Calcium Formate MSDS

1. Product Name and Identification

Product Name: <u>Calcium Formate</u>Chemical Formula: C2H2CaO4

• **CAS Number:** 544-17-2

• Synonyms: Calcium Diformate, Formic Acid Calcium Salt

• **Recommended Use:** Additive in construction materials, animal feed, and industrial applications.

• **Manufacturer/Supplier:** [Insert Manufacturer Name and Contact Information]

2. Composition/Ingredients

• Chemical Name: Calcium Formate

• **CAS Number:** 544-17-2

• Concentration: $\geq 98\%$ (by weight)

• Impurities: None known

3. Hazards Identification

- Classification:
 - o Not classified as hazardous under GHS criteria.
- Label Elements:
 - o **Signal Word:** None required
 - Hazard Statements:
 - May cause mild skin or eye irritation in sensitive individuals.
 - Precautionary Statements:
 - Avoid prolonged contact with skin and eyes.
 - Wash hands thoroughly after handling.
- Other Hazards:
 - May cause environmental harm if released in large quantities.

4. First Aid Measures

• **Inhalation:** Move the person to fresh air. If symptoms persist, seek medical attention.

- **Skin Contact:** Wash affected area with soap and water. If irritation occurs, seek medical advice.
- **Eye Contact:** Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. Seek medical attention if irritation persists.
- **Ingestion:** Rinse mouth with water. Do not induce vomiting. Seek medical advice if symptoms occur.

5. Handling and Storage

- Handling:
 - o Use in a well-ventilated area.
 - o Avoid contact with skin, eyes, and clothing.
 - o Wear appropriate personal protective equipment (PPE).
- Storage:
 - o Store in a cool, dry, and well-ventilated area.
 - Keep container tightly closed.
 - Protect from moisture and incompatible materials.

6. Exposure Controls/Personal Protection

- **Exposure Limits:** No specific occupational exposure limits established.
- **Engineering Controls:** Ensure adequate ventilation or use local exhaust systems.
- Personal Protective Equipment (PPE):
 - o **Eye Protection:** Safety goggles or face shield.
 - o **Skin Protection:** Chemical-resistant gloves and protective clothing.
 - **Respiratory Protection:** Use a dust mask or respirator if dust is generated.

7. Physical and Chemical Properties

- **Appearance:** White crystalline powder
- Odor: Odorless
- pH (10% solution): $\sim 6.0 8.0$
- Melting Point: Decomposes at ~300°C
- **Boiling Point:** Not applicable
- Flash Point: Not flammable
- Solubility: Slightly soluble in water (~16 g/L at 20°C)
- **Density:** ~2.02 g/cm³
- **Molecular Weight:** 130.11 g/mol

8. Stability and Reactivity

- Stability: Stable under normal conditions of use and storage.
- Conditions to Avoid: Excessive heat, moisture, and incompatible materials.
- **Incompatible Materials:** Strong acids, strong oxidizing agents.
- **Hazardous Decomposition Products:** Carbon monoxide, carbon dioxide, and calcium oxides may form upon decomposition.

9. Toxicological Information

- Acute Toxicity:
 - o Oral LD50 (Rat): > 2000 mg/kg (low toxicity)
- **Skin Irritation:** May cause mild irritation with prolonged exposure.
- **Eye Irritation:** May cause mild irritation.
- Chronic Effects: No known significant effects with normal use.
- Carcinogenicity: Not classified as a carcinogen by IARC, NTP, or OSHA.

10. Disposal Considerations

- Waste Disposal Methods: Dispose of in accordance with local, regional, and national regulations.
- **Packaging Disposal:** Ensure containers are empty before disposal. Rinse thoroughly and recycle if possible.
- Environmental Precautions: Avoid release into waterways or soil.