

**Extended Safety Data Sheet**  
**According to Regulation (EC) No 1907/2006, Annex II,**  
**Amended by COMMISSION REGULATION (EU) 2020/878,**  
**According to REGULATION (EC) No 1272/2008**

Calcium formate

Version 2.0

Issue date: 31-05-2012

Revision date: 31-05-2022

CIRS eSDS Record Number: CSSS-TCO-010-111571

**1 Identification of the substance and of the company/undertaking**

**1.1 Product identifier:**

Identification on the label/Trade name: Calcium formate  
Additional identification: Not available  
Identification of the product: CAS#544-17-2 , EC# 208-863-7  
Index Number: N/A  
REACH registration No.: 01-2119486476-24-0004

**1.2 Relevant identified uses of the substance and uses advised against:**

**1.2.1 Identified uses:**

Used as additives in Feed and concreting, lubricants in Cement.

**1.2.2 Uses advised against:**

Not available.

**1.3 Details of the supplier of the safety data sheet:**

Supplier(Only representative): Chemical Inspection & Regulation Service Limited  
Supplier(Manufacturer): Shandong Acid Technology Co., Ltd  
Address: Shiheng, Feicheng City, Shandong Province P. R. China  
Contact person(E-mail): Kefeng Hu  
Telephone: +86-538-3693088  
Fax: +86-538-3691266

**1.4 Emergency telephone Number:**

+353 41 980 6916

Available outside office hours?

YES

NO

**2 Hazards Identification**

**2.1 Classification of the substance**

**2.1.1 Classification:**

The substance is classified as following according to 67/548/EEC and REGULATION (EC) No 1272/2008:

REGULATION (EC) No 1272/2008	
Hazard classes/Hazard categories	Hazard statement
Eye Dam. 1	H318

For full text of H- phrases: see section 2.2.

67/548/EEC	
Hazards characteristics	R-Phrases
Xi	R41

For full text of R- phrases: see section 16.

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**2.1.2 The most important adverse effects**

**2.1.2.1 The most important adverse physicochemical effects:**

Not applicable

**2.1.2.2 The most important adverse human health effects:**

Causes serious eye damage

**2.1.2.3 The most important adverse environmental effects:**

Not applicable

**2.2 label elements**

**Hazard Pictograms:**



**Signal Word(S):**

Danger

**Hazard Statement:**

H318: Causes serious eye damage.

**Precautionary Statement:**

P280: Wear protective gloves/protective clothing/eye protection/face protection.

P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310: Immediately call a POISON CENTER or doctor/physician.

**2.3 Other hazards**

Not available (PBT,vPvB, Substance is an endocrine disruptor etc.)

**3 Composition/information on ingredients**

**Substance/Mixture:** substance

**Ingredient(s):**

Chemical Name	Registration No.	CAS No.	EC No.	Concentration
Calcium formate	01-2119486476-24-0004	544-17-2	208-863-7	Calcium Formate >98% Water <2%

**4 First aid measures**

**4.1 Description of first aid measures:**

In all cases of doubt, or when symptoms persist, seek medical attention.

**4.1.1 In case of inhalation:**

Move to fresh air. Rinse mouth with water. If irritation persists get medical advice/attention.

**4.1.2 In case of skin contact:**

Not required, but wash exposed skin with soap and water for hygienic reasons.

**4.1.3 In case of eyes contact:**

Rinse cautiously with tempered water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention.

**4.1.4 In case of ingestion:**

Rinse mouth with water and drink water. If large amount been ingested get medical advice/attention.

**4.2 Most important symptoms and effects, both acute and delayed**

Not available

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**4.3 Indication of any immediate medical attention and special treatment needed**

Treat symptomatically and supportively.

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**5 Fire-Fighting measures**

**5.1 Extinguishing media:**

Suitable extinguishing media: All types of extinguishing media are suitable; Unsuitable extinguishing agents: Water with full jet.

**5.2 Special hazards arising from the substance or mixture**

Use fire extinguishing methods suitable to surrounding conditions.

**5.3 Advice for fire-fighters:**

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.

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**6 Accidental release measures**

**6.1 Personal precautions, protective equipment and emergency procedures:**

**6.1.1 For non-emergency personnel:**

Wear tightly sealed goggles, protective gloves and if dusty conditions dust filter mask (P2).

**6.1.2 For emergency responders:**

Wear an appropriate NIOSH/MSHA approved respirator if mist, vapor or dust is generated.

**6.2 Environmental Precautions:**

Do not allow to enter sewers/surface or ground water.

**6.3 Methods for Containment and Cleaning up:**

Cover to prevent dust formation.

Pick up mechanically.

Clean area with water.

**6.4 Reference to other sections:**

See Section 7 for information on safe handling.

See section 8 for information on personal protection equipment.

See Section 13 for information on disposal.

**6.5 Additional information:**

Not available

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**7 Handling and storage**

**7.1 Precautions for safe handling:**

**7.1.1 Protective measures:**

Wear tightly sealed goggles and protective gloves (chloroprene rubber, nitrile rubber).

**7.1.2 Advice on general occupational hygiene:**

Do not breathe vapor. Do not get in eyes, on skin, on clothing.

**7.2 Conditions for safe storage, including any incompatibilities:**

Store in a tightly closed container. Keep from contact with oxidizing materials. Store in a cool, dry, well-ventilated area away from incompatible substances.

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**7.3 Specific end use(s):**

Not applicable.

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**8 Exposure control/personal protection**

**8.1 Control parameters:**

8.1.1 Occupational exposure limits:

8.1.2 Additional exposure limits under the conditions of use:

8.1.3 DNEL/DMEL and PNEC-Values:

**8.2 Exposure controls**

**8.2.1 Appropriate 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.

**8.2.2 Individual protection measures, such as personal protective equipment:**

Eye/face protection      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.

Hand protection      Wear appropriate protective gloves to prevent skin exposure.

Body protection      Wear appropriate protective clothing to prevent skin exposure.

Respiratory protection      A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant a respirator's use.

Thermal hazards      Not applicable

**8.2.3 Environmental exposure controls:**

Not applicable

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**9 Physical and chemical properties**

**9.1 Information on basic physical and chemical properties**

Appearance:	solid
Colour:	
Odour:	
Odour threshold:	Odourless white crystalline powder
pH:	
Melting point/range (°C):	>300
Boiling point/range (°C) :	>300
Flash point (°C) :	Not applicable
Evaporation rate:	Not applicable
Flammability (solid, gas):	Not flammable
Ignition temperature (°C) :	292°C
Upper/lower flammability/explosive limits:	Not applicable
Vapour pressure (25°C) :	Not determined
Vapour density:	Not applicable
Relative Density (25°C):	2.00
Bulk density (kg/m <sup>3</sup> ) :	Not applicable
Water solubility (g/l) at 20°C :	172 mg/L
n-Octanol/Water (log Po/w) :	<-2.3 @pH7/23°C
Auto-ignition temperature:	292°C@1013hPa
Decomposition temperature:	Not applicable
Viscosity, dynamic (mPa s) :	Not applicable

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Explosive properties: Non explosive

Oxidising properties: No

**9.2. Other information:**

Fat solubility(solvent– oil to be specified) etc: Not applicable

Surface tension: 72mN/m @20°C

Dissociation constant in water( pKa): 3.8@20°C

Oxidation-reduction Potential: Not applicable

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**10 Stability and reactivity**

**10.1 Reactivity:**

The substance is stable under normal storage and handling conditions.

**10.2 Chemical stability:**

The substance is stable under normal pressure and temperature.

**10.3 Possibility of hazardous reactions:**

No hazardous reactions known under intended use.

**10.4 Conditions to avoid:**

Incompatible materials, excess heat.

**10.5 Incompatible materials:**

Strong oxidizing agents.

**10.6 Hazardous decomposition products:**

Carbon monoxide, carbon dioxide.

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**11 Toxicological information**

**11.1 Toxicokinetics, metabolism and distribution**

**Non-human toxicological data:** Not available

**Method:** Not available

**Dosis:** Not available

**Routes of administration:** Not available

**Results:** calcium formate was rapidly absorbed, metabolised and eliminated after oral ingestion by adult human females, and that formate does not have an accumulation potential

**Absorption:** Absorption rate (%): 1

**Distribution:** no bioaccumulation

**Metabolism:** Rapidly metabolised

**Excretion:** Rapidly eliminated

**11.2 Information on toxicological effects**

**Acute toxicity:**

LD50( Oral, Rat): 2000 mg/kg bw

LD50(Dermal rat): 2000 mg/kg bw

LC50(Inhalation, Rat): 0.64 mg/m<sup>3</sup> air

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<b>Skin corrosion/irritation:</b>	Not irritating
<b>Serious eye damage/irritation:</b>	Irritating
<b>Respiratory or skin sensitization:</b>	Not sensitising
<b>Germ cell mutagenicity:</b>	negative
<b>Carcinogenicity:</b>	No classification
<b>reproductive toxicity:</b>	No classification
<b>STOT- single exposure:</b>	Not available
<b>STOT-repeated exposure:</b>	Not available
<b>Aspiration hazard:</b>	Not available

**12 Ecological information**

**Toxicity:**

Acute toxicity		Time	Species	Method	Evaluation	Remarks
LC50	>=1000 mg/L	96h	Fish	OECD 203	N/A	N/A
EC10	100mg/L	21d	Daphnia	OECD 202	N/A	N/A
EC50	500 mg/L	72h	Algae	OECD 201	N/A	N/A

<b>Persistence and degradability:</b>	No data available.
<b>Bioaccumulative potential:</b>	No data available.
<b>Mobility in soil:</b>	Not available.
<b>Results of PBT&amp;vPvB assessment:</b>	The substance is not a PBT or vPvB substance
<b>Other adverse effects:</b>	Not available.

**13 Disposal considerations**

**13.1 Waste treatment methods**

Waste of pure substance is classified as hazardous waste.  
 Recommended treatment method is incineration.

**13.2 Product / Packaging disposal:**

If empty container retains product residues, all label precautions must be observed. Return for reuse or dispose according to national or local regulations.

**14 Transport information** Not Regulated by IMDG/IMO.

	Land transport (ADR/RID)	Sea transport (IMDG)	Air transport (ICAO/IATA)
<b>UN-Number:</b>	Not regulated	Not regulated	Not regulated
<b>UN Proper shipping name:</b>	Not regulated	Not regulated	Not regulated
<b>Transport hazard Class:</b>	Not regulated	Not regulated	Not regulated
<b>Packaging group:</b>	Not regulated	Not regulated	Not regulated
<b>Environmental hazards:</b>	Not regulated	Not regulated	Not regulated
<b>Special precautions for user:</b>	Not regulated	Not regulated	Not regulated
<b>Transport in bulk according to</b>	Not regulated	Not regulated	Not regulated

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Annex II of MARPOL 73/78 and  
the IBC Code

**15 Regulation information**

**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

**Relevant information regarding authorization:**

Not applicable.

**Relevant information regarding restriction:**

Not applicable.

**Other EU regulations:**

Employment restrictions concerning young person must be observed. For use only by technically qualified individuals.

**Other National regulations:**

Not applicable

**Chemical Safety Assessment has been carried out?**

YES

NO

**16 Other information**

**16.1 Indication of changes** Version 1.1 Am ended by EU No 453/2010

**16.2 Relevant R- phrases (number and full text):**

R41 - risk of serious damage to eyes

**16.3 Training instructions:**

Not applicable.

**16.4 Further information:**

This information is based up on the pres ent state of our kno wledge. This SDS has been compi led and is sole ly intended for this product.

**16.5 Notice to reader:**

Employers should use this inf ormation only as a supplem ent to other information gath ered by them, a nd should make independent judgment of suitability of this information to ensure proper use and protect the health and safety of employees.

This information is furnished without warranty, and any use of the product not in conformance with this Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.

