## TCC Group Holdings Safety Data Sheet (SDS)

### I. Product and Company Information

### Product Name: Portland Limestone Cement

### Product Number: Not Applicable

Manufacturer/Supplier Name, Address, and Phone Number:

### TCC Group Holdings

No. 113, Sec. 2, Zhongshan N. Rd., Zhongshan Dist., Taipei City

02-25317099

Emergency Contact Number: 02-25317099 (Engineering Affairs Department); Fax Number: 02-25316650

### II. Hazard Identification

Health Effects: Prolonged exposure may cause irritation to the eyes, skin, and respiratory system.

Environmental Effects: As an alkaline substance, improper disposal can lead to environmental pollution and alter soil pH levels.

Physical and Chemical Hazards: None.

Special Hazards: None.

Primary Symptoms: Eye pain, coughing, skin itching.

Product Hazard Classification: Not classified as a hazardous substance by the Council of Labor Affairs.

### III. Ingredient Identification:

### Mixture:

**Major Hazard Effects** 

Chemical Nature:			
Name of Hazardous Components	Concentration or Concentration Range (Percentage)	CAS Number	
Clinker	80-90%	CAS# 65997-15-1	
Gypsum	4-8%	CAS# 13397-24-5	
Limestone	6-15%	CAS# 1317-65-3	

### IV. First Aid Measures

•	First Aid Proce	edure	s for Different Exposure Routes:
•	Inhalation:		
		1.	Move the person to fresh air.
		2.	If breathing is difficult, provide oxygen.
		3.	If symptoms persist, seek medical attention immediately.
•	Skin Contact:		
		1.	Remove contaminated clothing.
		2.	Wash the affected area with soap and water.
		3.	If symptoms persist, seek medical attention immediately.
•	Eye Contact:		
		1.	Avoid having the person rub their eyes or tightly close their eyes.

- 2. Gently lift the eyelids and rinse the affected eye with gentle flowing water for 15-20 minutes or more.
  - 3. If irritation persists after rinsing, repeat the rinsing process.
  - 4. Cover the eye with a gauze pad and seek medical attention immediately.
- Ingestion:
- 1. Consult a doctor to determine whether vomiting should be induced.
- 2. If the person vomits voluntarily, keep their body leaning forward to reduce the risk of aspiration.
- 3. Seek medical examination and treatment immediately.

Most Primary Symptoms: Eye pain, coughing, skin itching.

Protection for First Aid Personnel: None.

Advice for Physicians: None.

V. Fire-Fighting Measures

Suitable Fire Extinguisher: Cement is a non-flammable material.

Special Hazards Arising from the Substance: None.

Special Fire-Fighting Procedures: None.

Special Protective Equipment for Firefighters: None.

VI. Leakage Handling Measures

Personal Precautions: Avoid direct contact while cleaning up.

Environmental Precautions: Do not dispose of directly into the environment.

Clean-Up Methods: Collect using standard tools; the material can be reused.

VII. Handling and Storage

Handling: Cement is a stable substance and does not pose a hazard during storage.

Storage: Cement may harden if exposed to moisture or water for extended periods. Therefore, it should be stored in a dry place.

VIII. Exposure Controls/Personal Protection

Engineering Controls: No data available.

**Control Parameters:** 

- 8-Hour Time-Weighted Average (TWA)/Short-Term Exposure Limit (STEL)/Maximum Allowable Concentration: No data available.
- Biological Indicators: No data available.

Personal Protective Equipment:

- Respiratory Protection: Wear a dusk mask if exposed to cement dust for extended periods.
- Hand Protection: Wear rubber gloves during handling.
- Eye Protection: Wear safety goggles when exposed to dust.
- Skin and Body Protection: Avoid direct contact with cement dust.

Hygiene Measures: No specific measures required.

State: Solid.	Form: Powder.
Color: Gray.	Odor: None.
pH: Approximately 12.5.	Boiling Point/Boiling Range: >1000°C.
Decomposition Temperature: No data available.	Flash Point: Not applicable.
Auto-Ignition Temperature: Not available.	Explosion Limits: Not available.
Vapor Pressure: Not available.	Vapor Density: Not available.
Density: 2.7-3.2 g/cm <sup>3.</sup>	Solubility: Slightly soluble in water.

### X. Stability and Reactivity

Stability: Stable material.

Hazardous Reactions Under Specific Conditions: No data available.

Conditions to Avoid: Avoid contact with moisture or dampness.

Substances to Avoid: None.

Hazardous Decomposition Products: None.

XI. Toxicological Information

Acute Toxicity: Not applicable.

Local Effects: Not applicable.

Sensitization: Irritant.

Chronic or Long-Term Toxicity: Not applicable.

Special Effects: None.

XII. Ecological Information

Potential Environmental Impact/Environmental Distribution: As an alkaline substance, improper disposal can lead to environmental pollution and alter soil pH levels.

### XIII. Disposal Considerations

Disposal Methods: Can be solidified with water or recycled.

XIV. Transport Information

International Transport Regulations: No special regulations. Generally transported in sealed containers or paper bags to prevent moisture absorption and contact with water.

UN No.: No data available.

Domestic Transport Regulations: No special regulations. Typically transported in sealed containers or paper bags to avoid moisture absorption and contact with water.

Special Transport Methods and Precautions: None.

XV. Regulatory Information

Applicable Regulations: None.

XVI. Other Information

Prepared By	Name: TCC Group Holdings Low-Carbon R&D Center
	Address/Phone: No. 148, Sec. 1, Chang'an Rd., Luzhu Dist., Taoyuan City / 03-3217855

Prepared By	Title: Director	Name: Pin-Chun Huang
Date of	December 28, 2023	
Preparation		

## TCC Group Holdings Safety Data Sheet (SDS)

### I. Product and Company Information

# Product Name: Portland Cement CAS#65997-15-1

### Product Number: Not Applicable

Manufacturer/Supplier Name, Address, and Phone Number:

### TCC Group Holdings

No. 113, Sec. 2, Zhongshan N. Rd., Zhongshan Dist., Taipei City

02-25317099

Emergency Contact Number: 02-25317099 (Engineering Affairs Department); Fax Number: 02-25316650

### II. Hazard Identification

Health Effects: Prolonged exposure may cause irritation to the eyes, skin, and respiratory system.

Environmental Effects: As an alkaline substance, improper disposal can lead to environmental pollution and alter soil pH levels.

Physical and Chemical Hazards: None.

Special Hazards: None.

Primary Symptoms: Eye pain, coughing, skin itching.

Product Hazard Classification: Not classified as a hazardous substance by the Council of Labor Affairs.

### III. Ingredient Identification:

### Mixture:

Major Hazard Effects

Chemical Nature:		
Name of Hazardous Components	Concentration or Concentration	Hazardous Components
	Range (Percentage)	classification and icons
Clinker	90-96%	$C_3S \land C_2S \land C_3A \land C_4AF$
Gypsum	4-5%	$CaSO_4 \cdot 2H_2O$
Limestone	0-3%	CaCO₃
3CaO•SiO <sub>2</sub> (C <sub>3</sub> S) : CAS#12168-85-3		
2CaO•SiO <sub>2</sub> (C <sub>2</sub> S) : CAS#10034-77-2		
3CaO•Al <sub>2</sub> O <sub>3</sub> (C <sub>3</sub> A) : CAS#12042-78-3		
4CaO•Al <sub>2</sub> O <sub>3</sub> •Fe <sub>2</sub> O <sub>3</sub> (C <sub>4</sub> AF) : CAS#12068-35-8		

### IV. First Aid Measures

- First Aid Procedures for Different Exposure Routes:
  - Inhalation:
- 1. Move the person to fresh air.
- 2. If breathing is difficult, provide oxygen.
- 3. If symptoms persist, seek medical attention immediately.
- Skin Contact:
- 1. Remove contaminated clothing.

	2.	Wash the affected area with soap and water.
	3.	If symptoms persist, seek medical attention immediately.
Eye Contact:		
	1.	Avoid having the person rub their eyes or tightly close their eyes.
	2.	Gently lift the eyelids and rinse the affected eye with gentle flowing water for 15-20
		minutes or more.
	3.	If irritation persists after rinsing, repeat the rinsing process.
	4.	Cover the eye with a gauze pad and seek medical attention immediately.
Ingestion:		
	1.	Consult a doctor to determine whether vomiting should be induced.
	2.	If the person vomits voluntarily, keep their body leaning forward to reduce the risk of
		aspiration.
	3.	Seek medical examination and treatment immediately.
Most Primary Sym	ptom	s: Eye pain, coughing, skin itching.
Protection for First	Aid F	Personnel: None.
Advice for Physicia	ns: N	one.

V. Fire-Fighting Measures

Suitable Fire Extinguisher: Cement is a non-flammable material.

Special Hazards Arising from the Substance: None.

Special Fire-Fighting Procedures: None.

Special Protective Equipment for Firefighters: None.

VI. Leakage Handling Measures

Personal Precautions: Avoid direct contact while cleaning up.

Environmental Precautions: Do not dispose of directly into the environment.

Clean-Up Methods: Collect using standard tools; the material can be reused.

VII. Handling and Storage

Handling: Cement is a stable substance and does not pose a hazard during storage.

Storage: Cement may harden if exposed to moisture or water for extended periods. Therefore, it should be stored in a dry place.

VIII. Exposure Controls/Personal Protection

Engineering Controls: No data available.

**Control Parameters:** 

- 8-Hour Time-Weighted Average (TWA)/Short-Term Exposure Limit (STEL)/Maximum Allowable Concentration: No data available.
- Biological Indicators: No data available.

Personal Protective Equipment:

- Respiratory Protection: Wear a dusk mask if exposed to cement dust for extended periods.
- Hand Protection: Wear rubber gloves during handling.

- Eye Protection: Wear safety goggles when exposed to dust.
- Skin and Body Protection: Avoid direct contact with cement dust.

Hygiene Measures: No specific measures required.

### IX. Physical and Chemical Properties

State: Solid.	Form: Powder.
Color: Gray.	Odor: None.
pH: Approximately 12.5.	Boiling Point/Boiling Range: >1000°C.
Decomposition Temperature: No data available.	Flash Point: Not applicable.
Auto-Ignition Temperature: Not available.	Explosion Limits: Not available.
Vapor Pressure: Not available.	Vapor Density: Not available.
Density: 2.7-3.2 g/cm <sup>3.</sup>	Solubility: Slightly soluble in water.

### X. Stability and Reactivity

Stability: Stable material.

Hazardous Reactions Under Specific Conditions: No data available.

Conditions to Avoid: Avoid contact with moisture or dampness.

Substances to Avoid: None.

Hazardous Decomposition Products: None.

### XI. Toxicological Information

Acute Toxicity: Not applicable.

Local Effects: Not applicable.

Sensitization: Irritant.

Chronic or Long-Term Toxicity: Not applicable.

Special Effects: None.

XII. Ecological Information

Potential Environmental Impact/Environmental Distribution: As an alkaline substance, improper disposal can lead to environmental pollution and alter soil pH levels.

XIII. Disposal Considerations

Disposal Methods: Can be solidified with water or recycled.

XIV. Transport Information

International Transport Regulations: No special regulations. Generally transported in sealed containers or paper bags to prevent moisture absorption and contact with water.

UN No.: No data available.

Domestic Transport Regulations: No special regulations. Typically transported in sealed containers or paper bags to avoid moisture absorption and contact with water.

Special Transport Methods and Precautions: None.

XV. Regulatory Information

### Applicable Regulations: None.

### XVI. Other Information

Prepared By	Name: TCC Group Holdings Low-Carbon R&D Center	
Address/Phone: No. 148, Sec. 1, Chang'an Rd., Luzhu Dist., Taoyuan City / (		ng'an Rd., Luzhu Dist., Taoyuan City / 03-3217855
Prepared By	Title: Director	Name: Pin-Chun Huang
Date of Preparation	December 28, 2023	