

NORSEKEM Limited, Unit 6 Stokes Farm, Binfield Road,
Wokingham, Berkshire, RG40 5PR, United Kingdom.
TELEPHONE: 0845 4027663 FAX: 0845 4027662
E-MAIL: sales@norsekem.co.uk WEB: www.norsekem.co.uk

1. IDENTIFICATION OF SUBSTANCE OR PREPARATION

Name of Product: **SHUTTAFILL – Paste Component**

Use Description of Product: Unsaturated Polyester Resin in Styrene with Inorganic Fillers

Supplier: NORSEKEM Limited,
Unit 6 Stokes Farm,
Binfield Road,
Wokingham,
Berkshire,
RG40 5PR,
United Kingdom

Telephone: 0845 4027663 **Fax:** 0845 4027663

2. COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous Ingredients: STYRENE <12%
EINECS: 202-851-5 CAS: 100-42-5
[-] R10; [Xn] R20; [Xi] R36/38

3. HAZARDS IDENTIFICATION

Main hazards: Flammable. Harmful by inhalation. Irritating to eyes and skin.
Other hazards: Flammable. Harmful by inhalation. Irritating to eyes. Irritating to skin.

4a. FIRST AID MEASURES (SYMPTONS)

Skin contact: There may be irritation and redness at the site of contact.
Eye contact: There may be irritation and pain.
Ingestion: Nausea and stomach pain may occur.
Inhalation: There may be irritation of the throat with a feeling of tightness in the chest.

4b. FIRST AID MEASURES (ACTIONS)

Skin contact: Wash immediately with plenty of soap and water. Remove contaminated clothing and launder before re-use. Get medical attention if irritation persists after washing -
Eye contact: Wash eyes with clean water for 15 minutes, ensuring that eyelids are held open. Obtain medical advise if irritation develops or persists.
Ingestion: Get medical attention. Plenty of water to drink. DO NOT INDUCE VOMITING.
Inhalation: If inhalation of mists, fumes or vapour causes irritation of the nose or throat, or coughing, remove to fresh air. If symptoms persist obtain medical advice.

NORSEKEM Limited, Unit 6 Stokes Farm, Binfield Road,
Wokingham, Berkshire, RG40 5PR, United Kingdom.
TELEPHONE: 0845 4027663 FAX: 0845 4027662
E-MAIL: sales@norsekem.co.uk WEB: www.norsekem.co.uk

5. FIRE FIGHTING MEASURES

Extinguishing media: Alcohol or polymer foam. Carbon dioxide. Dry chemical powder.
Exposure hazards: In combustion emits toxic fumes of carbon dioxide / carbon monoxide and acrid black smoke.
Protection of fire-fighters: Wear self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions: Wear suitable protective clothing, gloves and eye/face protection. Ventilate.
Environmental precautions: Prevent entry into drains, sewers and water courses. In case of contamination of streams, river or lakes, contact the Environment Agency.
Clean-up procedures: Scrape up and collect solids into a suitable, marked container for proper disposal. Extinguish all ignition sources. Ventilate.

7. STORAGE AND HANDLING

Handling requirements: Avoid spilling, skin and eye contact - Ventilate well, avoid breathing vapours. Keep away from heat, sparks and open flames.
Storage conditions: Keep away from sources of ignition. Keep in cool below 25°C, dry, ventilated storage and closed containers. Store separately from peroxides.
Suitable packaging: Must only be kept in original packaging.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Hazardous ingredients: STYRENE
TWA (8 hr exposure limit): 430 mg/m³
STEL (15 min exposure limit): 1080 mg/m³
Engineering measures: Provide adequate general and local exhaust ventilation.
Respiratory protection: No specific recommendation made, but respiratory protection must be used if the general levels exceeds the Occupational Exposure Level (OEL).
Hand protection: For prolonged or repeated skin contact use suitable protective gloves.
Eye protection: Wear approved chemical safety goggles where eye exposure is reasonably probable.
Skin protection: If skin contact is likely wear impervious protective clothing.

NORSEKEM Limited, Unit 6 Stokes Farm, Binfield Road,
Wokingham, Berkshire, RG40 5PR, United Kingdom.
TELEPHONE: 0845 4027663 FAX: 0845 4027662
E-MAIL: sales@norsekem.co.uk WEB: www.norsekem.co.uk

9. PHYSICAL AND CHEMICAL PROPERTIES

State/Colour: Thick Coloured Paste
Odour: Styrene
Relative Density: 1.65g/cm³ @ 20 °C
Flash Point °C: 31°C
Flammability: Flammable
Auto Flammability: 490°C
Solubility in water: Insoluble
Melting point/Range °C: Not Determined
Explosive Limits % Lower: 1.1%
Explosive Limits % Upper: 6.1%
Vapour Pressure: 6.52mb @ 20 °C (styrene)

10. STABILITY AND REACTIVITY

Stability: Stable under normal conditions.
Conditions to avoid: Heat. Flames. Sources of ignition.
Materials to avoid: Strong oxidising agents.
Haz. decomp. products: In combustion emits toxic fumes of carbon dioxide / carbon monoxide.

11. TOXICOLOGICAL INFORMATION

Hazardous ingredients: STYRENE
IVN MUS LD50 90 mg/kg
ORL MUS LD50 316 mg/kg
ORL RAT LD50 2650 mg/kg
Chronic toxicity: Prolonged inhalation of high concentrations may damage respiratory system. Repeated and prolonged skin contact may lead to skin disorders.
Routes of exposure: Refer to section 4 of SDS for routes of exposure and corresponding symptoms.

12. ECOLOGICAL INFORMATION

Persistence and degradability: Not biodegradable.
Bioaccumulative potential: No data available.
Other adverse effects: Not regarded as dangerous for the environment.

13. DISPOSAL CONSIDERATIONS

Disposal operations: In an uncured state this material must be disposed of via an authorised waste disposal company in accordance with local and/or National Waste Disposal Regulations.
Small quantities of cured resin may be disposed of as solid waste.

NORSEKEM Limited, Unit 6 Stokes Farm, Binfield Road,
Wokingham, Berkshire, RG40 5PR, United Kingdom.
TELEPHONE: 0845 4027663 FAX: 0845 4027662
E-MAIL: sales@norsekem.co.uk WEB: www.norsekem.co.uk

14. TRANSPORT INFORMATION

ADR / RID

UN Number:	3269	A.D.R Class:	3
Packaging Group:	III	Classification Code:	F
Shipping Name	Polyester Resin Kit		
Labelling:	3	Hazard ID No:	

IMDG / IMO

UN Number:	3269	Class:	3
Packaging Group:	III	EmS:	F-E, S-D
Marine Pollutant:		Labelling:	3

IATA / ICAO

UN Number:	3269	Class:	3
Packaging Group:	III	Packaging Instructions:	312
Labelling:	3		

15. REGULATORY INFORMATION

Hazard symbols: Harmful. Flammable



Risk phrases:
R10: Flammable.
R20: Harmful by inhalation.
R36/38: Irritating to eyes and skin.

Safety phrases:
S24/25: Avoid contact with skin and eyes.
S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S35: This material and its container must be disposed of in a safe way.
S51: Use only in well-ventilated areas.

Note: The regulatory information given above only indicates the principal regulations specifically applicable to the product described in the safety data sheet. The user's attention is drawn to the possible existence of additional provisions which complete these regulations. Refer to all applicable national, international and local regulations or provisions.

16. OTHER INFORMATION

Risk phrases used in s.2: R10: Flammable.
R20: Harmful by inhalation.
R36/38: Irritating to eyes and skin.

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.

NORSEKEM Limited, Unit 6 Stokes Farm, Binfield Road,
Wokingham, Berkshire, RG40 5PR, United Kingdom.
TELEPHONE: 0845 4027663 FAX: 0845 4027662
E-MAIL: sales@norsekem.co.uk WEB: www.norsekem.co.uk

1. IDENTIFICATION OF SUBSTANCE OR PREPARATION

Name of Product: **SHUTTAFILL – Hardener Component**

Use Description of Product Dibenzoyl Peroxide past in phthalate plasticizer

Supplier: NORSEKEM Limited,
Unit 6 Stokes Farm,
Binfield Road,
Wokingham,
Berkshire,
RG40 5PR,
United Kingdom

Telephone: 0845 4027663

Fax: 0845 4027663

2. COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous ingredients: DIBENZOYL PEROXIDE 50% CAS: 94-36-0
DIISOBUTYL PHTHALATE < 50% CAS: 84-69-5
[E] R2; [Xi] R36; [Sens.] R43

3. HAZARDS IDENTIFICATION

Main hazards: May cause fire. Irritating to eyes. May cause sensitisation by skin contact.

4a. FIRST AID MEASURES (SYMPTOMS)

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.

4b. FIRST AID MEASURES (ACTIONS)

Skin contact: Remove all contaminated clothes and footwear immediately unless stuck to skin. Wash immediately with plenty of soap and water.
Eye contact: Bathe the eye with running water for 15 minutes. Consult a doctor.
Ingestion: Wash out mouth with water. Consult a doctor.
Inhalation: Remove casualty from exposure ensuring one's own safety whilst doing so. Consult a doctor.

5. FIRE FIGHTING MEASURES

Extinguishing media: Suitable extinguishing media for the surrounding fire should be used.
Exposure hazards: In combustion emits toxic fumes.
Protection of fire-fighters: Wear self-contained breathing apparatus. Wear protective clothing to prevent contact with skin and eyes.

NORSEKEM Limited, Unit 6 Stokes Farm, Binfield Road,
Wokingham, Berkshire, RG40 5PR, United Kingdom.
TELEPHONE: 0845 4027663 FAX: 0845 4027662
E-MAIL: sales@norsekem.co.uk WEB: www.norsekem.co.uk

6. ACCIDENTAL RELEASE MEASURES

- Personal precautions:** Refer to section 8 of SDS for personal protection details. If outside do not approach from downwind. If outside keep bystanders upwind and away from danger point. Mark out the contaminated area with signs and prevent access to unauthorised personnel. Do not create dust.
- Environmental precautions:** Do not discharge into drains or rivers.
- Clean-up procedures:** Transfer to a closable, labelled salvage container for disposal by an appropriate method.

7. STORAGE AND HANDLING

- Handling requirements:** Avoid direct contact with the substance. Ensure there is sufficient ventilation of the area. Do not handle in a confined space. Avoid the formation or spread of dust in the air.
- Storage conditions:** Store in cool, well ventilated area. Keep container tightly closed.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

- Hazardous ingredients:** DIBENZOYL PEROXIDE
TWA (8 hr exposure limit): 5 mg/m³
- Engineering measures:** Ensure there is sufficient ventilation of the area.
- Respiratory protection:** Not required for normal use. Self-contained breathing apparatus must be available in case of emergency.
- Hand protection:** Protective gloves.
- Eye protection:** Safety glasses. Ensure eye bath is to hand.
- Skin protection:** Protective clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES

- State/Colour:** White Smooth Paste
- Odour:** Faint
- Relative Density:** 1.140- 1.170g/cm³ @ 20 °C
- Flash Point °C:** above 50°C
- Flammability:** Will support combustion in a fire
- Auto Flammability:** >380°C
- Solubility in water:** partly miscible in water
- Melting point/Range °C:** Not Determined
- Explosive properties:** None
- Oxidising properties:** Oxidising
- Vapour Pressure:** Not Determined
- pH:** Slightly Acidic
- Additional information:** Active Oxygen content 3.27% - 3.37%
Peroxide content 49.5% - 51.0%

NORSEKEM Limited, Unit 6 Stokes Farm, Binfield Road,
Wokingham, Berkshire, RG40 5PR, United Kingdom.
TELEPHONE: 0845 4027663 FAX: 0845 4027662
E-MAIL: sales@norsekem.co.uk WEB: www.norsekem.co.uk

10. STABILITY AND REACTIVITY

Stability: Stable under normal conditions. A dangerous self-accelerating decomposition reaction and, under certain circumstances, explosion or fire can be caused with incompatible substances or by thermal decomposition at and above 60C.

Conditions to avoid: Heat.

Materials to avoid: Violent reactions may be expected with acid, alkali, heavy metals and reducing agents. Do not mix with peroxide accelerators, reducing agents or flammable materials. Store only in original packaging. Use only stainless steel, PVC, polyethylene or glass lined equipment.

Haz. decomp. products: In combustion emits toxic fumes.

11. TOXICOLOGICAL INFORMATION

Hazardous ingredients: DIBENZOYL PEROXIDE (78% in water)
ORL MUS LD50 5700 mg/kg
ORL RAT LD50 7710 mg/kg

Chronic toxicity: May cause sensitisation by skin contact.

Routes of exposure: Refer to section 4 of SDS for routes of exposure and corresponding symptoms.

12. ECOLOGICAL INFORMATION

Other adverse effects: Not regarded as dangerous for the environment.

13. DISPOSAL CONSIDERATIONS

Disposal operations: Dispose of via an authorised person / licensed waste disposal contractor in accordance with local regulations.

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

14. TRANSPORT INFORMATION

ADR / RID

UN Number:	3108	A.D.R Class:	5.2
Packaging Group:		Classification Code:	P1
Shipping Name	Organic Peroxide type E Solid	Hazard ID No:	
Labelling:	5.2		

IMDG / IMO

UN Number:	3108	Class:	5.2
Packaging Group:		EmS:	F-J, S-R
Marine Pollutant:	No	Labelling:	5.2

NORSEKEM Limited, Unit 6 Stokes Farm, Binfield Road,
Wokingham, Berkshire, RG40 5PR, United Kingdom.
TELEPHONE: 0845 4027663 FAX: 0845 4027662
E-MAIL: sales@norsekem.co.uk WEB: www.norsekem.co.uk

IATA / ICAO

UN Number:	3108	Class:	5.2
Packaging Group:		Packaging Instructions:	510(P&CA); 513(CAO)
Labelling:	5.2		

15. REGULATORY INFORMATION

Hazard symbols: Irritant. Oxidising



Risk phrases: R7: May cause fire.
R36: Irritating to eyes.
R43: May cause sensitisation by skin contact.

Safety phrases: S3/7: Keep container tightly closed in a cool place.
S14: Keep away from reducing agents, acids, alkalis and heavy metal compounds.
S24: Avoid contact with skin.
S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S36/37/39: Wear suitable protective clothing, gloves and eye / face protection.
S50: Do not mix with peroxide accelerators, reducing agents or flammable materials.

Note: The regulatory information given above only indicates the principal regulations specifically applicable to the product described in the safety data sheet. The user's attention is drawn to the possible existence of additional provisions which complete these regulations. Refer to all applicable national, international and local regulations or provisions.

16. OTHER INFORMATION

Risk phrases used in s.2: R2: Risk of explosion by shock, friction, fire or other sources of ignition.
R36: Irritating to eyes.
R43: May cause sensitisation by skin contact.

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.