



WEST BENGAL CHEMICAL INDUSTRIES LIMITED

145/1, Jessore Road, Lake Town,

Kolkata – 700 089, India.

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

Email: wbcil@wbcil.com Website: www.wbcil.com

Section 1 - Chemical Product and Company Identification

1.1 MSDS Name: Iron (III) Hydroxide Polymaltose Complex

1.2 Product Code: IPC2625

1.3 Relevant uses and uses advised against (if any):

Laboratory and Industrial Manufacturing.

1.4 Company Identification:

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Section 2 – Hazards identification

2.1 Classification of the substance or mixture

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

Label elements

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

2.2 Label elements:

EC1272/08 Regulation (EC) 1272/2008 (GHS/CLP)

2.2.1 Health Hazards

Skin Irrit. 2 (100%)

Eye Irrit. 2 (100%)

STOT SE 3 (100%)

2.3 Signal Word:

Warning

2.4 Hazard Statement

H302 Harmful if swallowed.

H312 Harmful in contact with skin.

H315 Causes skin irritation.

H319 Causes serious eye irritation.



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Section 2 – Hazards identification

H332 Harmful if inhaled.

2.5 Precautionary Statement

P261: Avoid breathing dust/fume/gas/mist/vapors/spray.

P302+P352: IF ON SKIN: Wash with plenty of soap and water.

P303+P361+P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

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

P337+313: If eye irritation persists get medical advice/attention.

2.6 Other hazards

This substance/mixture contains no components considered to be either persistent, bio accumulative and toxic (PBT), or very persistent and very bio accumulative (vPvB) at levels of 0.1% or higher.

Section 3 – Composition/Information on Ingredients

3.1 Chemical Name: Iron (III) Hydroxide Polymaltose Complex

3.2 Synonym: iron-polymaltose complex, ferripolyisomaltose

3.3 CAS No.: 53858-86-9

3.4 EC Number: 687-694-4

3.5 Molecular formula: $C_{12}H_{25}FeO_{14}$

3.6 Molecular Formula: 449.16 g/mol

Section 4 - First Aid Measures

4.1 Description of first aid measures:

4.1.1 If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

4.1.2 In case of skin contact

Wash off with soap and plenty of water. Cover the irritated skin with an emollient. Thoroughly clean shoes and clothes before reuse. Get medical attention.



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Section 4 - First Aid Measures

4.1.3 In case of eye contact

Flush eyes with water as a precaution for at least 15 minutes. Get medical attention.

4.1.4 If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Do NOT induce vomiting unless directed to do so by medical personnel. If large quantities of this material are swallowed, call a physician immediately.

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

The most important known symptoms and effects are described in section 11

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

No data available.

Section 5 - Fire-Fighting Measures

5.1 Extinguishing media:

5.1.1 Suitable extinguishing media

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

5.2 Flammability of the Product:

Not applicable. Will burn at higher temperature.

5.3 Auto-Ignition Temperature:

Not applicable.

5.4 Products of Combustion:

Some metallic oxides, carbon oxides and fumes.

5.5 Explosion Hazards in Presence of Various Substances:

Slightly explosive in presence of open flames and sparks. Fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.

5.6 Special hazards arising from the substance or mixture:

Carbon oxides, Iron oxides

5.7 Advice for firefighters:

Wear self-contained breathing apparatus for firefighting if necessary. Use water spray, alcohol-resistant foam, dry chemical, or carbon dioxide.

5.8 Special Information:

In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full face piece operated in the pressure demand or other positive pressure mode. At



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Section 5 - Fire-Fighting Measures

high temperatures under fire conditions, it may produce toxic or irritating fumes.

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Avoid dust formation. Avoid breathing vapours, mist or gas. Use individual protective equipment (waterproof boots, suitable protective clothing, safety glasses, etc.). Restrict unprotected personnel from the area. For personal protection see section 8.

6.2 Environmental precautions

Prevent any contact with hot surfaces. Do not approach facing the wind. Do not touch the spilled material. Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up

Sweep up and shovel. Keep in suitable, closed containers for disposal.

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 authority requirements.

6.3.2 Large Spill: Use a shovel to put the material into a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose as per law.

6.4 Reference to other sections

For disposal see section 13.

Section 7 - Handling and Storage

7.1 Precautions for safe handling

Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection. Conditions for safe storage, including any incompatibilities Store in ambient condition. Keep container tightly closed and well-ventilated place. Light sensitive.

7.2 Conditions for safe storage, including any incompatibilities:

Store in cool, dry, and ventilated area away from heat sources and protected from sunlight in tightly closed original container. Keep air contact to a minimum. Do not leave the material container open. Store protected from heat, sparks and ignition sources and incompatible materials. Avoid contact with skin and eyes. Avoid inhalation of dust/mist/vapor. Do not store with incompatible materials like strong oxidizing agents.



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Section 8 - Exposure Controls / Personal Protection

8.1 Control parameters:

8.1.1 Exposure controls:

8.1.2 Exposure Limits:

This product does not contain any hazardous materials with occupational exposure limits established by the region-specific regulatory bodies.

8.2 Engineering Controls:

Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

8.3 Ventilation System:

A system of local and/or general exhaust is recommended to keep employee exposures as low as possible. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area.

8.4 Personal protective equipment

For conditions of use where exposure to dust or mist is apparent and engineering controls are not feasible, a particulate respirator may be worn. For emergencies or instances where the exposure levels are not known, use a full-face positive-pressure, air-supplied respirator.

8.4.1 Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

8.4.2 Skin protection

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.

8.4.3 Body Protection

Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place., The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

8.4.4 Respiratory protection

Respiratory protection is not required. Where protection from nuisance level (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).



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Section 8 - Exposure Controls / Personal Protection

8.5 Control of environmental exposure:

Do not let product enter drains.

Section 9 - Physical and Chemical Properties

Physical state and appearance:	Free flowing powder.
Colour:	Brown to deep brown Colored.
Odor:	Odorless.
Odor threshold:	Not available.
pH (2%w/v Iron Solution):	5 to 7
Relative density:	Not available.
Melting Point:	Not available.
Initial boiling point and boiling range:	Not available.
Flash point:	Not available.
Auto-ignition temperature:	Not available.
Decomposition temperature:	Not available.
Upper/lower flammability or explosive limits:	Not available.
Vapor pressure:	Not available.
Vapor density:	Not available.
Evaporation rate:	Not available.
Flammability (solid, gas):	Not available.
Partition coefficient: n-octanol/water:	Not available.
Solubility:	NLT 5g sample dissolved in 100 ml.
Viscosity:	Not 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

10.4 Conditions to avoid

No data available

10.5 Incompatible materials

Strong oxidizing agents



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Section 10 - Stability and Reactivity

10.6 Incompatibility with various substances:

Contact with incompatible materials. Heat, sparks, flames. Avoid dust formation.

10.7 Polymerization:

Will not occur.

10.8 Hazardous decomposition products

Metallic oxides, carbon oxides and fumes.

Section 11 - Toxicological Information

11.1 Information on toxicological effects:

Acute toxicity

11.1.1 Oral:

LD50: >1845 mg (Fe)/k, rat

LD50: >4400 mg (Fe)/k, mouse

11.1.2 Intravenous:

LD50: 1140 mg (Fe)/k, rat

LD50: 540 mg (Fe)/k, mouse

11.1.3 Intramuscular:

LD50: 1820 mg (Fe)/k, rat

LD50: 4060 mg (Fe)/k, mouse

11.2 Skin corrosion/irritation:

No data available

11.3 Serious eye damage/eye irritation:

No data available

11.4 Respiratory or skin sensitization:

No data available

11.5 Germ cell mutagenicity:

No data available

11.6 Carcinogenicity:

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

11.7 Reproductive toxicity:

No data available

11.8 Specific target organ toxicity -single exposure:



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Section 11 - Toxicological Information

No data available

11.9 Specific target organ toxicity -repeated exposure:

No data available

11.10 Aspiration hazard:

No data available

11.11 Additional Information:

RTECS: Not available.

Section 12 - Ecological Information

12.1. Toxicity Ecotoxicity effects:

May cause long-term adverse effects in the environment. Do not allow material to contaminate ground water system.

12.2. Persistence and degradability:

The product includes heavy metals. Prevent release into the environment. Special pretreatment required

12.2.1 Persistence

Insoluble in water, May persist.

12.2.2 Degradation in sewage treatment plan

Contains substances known to be hazardous to the environment or not degradable in wastewater treatment plants. waste.

12.3. Bioaccumulative potential:

May have some potential to bioaccumulation; Product has a high potential to bioconcentrate.

12.4. Mobility in soil:

Spillage unlikely to penetrate soil Is not likely mobile in the environment due its low water solubility.

12.5. Results of PBT and vPvB assessment:

No data available for assessment.

12.6. Other adverse effects:

12.6.1 Endocrine Disruptor Information

This product does not contain any known or suspected endocrine disruptors

12.6.2 Persistent Organic Pollutant

This product does not contain any known or suspected substance

12.6.3 Ozone Depletion Potential

This product does not contain any known or suspected substance



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Section 13 - Disposal Considerations

It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. Disposal should be in accordance with applicable regional, national and local laws and regulations.

Section 14 - Transport Information

14.1 UN Number:

Not classified as hazardous for transport.

14.2 UN Proper Shipping Name:

Not regulated.

14.3 Transport Hazard Class:

Not applicable.

14.4 Packing Group:

Not applicable.

14.5 Environmental Hazards:

Not a marine pollutant.

14.6 Special Precautions for Transport:

Avoid excessive heat and moisture during transport.

14.7 Regulatory Information:

Complies with IATA, IMDG, and DOT regulations.

Section 15 - Regulatory Information

15.1 Safety, Health, and Environmental Regulations/Legislation Specific for the Substance or Mixture

Global Classification:

Not classified as hazardous under GHS (Globally Harmonized System).

Not listed as a controlled or hazardous substance under major regulatory frameworks.

Regulatory Compliance:

European Union (EU):



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Section 15 - Regulatory Information

Complies with Regulation (EC) No 1907/2006 (REACH) – Not classified as a substance of very high concern (SVHC).

Listed in European Pharmacopoeia (Ph. Eur.) as a pharmaceutical-grade iron supplement.

United States (USA):

Approved by U.S. FDA as a dietary supplement and pharmaceutical ingredient (21 CFR Part 111 & 21 CFR Part 312).

Compliant with OSHA Hazard Communication Standard (HCS) 29 CFR 1910.1200 – Not classified as a hazardous substance.

United Nations (UN):

Not classified as a hazardous good under UN Model Regulations on the Transport of Dangerous Goods.

International Air Transport Association (IATA):

Not restricted for air transport.

International Maritime Dangerous Goods (IMDG):

Not regulated as a marine pollutant.

15.2 Chemical Safety Assessment:

A chemical safety assessment (CSA) has not been conducted for this substance, as it is not classified as hazardous under REACH or other international regulations.

15.3 Additional Notes:

Subject to national and regional pharmaceutical regulations depending on the country of sale and distribution.

Ensure compliance with local health and safety regulations when handling and transporting.



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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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