

Multi-Component Safety Data Sheet

FS-PU70-4K

Heavy Duty Polyurethane Floor Topping (2 – 6 mm)

COMPREHENSIVE MULTI-COMPONENT SAFETY DATA SHEET

⚠ DANGER — Contains Polyol Emulsion (Part A), MDI Isocyanate Hardener (Part B), Portland Cement & Quartz Aggregates (Part C), and Pigment Dispersions (Part D). Causes severe skin burns, serious eye damage, skin and respiratory sensitisation. Harmful if inhaled. Read full SDS before mixing.

1. IDENTIFICATION OF THE PRODUCT AND THE COMPANY

Product Name	FS-PU70-4K Heavy Duty Polyurethane Floor Topping System
Product Code	FS-PU70-4K (Includes Parts A, B, C, and D)
Sub-brand	FloorSafe™
Component Pack Sizes	20 kg Pack: Part A (2.45 kg Liquid) Part B (3.10 kg Liquid) Part C (14.20 kg Powder) Part D (0.25 kg Paste)
Product Use	Heavy-duty, seamless, chemical-resistant polyurethane resin flooring (2mm to 5mm thickness) for industrial, food, beverage, and pharmaceutical facilities. Professional application only.
Supplier	BGSB Construction Products Ltd
Address / Phone	Mlolongo, Kenya Tel: +254 739 806502
Email / Website	info@jengapro.com www.jengapro.com Revision Date: July 2026

2. HAZARDS IDENTIFICATION (BY COMPONENT & MIXED SYSTEM)

GHS CLASSIFICATION BY COMPONENT:

- Part A (Polyol Resin): Skin Irrit. 2 (H315), Eye Irrit. 2A (H319), Skin Sens. 1 (H317), Aquatic Chronic 3 (H412)
- Part B (Isocyanate Hardener): Acute Tox. 4 Inhalation (H332), Skin Irrit. 2 (H315), Eye Irrit. 2A (H319), Resp. Sens. 1 (H334), Skin Sens. 1 (H317), Carc. 2 (H351), STOT SE 3 (H335), STOT RE 2 (H373)
- Part C (Cement/Aggregate Powder): Skin Corr. 1C (H314), Eye Dam. 1 (H318), Skin Sens. 1 (H317), STOT SE 3 (H335), STOT RE 1 Inhalation (H372 - Respirable Crystalline Silica)
- Part D (Pigment Paste): Non-hazardous / Mild eye contact irritant

GHS LABEL ELEMENTS & SIGNAL WORD:

Signal Word: **DANGER**

GHS Pictograms: GHS05 (Corrosive) | GHS07 (Exclamation Mark) | GHS08 (Health Hazard)

HAZARD STATEMENTS (COMBINED SYSTEM):

H314: Causes severe skin burns and eye damage | H317: May cause an allergic skin reaction
H332: Harmful if inhaled | H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled
H335: May cause respiratory irritation | H351: Suspected of causing cancer
H372: Causes damage to lungs/respiratory organ through prolonged or repeated inhalation (powder dust)
H412: Harmful to aquatic life with long-lasting effects

PRECAUTIONARY STATEMENTS:

P201: Obtain special instructions before use | P260: Do not breathe dust/fume/gas/mist/vapours/spray
P280: Wear protective gloves/clothing/eye protection/face protection | P284: [In case of inadequate ventilation] wear respiratory protection



P301+P330+P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting

P303+P361+P353: IF ON SKIN: Take off immediately all contaminated clothing. Rinse skin with water/shower

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

P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell

3. COMPOSITION / INFORMATION ON INGREDIENTS

Component & Ingredient	CAS No.	Conc. (%)	GHS Classification
Part A: Castor Oil Polyol / Modified Emulsion	68187-84-8	12.25% (total)	Skin Irrit. 2 (H315), Eye Irrit. 2A (H319)
Part A: Ethane-1,2-diol (Ethylene Glycol)	107-21-1	< 1%	Acute Tox. 4 (H302), STOT RE 2 (H373)
Part B: Diphenylmethane Diisocyanate (MDI isomers)	9016-87-9	15.50% (total)	Acute Tox. 4 (H332), Resp. Sens. 1 (H334), Carc. 2 (H351)
Part C: Quartz Sand / Crystalline Silica (SiO ₂)	14808-60-7	40 – 50% (total)	STOT RE 1 (H372)
Part C: Portland Cement / Calcium Oxide	65997-15-1	20 – 30% (total)	Skin Corr. 1C (H314), Eye Dam. 1 (H318), STOT SE 3 (H335)
Part C: Calcium Hydroxide	1305-62-0	1 – 5% (total)	Eye Dam. 1 (H318), STOT SE 3 (H335)
Part D: Inorganic / Organic Pigments (Paste)	Proprietary	1.25% (total)	Not classified as hazardous

4. FIRST AID MEASURES

INHALATION: Move to fresh air immediately. If breathing is difficult or asthmatic symptoms occur (Part B isocyanates), give oxygen and seek immediate medical attention.

SKIN CONTACT: Immediately flush with plenty of water and soap while removing contaminated clothing. Part C cement and Part B reacts on skin. Get urgent medical attention if burns or rash develop.

EYE CONTACT: Flush eyes immediately with stream of clean water for at least 15–20 minutes, holding eyelids open. Cement slurry (Part C) can cause severe alkaline chemical burns. Seek immediate emergency ophthalmological care.

INGESTION: Rinse mouth thoroughly. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Call Poison Control or physician immediately.

5. FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA: Alcohol-resistant foam, carbon dioxide (CO₂), dry chemical powder, or water fog. Do not use direct water jet on hot Part B liquid.

HAZARDS DURING FIRE: Part B reacts with water producing CO₂ gas (risk of pressure build-up in sealed containers). Decomposition products include Hydrogen Cyanide (HCN), Isocyanate vapours, Nitrogen Oxides (NO_x), Carbon Monoxide, and acrid smoke.

PROTECTIVE EQUIPMENT: Self-contained breathing apparatus (SCBA) with full face-piece and complete chemical bunker protective clothing.

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS: Wear full protective gear (full-face respirator with P3/A2 filter, chemical suit, nitrile/viton gloves, boots).

ENVIRONMENTAL PRECAUTIONS: Prevent liquid components (Parts A & B) from entering soil, storm drains, or watercourses.

CLEAN-UP PROCEDURES:

- Liquids (Parts A & B): Absorb with inert material (sand, vermiculite). Decontaminate Part B spills with a solution of Water (90%), Concentrated Ammonia (3-8%), and Detergent (2%). Allow to react in open vessel for 45 min.
- Powder (Part C): Dry vacuum using HEPA filtration or wet sweep to avoid generating airborne silica/cement dust.

7. HANDLING AND STORAGE

HANDLING: Ensure high-volume forced ventilation or local exhaust. Do not breathe dust during aggregate mixing. Avoid all skin and eye contact. Wash thoroughly after handling.

MIXING SEQUENCE SAFETY: Stir Part A and Part B separately. Pour Part A into vessel, add Part D (pigment) and mix 1 min. Add Part B and mix. Finally, gradually add Part C aggregate powder to prevent dust clouds and mix for 2 min until homogeneous.

STORAGE: Store in unopened original packs between 5°C and 30°C in dry, well-ventilated shelter. Keep Part B dry; moisture contact generates pressure.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Substance	LTEL (8hr TWA)	STEL (15 min)	Regulatory Reference
Diphenylmethane Diisocyanate (MDI - Part B)	0.02 mg/m ³ (as -NCO)	0.07 mg/m ³ (as -NCO)	OSHA / DOSHS Kenya
Respirable Crystalline Silica (Part C)	0.025 mg/m ³	—	ACGIH TLV / OSHA PEL
Portland Cement Dust (Part C)	10 mg/m ³ (Inhalable)	—	DOSHS Kenya OEL

PPE REQUIREMENTS:

- Respiratory: EN 14387 Type A1-P3 combination respirator during mixing and application.
- Eye/Face: Tight-fitting full chemical goggles or face shield.
- Hands & Body: Nitrile/Viton chemical-resistant gloves, full protective suit, heavy-duty safety boots.

9. PHYSICAL AND CHEMICAL PROPERTIES (BY COMPONENT)

Property	Part A (Resin)	Part B (Hardener)	Part C (Filler)	Part D (Pigment)
Appearance	Milky Liquid	Dark Brown Liquid	Grey/Coloured Powder	Viscous Paste
Density / Sp. Gr.	~ 1.02 g/cm ³	~ 1.22 g/cm ³	~ 1.50 – 1.60 g/cm ³	~ 1.15 g/cm ³
Flash Point	> 100°C	> 200°C	N/A	N/A
Solubility in Water	Emulsifiable	Reacts with water	Slightly soluble (alkaline)	Insoluble
Mixed System Density: ~ 1.86 g/cc Mixed System VOC: ~ 8 g/L (ASTM D3960)				

10. STABILITY AND REACTIVITY

STABILITY: Stable under recommended storage conditions.

REACTIVITY & INCOMPATIBILITY: Part B reacts exothermically with water, alcohols, amines, acids, and bases, liberating CO₂ gas. Part C reacts with water yielding an alkaline solution (pH 12–13).

HAZARDOUS DECOMPOSITION: Thermal breakdown produces Isocyanates, HCN, Carbon Monoxide, Nitrogen Oxides, and alkaline mineral dust.

11. TOXICOLOGICAL INFORMATION

INHALATION: Part B isocyanates may cause respiratory sensitisation, severe asthma-like attacks, and lung damage.

Respirable quartz dust from Part C causes silicosis upon chronic exposure.

SKIN / EYE CONTACT: Part C causes severe alkali skin burns and serious permanent eye damage/blindness. Part B causes skin irritation and respiratory/skin allergy.

CARCINOGENICITY: Part B (MDI) is classified as GHS Category 2 (Suspected Human Carcinogen). Part C Crystalline Silica is IARC Group 1 (Carcinogenic to humans).



12. ECOLOGICAL INFORMATION

ECOTOXICITY: Part A contains additives harmful to aquatic life (H412). Uncured Part B reacts with water to form insoluble polyureas. Uncured Part C increases water pH significantly (toxic to fish).

CURED PRODUCT: Fully cured FS-PU70-4K topping is inert, microbiologically inert, non-toxic, and conforms to US FDA 175.300 and CFTRI food contact specifications.

13. DISPOSAL CONSIDERATIONS

Unmixed individual liquid/powder residues are classified as HAZARDOUS WASTE. Dispose of through licensed chemical waste disposal contractors in compliance with local environmental laws. Completely cured combined material (Parts A+B+C+D) is non-hazardous solid waste.

14. TRANSPORT INFORMATION

UN NUMBER / CLASS: Not Regulated as Dangerous Goods for road/sea/air transport (ADR/RID, IMDG, IATA) when individual components are packed in standard commercial sizes (20kg kit).

PROPER SHIPPING NAME: Non-hazardous Chemical Flooring Compound Kits.

15. REGULATORY INFORMATION

REGULATORY COMPLIANCE: Occupational Safety and Health Act (OSHA) 2007 (Kenya), DOSHS Guidelines, GHS Rev 8, US FDA 175.300 (Food Contact Grade), CFTRI Approved.

16. OTHER INFORMATION

TRAINING ADVICE: Mandatory safety training required for application crews regarding Isocyanate safety, cement alkali hazards, respiratory protective equipment, and mixing protocols.

REVISION DATE: July 2026 — Comprehensive Multi-Component SDS for FS-PU70-4K System.

Disclaimer: The information in this Safety Data Sheet is provided in good faith by BGSB Construction Products Ltd. It is the user's responsibility to satisfy themselves as to the suitability of such information for their own particular application. Sold subject to Conditions of Sale.