MATERIAL SAFETY DATA SHEET

For Calcium Sulfoaluminate Cement

Section I – Product and company information

- 1. Product name: Calcium Sulfoaluminate Cement, CSA cement
- Supplier: Oreworld Trade (Tangshan) Co., Ltd.
 Full Address: No. 438 Junruiguoji B/D, Xueyuan Road, Lubei District, Tangshan, Hebei, China
- 3. Emergency Phone Number: +86-315-539-2226/7/8/9

Section II - Composition/Information on ingredient

4. <u>Calcium Sulphoaluminate Cement</u> is produced by burning the proper component raw materials, getting the hot materials of which mainly containing the mineral C₄A₃S and C₂S, adding some plaster and additives and grinding the clinker. CAS number: 12004-14-7. The major ingredients are as follows:

Silicon Dioxide [SiO2] 11% max Aluminum Oxide [A12O3] 28-34% Iron Oxie [Fe2O3] 2-3% Calcium Oxide [CaO] 40-44% Magnesium Oxide [MgO] 1-3% Titanium Dioxide [TiO2] 1-3% Sulfur Trioxide [SO3] 7-10%

Section III - Hazardous Identification

5. Hazardous statement:

Calcium sulfoaluminate cement dust may cause irritation of the respiratory system. Calcium sulfoaluminate cement mixed with water can cause skin or eye damage in the form of chemical (caustic) burns, including third-degree burns. The same type of injury can occur if wet or moist skin has prolonged exposure to dry CSA cement.

Section IV – First Aid

6. **Eyes:** Immediately flush eyes thoroughly with water. Continue flushing eyes for at least 20 minutes, including under lids, to remove all particles. Call physician immediately.

Skin: For dry calcium sulfoaluminate cement, remove and rinse abundantly with water. For wet calcium sulfoaluminate cement, wash skin with plenty of water.

Inhalation of Airborne Dust: Remove to fresh air. Dust in throat and nasal passages should clear spontaneously. Contact a physician if irritation persists or later develops or if discomfort, coughing or other symptoms persist.

Ingestion: Do not induce vomiting. If conscious, have the victim drink plenty of water and call a physician immediately.

Section V – Fire and explosion hazard data

7. Extinguishing media: Calcium sulfoaluminate Cement is not flammable.

8. Special hazards arising from the mixture: None.

9. Advise for firefighters: No need for special protective equipment for firefighters.

Section VI- ACCIDENTAL RELEASE MEASURES

10. Emergency procedures are not required. However, eye, skin and respiratory protection equipment is needed in situations with high dust levels.

11. Environmental precautions: Do not discharge into drains, water courses or onto the ground.

Section VII- HANDLING AND STORAGE

12. Do not handle or store near food and beverages or smoking materials.

13. Keep calcium sulfoaluminate cement in dry place and not mix with other substances.

Section VIII - EXPOSURE CONTROL/PERSONAL PROTECTION

14. Engineering controls: Local exhaust can be used, if necessary, to control airborne dust levels.

15. Personal protection: The use of barrier creams or impervious gloves, boots and clothing to protect the skin from contact is recommended. Following work, workers should shower with soap and water. Precautions must be observed because burns occur with little warning—little heat is sensed.

Section IX - PHYSICAL AND CHEMICAL PROPERTIES

Physical Data

- 16. Boiling Point: N.A.
- 17. Vapor Pressure: N.A.
- 18. Vapor Density: N.A.
- 19. Solubility In Water: Slight (typically 0.1 1%)
- 20. Specific Gravity: Approximately 1.5g/cm3
- 21. Percentage Volatile By Volume: N/A
- 22. Evaporation Rate: N.A.
- 23. Appearance and Odor: Ton powder, odorless

Other information: No information required.

Section X -STABILITY AND REACTIVITY

- 24. Stability: Stable.
- 25. Chemical stability: Material is stable under normal conditions.
- 26. Possibility of hazardous reactions: No dangerous reaction under normal use.
- 27. Conditions to avoid: Avoid contact with acids, water and moisture.
- 28. Incompatible materials: Strong oxidizing agents.
- 29. Hazardous decomposition products: Sulfur oxides.

Section XI -TOXICOLOGICAL INFORMATION

30. Routes of entry: inhalation, ingestion

31. Chromic effects on humans: Conditions on aggravated by exposure include eye disease, skin disorders, chronic respiratory conditions.

32. Specical remarks on toxicity: N/A.

Address: Jinrong B/D No. 116 Xinhua West Road, 063000, Tangshan, Hebei, China

Section XII - ECOLOGICAL INFORMATION

33. No recognized unusual toxicity to plants or animals.

Section XIII – DISPOSAL CONSIDERATIONS

34. Dispose of waste and residues in accordance with local authority requirements. The hydrated product is not hazardous.

Section XIV - TRANSPORT INFORMATION

35. CSA Cement is not hazardous under Chinese Department of Transportation regulations.

Section XV - REGULATORY INFORMATION

36. N/A

Section XVI – Other Information

37. Revision date: April 17, 2019



Oreworld trade (Tangshan) co., Ltd. has been engaged in exporting commercial enterprise for about 20 years. We are dealing with calcium aluminate cement (CSA cement) and calcium sulfoaluminate cement (<u>CSA cement/ CSA binder</u>). Our exporting portions for the CSA cement and calcium aluminate cement is around 30000 mts per year. And we are additionally dealing in fields of distinct cement, refractory materials and ore products.