H302	1-10%
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##### N-METHYL-2-PYRROLIDONE

212-828-1	872-50-4	-	Repr. 1B: H360D; Eye Irrit. 2: H319; STOT SE 3: H335; Skin Irrit. 2: H315	<1%
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## Section 4: First aid measures

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## SAFETY DATA SHEET

CHEMSET ES 8530, ES 8531, ES 8532, ES 8533, ES 8534, ES 8535,  
ES 8536 & ES 8537 GLOW-IN-THE-DARK EPOXY ENAMELLING RESINS

Page: 3

### 4.1. Description of first aid measures

- Skin contact:** Remove all contaminated clothes and footwear immediately unless stuck to skin. Wash off contamination with plenty of soap and water and rinse thoroughly. Consult a doctor if skin irritation persists.
- Eye contact:** Check for and remove any contact lenses. Rinse open eye under running water for several minutes. Seek medical attention if irritation occurs.
- Ingestion:** Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs the head should be kept low to prevent vomit from entering the lungs. Seek medical attention if symptoms persist.
- Inhalation:** Move affected person to fresh air. If conscious, ensure the casualty sits or lies down. If unconscious, check for breathing and apply artificial respiration if necessary. If unconscious and breathing is OK, place in the recovery position. Seek medical advice if symptoms persist.

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

- Skin contact:** There may be irritation and redness at the site of contact.
- Eye contact:** There may be irritation and redness. The eyes may water profusely.
- Ingestion:** There may be soreness and redness of the mouth and throat.
- Inhalation:** There may be irritation of the throat with a feeling of tightness in the chest. Exposure may cause coughing or wheezing.

**Delayed / immediate effects:** Immediate effects can be expected after short-term exposure.

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

**Immediate / special treatment:** Eye bathing equipment should be available on the premises.

## Section 5: Fire-fighting measures

### 5.1. Extinguishing media

**Extinguishing media:** Suitable extinguishing media for the surrounding fire should be used. Water spray. Carbon dioxide. Alcohol resistant foam. Dry chemical powder. Do not use water jet. Use water spray to cool containers.

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

**Exposure hazards:** In combustion emits fumes of carbon monoxide (CO) and carbon dioxide (CO<sub>2</sub>). In combustion emits fumes of hydrogen chloride (HCl). In combustion emits pyrolysis products.

### 5.3. Advice for fire-fighters

**Advice for fire-fighters:** Wear self-contained breathing apparatus. Wear protective clothing to prevent contact with skin and eyes. Collect fire-fighting water separately. Do not allow fire-fighting water to enter drains or water courses.

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# SAFETY DATA SHEET

CHEMSET ES 8530, ES 8531, ES 8532, ES 8533, ES 8534, ES 8535,  
ES 8536 & ES 8537 GLOW-IN-THE-DARK EPOXY ENAMELLING RESINS

Page: 4

## Section 6: Accidental release measures

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

**Personal precautions:** Wear suitable protective equipment (including personal protective equipment referred to in Section 8) to prevent any contamination of skin, eyes and personal clothing. Mark out the contaminated area with signs and prevent access to unauthorised personnel.

### 6.2. Environmental precautions

**Environmental precautions:** Do not discharge into drains or rivers. Contain the spillage using bunding. Turn leaking containers leak side up to prevent further spillage. Dispose of contaminated material as waste according to section 13

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

**Clean-up procedures:** Absorb into dry earth or sand. Transfer to a closable, labelled salvage container for disposal by an appropriate method.

### 6.4. Reference to other sections

**Reference to other sections:** Refer to section 8 of SDS. Refer to section 13 of SDS.

## Section 7: Handling and storage

### 7.1. Precautions for safe handling

**Handling requirements:** Avoid contact with eyes, skin and clothing. Ensure there is sufficient ventilation of the area. Keep away from sources of ignition - Do not smoke. 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 or smoking.

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

**Storage conditions:** Store in a cool, well ventilated area. Keep container tightly closed. The floor of the storage room must be impermeable to prevent the escape of liquids.

**Suitable packaging:** Must only be kept in original packaging.

### 7.3. Specific end use(s)

**Specific end use(s):** No data available.

## Section 8: Exposure controls/personal protection

### 8.1. Control parameters

**Hazardous ingredients:**

**N-METHYL-2-PYRROLIDONE**

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# SAFETY DATA SHEET

CHEMSET ES 8530, ES 8531, ES 8532, ES 8533, ES 8534, ES 8535,  
ES 8536 & ES 8537 GLOW-IN-THE-DARK EPOXY ENAMELLING RESINS

Page: 5

## Workplace exposure limits:

## Respirable dust

State	8 hour TWA	15 min. STEL	8 hour TWA	15 min. STEL
UK	40 mg/m <sup>3</sup>	80 mg/m <sup>3</sup>	-	-

## DNEL/PNEC Values

## Hazardous ingredients:

### REACTION PRODUCT OF 2-(CHLORMETHYL)OXIRANE & GLYCEROL

Type	Exposure	Value	Population	Effect
DNEL	Inhalation	70.5 mg/m <sup>3</sup>	Workers	-
DNEL	Dermal	10 mg/kg bw/day	Workers	-
PNEC	Fresh water	0.166 mg/l	-	-
PNEC	Fresh water sediments	0.764 mg/kg	-	-
PNEC	Marine water	0.017 mg/l	-	-
PNEC	Marine sediments	0.076mg/kg	-	-
PNEC	Microorganisms in sewage treatment	100 mg/l	-	-
PNEC	Soil (agricultural)	0.055 mg/kg	-	-

## 8.2. Exposure controls

**Engineering measures:** Ensure there is sufficient ventilation of the area.

**Respiratory protection:** Not necessary if room is well-ventilated

**Hand protection:** Impermeable gloves. Recommended thickness of the glove material >0.5mm The resistance of glove material to this product cannot be calculated in advance as quality varies from manufacturer to manufacturer. The suitability of the gloves selected must therefore be checked prior to use.

**Eye protection:** Safety glasses with side-shields. Ensure eye bath is to hand.

**Skin protection:** Protective clothing. Immediately remove all soiled and contaminated clothing and launder before re-use. Wash hands before breaks, eating, drinking, going to the toilet and at the end of work.

**Environmental:** The floor of the storage room must be impermeable to prevent the escape of liquids. Prevent from entering in public sewers or the immediate environment. Keep away from foodstuffs.

## Section 9: Physical and chemical properties

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

**State:** Paste

**Colour:** Off-white

**Odour:** Barely perceptible odour

**Relative density:** 1.1 g/cm<sup>3</sup>

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## SAFETY DATA SHEET

CHEMSET ES 8530, ES 8531, ES 8532, ES 8533, ES 8534, ES 8535,  
ES 8536 & ES 8537 GLOW-IN-THE-DARK EPOXY ENAMELLING RESINS

Page: 6

### 9.2. Other information

Other information: No data available.

## Section 10: Stability and reactivity

### 10.1. Reactivity

Reactivity: Stable under recommended transport or storage conditions.

### 10.2. Chemical stability

Chemical stability: Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

Hazardous reactions: Hazardous reactions will not occur under normal transport or storage conditions.  
Polymerisation may occur on exposure to conditions or materials listed below.

### 10.4. Conditions to avoid

Conditions to avoid: Heat. Hot surfaces. Sources of ignition.

### 10.5. Incompatible materials

Materials to avoid: Amines. Acids. Bases. Oxidising agents.

### 10.6. Hazardous decomposition products

Haz. decomp. products: In combustion emits toxic fumes of carbon monoxide (CO) and carbon dioxide (CO<sub>2</sub>). In combustion emits fumes of hydrogen chloride (HCl). In combustion emits pyrolysis products.

## Section 11: Toxicological information

### 11.1. Information on toxicological effects

Hazardous ingredients:

#### BISPHENOL A-(EPICHLORHYDRIN) {REACTION PRODUCT}

ORL	MUS	LD50	15600	mg/kg
ORL	RAT	LD50	11400	mg/kg
SKN	RBT	LD50	>20	ml/kg

#### REACTION PRODUCT OF 2-(CHLORMETHYL)OXIRANE & GLYCEROL

DERMAL	RAT	LD50	>2000	mg/kg
ORAL	RAT	LD50	2000	mg/kg

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## SAFETY DATA SHEET

CHEMSET ES 8530, ES 8531, ES 8532, ES 8533, ES 8534, ES 8535,  
ES 8536 & ES 8537 GLOW-IN-THE-DARK EPOXY ENAMELLING RESINS

Page: 7

### BENZYL ALCOHOL

IVN	RAT	LD50	53	mg/kg
ORL	MUS	LD50	1360	mg/kg
ORL	RAT	LD50	1230	mg/kg

### N-METHYL-2-PYRROLIDONE

ORL	MUS	LD50	5130	mg/kg
ORL	RAT	LD50	7	gm/kg
SCU	RAT	LD50	>2	gm/kg

### Relevant hazards for product:

Hazard	Route	Basis
Skin corrosion/irritation	DRM	Hazardous: calculated
Serious eye damage/irritation	OPT	Hazardous: calculated
Respiratory/skin sensitisation	DRM	Hazardous: calculated
Germ cell mutagenicity	--	Hazardous: calculated
Reproductive toxicity	--	Hazardous: calculated

### Symptoms / routes of exposure

**Skin contact:** There may be irritation and redness at the site of contact.

**Eye contact:** There may be irritation and redness. The eyes may water profusely.

**Ingestion:** There may be soreness and redness of the mouth and throat.

**Inhalation:** There may be irritation of the throat with a feeling of tightness in the chest. Exposure may cause coughing or wheezing.

**Delayed / immediate effects:** Immediate effects can be expected after short-term exposure.

**Other information:** Suspected of causing genetic defects (if exposed). Suspected of damaging fertility (if exposed).

### Section 12: Ecological information

#### 12.1. Toxicity

**Hazardous ingredients:**

#### REACTION PRODUCT OF 2-(CHLORMETHYL)OXIRANE & GLYCEROL

ALGAE	72H ErC50	>120	mg/l
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#### 12.2. Persistence and degradability

**Persistence and degradability:** Not biodegradable.

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## SAFETY DATA SHEET

CHEMSET ES 8530, ES 8531, ES 8532, ES 8533, ES 8534, ES 8535,  
ES 8536 & ES 8537 GLOW-IN-THE-DARK EPOXY ENAMELLING RESINS

Page: 8

### 12.3. Bioaccumulative potential

**Bioaccumulative potential:** Bioaccumulation potential.

### 12.4. Mobility in soil

**Mobility:** Readily absorbed into soil.

### 12.5. Results of PBT and vPvB assessment

**PBT identification:** This product is not identified as a PBT/vPvB substance.

### 12.6. Other adverse effects

**Other adverse effects:** Toxic to aquatic organisms. Toxic to soil organisms.

## Section 13: Disposal considerations

### 13.1. Waste treatment methods

**Disposal operations:** Transfer to a suitable container and arrange for collection by specialised disposal company.

**Disposal of packaging:** Arrange for collection by specialised disposal company.

**NB:** The user's attention is drawn to the possible existence of regional or national regulations regarding disposal.

## Section 14: Transport information

### 14.1. UN number

**UN number:** UN3082

### 14.2. UN proper shipping name

**Shipping name:** Environmentally Hazardous Substance, Liquid, n.o.s.  
(Epoxy Resin (number average molecular weight <700); Reaction product of 2-(chloromethyl)oxirane & glycerol; N-methyl-2-pyrrolidone)

### 14.3. Transport hazard class(es)

**Transport class:** 9

### 14.4. Packing group

**Packing group:** III

### 14.5. Environmental hazards

**Environmentally hazardous:** Yes

**Marine pollutant:** No

### 14.6. Special precautions for user

**Special precautions:** No special precautions.

**Tunnel code:** E



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CHEMSET ES 8530, ES 8531, ES 8532, ES 8533, ES 8534, ES 8535,  
ES 8536 & ES 8537 GLOW-IN-THE-DARK EPOXY ENAMELLING RESINS

Page: 9

### Section 15: Regulatory information

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

**Specific regulations:** Not applicable.

#### 15.2. Chemical Safety Assessment

**Chemical safety assessment:** A chemical safety assessment has not been carried out for the substance or the mixture by the supplier.

### Section 16: Other information

#### Other information

**Other information:** This safety data sheet is prepared in accordance with Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) No 2015/830.

**Phrases used in s.2 and s.3:** H302: Harmful if swallowed.  
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.  
H341: Suspected of causing genetic defects ({{{0||message=<state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard>||filter=(\_)? EXP\_ROUTE\_+.+}}}).  
H360D: May damage the unborn child.  
H361f: Suspected of damaging fertility.  
H411: Toxic to aquatic life with long lasting effects.

**Legal disclaimer:** The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. This company shall not be held liable for any damage resulting from handling or from contact with the above product.