

145/1, Jessore Road, Lake Town,

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: Ferric pyrophosphate (Soluble)

1.2 Product Code: FPPSL10

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

chemicals, Industrial & for professional use only.

1.4 Company Identification:

WEST BENGAL CHEMICAL INDUSTRIES LIMITED

145/1, Jessore Road, Lake Town, Kolkata – 700 089, India.

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# Section 2 - Hazards Identification

#### 2.1 Classification of the substance or mixture:

This chemical is not considered hazardous according to the 2012 OSHA Hazard Communication Standard (29 CFR1910.1200)

Not a dangerous substance or mixture according to the Globally Harmonized System (GHS)

2.1.1 Classification of the substance or mixture

Acute toxicity, oral (Category 4)

Skin corrosion/irritation (Category 2)

Serious eye damage/eye irritation (Category 2A)

Specific target organ toxicity, single exposure; Respiratory tract irritation (Category 3)

#### 2.2 Signal word:

Warning

#### 2.3 Hazard statement(s):

H302 Harmful if swallowed

H315 Causes skin irritation

H319 Causes serious eye irritation

H335 May cause respiratory irritation

### 2.4 Precautionary statement(s):

Prevention



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## Section 2 - Hazards Identification

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P264 Wash hands thoroughly after handling

P270 Do not eat, drink or smoke when using this product.

P271 Use only outdoors or in a well-ventilated area.

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

#### Response

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

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.

P330 Rinse mouth.

P362+P364 Take off contaminated clothing and wash it before reuse.

#### Storage

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

P405 Store locked up.

#### Disposal

P501 Dispose of contents/container to in accordance with local regulation.

#### 2.5 Inhalation:

May cause respiratory irritation

#### 2.6 Ingestion:

May cause gastrointestinal irritation

#### 2.7 Skin contact:

May cause skin irritation

#### 2.8 Eye contact:

May cause eye irritation

#### 2.9 Chronic exposure:

No known significant effects or critical hazards

#### 2.10 Carcinogenic effects:

Not available.

# 2.11 Mutagenic effects:

Not available.



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# **Section 2 - Hazards Identification**

2.12 Teratogenic effects:

Not available.

2.13 Developmental toxicity:

Not available.

2.14 Hazards not otherwise classified (HNOC)

Not Applicable

2.15 Pictogram



2.16 NFPA SCALE:



NFPA SCALE (0-4)

2.17 HMIS RATINGS:

Health	2
Flammability	0
Physical Hazard	0
Personal protection	E

HMIS RATINGS (0-4)

# **Section 3 - Composition / Information on Ingredients**

- **3.1 Ingredient Name** Ferric Pyrophosphate (Soluble)
- **3.2 CAS Number** 10058-44-3
- **3.3 EC Number** 233-190-0
- 3.4 % wt. 100



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# **Section 3 - Composition / Information on Ingredients**

3.5 Molecular formula  $Fe_4(P_2O_7)_3$ 

**3.6 Molecular Wt.** 745.21 g/mol

# **Section 4 - First Aid Measures**

### 4.1 Description of first aid measures:

#### 4.1.1 General Advice

National Capital Poison Center in the United States can aid if you have a poison emergency and need to talk to a poison specialist.

#### 4.1.2 Inhalation

Move exposed person to fresh air. If not breathing, seek immediate medical attention. If breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel and seek medical attention

#### 4.1.3 Ingestion

Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Seek medical attention.

#### 4.1.4 Skin contact

Remove contaminated clothing and shoes and immediately flush skin with plenty of water for at least 15 minutes. Wash clothing before reuse. Clean shoes thoroughly before reuse. If irritation persists, seek medical attention.

#### 4.1.5 Eve contact

Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids.

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

The most important known symptoms and effects are described in the labelling (see section 2.2).

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

Treat symptomatically.

# **Section 5 - Fire-Fighting Measures**

### 5.1 Flammability of the Product:

Non-flammable.



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# **Section 5 - Fire-Fighting Measures**

# **5.2 Auto-Ignition Temperature:**

Not applicable.

5.3 Flash Points:

Not applicable.

#### 5.4 Flammable Limits:

Not applicable.

#### 5.5 Extinguishing media:

5.5.1 Suitable extinguishing media

Use water spray, dry chemical, foam, and carbon dioxide fire extinguisher.

#### 5.6 Hazardous combustion products:

Decomposition products may include oxides of carbon and iron.

5.6.1 Fire

Not considered a fire hazard.

5.6.2 Explosion

Not considered an explosion hazard.

#### 5.7 Fire extinguishing media:

Use fire-extinguishing media appropriate to the surrounding fire

#### 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.

## **Section 6 - Accidental Release Measures**

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

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

Refer to protective measures listed in sections 8.

#### **6.2 Environmental precautions:**

Try to prevent further leakage or spillage. Keep the product away from drains or water courses.

6.3 Methods and materials for containment and cleaning up:



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Absorb solutions with finely-powdered liquid-binding material (diatomite, universal binders); Decontaminate surfaces and equipment by scrubbing with alcohol; Dispose of contaminated material according to Section 13

6.3.1 Spill control and recovery

Wear appropriate personal protective equipment as specified in Section 8. Clean up spills in a manner that does not disperse dust into the air. Reduce airborne dust and prevent scattering by moistening with water. Pick up spill for recovery or disposal and place in a closed container **6.4 Disposal:** 

Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

# **Section 7 - Handling and Storage**

### 7.1 Precautions for safe handling:

Avoid contact with eyes. Avoid breathing dust. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use.

#### 7.2 Storage:

Store in accordance with local regulations. Store in original container, protected from direct sunlight. Keep container tightly closed and sealed until ready for use.

7.2.1 Storage class (TRGS 510): Non-Combustible

7.2.2 Recommended storage temperature:

Powder -20°C 3 years
In solvent -80°C 6 months

-20°C 1 month

Shipping at room temperature if less than 2 weeks

# **Section 8 - Exposure Controls / Personal Protection**

#### 8.1 Engineering controls:



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# **Section 8 - Exposure Controls / Personal Protection**

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.

## **8.2 Personal Protective Equipment**

8.2.1 Eye protection

Safety glasses with side-shields

8.2.2 Skin and body 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 Regulation (EU) 2016/425 and the standard EN 374 derived from it.

**Full contact** 

Material: Nitrile rubber

Minimum layer thickness: 0,11 mm

Break through time: 480 min

Splash contact

Material: Nitrile rubber

Minimum layer thickness: 0,11 mm

Break through time: 480 min

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the EC approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

#### 8.2.3 Respiratory protection

Effective dust mask. or. Wear respirator with dust filter. Use a dust respirator under conditions where exposure to the substance is apparent (e.g. generation of high concentration of dust (dust clouds), inadequate ventilation, development of respiratory tract irritation), and engineering controls are not feasible. Be sure to use an approved/certified respirator or equivalent.



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# **Section 8 - Exposure Controls / Personal Protection**

#### 8.3 Hygiene measures:

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product. When using, do not eat, drink or smoke

# 8.4 Personal protection in case of large spill:

Splash goggles. Full suit. Dust respirator. Boots. Gloves. A self-contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

### 8.5 Exposure limits:

TWA: 1 (mg/m3) from ACGIH

Consult local authorities for acceptable exposure limits

# **Section 9 - Physical and Chemical Properties**

**Appearance Form** : Granular powder

Color: Apple greenOdour: CharacteristicMelting point: Decomposes

**Boiling point (°C)** : 309.6°C at 760 mmHg

**Solubility** : Soluble in water

**Dissociation Constant** : 22.2

Odor threshold : No data available
pH : No data available
Flash point : No data available
Evaporation rate : No data available
Flammability (solid, gas) : No data available
Upper/lower flammability or explosive : No data available

limits

Vapor pressure: No data availableVapor density: No data availableRelative density: No data availableWater Solubility: No data availablePartition coefficient: No data available



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Auto-ignition temperature: No data availableDecomposition temperature: No data availableViscosity: No data availableExplosive properties: No data availableOxidizing properties: No data available

# Section 10 - Stability and Reactivity

10.1 Reactivity:

No information available

10.2 Stability:

The product is stable at normal conditions.

10.3 Instability Temperature:

Not available

10.4 Conditions of Instability:

Not available

10.5 Incompatibility with various substances:

Strong oxidizing agents

10.6 Corrosivity:

Non-corrosive in presence of glass

10.7 Special remarks on Reactivity:

Not available

10.8 Special remarks on Corrosivity:

Not available

10.9 Polymerization:

Will not occur.

# **Section 11 - Toxicological Information**

#### 11.1 Routes of Exposure:

Inhalation, Ingestion

11.2 Toxicity to Animals:

LD50: Not available, LC50: Not available

11.3 Chronic Effects on Humans:



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# **Section 11 - Toxicological Information**

Not Available

#### 11.4 Other Toxic Effects on Humans:

Not Available

### 11.5 Special Remarks on Toxicity to Animals:

Not Available

## 11.6 Special Remarks on Chronic Effects on Humans:

Not Available

#### 11.7 Special Remarks on other Toxic Effects on Humans:

Not Available

#### 11.8 Acute Toxicity:

11.8.1 Oral LD50 (rat): > 2,000 mg/kg, indicating low toxicity through ingestion.

#### 11.8.2 Inhalation and Dermal LD50:

No specific data available, but exposure should be minimized to avoid respiratory and skin irritation

#### 11.8.3 Skin Corrosion/Irritation:

Not classified as a severe skin irritant, though repeated or prolonged contact may cause minor irritation

#### 11.8.4 Eye Irritation:

Mild irritant; avoid contact with eyes. Flush with water if exposed

### 11.8.5 Respiratory or Skin Sensitization:

No evidence of respiratory or skin sensitization from available data.

#### 11.8.6 Carcinogenicity:

No components of ferric pyrophosphate are listed as carcinogens by IARC, OSHA, NTP, or ACGIH

#### 11.9 Germ Cell Mutagenicity:

No evidence of mutagenic effects from the available studies.

#### 11.10 Reproductive Toxicity:

No data indicating adverse effects on fertility or reproductive performance at typical exposure levels.

## 11.11 STOT (Specific Target Organ Toxicity):

Not classified as hazardous to specific organs upon shortterm exposure. No significant long-term health effects identified from repeated exposure.



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# **Section 11 - Toxicological Information**

# 11.12 Aspiration Hazard:

Not identified as an aspiration hazard.

# **Section 12 - Ecological Information**

#### 12.1 TOXICITY:

Fish (96-hour LC50): > 100 mg/L (nominal), low acute toxicity (Gobiocypris rarus) Daphnia (48-

hour EC50): 2.0 mg/L, moderate sensitivity (Daphnia magna)

Algae (72-hour EC50): > 100 mg/L, very low toxicity.

Microorganisms (3-hour EC50): 250 mg/L (activated sludge), minimal interference with

wastewater treatment

### 12.2 Persistence and Degradability:

Non-persistent in the environment; readily dissolves and disperses in water.

### 12.3 Mobility in Soil and Water:

High mobility expected in aquatic environments; avoid release into water bodies.

### 12.4 Bioaccumulate Potential:

Low bioaccumulation potential due to solubility characteristics.

## 12.5 Environmental Precautions:

Prevent release into drains, watercourses, and soil.

#### 12.6 BOD 5 and COD:

Not Available.

### 12.7 Products of biodegradation:

Possibly hazardous short-term degradation products are not likely. However, long term degradation products may arise.

#### 12.8 Toxicity of the products of biodegradation:

The Product itself and its products of degradation are not toxic.

#### 12.9 Special remarks on the products of degradation:

Not Available

### **12.10** Endocrine disrupting properties

No data available

#### 12.11 Other adverse effects

No data available



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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

UN-No. (ADR): Not Applicable UN-no. (IMDG): Not Applicable UN-no. (IATA): Not Applicable UN-no. (ADN): Not Applicable UN-No. (RID): Not Applicable 14.2 UN Proper Shipping name

Proper Shipping Name (ADR): Not Applicable Proper Shipping Name (IMDG): Not Applicable Proper Shipping Name (IATA): Not Applicable Proper Shipping Name (ADN): Not Applicable Proper Shipping Name (RID): Not Applicable

#### 14.3 Transport hazard class(es)

#### **ADR**

Transport hazard class(es) (ADR): Not Applicable

#### **IMDG**

Transport hazard class(es) (IMDG): Not Applicable

#### **IATA**

Transport hazard class(es) (ADR): Not Applicable

#### ADN

Transport hazard class(es) (ADN): Not Applicable

#### **RID**

Transport hazard class(es) (RID): Not Applicable

#### 14.4 Packing Group



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# **Section 14 - Transport Information**

Packing group (ADR): Not Applicable Packing group (IMDG): Not Applicable Packing group (IATA): Not Applicable Packing group (ADN): Not Applicable Packing group (RID): Not Applicable

14.5 Environmental hazards

Dangerous for the environment: No

Marine pollutant: No

Other information: No supplementary information available

14.6 Special Precaution for user

Overload transport
No data available
Transport by sea

No data available

D O T Classification:

Not a DOT controlled material

Air transport Goods:

Nonhazardous/non-dangerous as per IATA DGR.

**Special Provision for Transport:** 

Not applicable

**IATA Specification** 

Non-dangerous, non-hazardous

**DOT** (Pictograms)

AS PER IATA REGULATION SAFE FOR CARRAGE, NONHAZARDOUS AND NON-RESTRICTED. NO SPECIAL LABELLING OR TRANSPORT MEASURE HAVE BEEN IDENTIFIED. THIS IS NOT REGULATED AS PER IATA REGULATION

# **Section 15 - Regulatory Information**

**US federal regulations** 

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)



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# **Section 15 - Regulatory Information**

### US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

None present or none present in regulated quantities.

### **CERCLA Hazardous Substance List (40 CFR 302.4):**

None present or none present in regulated quantities.

Superfund amendments and reauthorization act of 1986 (SARA)

#### **Hazard categories**

Not listed.

### SARA 302 Extremely hazardous substance

None present or none present in regulated quantities.

# SARA 304 Emergency release notification

None present or none present in regulated quantities.

#### SARA 311/312 Hazardous chemical

Chemical identity	Threshold Planning Quantity
FERRIC PYROPHOSPHATE PURIFIED PEARL	500 lbs

### SARA 313 (TRI reporting)

None present or none present in regulated quantities.

## Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3)

None present or none present in regulated quantities.

### Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130):

None present or none present in regulated quantities.

#### **US state regulations**



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# **Section 15 - Regulatory Information**

## **US. California Proposition 65**

No ingredient regulated by CA Prop 65 present.

# **US. New Jersey Worker and Community Right-to-Know Act**

No ingredient regulated by NJ Right-to-Know Law present.

## **US. Massachusetts RTK - Substance List**

No ingredient regulated by MA Right-to-Know Law present.

## **US. Pennsylvania RTK - Hazardous Substances**

FERRIC PYROPHOSPHATE PURIFIED PEARLS	Listed
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### **US. Rhode Island RTK**

FERRIC PYROPHOSPHATE PURIFIED PEARLS	Listed
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### **Inventory Status:**

Inventory	Status
Australia AICS	On or in compliance with the inventory
Canada DSL Inventory List	On or in compliance with the inventory
EINECS, ELINCS or NLP	On or in compliance with the inventory
Japan (ENCS) List	Not in compliance with the inventory
China Inv. Existing Chemical	
Substances	On or in compliance with the inventory
Korea Existing Chemicals Inv. (KECI)	On or in compliance with the inventory
Canada NDSL Inventory	Not in compliance with the inventory
Philippines PICCS	Not in compliance with the inventory
US TSCA Inventory	On or in compliance with the inventory
New Zealand Inventory of Chemicals	Not in compliance with the inventory
Japan ISHL Listings	Not in compliance with the inventory
Japan Pharmacopeia Listing	Not in compliance with the inventory



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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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