



**Safety Data Sheet**  
**prepared to UN GHS Revision 3**

## 1. Identification of the Substance/Mixture and the Company/Undertaking

- 1.1 Product Identifier** F01-240-ESDSL6C-A-BLK-4.789 **Revision Date:** 07/04/2017
- Product Name:** Flowshield ESD SL (6 Component) - Base A **Supersedes Date:** New SDS
- 1.2 Relevant identified uses of the substance or mixture and uses advised against** No Information
- 1.3 Details of the supplier of the safety data sheet**
- Importer:** Flowcrete Australia Pty Ltd  
Unit 2, 41 Deakin Street  
Brendale Queensland 4500  
Australia  
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australia@flowcrete.com  
www.flowcreteaustralia.com.au
- Datasheet Produced by:** Healey, Rob - malaysia@flowcrete.com
- 1.4 Emergency telephone number:** CHEMTREC 1-800-424-9300 (Inside US)  
CHEMTREC +1 703 5273887 (Outside US)

## 2. Hazard Identification

### 2.1 Classification of the substance or mixture

Acute Toxicity, Inhalation, category 4  
Hazardous to the aquatic environment, Chronic, category 2  
Eye Irritation, category 2  
Skin Irritation, category 2  
Skin Sensitizer, category 1

## 2.2 Label elements

### Symbol(s) of Product



### Signal Word

Warning

### Named Chemicals on Label

Benzyl alcohol, Reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight <= 700), Oxirane, mono[(C12-14-alkyloxy)methyl] derivs.

### HAZARD STATEMENTS

Skin Irritation, category 2	H315	Causes skin irritation.
Skin Sensitizer, category 1	H317	May cause an allergic skin reaction.
Eye Irritation, category 2	H319	Causes serious eye irritation.
Acute Toxicity, Inhalation, category 4	H332	Harmful if inhaled.
Hazardous to the aquatic environment, Chronic, category 2	H411	Toxic to aquatic life with long lasting effects.

### PRECAUTION PHRASES

P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P302+352	IF ON SKIN: Wash with plenty of soap and water.
P304+340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305+351+338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing.
P333+313	If skin irritation or rash occurs: Get medical advice/attention.
P391	Collect spillage.

### 2.3 Other hazards

No Information

#### Results of PBT and vPvB assessment:

The product does not meet the criteria for PBT/VPvB in accordance with Annex XIII.

## 3. Composition/Information On Ingredients

### 3.2 Mixtures

#### Hazardous Ingredients

<u>CAS-No.</u>	<u>Chemical Name</u>	<u>%</u>
25068-38-6	Reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight <= 700)	75-100
68609-97-2	Oxirane, mono[(C12-14-alkyloxy)methyl] derivs.	2.5-10
100-51-6	Benzyl alcohol	2.5-10
14808-60-7-f	quartz (silicon dioxide binded within a mineral structure)	0.1-1.0

<u>CAS-No.</u>	<u>GHS Symbols</u>	<u>GHS Hazard Statements</u>	<u>M-Factors</u>
25068-38-6	GHS07-GHS09	H315-317-319-411	0
68609-97-2	GHS07	H315-317	0
100-51-6	GHS07	H302-312-319-332	0
14808-60-7-f	GHS08	H372	0

**Additional Information:** The text for GHS Hazard Statements shown above (if any) is given in Section 16.

## 4. First-aid Measures

### 4.1 Description of First Aid Measures

**GENERAL NOTES:** When symptoms persist or in all cases of doubt seek medical advice.

**AFTER INHALATION:** Move to fresh air. Consult a physician after significant exposure.

**AFTER SKIN CONTACT:** Use a mild soap if available. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If skin irritation persists, call a physician.

**AFTER EYE CONTACT:** Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses. If eye irritation persists, consult a specialist.

**AFTER INGESTION:** Gently wipe or rinse the inside of the mouth with water. Give small amounts of water to drink. Do NOT induce vomiting. Never give anything by mouth to an unconscious person.

### Self protection of the first aider:

No action shall be taken involving any personal risk or without suitable training. 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

No Information

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

No information available on clinical testing and medical monitoring. Specific toxicological information on substances, if available, can be found in section 11.

## 5. Fire-fighting Measures

### 5.1 Extinguishing Media:

Carbon Dioxide, Dry Chemical, Foam, Water Fog

**FOR SAFETY REASONS NOT TO BE USED:** Alcohol, Alcohol based solutions, any other media not listed above.

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

No Information

### 5.3 Advice for firefighters

In the event of fire, wear self-contained breathing apparatus. High volume water jet. Hazardous decomposition products formed under fire conditions. Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. Contains epoxy constituents. See information supplied by the manufacturer.

## 6. Accidental Release Measures

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

Ensure adequate ventilation. Use personal protective equipment.

### 6.2 Environmental precautions

Do not allow material to contaminate ground water system. Prevent product from entering drains. May cause long-term adverse effects in the aquatic environment.

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

Prevent further leakage or spillage if safe to do so. Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13).

### 6.4 Reference to other sections

Please refer to disposal requirements or country specific disposal requirements for this material. See Section 13 for further information.

## 7. Handling and Storage

### 7.1 Precautions for safe handling

**INSTRUCTIONS FOR SAFE HANDLING:** Use only in area provided with appropriate exhaust ventilation. Wear personal protective equipment.

**PROTECTION AND HYGIENE MEASURES:** Wash hands before breaks and at the end of workday. When using, do not eat, drink or smoke.

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

**CONDITIONS TO AVOID:** No Information

**STORAGE CONDITIONS:** Store in original container. Keep locked up or in an area accessible only to qualified or authorised persons. Store in a dry, well ventilated place away from sources of heat, ignition and direct sunlight.

### 7.3 Specific end use(s)

No specific advice for end use available.

## 8. Exposure Controls/Personal Protection

### 8.1 Control parameters

#### Ingredients with Occupational Exposure Limits (AU)

<u>Name</u>	<u>CAS-No.</u>	<u>TWA ppm</u>	<u>STEL ppm</u>	<u>TWA mg/m3</u>	<u>STEL mg/m3</u>
Reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight <= 700)	25068-38-6				
Oxirane, mono[(C12-14-alkyloxy)methyl] derivs.	68609-97-2				
Benzyl alcohol	100-51-6				
quartz (silicon dioxide binded within a mineral structure)	14808-60-7-f			0.1	

<u>Name</u>	<u>CAS-No.</u>	<u>OEL Note</u>
Reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight <= 700)	25068-38-6	
Oxirane, mono[(C12-14-alkyloxy)methyl] derivs.	68609-97-2	
Benzyl alcohol	100-51-6	
quartz (silicon dioxide binded within a mineral structure)	14808-60-7-f	

**FURTHER INFORMATION:** Refer to the regulatory exposure limits for the workforce enforced in each country.

### 8.2 Exposure controls

#### Personal Protection

**RESPIRATORY PROTECTION:** Respirator with a vapor filter.

**EYE PROTECTION:** Tightly fitting safety goggles.

**HAND PROTECTION:** Rubber or plastic gloves. Take note of the information given by the producer concerning permeability and break through times, and of special workplace conditions (mechanical strain, duration of contact). Long sleeved clothing. Remove and wash contaminated clothing before re-use. Rubber or plastic apron.

**OTHER PROTECTIVE EQUIPMENT:** No Information

**ENGINEERING CONTROLS:** Avoid contact with skin, eyes and clothing. Ensure adequate ventilation, especially in confined areas.

## 9. Physical and Chemical Properties

<b>9.1 Information on basic physical and chemical properties</b>	
Appearance:	Granule/powder mix
Physical State	Liquid
Odor	Not determined
Odor threshold	Not determined
pH	Not determined
Melting point / freezing point (°C)	Not determined
Boiling point/range (°C)	136 - N.D.
Flash Point, (°C)	100
Evaporation rate	Not determined
Flammability (solid, gas)	Not determined
Upper/lower flammability or explosive limits	Not determined
Vapour Pressure	Not determined
Vapour density	Not determined
Relative density	Approx. 2.65
Solubility in / Miscibility with water	Not determined
Partition coefficient: n-octanol/water	Not determined
Auto-ignition temperature (°C)	Not determined
Decomposition temperature (°C)	Not determined
Viscosity	Not determined
Explosive properties	Not determined
Oxidising properties	Not determined
<b>9.2 Other information</b>	
VOC Content g/l:	0
Specific Gravity (g/cm <sup>3</sup> )	0.116

## 10. Stability and Reactivity

### 10.1 Reactivity

No reactivity hazards known under normal storage and use conditions.

### 10.2 Chemical stability

No decomposition if stored and applied as directed. Stable under normal conditions.

### 10.3 Possibility of hazardous reactions

Hazardous polymerisation does not occur.

### 10.4 Conditions to avoid

No Information

### 10.5 Incompatible materials

Strong oxidizing agents. Acids and bases. Amines.

### 10.6 Hazardous decomposition products

Thermal decomposition can lead to release of irritating gases and vapours. Alcohols. Exothermic reaction. Carbon dioxide

(CO<sub>2</sub>), carbon monoxide (CO), oxides of nitrogen (NO<sub>x</sub>), dense black smoke.

## 11. Toxicological Information

### 11.1 Information on toxicological effects

#### Acute Toxicity:

Oral LD50: No information available.

Inhalation LC50: No information available.

Irritation: No information available.

Corrosivity: No information available.

Sensitization: No information available.

Repeated dose toxicity: No information available.

Carcinogenicity: No information available.

Mutagenicity: No information available.

Toxicity for reproduction: No information available.

If no information is available above under Acute Toxicity then the acute effects of this product have not been tested. Data on individual components are tabulated below:

<u>CAS-No.</u>	<u>Chemical Name</u>	<u>Oral LD50</u>	<u>Dermal LD50</u>	<u>Vapor LC50</u>
25068-38-6	Reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight <= 700)	>2000 mg/kg, rat, oral	>2000 mg/kg, rat	
68609-97-2	Oxirane, mono[(C12-14-alkyloxy)methyl] derivs.	17100 mg/kg, oral, rat		
100-51-6	Benzyl alcohol	1620 mg/kg, rat	2000 mg/kg, rabbit	>4178 mg/m <sup>3</sup> , rat

#### Additional Information:

No Information

## 12. Ecological Information

### 12.1 Toxicity:

EC50 48hr (Daphnia): No information

IC50 72hr (Algae): No information

LC50 96hr (fish): No information

12.2 Persistence and degradability: No information

12.3 Bioaccumulative potential: No information

12.4 Mobility in soil: No information

12.5 Results of PBT and vPvB assessment: The product does not meet the criteria for PBT/VPvB in accordance with Annex XIII.

**12.6 Other adverse effects:** No information

<u>CAS-No.</u>	<u>Chemical Name</u>	<u>EC50 48hr</u>	<u>IC50 72hr</u>	<u>LC50 96hr</u>
25068-38-6	Reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight <= 700)	No information	No information	Not available
68609-97-2	Oxirane, mono[(C12-14-alkyloxy)methyl] derivs.	No information	No information	Not available
100-51-6	Benzyl alcohol	230 mg/l	700 mg/l	460 mg/l
14808-60-7-f	quartz (silicon dioxide binded within a mineral structure)	No information	No information	Not available

### 13. Disposal Considerations

**13.1 WASTE TREATMENT METHODS:** If recycling is not practicable, dispose of in compliance with local regulations. Empty containers should be taken to an approved waste handling site for recycling or disposal.

### 14. Transport Information

<b>14.1 UN number</b>	3082
<b>14.2 UN proper shipping name</b>	Environmentally hazardous substance, liquid, n.o.s.
<b>Technical name</b>	Not applicable
<b>14.3 Transport hazard class(es)</b>	9
<b>Subsidiary shipping hazard</b>	Not applicable
<b>14.4 Packing group</b>	III
<b>14.5 Environmental hazards</b>	Yes
<b>14.6 Special precautions for user</b>	Not applicable
<b>EmS-No.:</b>	Not applicable
<b>14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code</b>	Not applicable
<b>14.8 ADG Hazchem Code</b>	●3Z

### 15. Regulatory Information

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

**National Regulations:**

<b>Denmark Product Registration Number:</b>	Not available
<b>Danish MAL Code:</b>	Not available
<b>Danish MAL Code - Mixture:</b>	Not available
<b>Sweden Product Registration Number:</b>	Not available
<b>Norway Product Registration Number:</b>	Not available
<b>WGK Class:</b>	Not available

**15.2 Chemical Safety Assessment:**

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

## 16. Other Information

### Text for GHS Hazard Statements shown in Section 3 describing each ingredient:

H302	Harmful if swallowed.
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.
H372	Causes damage to organs through prolonged or repeated exposure.
H411	Toxic to aquatic life with long lasting effects.

### Reasons for revision

No Information

### List of References:

This Safety Data Sheet was compiled with data and information from the following sources:

The Ariel Regulatory Database provided by the 3E Corporation in Copenhagen, Denmark;  
 European Union Commission Regulation No. 1907/2006 on REACH as amended within Commission Regulation (EU) 2015/830;  
 European Union (EC) Regulation No. 1272/2008 on the classification, labelling and packaging of substances and mixtures (CLP Regulation) and subsequent technical progress adaptations (ATP);  
 EU Council Decision 2000/532/EC and its Annex entitled "List of Wastes".

### Acronym & Abbreviation Key:

CLP	Classification, Labeling & Packaging Regulation
EC	European Commission
EU	European Union
US	United States
CAS	Chemical Abstract Service
EINECS	European Inventory of Existing Chemical Substances
REACH	Registration, Evaluation, Authorization of Chemicals Regulation
GHS	Globally Harmonized System of Classification and Labeling of Chemicals
LTEL	Long term exposure limit
STEL	Short term exposure limit
OEL	Occupational exposure limit
ppm	Parts per million
mg/m <sup>3</sup>	Milligrams per cubic meter
TLV	Threshold Limit Value
ACGIH	American Conference of Governmental Industrial Hygienists
OSHA	Occupational Safety & Health Administration
PEL	Permissible Exposure Limits
VOC	Volatile organic compounds
g/l	Grams per liter
mg/kg	Milligrams per kilogram
N/A	Not applicable
LD50	Lethal dose at 50%
LC50	Lethal concentration at 50%
EC50	Half maximal effective concentration
IC50	Half maximal inhibitory concentration
PBT	Persistent bioaccumulative toxic chemical
vPvB	Very persistent and very bioaccumulative
EEC	European Economic Community
ADR	International Transport of Dangerous Goods by Road
RID	International Transport of Dangerous Goods by Rail
UN	United Nations



IMDG	International Maritime Dangerous Goods Code
IATA	International Air Transport Association
MARPOL	International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978
IBC	International Bulk Container
RTI	Respiratory Tract Irritation
NE	Narcotic Effects

For further information, please contact: Technical Services Department

The information on this sheet corresponds to our present knowledge. It is not a specification and it does not guarantee specific properties. The information is intended to provide general guidance as to health and safety based upon our knowledge of the handling, storage, and use of the product. It is not applicable to unusual or non-standard uses of the product or where instructions and recommendations are not followed.

