

1. IDENTIFICATION OF THE SUBSTANCE OR MIXTURE AND OF THE SUPPLIER

Material name	:	U-90 Waterproof Cement 2K no. U-228 – part A (Cement powder)
Recommended use	:	Under process to mix with part B to give a flexible dry film with excellent bonding. It helps to protect against crazing and definitely to be a protective and waterproofing film.
Supplier	:	U.R. Chemical Co., Ltd. 81, Moo 11, Tambol Bang-pla, Amphur Bang-plee Samutprakan 10540 ,Thailand
Telephone	:	+66 2 312 1415-9
Fax	:	+66 2 312 1048
Emergency Telephone number	:	+66 2 312 1415

2. HAZARD IDENTIFICATION

GHS Classification	:	Not classified by according to GHS criteria.
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3. COMPOSITION/ INFORMATION ON INGREDIENTS

Components	CAS number	% by weight
Portland cement	65997-15-1	35 – 48 %
Crystalline Quartz Silica (SiO ₂)	14808-60-7	50 – 65 %
Extender	Proprietary	1 – 10 %
Additives	Proprietary	0.1 – 1 %

Emergency overview:

A single short term exposure to dry powder of Portland cement is not likely to cause serious harm. However, prolonged or repeated exposure to wet Portland cement can cause serious, potentially irreversible tissue (skin or eye) destruction in the form of chemical (caustic) burns.

This composition is non-dangerous goods.

4. FIRST-AID MEASURES

- Inhalation** : Remove to fresh air, if rapid recovery does not occur, transport to nearest medical facility for additional treatment.
- Skin contact** : Remove contaminated clothing. In a shower, wash affected area with soap and water at least 15 minutes. Seek medical attention if irritant occurs or persists. Wash clothing before reuse.
- Eye contact** : Remove contact lenses, if present. Immediately flush eyes with plenty of clean running water at least 15 minutes while holding eyelids open. If eye irritation, burning sensation, redness, swelling and/ or blurred vision. Transport to the nearest medical facility for additional treatment.
- Ingestion** : If swallowed, do not induce vomiting, transport to the nearest medical facility for additional treatment. If vomiting occurs spontaneously, keep head below hips to prevent aspiration.

5. FIRE FIGHTING MEASURES

- Suitable extinguishing media** : Foam, water spray or fog. Dry chemical powder, carbon dioxide
- Unsuitable extinguishing** : No data.
- Specific hazard arising from chemicals** : Typically, this product is non-flammable but when incomplete combustion occurs or the evaporation of water in open flames, Carbon monoxide may be evolved.
- Protective equipment & precautions for fire fighters** : Wear protective clothing and self-contained breathing apparatus.
- Additional advice** : Keep adjacent containers cool by spraying with water.

6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, Protective equipment and Emergency procedures** : Avoid contact with eyes, skin and clothing by using the suitable protective equipment as required.

Environmental precautions	:	Use appropriate containment (of product and fire fighting water) to avoid environmental contamination. Prevent from spreading or entering drains, ditches or rivers by using sand, earth, or other appropriate barriers. Authorities should be notified if reportable quantity release occurs.
Method and material for containment and clean up	:	For small liquid spills (< 1 drum): transfer by mechanical means to a labelled, sealable container for product recovery or safe disposal. For large liquid spills (> 1 drum): Perform with same method for small liquid spills. Retain as contaminated waste. Recover or recycle if possible.

7. HANDLING AND STORAGE

Precautions for safe handling	:	Do not breathe dust. Avoid contact with skin or eyes and clothing. Repeated or long time exposure may cause skin dryness and dermal disease. Keep container closed when not in use.
Conditions for safe storage/ Including any incompatibility	:	The container should be labelled and keep tightly closed. Keep in a well-ventilated place. Avoid store near incompatible materials such as oxidizing agent. Keep cool. Storage temperature: Ambient
Recommended materials Unsuitable materials Container advice	:	No special requirement for material container.

8. EXPOSURE CONTROL/ PERSONAL PROTECTION

Threshold limit for exposure control Occupation exposure limits	:	No data.
Appropriate engineering control	:	Select controls based on a risk assessment of local circumstances. Appropriate measures include: Use sealed systems as far as possible. Adequate ventilation to control airborne concentrations below the exposure guidelines/limits are recommended.

Individual protection measures

Respiratory protection	:	Working under a well-ventilated area, use the respiratory equipment during operation.
Hand protection	:	Using gloves constructed of chemical resistant materials such as heavy nitrile rubber if frequent or prolonged contact is expected. Neoprene or PVC gloves also be using in case of incidental contact or splash protection. Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly.
Eye protection	:	Chemical splash goggles (chemical monogoggles). Eye washes and showers for emergency use are recommended to the work area.
Protective clothing	:	Protective gloves, safety shoes and boots are recommended.
Remarks	:	Personal protective equipment is not considered to long term solution of exposure control.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	Light grey powder
Odor	:	No distinct odor.
pH (in water)	:	11 – 13
Initial Boiling Point	:	No data
Melting Point	:	No data
Flash point	:	Not combustible
Viscosity	:	No data
Bulk Density (water = 1)	:	No data
Water solubility	:	Fully miscible

10. STABILITY AND RELIABILITY

Chemical stability	:	Stable under normal conditions of use.
Possibility of hazardous reaction	:	No data

Condition to avoid	:	Unintentional contact with water.
Incompatible materials	:	Wet Portland cement is alkaline. It is incompatible with acids, ammonium salts and phosphorous.
Hazardous decomposition products	:	Adding water will produce (caustic) calcium hydroxide.

11. TOXICOLOGICAL INFORMATION

Basis of assessment	:	Information given is based on product data, mixtures of product and/ or the similar product and/ or ingredients.
Acute oral toxicity	:	Expected to be low toxicity.
Acute dermal toxicity	:	Expected to be Low toxicity.
Acute inhalation toxicity	:	Expected to be low of toxicity if inhaled.
Skin corrosion/ irritation	:	Slightly irritation to skin.
Sensitisation	:	No data.
Serious eye damage/ irritation	:	No data
Respiratory tract irritation	:	No data
Aspiration hazard	:	No data
Germ cell mutagenicity	:	No data
Carcinogenicity	:	No data

12. ECOLOGICAL INFORMATION

Basis for Assessment	:	The information given below is based partly on a knowledge of the components and the ecotoxicology of similar products.
Acute Toxicity	:	No data
Mobility	:	This product is completely miscible and can spread around in water.
Persistence/degradability	:	No data.
Bioaccumulative potential	:	Does not bioaccumulate significantly.

13. DISPOSAL CONSIDERATION

- Material disposal** : Recover or recycle if possible. It is responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste classification and disposal methods in compliance with applicable regulations. Do not dispose into the environment, in drains or in water courses. Waste product should not be allowed to contaminate soil or water.
- Container disposal** : Disposal should be in accordance with applicable regional, national, and local laws and regulations. Send a disposal container to drum recover or metal reclaimer.

14. TRANSPORT INFORMATION

- ADR /RID : Classified as NON-DANGEROUS GOODS by the criteria of UNRTDG
- IMDG : Classified as NON-DANGEROUS GOODS by the criteria of IMDG
- IATA : Classified as NON-DANGEROUS GOODS by the criteria of IATA

15. REGULATORY INFORMATION

- Notification of the Ministry of Industry subject to Globally Harmonized System of Classification and Labelling of Chemicals (GHS) B.E. 2555 (2012)

16. OTHER INFORMATION

- SDS version** : 1.0
- Date of Issue** : 08.05.2019
- Reference** : -
- Disclaimer** : This information is based on our current knowledge and is intended to describe

the product for the purposes of health, safety and environmental requirements only. It should not therefore be constructed as guaranteeing any specific property of the product.

All rights reserved to inform the precise quantity of constituents in the product. By reason is confidential of the company which could not reveal or propagate to the public.

1. IDENTIFICATION OF THE SUBSTANCE OR MIXTURE AND OF THE SUPPLIER

Material name : U-90 Waterproof Cement 2K no. U-228 – part B (Bonding agent)

Recommended use : Used to mix with U-90 Waterproof Cement part A (cement powder).

Supplier : U.R. Chemical Co., Ltd.
81, Moo 11, Tambol Bang-pla, Amphur Bang-plee
Samutprakan 10540 ,Thailand

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Emergency Telephone number : +66 2 312 1415

2. HAZARD IDENTIFICATION

GHS Classification : Not classified by according to GHS criteria.

3. COMPOSITION/ INFORMATION ON INGREDIENTS

Components	CAS number	% by weight
Binder	Proprietary	60 – 75%
Water	7732-18-5	25 – 35%
Additives	Proprietary	0.1 – 1%

Emergency overview:

No special hazards exist with this component. Based on chemical substances, caution and care will prevent unnecessary accidents and safety problems.

This composition is non-hazardous and non-dangerous goods.

4. FIRST-AID MEASURES

Inhalation : Remove to fresh air, if rapid recovery does not occur, transport to nearest

	medical facility for additional treatment.
Skin contact	: Remove contaminated clothing. In a shower, wash affected area with soap and water at least 15 minutes. Seek medical attention if irritant occurs or persists. Wash clothing before reuse.
Eye contact	: Remove contact lenses, if present. Immediately flush eyes with plenty of clean running water at least 15 minutes while holding eyelids open. If eye irritation, burning sensation, redness, swelling and/ or blurred vision. Transport to the nearest medical facility for additional treatment.
Ingestion	: If swallowed, do not induce vomiting, transport to the nearest medical facility for additional treatment. If vomiting occurs spontaneously, keep head below hips to prevent aspiration.

5. FIRE FIGHTING MEASURES

Suitable extinguishing media	: Foam, water spray or fog. Dry chemical powder, carbon dioxide
Unsuitable extinguishing	: No data.
Specific hazard arising from chemicals	: Typically, this product is non-flammable but when incomplete combustion occurs or the evaporation of water in open flames, Carbon monoxide may be evolved.
Protective equipment & precautions for fire fighters	: Wear protective clothing and self-contained breathing apparatus.
Additional advice	: Keep adjacent containers cool by spraying with water.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, Protective equipment and Emergency procedures	: Avoid contact with eyes, skin and clothing by using the suitable protective equipment as required.
Environmental precautions	: Use appropriate containment (of product and fire fighting water) to avoid environmental contamination. Prevent from spreading or entering drains, ditches or rivers by using sand, earth, or other appropriate barriers.

Authorities should be notified if reportable quantity release occurs.

**Method and material
for containment and
clean up**

- : For small liquid spills (< 1 drum): transfer by mechanical means to a labelled, sealable container for product recovery or safe disposal.
- For large liquid spills (> 1 drum): Perform with same method for small liquid spills. Retain as contaminated waste. Recover or recycle if possible.

7. HANDLING AND STORAGE

Precautions for safe handling

- : Avoid contact with skin or eyes and clothing. Repeated or long time exposure may cause skin dryness and dermal disease.
- Keep container closed when not in use.

**Conditions for safe storage/
Including any incompatibility**

- : The container should be labelled and keep tightly closed. Keep in a well-ventilated place. Avoid store near incompatible materials such as oxidizing agent. Avoid direct to sunlight. DO NOT ALLOW PRODUCT TO FREEZE. This product is an emulsion, freezing could coagulate the emulsion and rupture the container.

Storage temperature: Ambient

**Recommended materials
Unsuitable materials
Container advice**

- : The recommended container of this product is plastic or Tin by inside should be coating with Phenolic. Steel container or Tin container without Phenolic coating should be avoided.

8. EXPOSURE CONTROL/ PERSONAL PROTECTION

Threshold limit for exposure control

Occupation exposure limits

- : No data.

Appropriate engineering control

- : Select controls based on a risk assessment of local circumstances. Appropriate measures include: Use sealed systems as far as possible. Adequate ventilation to control airborne concentrations below the exposure guidelines/limits are recommended.

Individual protection measures

Respiratory protection	:	By working under a well-ventilated area, the respiratory equipment can be skipped to use during operation.
Hand protection	:	Using gloves constructed of chemical resistant materials such as heavy nitrile rubber if frequent or prolonged contact is expected. Neoprene or PVC gloves also be using in case of incidental contact or splash protection. Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly.
Eye protection	:	Chemical splash goggles (chemical monogoggles). Eye washes and showers for emergency use are recommended to the work area.
Protective clothing	:	Protective gloves, safety shoes and boots are recommended.
Remarks	:	Personal protective equipment is not considered to long term solution of exposure control.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	Milky white viscous liquid.
Odor	:	Weak, Characteristic odour.
pH	:	6 - 8
Initial Boiling Point	:	100 °C (212 °F) / Water
Melting Point	:	0 °C (32 °F) / Water
Flash point	:	Not Combustible.
Viscosity	:	No data.
Specific Gravity (water = 1)	:	1.02 – 1.05 at 25 °C
Water solubility	:	Fully miscible.

10. STABILITY AND RELIABILITY

Chemical stability	:	Stable under normal conditions of use.
Possibility of hazardous reaction	:	No data

Condition to avoid	:	Avoid using under high temperature condition. Avoid direct to sunlight.
Incompatible materials	:	No data.
Hazardous decomposition products	:	Carbon dioxide, carbon monoxide.

11. TOXICOLOGICAL INFORMATION

Basis of assessment	:	Information given is based on product data, mixtures of product and/ or the similar product and/ or ingredients.
Acute oral toxicity	:	Expected to be low toxicity.
Acute dermal toxicity	:	Expected to be Low toxicity.
Acute inhalation toxicity	:	Expected to be low of toxicity if inhaled.
Skin corrosion/ irritation	:	Slightly irritation to skin.
Sensitisation	:	No data.
Serious eye damage/ irritation	:	No data
Respiratory tract irritation	:	No data
Aspiration hazard	:	No data
Germ cell mutagenicity	:	No data
Carcinogenicity	:	No data

12. ECOLOGICAL INFORMATION

Basis for Assessment	:	The information given below is based partly on a knowledge of the components and the ecotoxicology of similar products.
Acute Toxicity	:	No data
Mobility	:	This product is completely miscible and can spread around in water.
Persistence/degradability	:	No data.
Bioaccumulative potential	:	Does not bioaccumulate significantly.

13. DISPOSAL CONSIDERATION

- Material disposal** : Recover or recycle if possible. It is responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste classification and disposal methods in compliance with applicable regulations. Do not dispose into the environment, in drains or in water courses. Waste product should not be allowed to contaminate soil or water.
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