SAFETY DATA SHEET

FLEX WP 2K

Component B (powder)

Powder component (Component B) of a two-component waterproofing system

Product code	3.WP.WP2K-B
Version	**2026.10**
Date of issue	01/10/2026
Revision date	Supersedes version 2026.07

Prepared in accordance with the Globally Harmonized System of Classification and Labelling of Chemicals (GHS) and the Vietnam Law on Chemicals No. 69/2025/QH15. This sheet contains the 16 mandatory sections in order.

1 IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE SUPPLIER

1.1 Product identifier

Trade name	FLEX WP 2K — Component B (powder)
Product code	3.WP.WP2K-B
Product type	Powder component (Component B) of a two-component waterproofing system
Product classification	Per the Technical Data Sheet. The mixed system meets BS EN 14891:2017 type CMP and EN 1504-2 type PI-MC-PR
Packaging	8.0kg set (A: 02kg · B: 06kg) · 20kg set (A: 05kg · B: 15kg) · 33.5kg set (A: 8.5kg · B: 25kg)

1.2 Relevant identified uses and uses advised against

Identified use: Component B (powder) of the FLEX WP 2K two-component flexible cement-polymer waterproofing system. To be used only by mixing with Component A (liquid) in the ratio specified in the Technical Data Sheet, for waterproofing basement walls, water tanks, kitchens, sanitary rooms, balconies, planters, swimming pools and water features, precast wall panels, flat concrete roofs and gutters.

SCOPE OF APPLICATION: This sheet applies to COMPONENT B only. Component A (liquid) has its own safety data sheet. Uses advised against: do NOT use Component B on its own as an ordinary mortar; do NOT add water beyond the specified ratio; do NOT mix it with cement or any other additive without the written instructions of the manufacturer; do NOT use it outside the manufacturer's technical instructions (see Section 7 and the product Technical Data Sheet).

1.3 Details of the supplier / manufacturer

BUMATECH CO., LTD

HEAD OFFICE
154/1/5 Cong Lo, Tan Son Ward, Ho Chi Minh City

OFFICE
91 Hoang Bat Dat, Tan Son Ward, Ho Chi Minh City

PLANT
820 Ap Chanh, Duc Lap Commune, Tay Ninh Province

TECHNICAL
0979 793 804

SALES
0914 765 778

EMAIL
bumagreen@bumatech.com.vn

WEBSITE
www.bumatech.vn

1.4 Emergency telephone number

Medical emergency — 24/7: **115** (national emergency number). Take this Safety Data Sheet or the product label with you to the medical facility.

BUMATECH Technical Department: 0979 793 804 (office hours) — advice on the product and on response measures.

2 HAZARD(S) IDENTIFICATION

2.1 Classification of the substance or mixture (GHS)

HAZARD CLASS AND CATEGORY	CATEGORY	H CODE
Skin irritation (Skin Irrit.)	Category 2	H315
Serious eye damage (Eye Dam.)	Category 1	H318
Specific target organ toxicity – single exposure (STOT SE)	Category 3	H335

2.2 GHS label elements



GHS05
Corrosion



GHS07
Exclamation mark

SIGNAL WORD
DANGER

Hazard statements

H315	Causes skin irritation.
H318	Causes serious eye damage.
H335	May cause respiratory irritation.

Precautionary statements

P102	Keep out of reach of children.
P260	Do not breathe dust.
P264	Wash hands thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves/clothing and eye/face protection.
P302+P352	IF ON SKIN: Wash with plenty of water.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER or doctor.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P501	Dispose of contents/container in accordance with applicable regulations.

2.3 Other hazards

- ALKALI BURNS FROM WET MORTAR — THE MOST UNDERESTIMATED HAZARD: the mixed product is strongly alkaline (pH approximately 12 - 13). Prolonged contact — kneeling in mortar, or mortar getting inside boots, gloves or clothing — can cause alkali burns as deep as third degree. Such burns are usually PAINLESS at first, so the worker does not notice until the injury is severe. Change clothing, boots and gloves contaminated with mortar immediately; never kneel directly on wet mortar.
- CEMENT DERMATITIS: repeated contact with dust or wet mortar causes irritant dermatitis — dryness, cracking and itching. If the cement contains soluble chromium (VI) above 2ppm it can also cause allergic contact dermatitis, a common occupational disease in the construction industry — see the note in Section 3.
- CRYSTALLINE SILICA DUST: the product is a dry powder containing silica sand. Opening bags, pouring and mixing all generate dust. Prolonged or repeated inhalation of respirable crystalline silica dust causes silicosis; IARC places respirable crystalline silica in Group 1 for occupational exposure. Dust control is mandatory — see Section 8.
- The product is strongly hygroscopic. Open packaging or storage in a damp place causes lumping, reduces strength and degrades the effectiveness of the chromium (VI) reducing agent in the cement.
- The product is an inorganic solid; it is non-combustible and does not form explosive mixtures.
- PBT / vPvB assessment: the product contains no PBT or vPvB substance at ≥ 0.1%. It contains no substance of very high concern (SVHC) at ≥ 0.1%.

3 COMPOSITION/INFORMATION ON INGREDIENTS

Mixture — cement-based dry mortar. Hazardous components within the meaning of GHS and the related classification:

COMPONENT NAME	CAS / EC NO.	CONCENTRATION	CLASSIFICATION (GHS)
Portland cement (Cr(VI) < 2ppm)	CAS: 65997-15-1 EC: 266-043-4	~45 - 55%	Skin Irrit. 2 (H315); Skin Sens. 1B (H317); Eye Dam. 1 (H318); STOT SE 3 (H335)
Crystalline silica (quartz) — in graded sand	CAS: 14808-60-7 EC: 238-878-4	< 45%	Carc. 1A / STOT RE 1 (H372) classification applies to the respirable fraction only (see note)

The remainder consists of graded quartz sand, fillers, cellulose ether additives, redispersible polymer powder and functional additives — not classified as hazardous at the concentrations present.

Note on crystalline silica: the carcinogenicity (IARC Group 1) and STOT RE classifications relate only to the respirable fraction of crystalline silica. As supplied, the silica is present as non-respirable graded aggregate; therefore the product is **NOT** classified as a carcinogen. Dust generated during dry mixing, cutting or grinding may contain respirable crystalline silica — hence the dust controls in Sections 2, 8 and 11.

4 FIRST-AID MEASURES

4.1 Description of necessary first-aid measures

Skin contact: IMMEDIATELY remove clothing, boots and gloves contaminated with dust or mortar. Wash the skin with plenty of soap and water. If redness, pain or blistering appears, or an alkali burn is suspected, get medical attention IMMEDIATELY — cement mortar burns are usually only mildly painful at first but progress deeper and are more serious than they first appear. Wash clothing before reuse.

Eye contact: Do NOT rub the eye. Rinse the eye IMMEDIATELY under gently running clean water for at least 15 minutes, holding the eyelids open so that the whole surface of the eyeball is rinsed. Remove contact lenses if worn and easy to do. Take the person to an ophthalmologist IMMEDIATELY — cement particles injure the cornea both mechanically and chemically, and the damage may be irreversible.

Ingestion: Rinse the mouth thoroughly with water. Do NOT induce vomiting. Give plenty of water to drink. If a significant quantity has been swallowed or symptoms appear, get medical advice immediately and take the SDS with you.

Inhalation: Move the person to fresh air. Rinse the mouth and blow the nose gently to clear the dust. If coughing, breathing difficulty or respiratory irritation persists, get medical advice.

4.2 Most important symptoms/effects, acute and delayed

Skin irritation, dryness and cracking on repeated contact. Prolonged contact with wet mortar causes ALKALI BURNS — usually painless at first and only clearly apparent after several hours, by which time the injury is deep. Dust irritates the eyes, nose, throat and upper respiratory tract. Prolonged inhalation of respirable crystalline silica dust can cause silicosis. If the cement contains chromium (VI) above the threshold, allergic dermatitis may appear with a delay of 12 - 48 hours.

4.3 Indication of immediate medical attention and special treatment

Treat symptomatically. No specific antidote is known. Alkali burns from cement require prolonged rinsing and early medical assessment; the injury is usually more severe than it first appears and must be kept under review for a further 24 - 48 hours. Eye injuries must be referred to an ophthalmologist immediately. Where allergic dermatitis is suspected, refer the person to a dermatologist and mention possible chromium (VI) sensitisation so that patch testing can be considered. The additional toxicological information in Section 11 must be observed.

5 FIRE-FIGHTING MEASURES

5.1 Extinguishing media

Suitable media: the water-based product is non-combustible; use media appropriate to the surrounding fire (water, foam, CO_2, dry powder).

Unsuitable media: none in particular.

5.2 Special hazards arising from the chemical

The product is an inorganic solid; it is non-combustible and does not contribute to a fire. In a surrounding fire it releases no characteristic toxic gases of its own; CO_2 may be generated by the surrounding burning materials. Fire-extinguishing water that contacts the product becomes alkaline.

5.3 Special protective actions for fire-fighters

Wear self-contained breathing apparatus (SCBA) when fighting a fire in a confined space or a smoky fire. Avoid directing a strong water jet at the product, which would raise dust. Collect contaminated fire-extinguishing water separately and neutralise it before disposal; do not allow it to enter drains or water bodies.

6 ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

AVOID RAISING DUST. A dust mask, sealed safety goggles, gloves and protective clothing are mandatory during clean-up (see Section 8). Keep unprotected persons away. Ensure the area is ventilated. Beware of slipperiness if the product has come into contact with water.

6.2 Environmental precautions

Do not discharge the product into drains, surface water or soil — it raises the pH of water sharply and sets, blocking pipework. Contain the spill. If the product contaminates a river, lake or watercourse, notify the competent authority immediately.

6.3 Methods and material for containment and cleaning up

Collect DRY by mechanical means: a shovel, or an industrial vacuum cleaner with a HEPA filter. NEVER blow the material down with compressed air and never dry-sweep — both raise respirable silica dust. If necessary, mist lightly with water to suppress dust before collecting. Place in sealed, labelled bags or containers. Material that has been wetted will set — allow it to set completely, then handle it as solid construction waste per Section 13.

7 HANDLING AND STORAGE

7.1 Precautions for safe handling

AVOID RAISING DUST throughout. Open bags carefully; do not tear them open. Pour Component B slowly and from a low height into Component A already in the mixing vessel, in the liquid : powder ratio of 1 : 3; mix with a slow-speed mixer to limit dust and entrained air. A dust mask, sealed safety goggles, chemical-resistant gloves and protective clothing are MANDATORY throughout (see Section 8). Do not breathe dust. Use the mix within 45 minutes at 35°C. CHANGE IMMEDIATELY any clothing, boots or gloves contaminated with wet mortar; never kneel directly on wet mortar. Do not eat, drink or smoke while working; wash hands and face before eating or drinking. Close bags tightly after partial use. Apply in a well-ventilated area; avoid confined spaces and areas with children or pets.

7.2 Conditions for safe storage, including any incompatibilities

Store in a dry, cool place on racks or pallets, clear of the ground and of damp walls. Close bags tightly after partial use. The product is STRONGLY HYGROSCOPIC — moisture causes lumping, reduces strength and degrades the effectiveness of the chromium (VI) reducing agent in the cement. Store separately from acids and away from water. Keep out of reach of children and away from food and drink.

Shelf life: 24 months in the unopened container (per the Technical Data Sheet).

Incompatible materials: water and moisture (cause premature setting); acids (exothermic reaction); ammonium salts; aluminium, zinc, tin and other light alloys while the mix is still wet — the alkaline environment corrodes these metals and releases flammable hydrogen gas.

7.3 Specific end use(s)

Powder component of the FLEX WP 2K two-component flexible cement-polymer waterproofing system; to be used only together with Component A per the product Technical Data Sheet.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters — occupational exposure limits (Vietnam)

The product is a dry powder containing free crystalline silica and therefore falls within the scope of QCVN 02:2019/BYT — Permissible Exposure Limit Values of Dust at the Workplace. The limits for silica-containing dust (Table 2) are set according to the free silica content: the permissible dust concentration is inversely proportional to the free silica content, and the concentration of free silica in total dust must not exceed 0.3mg/m³. Cement dust falls under the silica-free dust table (Table 3). The occupational safety function must determine the actual free silica content of the product in order to read off the correct applicable limit, and must carry out periodic workplace air monitoring under the Law on Occupational Safety and Health.

8.2 Individual protection measures (PPE)

Full personal protective equipment is MANDATORY for every operation with the product, including merely opening bags and weighing out. Provide an emergency eyewash point and clean water at the mixing and application area.

Eye protection: MANDATORY. SEALED safety goggles per EN 166 — do not use open safety spectacles, as dust enters from the sides. Add a face shield when mixing large quantities or where there is a risk of mortar splashing.

Hand protection: Gloves are MANDATORY at all times. Chemical-resistant gloves per EN ISO 374 — nitrile or natural rubber, close-fitting at the wrist so that mortar cannot get inside. Replace immediately if torn or if mortar gets inside — mortar trapped inside a glove is a common cause of alkali burns. Use a skin moisturiser after the shift.

Skin / body protection: Protective clothing with long sleeves and long trousers, closed at the wrists and ankles. High rubber boots for floor work. NEVER kneel directly on wet mortar — use waterproof knee pads. Do not allow mortar to get inside boots or shoes.

Respiratory protection: MANDATORY when opening bags, weighing out, pouring and mixing: an FFP2 dust mask per EN 149. For large quantities, confined spaces or poor ventilation: FFP3. When grinding, cutting or demolishing the cured layer: FFP3 combined with local dust extraction or surface dampening.

Engineering controls: Provide local dust extraction at the bag-opening, pouring and mixing points. Mix with a slow-speed mixer; prefer a covered mixing vessel or an enclosed mixing system. Ensure adequate general ventilation. Provide an emergency eyewash point and clean water near the work area.

9 PHYSICAL AND CHEMICAL PROPERTIES

Physical state	Powder (solid)
Colour	Grey
Odour	Odourless or a slight characteristic cement odour
Odour threshold	No data available
pH	≈ 11 - 13 (water suspension) — STRONGLY ALKALINE
Melting/freezing point	Not applicable (inorganic solid)
Boiling point	Not applicable
Flash point	Not applicable (non-combustible inorganic solid)
Flammability	Non-combustible
Vapour pressure	Not applicable
Bulk density	≈ 1.1 - 1.2g/cm³
Solubility in water	Slightly soluble; reacts with water to form a cement paste and sets
Viscosity	Not applicable (powder product)
VOC content	0g/l (per Technical Data Sheet, USEPA Method 24)

10 STABILITY AND REACTIVITY

10.1 Reactivity	Stable when stored dry. Reacts with water to form a cement paste, setting exothermically.
10.2 Chemical stability	Stable when stored in a dry place in closed packaging. Moisture uptake causes lumping and premature setting and renders the product ineffective.
10.3 Possibility of hazardous reactions	Reacts exothermically with water and with acids. The wet mix is strongly alkaline and corrodes aluminium, zinc and light alloys, releasing flammable hydrogen gas — a pressure-build-up hazard in confined spaces.
10.4 Conditions to avoid	Moisture and water during storage; contact with acids.
10.5 Incompatible materials	Water and moisture; acids; ammonium salts; aluminium, zinc, tin and other light alloys while the mix is still wet.
10.6 Hazardous decomposition products	Under dry storage conditions: no hazardous decomposition products. When the wet mix contacts aluminium or light alloys: flammable hydrogen gas.

11 TOXICOLOGICAL INFORMATION

ROUTE OF EFFECT	CLASSIFICATION RESULT
a) Acute toxicity	Not classified. The oral LD50 (rat) of Portland cement is > 2 000mg/kg.
b) Skin corrosion/irritation	SKIN IRRITATION — CATEGORY 2 (H315). The dry powder draws moisture from the skin, causing dryness and cracking. The wet mix is strongly alkaline: prolonged contact causes alkali burns, possibly as deep as third degree, usually painless at first.
c) Serious eye damage/irritation	SERIOUS EYE DAMAGE — CATEGORY 1 (H318). Dust and wet mortar injure the cornea both mechanically and chemically; the damage may be irreversible.
d) Respiratory/skin sensitisation	Not classified where the soluble chromium (VI) content of the cement is ≤ 0.0002% (2ppm). Above this threshold the product must carry the additional classification Skin Sensitisation Category 1B (H317) — allergic dermatitis caused by chromium (VI) is a common occupational disease in the construction industry. See the note in Section 3.
e) Germ cell mutagenicity	Not classified.
f) Carcinogenicity	Not classified for the product. Crystalline silica AS RESPIRABLE DUST is placed by IARC in Group 1 for occupational exposure — see item i), the note in Section 3 and the controls in Section 8.
g) Reproductive toxicity	Not classified.
h) STOT — single exposure	RESPIRATORY IRRITATION — CATEGORY 3 (H335). Dust irritates the nose, throat and upper respiratory tract.
i) STOT — repeated exposure	The product is not classified on the basis of the available data. However, prolonged or repeated inhalation of RESPIRABLE crystalline silica dust causes silicosis; many silica sand suppliers self-classify H372 / H373 (lungs). Whether this additional classification is required depends on the respirable crystalline silica content of the product — see the note in Section 3.
j) Aspiration hazard	Not classified.

12 ECOLOGICAL INFORMATION

Toxicity	The product is NOT classified as hazardous to the aquatic environment on toxicity criteria. However, when dispersed in water it raises the pH SHARPLY and may harm aquatic organisms through that alkaline effect. Do not discharge the product or wash water into water bodies, drains or soil.

All components are inorganic materials; no specific aquatic toxicity data need be reported. The main environmental risk of the product is its high pH, not the intrinsic toxicity of its components.

Persistence and degradability	Inorganic materials; not biodegradable. Cement hydrates and gradually carbonates in the environment, forming inert compounds. Silica sand and calcium carbonate are inert mineral materials.
Bioaccumulative potential	Bioaccumulation is not expected to occur.
Mobility in soil	Dry powder can be carried by the wind; on contact with water the product sets and is fixed in place.
Other adverse effects	PBT and vPvB assessment: the product contains no PBT or vPvB substance at 0.1% or above. The main adverse effect is its high pH — wash water must be neutralised before disposal. Special note for water tanks and swimming pools: put into service only after the waterproofing layer has cured and been kept for the full curing time given in the Technical Data Sheet; discard the first fill of water and observe the product's current potable-water contact certification.

13 DISPOSAL CONSIDERATIONS

- Minimise waste generation. Do NOT dispose of the product as a dry powder, which generates dust. Mix surplus product with water, allow it to set completely and dispose of it as solid construction waste, or hand it to an authorised contractor for treatment at a licensed facility.
- Do not pour surplus product, waste mortar or tool-wash water into drains, water bodies or soil — the product sets and causes blockages and raises the pH. Collect separately and neutralise the wash water before treatment.
- Dispose of in accordance with local and national regulations (the Law on Environmental Protection and applicable waste-management regulations).
- Empty packaging: shake out carefully, avoiding dust generation; collect and send to a suitably equipped facility for recycling or disposal. Uncleaned packaging must be handled with the same precautions as the product itself. Do not reuse for other purposes.

14 TRANSPORT INFORMATION

Not classified as dangerous goods under transport regulations (ADR/RID for road and rail, IMDG for sea, IATA for air) or under domestic dangerous-goods transport regulations (Decree 161/2024/NĐ-CP).

UN number	Not applicable
UN proper shipping name	Not applicable
Transport hazard class(es)	Not applicable
Packing group	Not applicable
Marine pollutant	None

15 REGULATORY INFORMATION

Vietnam

- Law on Chemicals No. 69/2025/QH15 (effective from 01/01/2026).
- Decree 24/2026/NĐ-CP, Decree 25/2026/NĐ-CP and Decree 26/2026/NĐ-CP.
- Circular 01/2026/TT-BCT and Circular 02/2026/TT-BCT of the Ministry of Industry and Trade.
- QCVN 02:2019/BYT — permissible dust exposure limits at the workplace.
- Decree 161/2024/NĐ-CP — transport of dangerous goods.
- Law on Occupational Safety and Health; applicable goods-labelling regulations.
- Classification and labelling per the Globally Harmonized System (GHS).

International

- United Nations GHS (current edition).
- Reference product standards: per the Technical Data Sheet.

Chemical safety assessment: not mandatory for this mixture.

16 OTHER INFORMATION

Full text of the hazard (H) statements appearing in this SDS

H315	Causes skin irritation.
H318	Causes serious eye damage.
H335	May cause respiratory irritation.

Legend to abbreviations

CAS	Chemical Abstracts Service
EC / EINECS	European Community EINECS / ELINCS inventory
GHS	Globally Harmonized System of Classification and Labelling of Chemicals
OEL / TWA	Occupational exposure limit / time-weighted average over the shift
PBT / vPvB	Persistent, bioaccumulative, toxic / very persistent, very bioaccumulative
PPE	Personal protective equipment
STOT SE / STOT RE	Specific target organ toxicity — single exposure / repeated exposure
Chromium (VI)	Soluble hexavalent chromium — the agent responsible for allergic dermatitis from cement
Respirable crystalline silica	The fraction of crystalline silica particles small enough (below about 4µm) to reach the deep lung
IARC	International Agency for Research on Cancer
FFP2 / FFP3	Filtering class of particle-filtering half masks per EN 149
LD50	Dose lethal to 50% of the test organisms
SCBA	Self-contained breathing apparatus
SVHC	Substance of very high concern

Main data sources: FLEX WP 2K Technical Data Sheet (version 2026.10); United Nations GHS.

Disclaimer: The information herein is based on our state of knowledge at the date stated and refers solely to the product indicated; it constitutes no guarantee of any particular property. It is the user's responsibility to ensure that this information is appropriate and complete for the specific intended use. This SDS cancels and replaces any preceding release.

END OF SAFETY DATA SHEET · 16 OF 16 SECTIONS