Material Safety Data Sheet

Calcium Formate

Section 1 - Identification of the substance/preparation and the company/undertaking

MSDS Name: Calcium Formate,

Catalog Numbers: 98%

Synonyms: Calcium formate; formic salt, calcium salt

Company Identification:

Name: Zibo Ruibao Chemical Co., Ltd.

Address: Lijia village, Sibao hill, Zhangdian, Zibo, Shandong, China

PC: 255086

For information, call: +86-0533-7986956 Emergency Number: +86-0533-2062115 State emergency calling: 0086-533-3851046

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Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name	%	EINECS#
544-17-2	Calcium formate	98%	208-863-7

Hazard Symbols:

Risk Phrases: 36/37/38

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Appearance: clear colorless powder.

Warning! Causes respiratory tract irritation. Irritate. Cause eye and skin irritatin. May cause digestive tract irritation.

Target Organs: Respiratory system, eyes, skin

Potential Health Effects Eye: Causes eye irritation.

Skin: Causes skin irritation. May be harmful if absorbed through the skin.

Ingestion: May cause irritation of the digestive tract. May be harmful if swallowed.

Inhalation: Causes respiratory tract irritation. May be harmful if inhaled.

Chronic: No information found.

Section 4 - First Aid Measures

Eyes: Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid. Skin: Get medical aid. Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.

Ingestion: Get medical aid. Wash mouth out with water.

Inhalation: Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing

is difficult, give oxygen. Get medical aid.

Notes to Phsician: Treat symptomatically and supportively.

Section 5 - Fire Fighting Measures

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

Extinguishing Media: Use water spray, dry chemical, carbon dioxide, or chemical foam.

Flash Point: Not applicable.

Auto ignition Temperature: Not applicable. Explosion Limits, Lower: Not available.

Upper: Not available.

NFPA Rating: (estimated) Health: 1; Flammability: 0; Instability: 0

Section 6 - Accidental Release Measures

General Information's proper personal protective equipment as indicated in Section 8.

Spills/Leaks: Clean up spills immediately, observing precautions in the Protective Equipment section. Sweep up, then place into a suitable container for disposal. Provide ventilation.

Section 7 - Handling and Storage

Handing: Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Avoid contact with eyes, skin, and clothing. Keep container tightly closed. Avoid ingestion and inhalation. Use with adequate ventilation.

Storage: Store in a tightly closed container. Store in a cool, dry area away from incompatible substances.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA-Final PELs
Calcium formate	none list	none list	none list

OSHA Vacated PELs: Calcium formate: No OSHA Vacated PELs are listed for this chemical.

Personal Protective Equipment

Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection

regulations in 29 CFR 1910.133 or European Standard EN166

Skins: Wear appropriate protective gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirators: Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Section 9 - Physical and Chemical Properties

Physical State: Crystalline powder Color: white to almost

white odor: acetic odor

PH: 7.0-7.5

Vapor Pressure: Not available
Vapor Density: Not available
Boiling Point: Not available

Freezing/Melting Point: > 300 deg C (> 572.00°F)

Auto ignition Temperature: Not available
Flash Point: Not available
Explosion Limits: Not available
Explosion Limits: Not available
Decomposition Temperature: Not available

Solubility in water: Soluble Specific Gravity/Density: 2.02 Molecular Formula: C2H2CaO4 Molecular Weight: 130.11

Section 10 - Stability and Reactivity

Chemical Stability: Stable under normal temperatures and pressures.

Conditions to Avoid: Incompatible materials.

Incompatibilities with Other Materials: Strong oxidizing agents, strong acids. Hazardous Decomposition Products: Carbon monoxide, carbon dioxide

Hazardous Polymerization: will not occur

Section 11 - Toxicological Information

RTEC#: CAS# 544-17-2: LQ5600000 LD50/LC50: RTECS:

CAS# 544-17-2: Draize test, rabbit, eye: 100 mg/24H Moderate;

Oral, mouse: LD50 = 1920 mg/kg; Oral, rat: LD50 = 2560 mg/kg;

Calcium formate @ 0.2 ppm for 2 years in rat drinking water did not affect growth, fertility, or function in up to 5

Carcinogenicity: Calcium formate - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.

Epidemiology: No information available. Teratogenicity: No information available.

Reproductive Effects: No information available.

Mutagenicity: No information available. Neurotoxicity: No information available.

Section 12 - Ecological Information

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system. Do not allow material to be released t the environment without proper government permits.

Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

RCRA P-Series: None listed. RCRA-U-SERIES: None listed.

Section 14 - Transport Information

IMO/IMDG not regulated

EMERGENCY CONTACT TELEPHONE:86 0533 7986956

UN number: Not regulated

Transport hazard class(es): Not regulated Environmental hazard: Not regulated

The shipment has no limit for SEA/AIR&LAND

Section 15 - Regulatory Information

US Federal

TSCA

CAS# 544-17-2 is listed on the TSCA Inventory.

Health & Safety Reporting List

None of the chemicals are on the Health & Safety Reporting List

Chemical Test Rules

None of the chemicals are under a Chemical Test Rule.

Section 12 b

None of the chemicals are listed under TSCA Section 12 b.

TSCA Significant New Use Rule

None of the chemicals in this material have a SNUR under TSCA.

CERCLA Hazardous Substance and Corresponding RQs

None of the chemicals in this material have an RQs.

SARA Section 302 Extremely Hazardous Substances

None of the chemicals in this product have a TPQ.

SARA Codes: AS# 544-17-2: immediate

Section 313 No chemicals are reportable under Section 313

Clean Air Act:

None of the chemicals in this product are listed as Hazardous Substances under the CWA.

None of the chemicals in this product are listed as Priority pollutants under the CWA.

None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

OSHA

None of the chemicals in this product are considered highly hazardous by OSHA

STATE

CAS#544-17-2 IS NOT PRESENT ON STATE LISTS FROM CA, PA, MN, MA.FL, OR NG

LISTED. European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: XI

Risk Phrases:

R 36/37/38 Irritating to eyes, respiratory system and skin.

Safety Phrases:

S 26 In case of contact with eyes rinse immediately with plenty of water and seek medical advice.

S 37/39 Wear suitable gloves and eye/face protection.

WGK (Water Danger/Protection)

Canada - DSL/NDSL

CAS# 544-17-2 is listed on Canada's DSL List

Canada - WHMIS

This product has a WHMIS classification of D2B. This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contain all of the information required by those regulations.

Canadian Ingredient Disclosure List

CAS# 544-17-2 is listed on the Canadian Ingredient Disclosure List.

Section 16 - Other Information

MSDS Creation Date: 2016/05/08

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential, or exemplary damages howsoever arising, even if the company has been advised of the possibility of such damages.

Manufacture: ZIBO RUIBAO CHEMICAL CO., LTD