



SAFETY DATA SHEET LOKFIX S25 RESIN

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

1.1. Product identifier

Product name LOKFIX S25 RESIN
Product number 1668011 UK9, A1668002 UK9

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

Identified uses Grouts and anchors

1.3. Details of the supplier of the safety data sheet

Supplier FOSROC Limited
 Drayton Manor Business Park
 Coleshill Road
 Tamworth
 Staffordshire
 B78 3XN
 Tel. +44 (0) 1827 262222
 Fax. +44 (0) 1827 262444
 enquiryuk@fosroc.com

1.4. Emergency telephone number

Emergency telephone +44 (0) 1827 265 279 (08.30 to 17.00hrs Mon - Thu; 08.30 to 16.00hrs Fri)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical hazards Flam. Liq. 3 - H226
Health hazards Acute Tox. 4 - H332 Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 Repr. 2 - H361d STOT RE 1 - H372
Environmental hazards Not Classified

Human health The product is irritating to eyes and skin. Harmful by inhalation. May cause an allergic reaction.

Physicochemical Vapours may form explosive mixtures with air.

2.2. Label elements

Pictogram



Signal word

Danger

LOKFIX S25 RESIN

Hazard statements	<p>H226 Flammable liquid and vapour.</p> <p>H315 Causes skin irritation.</p> <p>H319 Causes serious eye irritation.</p> <p>H332 Harmful if inhaled.</p> <p>H361d Suspected of damaging the unborn child.</p> <p>H372 Causes damage to organs through prolonged or repeated exposure.</p> <p>EUH208 Contains PHTHALIC ANHYDRIDE. May produce an allergic reaction.</p>
Precautionary statements	<p>P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.</p> <p>P260 Do not breathe vapour/ spray.</p> <p>P263 Avoid contact during pregnancy and while nursing.</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>
Contains	<p>STYRENE</p>
Supplementary precautionary statements	<p>P201 Obtain special instructions before use.</p> <p>P202 Do not handle until all safety precautions have been read and understood.</p> <p>P233 Keep container tightly closed.</p> <p>P240 Ground and bond container and receiving equipment.</p> <p>P241 Use explosion-proof electrical equipment.</p> <p>P242 Use non-sparking tools.</p> <p>P243 Take action to prevent static discharges.</p> <p>P261 Avoid breathing vapour/ spray.</p> <p>P264 Wash contaminated skin thoroughly after handling.</p> <p>P270 Do not eat, drink or smoke when using this product.</p> <p>P271 Use only outdoors or in a well-ventilated area.</p> <p>P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.</p> <p>P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.</p> <p>P308+P313 IF exposed or concerned: Get medical advice/ attention.</p> <p>P312 Call a POISON CENTRE/doctor if you feel unwell.</p> <p>P314 Get medical advice/ attention if you feel unwell.</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>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>P370+P378 In case of fire: Use foam, carbon dioxide, dry powder or water fog to extinguish.</p> <p>P403+P235 Store in a well-ventilated place. Keep cool.</p> <p>P405 Store locked up.</p> <p>P501 Dispose of contents/ container in accordance with national regulations.</p>

2.3. Other hazards

This substance is not classified as PBT or vPvB according to current EU criteria. Polymerises when heated.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

LOKFIX S25 RESIN

STYRENE			30-60%
CAS number: 100-42-5	EC number: 202-851-5		
Classification Flam. Liq. 3 - H226 Acute Tox. 4 - H332 Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 Repr. 2 - H361d STOT RE 1 - H372 Aquatic Chronic 3 - H412			
ETHYL ACETATE			1-5%
CAS number: 141-78-6	EC number: 205-500-4	REACH registration number: 01-2119475103-46	
Classification Flam. Liq. 2 - H225 Eye Irrit. 2 - H319 STOT SE 3 - H336			
PHTHALIC ANHYDRIDE			<1%
CAS number: 85-44-9	EC number: 201-607-5		
Classification Acute Tox. 4 - H302 Skin Irrit. 2 - H315 Eye Dam. 1 - H318 Resp. Sens. 1 - H334 Skin Sens. 1 - H317 STOT SE 3 - H335			
HYDROQUINONE			<1%
CAS number: 123-31-9	EC number: 204-617-8	REACH registration number: 01-2119524016-51-XXXX	
M factor (Acute) = 10			
Classification Acute Tox. 4 - H302 Eye Dam. 1 - H318 Skin Sens. 1 - H317 Muta. 2 - H341 Carc. 2 - H351 Aquatic Acute 1 - H400			

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

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Inhalation	Move affected person to fresh air at once. Get medical attention if any discomfort continues.
Ingestion	Do Not induce vomiting. Get medical attention immediately. Remove affected person from source of contamination. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing.
Skin contact	Remove affected person from source of contamination. Remove contaminated clothing. Wash skin thoroughly with soap and water. Get medical attention if irritation persists after washing.
Eye contact	Remove affected person from source of contamination. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes. Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues.

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

General information	The severity of the symptoms described will vary dependent on the concentration and the length of exposure.
Inhalation	Vapours may cause drowsiness and dizziness. Headache.
Ingestion	May cause discomfort if swallowed.
Skin contact	Skin irritation. Allergic rash.
Eye contact	Causes serious eye damage.

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

Notes for the doctor	No specific recommendations. If in doubt, get medical attention promptly.
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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	Extinguish with foam, carbon dioxide, dry powder or water fog.
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Special hazards arising from the substance or mixture

Specific hazards	Containers can burst violently or explode when heated, due to excessive pressure build-up.
Hazardous combustion products	Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours. Oxides of carbon.

5.3. Advice for firefighters

Protective actions during firefighting	Cool containers exposed to flames with water until well after the fire is out.
Special protective equipment for firefighters	Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions	Wear protective clothing as described in Section 8 of this safety data sheet. Avoid inhalation of vapours and contact with skin and eyes. No smoking, sparks, flames or other sources of ignition near spillage.
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6.2. Environmental precautions

Environmental precautions	Avoid release to the environment. Collect and dispose of spillage as indicated in Section 13.
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6.3. Methods and material for containment and cleaning up

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Methods for cleaning up No smoking, sparks, flames or other sources of ignition near spillage. Absorb in vermiculite, dry sand or earth and place into containers. Collect and place in suitable waste disposal containers and seal securely. For waste disposal, see Section 13. Avoid the spillage or runoff entering drains, sewers or watercourses.

6.4. Reference to other sections

Reference to other sections For waste disposal, see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions Mechanical ventilation or local exhaust ventilation may be required. Avoid inhalation of vapours/spray and contact with skin and eyes. Static electricity and formation of sparks must be prevented. Do not eat, drink or smoke when using the product.

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. Store in closed original container at temperatures between 5°C and 30°C. Keep away from heat, sparks and open flame. Unsuitable containers: copper, zinc, aluminium, copper alloy, zinc alloy, aluminium alloy. May attack some plastics, rubber and coatings.

Storage class Chemical storage. Flammable liquid 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

STYRENE

Long-term exposure limit (8-hour TWA): WEL 100 ppm 430 mg/m³

Short-term exposure limit (15-minute): WEL 250 ppm 1080 mg/m³

ETHYL ACETATE

Long-term exposure limit (8-hour TWA): WEL 200 ppm

Short-term exposure limit (15-minute): WEL 400 ppm

PHTHALIC ANHYDRIDE

Long-term exposure limit (8-hour TWA): WEL 4 mg/m³

Short-term exposure limit (15-minute): WEL 12 mg/m³

Sen

HYDROQUINONE

Long-term exposure limit (8-hour TWA): WEL 0.5 mg/m³

WEL = Workplace Exposure Limit

Sen = Capable of causing occupational asthma.

Ingredient comments WEL = Workplace Exposure Limits

STYRENE (CAS: 100-42-5)

DNEL

Workers - Inhalation; Long term systemic effects: 85 mg/m³

Workers - Inhalation; Short term : 289 mg/m³

Workers - Dermal; Long term systemic effects: 406 mg/kg/day

ETHYL ACETATE (CAS: 141-78-6)

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DNEL

Industry - Inhalation; Long term systemic effects, local effects: 734 mg/m³
 Industry - Inhalation; Short term systemic effects, local effects: 1468 mg/m³
 Industry - Dermal; Long term systemic effects: 63 mg/kg/day

PNEC

- Marine water; 0.024 mg/l
 - Fresh water; 0.24 mg/l
 - Sediment (Marinewater); 0.115 mg/kg
 - Sediment (Freshwater); 1.15 mg/kg

8.2. Exposure controls

Protective equipment



Appropriate engineering controls

Provide adequate ventilation. Avoid inhalation of vapours. Observe any occupational exposure limits for the product or ingredients.

Eye/face protection

Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. The following protection should be worn: Chemical splash goggles or face shield.

Hand protection

Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. It is recommended that gloves are made of the following material: Neoprene.

Other skin and body protection

Wear appropriate clothing to prevent any possibility of skin contact. Wear apron or protective clothing in case of contact.

Hygiene measures

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. Do not smoke in work area.

Respiratory protection

Respiratory protection must be used if the airborne contamination exceeds the recommended occupational exposure limit. Wear a respirator fitted with the following cartridge: Organic vapour filter.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Appearance	Liquid.
Colour	Amber. Dark.
Odour	Pungent, characteristic of styrene.
Odour threshold	Not determined.
Initial boiling point and range	145°C @ 1 atm
Flash point	31°C
Evaporation rate	Not determined.
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	Upper flammable/explosive limit: 6.1 Lower flammable/explosive limit: 1.1
Vapour pressure	652 Pa @ 20°C
Vapour density	Not determined.

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Relative density	1.1 @ 25°C
Solubility(ies)	Insoluble in water. Soluble in the following materials: Organic solvents.
Auto-ignition temperature	490°C
Viscosity	300 - 500 mPa s @ at 25°C
Explosive properties	Not considered to be explosive.
Explosive under the influence of a flame	Not considered to be explosive.
Oxidising properties	Does not meet the criteria for classification as oxidising.

9.2. Other information

Other information	Not available.
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SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	There are no known reactivity hazards associated with this product.
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10.2. Chemical stability

Stability	Stable at normal ambient temperatures.
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10.3. Possibility of hazardous reactions

Possibility of hazardous reactions	Not known. Polymerises easily with evolution of heat. Avoid heat. Avoid contact with peroxides. Radical formers.
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10.4. Conditions to avoid

Conditions to avoid	Avoid heat, flames and other sources of ignition. Protect against direct sunlight.
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10.5. Incompatible materials

Materials to avoid	Strong oxidising agents. Catalyst. Peroxides.
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10.6. Hazardous decomposition products

Hazardous decomposition products	Fire creates: Carbon monoxide (CO). Carbon dioxide (CO ₂).
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SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity - inhalation

Acute toxicity inhalation (LC ₅₀ dust/mist mg/l)	3.684
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Species	Rat
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ATE inhalation (dusts/mists mg/l)	3.68
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Skin sensitisation

Skin sensitisation	Based on available data the classification criteria are not met.
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Reproductive toxicity

Reproductive toxicity - fertility	Suspected of damaging fertility.
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Reproductive toxicity - development	Suspected of damaging the unborn child.
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Aspiration hazard

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

Inhalation Harmful by inhalation. Vapours may irritate throat/respiratory system. Symptoms following overexposure may include the following: Headache. Dizziness. Drowsiness.

Ingestion No specific health hazards known.

Skin contact Irritating to skin.

Eye contact Causes serious eye irritation.

Acute and chronic health hazards May cause an allergic reaction.

Route of exposure Skin and/or eye contact

Toxicological information on ingredients.

STYRENE

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ mg/kg) 5,000.0

Acute toxicity - inhalation

Acute toxicity inhalation (LC₅₀ vapours mg/l) 11.8

Species Rat

ATE inhalation (vapours mg/l) 11.8

Skin corrosion/irritation

Extreme pH irritation

Serious eye damage/irritation

Serious eye damage/irritation Causes serious eye irritation.

Skin sensitisation

Skin sensitisation Not sensitising.

Carcinogenicity

Carcinogenicity Found to produce lung tumours in mice. These tumours are not considered relevant to humans.

IARC carcinogenicity IARC Group 2B Possibly carcinogenic to humans.

Reproductive toxicity

Reproductive toxicity - development Known reproductive toxicant based on animal evidence.

Specific target organ toxicity - single exposure

STOT - single exposure May cause respiratory irritation.

Target organs Respiratory system, lungs

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Specific target organ toxicity - repeated exposure

Target organs Liver Respiratory system, lungs Central nervous system

Aspiration hazard

Aspiration hazard Aspiration into the lungs when swallowed or vomited may cause chemical pneumonitis which can be fatal.

SECTION 12: Ecological Information

Ecotoxicity The product is not expected to be hazardous to the environment. However, large or frequent spills may have hazardous effects on the environment.

12.1. Toxicity

Toxicity There are no data on the ecotoxicity of this product.

Ecological information on ingredients.

STYRENE

Acute aquatic toxicity

Acute toxicity - fish LC₅₀, 96 hours: 13.09 mg/l, Fish

Acute toxicity - aquatic invertebrates LC₅₀, 48 hours: 8.428 mg/l, Daphnia magna

Acute toxicity - aquatic plants EC₅₀, 96 hours: 5.901 mg/l, Algae

12.2. Persistence and degradability

Persistence and degradability The product is readily biodegradable.

Ecological information on ingredients.

STYRENE

Persistence and degradability The product is readily biodegradable.

12.3. Bioaccumulative potential

Bioaccumulative potential No data available on bioaccumulation.

Ecological information on ingredients.

STYRENE

Bioaccumulative potential Not expected to be bioaccumulative.

12.4. Mobility in soil

Mobility The product is insoluble in water. The product contains organic solvents which will evaporate easily from all surfaces.

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment This product does not contain any substances classified as PBT or vPvB.

12.6. Other adverse effects

Other adverse effects Not relevant.

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SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information	Waste is classified as hazardous waste. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.
Disposal methods	Absorb in vermiculite, dry sand or earth and place into containers. Dispose of waste via a licensed waste disposal contractor. Waste material and any included combustible absorbent and containers should be suitable for incineration at an approved facility. Note that fully cured material is not considered as hazardous waste.

SECTION 14: Transport information

14.1. UN number

UN No. (ADR/RID)	1866
UN No. (IMDG)	1866
UN No. (ICAO)	1866
UN No. (ADN)	1866

14.2. UN proper shipping name

Proper shipping name (ADR/RID)	RESIN SOLUTION
Proper shipping name (IMDG)	RESIN SOLUTION
Proper shipping name (ICAO)	RESIN SOLUTION
Proper shipping name (ADN)	RESIN SOLUTION

14.3. Transport hazard class(es)

ADR/RID class	3
ADR/RID classification code	F1
ADR/RID label	3
IMDG class	3
ICAO class/division	3
ADN class	3

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

LOKFIX S25 RESIN

Environmentally hazardous substance/marine pollutant

No.

14.6. Special precautions for user

EmS F-E, S-E

ADR transport category 3

Emergency Action Code •3Y

Hazard Identification Number 30
(ADR/RID)

Tunnel restriction code (D/E)

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

National regulations Control of Substances Hazardous to Health Regulations 2002 (as amended).

EU legislation Commission Regulation (EU) No 453/2010 of 20 May 2010.
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 (as amended).
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) (as amended).

Guidance Workplace Exposure Limits EH40.
Approved Classification and Labelling Guide (Sixth edition) L131.
Safety Data Sheets for Substances and Preparations.

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16: Other information

General information For professional users only. The user must be instructed in the proper work procedure and be familiar with the contents of these instructions.

Revision comments NOTE: Lines within the margin indicate significant changes from the previous revision.

Revision date 30/04/2018

Revision 6b

Supersedes date 30/09/2015

SDS number 12488

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Hazard statements in full

H225 Highly flammable liquid and vapour.
H226 Flammable liquid and vapour.
H302 Harmful if swallowed.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H332 Harmful if inhaled.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335 May cause respiratory irritation.
H336 May cause drowsiness or dizziness.
H341 Suspected of causing genetic defects.
H351 Suspected of causing cancer.
H361d Suspected of damaging the unborn child.
H372 Causes damage to organs (Hearing organs) through prolonged or repeated exposure.
H372 Causes damage to organs through prolonged or repeated exposure.
H400 Very toxic to aquatic life.
H412 Harmful to aquatic life with long lasting effects.
EUH208 Contains PHTHALIC ANHYDRIDE. May produce an allergic reaction.

The information on this data sheet represents our current data and is reliable provided that the product is used under the prescribed conditions and in accordance with the application specified on the packaging and/or in the technical guidance literature. Any other use of the product which involves using the product in combination with any other product or any other process is the responsibility of the user.



SAFETY DATA SHEET LOKFIX S25 FILLER

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

1.1. Product identifier

Product name LOKFIX S25 FILLER

Product number A1664000UK9

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

Identified uses Hardener/filler component of two-part polyester grout.

1.3. Details of the supplier of the safety data sheet

Supplier FOSROC Limited
Drayton Manor Business Park
Coleshill Road
Tamworth
Staffordshire
B78 3XN
Tel. +44 (0) 1827 262222
Fax. +44 (0) 1827 262444
enquiryuk@fosroc.com

1.4. Emergency telephone number

Emergency telephone +44 (0) 1827 265 279 (Monday-Sunday 24 hours a day)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical hazards Not Classified

Health hazards Not Classified

Environmental hazards Not Classified

Human health Dust may irritate the eyes and the respiratory system. May cause skin sensitisation or allergic reactions in sensitive individuals.

2.2. Label elements

Hazard statements EUH208 Contains BENZOYL PEROXIDE. May produce an allergic reaction.

Supplementary precautionary statements P501 Dispose of contents/ container in accordance with national regulations.

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

LOKFIX S25 FILLER

SILICA SAND(300-500 micron)		60-100%
CAS number: 14808-60-7	EC number: 238-878-4	
Classification Not Classified		
BENZOYL PEROXIDE		<1%
CAS number: 94-36-0	EC number: 202-327-6	REACH registration number: 01-2119511472-50-XXXX
M factor (Acute) = 10	M factor (Chronic) = 1	
Classification Org. Perox. B - H241 Eye Irrit. 2 - H319 Skin Sens. 1 - H317 Aquatic Acute 1 - H400 Aquatic Chronic 1 - H410		

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information	Get medical attention if any discomfort continues.
Inhalation	Move affected person to fresh air at once. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. If breathing stops, provide artificial respiration. Get medical attention if any discomfort continues.
Ingestion	Get medical attention. Never give anything by mouth to an unconscious person. Do not induce vomiting.
Skin contact	Remove contaminated clothing immediately and wash skin with soap and water. Get medical attention if irritation persists after washing.
Eye contact	Rinse immediately with plenty of water. Remove contact lenses, if present and easy to do. Continue rinsing. Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues.

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

General information	See Section 11 for additional information on health hazards.
Inhalation	Dust may irritate the respiratory system.
Ingestion	May cause discomfort if swallowed.
Skin contact	May cause sensitisation by skin contact.
Eye contact	Irritation of eyes and mucous membranes.

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

Notes for the doctor	Treat symptomatically.
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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog.
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LOKFIX S25 FILLER

Unsuitable extinguishing media Halon.

5.2. Special hazards arising from the substance or mixture

Specific hazards If involved in a fire, it contains a component that will support combustion.

Hazardous combustion products Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.

5.3. Advice for firefighters

Protective actions during firefighting Risk of re-ignition after fire has been extinguished.

Special protective equipment for firefighters Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Wear protective clothing as described in Section 8 of this safety data sheet. Avoid inhalation of dust. Avoid contact with skin and eyes.

6.2. Environmental precautions

Environmental precautions Avoid the spillage or runoff entering drains, sewers or watercourses.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up Stop leak if possible without risk. No smoking, sparks, flames or other sources of ignition near spillage. Avoid generation and spreading of dust. Dampen spillage with water. Remove spillage with vacuum cleaner. If not possible, collect spillage with shovel, broom or the like. Do not close container tightly. Risk of excess pressure build-up.

6.4. Reference to other sections

Reference to other sections For personal protection, see Section 8.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions Provide adequate ventilation. Avoid spilling. Avoid contact with skin and eyes. Eliminate all sources of ignition. Avoid inhalation of dust. Avoid generation and spreading of dust. Contaminated clothing and shoes must be discarded.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions Keep separate from food, feedstuffs, fertilisers and other sensitive material. Keep only in the original container. Keep container dry. Protect from sunlight. Store at temperatures not exceeding 25°C. Isolate from other materials.

Storage class Oxidiser 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

SILICA SAND(300-500 micron)

Long-term exposure limit (8-hour TWA): WEL 0,1 mg/m³ Respirable crystalline silica

LOKFIX S25 FILLER

BENZOYL PEROXIDE

Long-term exposure limit (8-hour TWA): WEL 5 mg/m³

Short-term exposure limit (15-minute): WEL

WEL = Workplace Exposure Limit

BENZOYL PEROXIDE (CAS: 94-36-0)

DNEL	Industry - Inhalation; Long term systemic effects: 39 mg/m ³ Industry - Dermal; Long term systemic effects: 13.3 mg/m ³
PNEC	- Fresh water; 0.602 µg/l - marine water; 0.0602 µg/l - Intermittent release; 0.602 µg/l - STP; 0.35 mg/l - Sediment (Freshwater); 0.013 mg/kg - Soil; 0.003 mg/kg

8.2. Exposure controls

Protective equipment



Appropriate engineering controls

Provide adequate ventilation. Avoid inhalation of dust. Observe any occupational exposure limits for the product or ingredients.

Eye/face protection

Wear tight-fitting, chemical splash goggles or face shield.

Hand protection

Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material. Rubber (natural, latex). Neoprene. Polyvinyl chloride (PVC).

Other skin and body protection

Wear apron or protective clothing in case of contact.

Hygiene measures

Provide eyewash station and safety shower. Promptly remove any clothing that becomes contaminated. Wash at the end of each work shift and before eating, smoking and using the toilet. This product contains silica sands.

The grain size distribution of silica sand present means that it is not classified as hazardous. However, any respirable crystalline dust generated by secondary processing may cause health effects.

Prolonged and /or massive inhalation of respirable crystalline silica dust may cause lung fibrosis, commonly referred to as silicosis. Principal symptoms of silicosis are cough and breathlessness.

Occupational exposure to respirable crystalline silica dust should be monitored and controlled.

Respiratory protection

If ventilation is inadequate, suitable respiratory protection must be worn. Wear a respirator fitted with the following cartridge: Particulate filter, type P1.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Dusty powder.
Colour	Green.

LOKFIX S25 FILLER

Odour	Odourless.
Odour threshold	Not determined.
pH	Not applicable.
Melting point	Not determined.
Initial boiling point and range	Not applicable.
Flash point	Not applicable.
Evaporation rate	Not applicable.
Evaporation factor	Not applicable.
Flammability (solid, gas)	Decomposition products may be flammable.
Upper/lower flammability or explosive limits	The product is not flammable.
Other flammability	Not applicable.
Vapour pressure	Not applicable.
Vapour density	Not applicable.
Relative density	1.4 - 1.7 @ 20°C
Bulk density	Not determined.
Solubility(ies)	Insoluble in water.
Partition coefficient	Not determined.
Auto-ignition temperature	>380°C
Decomposition Temperature	Not determined.
Viscosity	Not applicable.
Explosive properties	Not considered to be explosive.
Explosive under the influence of a flame	Not considered to be explosive.
Oxidising properties	The product contains a substance classified as oxidising.

9.2. Other information

Other information	No data available.
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SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	The reactivity data for this product will be typical of those for the following class of materials: Peroxides.
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10.2. Chemical stability

Stability	Stable at normal ambient temperatures and when used as recommended. The product may not be stable under some conditions of storage or use.
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10.3. Possibility of hazardous reactions

Possibility of hazardous reactions	Will not polymerise.
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10.4. Conditions to avoid

Conditions to avoid Avoid heat.

10.5. Incompatible materials

Materials to avoid Strong alkalis. Acids. Iron. Copper.

10.6. Hazardous decomposition products

Hazardous decomposition products Thermal decomposition or combustion products may include the following substances:
Carbon monoxide (CO). Carbon dioxide (CO₂). Benzoic acid.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Inhalation Irritating to respiratory system.

Ingestion May cause irritation of mouth, throat and digestive tract.

Skin contact May cause sensitisation by skin contact. Powder may irritate skin.

Eye contact Irritating to eyes.

Acute and chronic health hazards Frequent inhalation of dust over a long period of time increases the risk of developing lung diseases.

Toxicological information on ingredients.

BENZOYL PEROXIDE

Acute toxicity - oral

Notes (oral LD₅₀) LD₅₀ >5000 mg/kg, Oral, Rat

Carcinogenicity

Carcinogenicity NOAEL 500 mg/kg/day, Oral,

SECTION 12: Ecological information

Ecotoxicity The product components are not classified as environmentally hazardous. However, large or frequent spills may have hazardous effects on the environment.

Ecological information on ingredients.

BENZOYL PEROXIDE

Ecotoxicity Very toxic to aquatic life.

12.1. Toxicity

Ecological information on ingredients.

BENZOYL PEROXIDE

Acute aquatic toxicity

LE(C)₅₀ 0.01 < L(E)C₅₀ ≤ 0.1

M factor (Acute) 10

Acute toxicity - fish LC₅₀, 96 hours: 0.06 mg/l, Fish

Acute toxicity - aquatic invertebrates EC₅₀, 48 hours: 0.11 mg/l, Daphnia magna

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Acute toxicity - aquatic plants	IC ₅₀ , 72 hours: 0.06 mg/l, Algae
Acute toxicity - microorganisms	EC ₅₀ , : 35 mg/l, Activated sludge
<u>Chronic aquatic toxicity</u>	
NOEC	0.001 < NOEC ≤ 0.01
Degradability	Rapidly degradable
M factor (Chronic)	1

12.2. Persistence and degradability

Persistence and degradability The product contains mainly inorganic substances which are not biodegradable. The other substances in the product are expected to be readily biodegradable.

Ecological information on ingredients.

BENZOYL PEROXIDE

Persistence and degradability	The product is biodegradable.
Biodegradation	OECD 301D - Degradation 71 %: 28 days

12.3. Bioaccumulative potential

Bioaccumulative potential Bioaccumulation is unlikely to be significant because of the low water-solubility of this product.

Partition coefficient Not determined.

Ecological information on ingredients.

BENZOYL PEROXIDE

Bioaccumulative potential	BCF: 66.6,
Partition coefficient	log Pow: 3.2

12.4. Mobility in soil

Mobility The product is insoluble in water.

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.

Ecological information on ingredients.

BENZOYL PEROXIDE

Results of PBT and vPvB assessment This product does not contain any substances classified as PBT or vPvB.

12.6. Other adverse effects

Other adverse effects None known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

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General information	Waste is classified as hazardous waste.
Disposal methods	Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

SECTION 14: Transport information

General	The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, ADR/RID).
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14.1. UN number

Not applicable.

14.2. UN proper shipping name

Not applicable.

14.3. Transport hazard class(es)

No transport warning sign required.

14.4. Packing group

Not applicable.

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant

No.

14.6. Special precautions for user

Not applicable.

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

Transport in bulk according to Not applicable.

**Annex II of MARPOL 73/78
and the IBC Code**

SECTION 15: Regulatory information

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

National regulations	Control of Substances Hazardous to Health Regulations 2002 (as amended).
EU legislation	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 (as amended). 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) (as amended). Commission Regulation (EU) No 2015/830 of 28 May 2015.
Guidance	Workplace Exposure Limits EH40. Approved Classification and Labelling Guide (Sixth edition) L131.

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16: Other information

General information	For professional users only. The user must be instructed in the proper work procedure and be familiar with the contents of these instructions.
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Revision comments	NOTE: Lines within the margin indicate significant changes from the previous revision.
Revision date	22/10/2018
Revision	3b
SDS number	12627
Hazard statements in full	H241 Heating may cause a fire or explosion. H317 May cause an allergic skin reaction. H319 Causes serious eye irritation. H400 Very toxic to aquatic life. H410 Very toxic to aquatic life with long lasting effects. EUH208 Contains BENZOYL PEROXIDE. May produce an allergic reaction.

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.