

Kolkata – 700 089, India.

Phone: +9133 4025 1700 Fax: +9133 2574 7410

Email: <u>webcil@wbcil.com</u> Website: <u>www.wbcil.com</u>

Section 1 - Chemical Product and Company Identification

1.1 MSDS Name: Calcium Citrate Malate IP

1.2 Product Code: CCMIP23

1.3 Relevant identified uses of the substance or mixture and uses advised against:

1.3.1 Relevant identified uses: Raw material that provides a source of calcium

1.3.2 Uses advised against: none

1.5 Company Identification:

WEST BENGAL CHEMICAL INDUSTRIES LIMITED 145/1, Jessore Road, Lake Town,

Kolkata – 700 089, India. Phone: +91 33 4025 1700 Fax: +91 33 2574 7410

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Section 2 – Hazards Identification

2.1 GHS, Globally Harmonized System Classification in accordance with 29 CFR 1910

Classification according to Regulation (EC) No 1272/2008: Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

This substance is not classified as dangerous according to Directive 67/548/EEC. Labeling according to GHS & Regulation (EC) No 1272/2008

2.1.1 Hazard classification:

• Skin Irritation: Category 2

• Eye Irritation: Category 2

• Specific Target Organ Toxicity (Single Exposure): Category 3

2.2 Signal word:

Warning

2.3 Hazard statements:

• H315: Causes skin irritation

H319: Causes serious eye irritation



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Section 2 – Hazards Identification

H335: May cause respiratory irritation

2.4 Precautionary statements:

Prevention:

- P261: Avoid breathing dust/fume/gas/mist/vapors/spray.
- P262: Do not get in eyes, on skin, or on clothing.
- P281: Use personal protective equipment as required.

Response:

- P302+P352: IF ON SKIN Wash with plenty of soap and water.
- P305+P351+P338: IF IN EYES Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
- P304+P340: IF INHALED Remove victim to fresh air and keep at rest in a comfortable position for breathing.

Storage:

• P403+P233: Store in a well-ventilated place. Keep container tightly closed.

Disposal:

• P501: Dispose of contents/container in accordance with local/regional regulations.

2.5 Hazards Not Otherwise Classified (HNOC):

None identified.

2.6 Potential Acute Health Effects:



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Irritation of eyes, skin, and respiratory tract.

2.7 Potential Chronic Health Effects:

No known chronic health effects associated with normal exposure.

2.8 Pictogram:



2.8 NFPA SACLE:



NFPA SCALE (0-4)

Section 3 – Composition/Information on Ingredients

3.1 Ingredient Name: Calcium Citrate Malate

3.2 Synonym: Fruit acid calcium, Citric acid malic acid calcium, 1,2,3-

Propanetricarboxylic acid, 2-hydroxy-calcium salt, mixt.

with hydroxybutanedioic acid calcium salt

3.3 Molecular structure: C₂₄H₃₄Ca₆O₃₅

3.4 Molecular weight: 1123.0 g/mol

3.5 CAS Number: 142606-53-9

3.6 EC number: 604-299-4

3.7 % wt: 100



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Section 4 - First Aid Measures

4.1 Description of first aid measures:

- 4.1.1 General advice: Consult a physician. Show this safety data sheet to the doctor in attendance
- 4.1.2 If inhaled: If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
- 4.1.3 Skin contact: Wash off with soap and plenty of water. Consult a physician.
- 4.1.4 Eye contact: Flush eyes with water as precaution.
- 4.1.5 If swallowed: Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.
- 4.2 Most important symptoms and effects, both acute and delayed:
- 4.2.1 Acute: Skin, eye, and respiratory irritation.
- 4.2.2 Chronic: No known long-term effects.
- 4.3 Indication of any immediate medical attention and special treatment needed:

no data available

Section 5 - Fire-Fighting Measures

5.1 Flammability of the Product:

Non-flammable.

5.2 Suitable extinguishing media:

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.3 Specific Hazards Arising from the Chemical:

no data available

5.4 Products of Combustion:

Calcium oxide, Fumes and Oxides of carbon.

5.5 Special protective equipment for firefighters:

Wear self-contained breathing apparatus for firefighting if necessary.

5.6 Additional information:



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Prevent fire extinguishing water from contaminating surface water, ground water system or soil. Residues must be deposited according to local regulations.

Section 6 - Accidental Release Measures

6.1 Personal precautions:

Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

6.2 Environmental precautions:

Prevent further spillage or leakage if it is safe to do so. Do not let the chemical enter drains. Discharge into the environment must be avoided.

6.3 Methods and materials for containment and cleaning up:

Collect and arrange disposal. Keep the chemical in suitable and closed containers for disposal. Remove all sources of ignition. Use spark proof tools and explosion-proof equipment. Adhered or collected material should be promptly disposed of, in accordance with appropriate laws and regulations.

6.3.1 Small Spill:

Use appropriate tools to put the spilled solid in a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to legal requirements.

6.3.2 Large Spill:

Do not inhale dust, vapors, mist, or gas. Avoid dust formation. Contain spilled material. Cover with an inert, non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite). Use a shovel to put the material into a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and allow to evacuate as per law. See Section 7 for information on safe handling.

See Section 13 for disposal information.



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Section 7 - Handling and Storage

7.1 Precautions for Safe Handling:

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection. Do not drink, eat, or smoke while handling. Avoid contact with skin, eyes, and clothing. Minimize dust generation. Avoid breathing dust/fumes/gas/mist/vapors/spray. Avoid contact with eyes, skin, and clothing. Keep container tightly closed. Avoid ingestion and inhalation. Use individual protective equipment (waterproof boots, suitable protective clothing, safety glasses, etc.). Prevent any contact with hot surfaces.

7.2 Conditions for Safe Storage:

Store in cool place. Keep container tightly closed in a dry and well – ventilated place. Light sensitive. Hygroscopic.

Section 8 - Exposure Controls / Personal Protection

8.1 Control parameters:

8.1.1 Occupational Exposure limit values

no data available

8.1.2 Biological limit values

no data available

8.1.3 Exposure controls

Ensure adequate ventilation. Handle in accordance with good industrial hygiene and safety practice. Set up emergency exits and the risk elimination area.

	Total Dust, Limit Values (mg/m³)
OSHA Permissible Exposure limit	15
American Conference of	10
Governmental Industrial Hygienists	
(ACGIH) Guideline	



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Section 8 - Exposure Controls / Personal Protection

8.2 Hygiene measures:

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

8.3 Personal protective equipment:

8.3.1 Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a dust mask type N95 (US) or type P1 (EN 143) respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

8.3.2 Hand Protection

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it. Handle with gloves.

8.3.3 Eye/face protection

Safety glasses with side-shields conforming to EN166.

8.3.4 Skin protection

Wear impervious clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace. Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

8.4 Thermal hazards:

No data available



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Section 9 - Physical and Chemical Properties

Appearance Powder

Colour White to almost white

Odour No data available
Melting point/freezing point No data available

Boiling point or

initial boiling point and boiling range 309.6°C at 760 mmHg

Flammability No data available

Lower and upper explosion

limit/flammability limit No data available

Flash point 155.2°C

Auto-ignition temperatureNo data availableDecomposition temperatureNo data available

pH 5 to 7.5 (1% w:w aqueous solution)

Kinematic viscosity

Solubility

No data available

No data available

Partition coefficient n-octanol/water No data available

Vapour pressure 5.73E-05mmHg at 25°C

Density and/or relative density 0.35 to 0.5

Relative vapour densityNo data available **Particle characteristics**No data available

Section 10 - Stability and Reactivity

10.1 Reactivity:

No data available

10.2 Chemical stability:

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions:

No data available



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Section 10 - Stability and Reactivity

10.4 Conditions to avoid:

Exposure to moisture may affect product quality. Sources of ignition; formation of toxic gases is possible in case of fire. May form nitrogen oxides, carbon oxides and manganese oxides upon burning

10.5 Incompatible materials:

Strong oxidizing agents.

10.6 Hazardous Decomposition Products:

Hazardous decomposition products formed under fire conditions. – Carbon dioxides, Calcium monoxides.

Section 11 - Toxicological Information

11.1 Acute Toxicity:

No Data Available

11.2 Routes of Exposure:

11.2.1 Inhalation

May be harmful if inhaled. Causes respiratory tract irritation.

11.2.2 Serious eye damage/eye irritation

No Data Available

11.2.3 Respiratory sensitization

No Data Available

11.2.4 Ingestion

May be harmful if swallowed.

11.2.5 Skin damage

May be harmful if absorbed through skin. Causes skin irritation.

11.2.6 Eye irritation:



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Section 11 - Toxicological Information

Causes eye irritation.

11.3 Germ Cell Mutagenicity:

Laboratory experiments have shown mutagenic effects.

11.4 Carcinogenicity:

IARC: No component of this product presents at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

11.5 Reproductive toxicity:

No Data available

11.6 Specific target organ toxicity - single exposure:

Inhalation - May cause respiratory irritation

11.7 Specific target organ toxicity – repeated exposure:

No data available.

11.8 Aspiration hazard:

No data available.

11.9 Signs and Symptoms of Exposure:

Burning sensation, Cough, Wheezing, Laryngitis, Shortness of breath, Headache, Nausea, Vomiting, Spasm, Inflammation and Edema of the larynx, Inflammation and edema of the bronchi, Pneumonitis, Pulmonary edema.

Section 12 - Ecological Information

12.1 Toxicity to fish:

LC50 - Lepomis macrochirus - 5.000 mg / I - 24 hr.

EC50 - Daphnia magna (Water flea) - 1.950 mg / I - 24 hr

12.2 Persistence and degradability:

No data available.



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Section 12 - Ecological Information

12.3 Bioaccumulative potential:

No data available.

12.4 Other adverse effects:

No data available

Section 13 - Disposal Considerations

13.1 Disposal of product:

Observe all federal, state, and local environmental regulations. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an after burner and scrubber.

13.2 Contaminated packaging:

Containers can be triply rinsed (or equivalent) and offered for recycling or reconditioning. Alternatively, the packaging can be punctured to make it unusable for other purposes and then be disposed of in a sanitary landfill. Controlled incineration with flue gas scrubbing is possible for combustible packaging materials.

Section 14 - Transport Information

14.1 UN Number:

ADR/RD: No Data Available IMDG: No Data Available IATA: No Data Available



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Section 14 - Transport Information

14.2 UN Proper Shipping Name:

ADR/RD: No Data Available IMDG: No Data Available IATA: No Data Available

14.3 Transport Hazard Class(es):

ADR/RD: No Data Available IMDG: No Data Available IATA: No Data Available

14.4 Packing Group, if applicable:

ADR/RD: No Data Available IMDG: No Data Available IATA: No Data Available

14.5 Environmental Hazards:

ADR/RD: No IMDG: No IATA: No

14.6 Special precautions for User:

No Data Available

Transport in bulk according to IMO instruments:

No Data Available **DOT (Pictograms)**

AS PER IATA REGULATION SAFE FOR CARRAGE, NON-HAZARDOUS AND NON-RESTRICTED.

NO SPECIAL LABELLING OR TRANSPORT MEASURE

HAVE BEEN IDENTIFIED.

THIS IS NOT REGULATED AS PER IATA REGULATION





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Section 15 – Regulatory Information		
European Inventory of Existing Commercial Chemical Substances (EINECS)	Not Listed.	
EC Inventory	Not Listed.	
United States Toxic Substances Control Act (TSCA) Inventory	Not Listed.	
China Catalog of Hazardous chemicals 2015	Not Listed.	
New Zealand Inventory of Chemicals (NZIoC)	Not Listed.	
Philippines Inventory of Chemicals and Chemical Substances (PICCS)	Not Listed.	
Vietnam National Chemical Inventory	Not Listed.	
Chinese Chemical Inventory of Existing Chemical Substances (China IECSC)	Not Listed.	

Section 16 - Other Information

Abbreviations and acronyms

CAS: Chemical Abstracts Service ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road RID: Regulation concerning the International Carriage of Dangerous Goods by Rail IMDG: International Maritime Dangerous Goods IATA: International Air Transportation Association TWA: Time Weighted Average STEL: Short term exposure limit LC50: Lethal Concentration 50% LD50: Lethal Dose 50% EC50: Effective Concentration 50%



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Section 16 - Other Information

Disclaimer: This material safety data sheet is provided as an information resource only. WEST BENGAL CHEMICAL INDUSTRIES LIMITED believes the information contained herein is accurate and compiled from reliable sources. It is the responsibility of the user to verify its validity. The buyer assumes all responsibility of using and handling the product in accordance with federal, state, and local regulations.

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