



## **Zinc Pyrithione 40% FPS**

### **Safety Data Sheet**

According to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

Date of Compilation : November 20, 2012  
Date of Revision : April 02, 2024  
Revision Number : 16  
Version Number : 0674Gj Ghs16 Div.3 sds Zinc pyrithione (40% FPS)  
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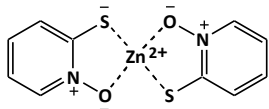
## Zinc Pyrithione 40% FPS Safety Data Sheet

According to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

### SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/ UNDERTAKING

#### 1.1 Product Identifier

Product form	: Mixture
Product name	: Zinc pyrithione 40% FPS
Other names	: Jubithione - ZPT 40
Chemical name	: bis (2-pyridylthio) zinc 1, 1'-dioxide
EC no.	: 236-671-3 (Active ingredient)
CAS no.	: 13463-41-7 (Active ingredient)
Formula	: C <sub>10</sub> H <sub>8</sub> N <sub>2</sub> O <sub>2</sub> S <sub>2</sub> Zn
Chemical structure	:



**Synonyms:** Bis (1-hydroxy-2(1H)-pyridinethionato)zinc; Omadine Zinc; 2-Pyridinethiol-1-oxide, zinc salt ;Pyrithione zinc; Zinc, bis(1-hydroxy-2(1H)-pyridinethionato); Zinc 2-pyridinethiol-1-oxide Zinc pyrithione, Zinc pyridinethione.

#### 1.2 Relevant identified uses of the substance or mixture and uses advised against

- Zinc pyrithione is used in treating dandruff and seborrheic dermatitis as a cosmetic ingredient. It has antibacterial properties and is effective against many pathogens.
- Application as In-can and Dry-film Preservative in paint and coating applications. It also possesses antibacterial properties and is effectively used for treatment of household sponges. It has its use in controlling growth of odour causing microorganisms in textiles, for dry film preservation of adhesives, caulks, sealants, non-marine paints, foams and coatings, powder coatings, residential paints. It has also application for control of mildew and bacteria in styrene butadiene, natural rubber, resins. It has application to inhibit growth of bacteria and fungi in dry walls, ceilings, wall partitions.

#### 1.3 Details of the supplier of the safety data sheet

##### FACTORY & REGISTERED OFFICE:

Jubilant Ingrevia Limited, Bhartiagram, Gajraula, District: Amroha, Uttar Pradesh-244223, India  
T +91-5924-267437, +91-5924-267438

##### HEAD OFFICE:

Jubilant Ingrevia Limited

Plot 1-A, Sector 16-A, Institutional Area, Noida, Uttar Pradesh, 201301 – India

T +91-120-4361000 - F +91-120-4234881 / 84 / 85 / 87 / 95 / 96 [support@jubl.com](mailto:support@jubl.com) - [www.jubilantingrevia.com](http://www.jubilantingrevia.com)

#### 1.4 Emergency telephone number

For Chemical Emergency ONLY (in the case of fire, leak, spill, exposure or accident)

Call Chemtrec: 1-800-424-9300 (US), 1-703-527-3887 (Outside U.S.)

Chemtrec (India) : 000-800-100-7141

For ALL other emergencies call Emergency Control Room Gajraula at 99970 22412

### SECTION 2: HAZARD(S) IDENTIFICATION

#### 2.1 Classification of the substance or mixture

##### GHS-US classification

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Acute toxicity (Oral) : Category-4 H302: Harmful if swallowed.  
Serious eye damage : Category-1 H318: Causes serious eye damage  
Acute toxicity (Inhalation) : Category-4 H332: Harmful if inhaled  
STOT (Repeated Exposure): Category-1 H372: Causes damage to organ through prolonged or repeated exposure  
Reproductive toxicity : Category-1B H360D: May damage the unborn child.  
Acute Aquatic toxicity : Category-1 H400: Very toxic to aquatic life  
Chronic Aquatic toxicity : Category-1 H410: Very toxic to aquatic life with long lasting effects

### 2.2 Label Elements

Hazard Pictogram: GHS 05, GHS07, GHS 08, GHS 09

Signal Word: Danger!



GHS 05



GHS 07



GHS 08



GHS 09

### Hazard and Precautionary Statements:

#### HAZARD STATEMENTS

H302: Harmful if swallowed.  
H318: Causes serious eye damage.  
H332: Harmful if inhaled  
H360D: May damage the unborn child.  
H372: Causes damage to organ through prolonged or repeated exposure.  
H410: Very toxic to aquatic life with long lasting effects.

#### PRECAUTIONARY STATEMENTS

P201: Obtain special instructions before use.  
P202: Do not handle until all safety precautions have been read and understood.  
P264: Wash hands thoroughly after handling.  
P270: Do not eat, drink or smoke when using this product.  
P260: Do not breathe dust/fume/gas/mist/vapours/spray.  
P271: Use only outdoors or in a ventilated area.  
P280: Wear protective gloves/protective clothing/eye protection/face protection.  
P273: Avoid release to the environment.  
P301+P312: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician if you feel unwell.  
P330: Rinse mouth.  
P321: 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.  
P308+P313: IF exposed or concerned: Get medical advice/attention.



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P362: Take of contaminated clothing and wash before reuse.

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

P311: Immediately Call a POISON CENTER or doctor/physician.

P391: Collect spillage.

P405: Store locked up.

P501: Dispose of contents/container to local/regional/national/international regulations.

### SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Substance	CAS #	% by weight	GHS Classification of mixture
Zinc Pyrithione	13463-41-7	38-41 %	Acute toxicity (Oral): Category-4 Serious eye damage: Category-1 Acute toxicity (Inhalation): Category-4 STOT (Repeated Exposure): Category-1
Other ingredients	-	59-62%	Reproductive toxicity : Category-1B Acute Aquatic toxicity: Category-1 Chronic Aquatic toxicity: Category-1

### SECTION 4: FIRST AID MEASURES

#### 4.1. Description of first aid measures:

##### General Advice:

Probable mucosal damage may contraindicate the use of gastric lavage. Have the product container or label with you when calling a Poison Control Center or doctor, or going for treatment.

##### Inhalation:

- Move person to fresh air.
- If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible.
- Call a Poison Control Center or doctor for further treatment advice.

##### Skin Contact:

- Take off contaminated clothing.
- Rinse skin immediately with plenty of water for 15-20 minutes.
- Call a Poison Control Center or doctor for treatment advice.

##### Eye Contact:

- Hold eye open and rinse slowly and gently with water for 15-20 minutes.
- Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.
- Call a Poison Control Center or doctor for treatment advice.

##### Ingestion:

- Call a Poison Control Center or doctor immediately for treatment advice.
- Have person sip a glass of water if able to swallow.
- Do not induce vomiting unless told to by a Poison Control Center or doctor.



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- Do not give anything to an unconscious person.

### 4.2. Indication of any immediate medical attention and special treatment needed

**Notes to Physician:** Probable mucosal damage may contraindicate the use of gastric lavage.

## SECTION 5: FIRE-FIGHTING MEASURES

Flammability Summary (OSHA): This material is not regulated as a hazardous material.

### 5.1 Extinguishing media

**Suitable extinguishing agents:** Suitable extinguishing media: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Carbon dioxide (CO<sub>2</sub>), Water spray

**Unsuitable extinguishing media:** Do NOT use water jet.

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

**Specific hazards during fire fighting:** The product does not ignite or burn. This material not expected to burn unless all the water is boiled away. The remaining compound may be ignitable. Do not allow run-off from fire fighting to enter drains or water courses. Burning produces noxious and toxic fumes.

**Specific extinguishing methods:** Standard procedure for chemical fires.

### 5.3 Advice for firefighters

- In the event of fire, wear self-contained breathing apparatus.

### 5.4 Further information

- In case of fire, use normal fire-fighting equipment and personal protective equipment recommended in section 8 to include a NIOSH approved self-contained breathing apparatus. Use water to cool containers.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

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

- Additional protective clothing must be worn to prevent personal contact with this material. Those items includes but not limited to boots, impervious gloves, hard hat, splash-proof goggles, impervious clothing i.e. chemically impermeable suit, self-contained breathing apparatus.
- Ensure adequate ventilation.
- Avoid contact with the skin and the eyes.
- Refer to protective measures listed in sections 7 and 8.
- Wear protective gloves/protective clothing/eye protection/face protection.
- Take off contaminated clothing and shoes immediately.
- Wash contaminated clothing before re-use.

### 6.2 Environmental precautions

- **General advice:** The product should not be allowed to enter drains, water courses or the soil. If the product contaminates rivers and lakes or drains inform respective authorities. Prevent further leakage or spillage if safe to do so.



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### 6.3 Methods and materials for containment and cleaning up

- Soak up with inert absorbent material. Retain and dispose of contaminated wash water.
- Pick up and transfer to properly labelled containers. Keep in suitable, closed containers for disposal.

## SECTION 7: HANDLING AND STORAGE

### 7.1 Precautions for safe handling

- **Handling:** Do not take internally Avoid formation of aerosol. Do not breathe vapours or spray mist. Avoid contact with skin, eyes and clothing. Upon contact with skin or eye wash off with water. For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. Provide sufficient air exchange and/or exhaust in work rooms.

### 7.2 Conditions for safe storage, including any incompatibilities

- Keep container tightly closed when not in use. Do not store above 130°F. Do not store with strong oxidizing agents or strong (concentrated) acids.

## SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

### 8.1 Control parameters

#### 8.1.1 Exposure Limits Values

Chemical name	CAS No.	Value type (from of exposure)	Control parameter permissible concentration
Zinc pyrithione	13463-41-7	TWA	0.35 mg/m <sup>3</sup>

### 8.2 Exposure controls

#### Appropriate Engineering Controls:

- Local exhaust ventilation or other engineering controls are normally required when handling or using this product to keep air-borne exposures below the TLV, PEL or other recommended exposure limit.
- Ensure that eyewash stations and safety showers are close to the workstation location.

### 8.3 Personal Protection

Do not get in eyes, on skin, or on clothing.

**Hand protection:** Wear impervious chemical resistant gloves to avoid skin contact.

**Eye/face protection:** Use chemical goggles and a face shield. Emergency eye wash should be provided in the immediate work area

**Respiratory protection:** Users must wear a fit tested, NIOSH approved full face respirator equipped with a combination organic vapor/P-100 prefilter.

**Skin and body protection:** Choose impervious body protection, long sleeved shirt and long pants, socks, chemical resistant gloves and chemical resistant footwear.

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### 8.4 Occupational hygiene

- Avoid contact with skin, eyes and clothing.
- Ensure that eyewash stations and safety showers are close to the workstation location.
- When using do not eat, drink or smoke.

### 8.5 Additional Information

- When mixing and loading, or cleaning equipment, wear a chemical resistant apron.
- Wash thoroughly with soap and water after handling, and before eating, chewing gum, drinking, using tobacco, or using the toilet. Remove and wash contaminated clothing before reuse.
- Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

### 8.6 Control of environmental exposure

- Avoid release to the environment.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

- Information on basic physical and chemical properties.

Sr. No.	Parameter	Typical value
1.	Physical state	Viscous dispersion
2.	Appearance	Dispersion
3.	Colour	White to off-white
4.	Odor	Odorless
5.	Odor threshold	No data available
6.	pH	6.5 – 9.0 (slurry) at 25°C
7.	Melting point	No data available
8.	Freezing point	No data available
9.	Boiling point	>= 100°C
10.	Flash point	None
11.	Relative evaporation rate (butyl acetate=1)	No data available
12.	Flammability (solid, gas)	No data available
13.	Explosive limits	No data available
14.	Explosive properties	Not explosive.
15.	Oxidizing properties	Not oxidizing.
16.	Vapour pressure	No data available
17.	Relative density	1.3 -1.4
18.	Relative vapour density at 20 °C	Not available
19.	Density	1.3-1.4
20.	Solubility	Insoluble in water (8 ppm for Zinc Pyrithione, active)
21.	Log Pow	0.9
22.	Auto-ignition temperature	No data available
23.	Decomposition temperature	No data available
24.	Viscosity	4000-9000 cps at 25 °C

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#### **SECTION 10: STABILITY AND REACTIVITY**

##### **10.1 Reactivity**

- No data available

##### **10.2 Chemical stability**

- The product is stable under recommended storage conditions.

##### **10.3 Possibility of hazardous reactions**

- Hazardous Polymerization: Not reported.

##### **10.4 Conditions to avoid**

- Ultraviolet light
- Strong sun light for prolonged period.

##### **10.5 Incompatible materials**

- Strong oxidizing agents. Ferrous metals. Copper, copper alloy.
- Strong (concentrated) acids.

##### **10.6 Hazardous decomposition products**

- Nitrogen oxides, sulphur oxides, Carbon monoxide, and carbon dioxide.
- In the event of fire: see section 5.

#### **SECTION 11: TOXICOLOGICAL INFORMATION**

##### **11.1 Information on toxicological effects**

**Information on likely routes of exposure:** Inhalation, skin, eye, ingestion.

**Acute toxicity (Oral) LD50:** = >500 mg/kg Rat

**Acute toxicity (dermal) LD50:** = data conclusive but not sufficient for classification

**Acute toxicity (Inhalation) LC50** = >2.0 mg/l

**b) Skin irritation:** Remarks: Expected to be slightly irritating.

**c) Eye irritation:** This product is expected to cause irreversible effects to the cornea with impairment of vision or corrosion to the eye.

**d) Skin sensitisation:** Remarks: Negative skin sensitizer, guinea pig-Bluhier method.

**e) Germ cell Mutagenicity :** No data available

**f) Carcinogenicity:** No component in the product is carcinogenic.

**g) Reproductive toxicity :** May damage the unborn child.

**h) STOT-single exposure:** No data is available.

**i) STOT- repeated exposure:** Causes damage to organ through prolonged or repeated exposure.

**j) Aspiration Hazards:** No data available

#### **SECTION 12: ECOLOGICAL INFORMATION**

**Overview:** Very toxic to aquatic organisms.





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### 12.1 Toxicity

#### Ecological Toxicity Values for: Zinc Pyrithione

Rainbow trout (*Salmo gairdneri*): (measured, flow-through) 96 h LC50 = 0.0032 mg/l  
Pimephales promelas (fathead minnow): (measured, flow-through) 96 h LC50 = 0.0026 mg/l  
Sheepshead minnow: (measured, static) 96 h LC50 = 0.4 mg/l  
Daphnia magna: (measured, flow-through) 48 h LC50= 0.0082 mg/l  
Daphnia magna: (measured, flow-through) 48 h EC50= 0.034 mg/l  
Daphnia magna: (measured, flow-through) 21 day EC50 (chronic toxicity) = 0.029 mg/l  
Selenastrum capricornutum (freshwater algae): (measured, static) 120 h EC50 = 0.028 mg/l  
Lemna gibba G3 (Duckweed): (measured, flow-through) 7 day EC50 = 0.0096 mg/l

### 12.2 Persistence and degradability

**Biodegradation in water: screening tests:** Zinc pyrithione is not readily biodegradable.

**Biodegradation in soil:** The leaching behavior of zinc pyrithione in four soils shows pyrithione to be immobile, which is consistent with the results from the adsorption/desorption study in two soils and two sediments. Pyrithione degraded to varying extents during the leaching period. Only the degradants were found to be mobile in the soils.

**Mode of degradation in actual use:** No data available.

### 12.3 Bio accumulative potential

#### Zinc pyrithione (13463-41-7)

Log Pow	0.9
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**Bioaccumulation: terrestrial:** No data available

### 12.4 Mobility in Soil

#### Zinc pyrithione (13463-41-7)

Mobility in soil	The adsorption coefficients on soil and sediments, determined with the batch equilibrium method, were found to range from 11.4 to 98.7
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## SECTION 13: DISPOSAL CONSIDERATIONS

### 13.1 : Waste treatment methods

**Waste disposal recommendations:** Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container to comply with applicable local, national and international regulations.

**Ecology - waste materials:** Avoid release to the environment.

## SECTION 14: TRANSPORT INFORMATION

- This substance is considered to be Hazardous for transport by Air/Rail/Road and Sea and thus regulated by TDG/ US DOT/ IATA/ ICAO/ IMO/ IMDG.




ADR/ RID/ DOT

IMDG

IATA

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<b>14.1 UN number</b>		
UN 3082	UN 3082	UN 3082
<b>14.2 UN proper shipping name</b>		
Environmentally hazardous substance, liquid N.O.S. (Zinc Pyrithione)	Environmentally hazardous substance, liquid N.O.S. (Zinc Pyrithione)	Environmentally hazardous substance, liquid N.O.S. (Zinc Pyrithione)
<b>14.3 Transport hazard class(es)</b>		
9	9	9
<b>14.4 Packing group</b>		
III	III	III
		
<b>14.5 Environmental hazards</b>		
Dangerous for the environment: Yes	Dangerous for the environment: Yes Marine pollutant: Yes	Dangerous for the environment: Yes
No supplementary information available		

### SECTION 15: REGULATORY INFORMATION

#### International regulations Zinc Pyrithione (13463-41-7)

- Listed in United States TSCA (Toxic Substances Control Act) inventory
- Listed on the Canadian DSL (Domestic Substances List)
- Listed on the AICS (Australian Inventory of Chemical Substances)
- Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
- Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory
- Listed on the Korean ECL (Existing Chemicals List)
- Listed on NZIoC (New Zealand Inventory of Chemicals)
- Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
- Listed on the Canadian IDL (Ingredient Disclosure List)
- Listed on INSQ (Mexican national Inventory of Chemical Substances)
- Listed on CICR (Turkish Inventory and Control of Chemicals)

#### US information

- CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act):  
Zinc Pyrithione is not listed
- SARA 302/304 : Zinc Pyrithione is not listed
- SARA 311/312 : See section 2 for more information
- California Prop. 65: Zinc Pyrithione is not listed
- CAA (Clean Air Act): Zinc Pyrithione is not listed
- CWA (Clean Water Act): Zinc Pyrithione is not listed

#### EU Information

- Water hazard class (WGK): WGK 3 (Severely hazardous to water)
- Substance of Very High Concern (SVHC) according to the REACH Regulations (EC) No. 1907/2006: Zinc Pyrithione is not listed

### SECTION 16: OTHER INFORMATION



## Zinc Pyrithione 40% FPS Safety Data Sheet

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### a) : Compilation information of safety data sheet

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### b) A key or legend to aberrations and acronyms used in the safety data sheet

- PBT =Persistent Bio accumulative and Toxic.
- vPvB= Very Persistent and Very Bio accumulative.
- SCBA= Self Contained Breathing Apparatus.
- NIOSH REL= National Institute for Occupational Safety and Health Recommended Exposure Limit.
- OSHA PEL=Occupational Safety and Health Administration Permissible Exposure Limit.
- OELTWA= Occupational Exposure Limit Time Weighted Averages.
- IDLH= Immediately Dangerous to Life or Health.
- UEL= Upper Explosive Limit.
- LEL= Lower Explosive Limit.
- RTECS= Registry of Toxic Effects of Chemical Substances.
- NTP=National Toxicology Program
- IARC= International Agency for Research on Cancer.
- EPA=Environmental Protection Agency.
- TSCA= Toxic Substances Control Act.
- CERCLA= Comprehensive Environmental Response, Compensation, and Liability Act.
- SARA= Superfund Amendments and Reauthorization Act.
- NFPA= National Fire Protection Association.
- WHIMS= Workplace Hazardous Materials Information System.
- DSL/NDSL= Domestic/Non-Domestic Substances List.
- CSR=Chemical Safety Report.
- BCF = Bio Concentration Factor.
- DNEL = Derived No Effect Level.
- PNEC = Predicted No Effect Concentration.
- TLV = Threshold Limit Value.
- ACGIH = American Conference of Governmental Industrial Hygienists.
- REACH = Registration, Evaluation .Authorization and Restriction of Chemicals.
- CLP = Classification, Labeling and Packaging.
- LD / LC = Lethal Doses / Lethal Concentration.
- GHS = Globally Harmonized System.
- IMDG-Code = International Maritime Code for Dangerous Goods.
- EmS = Emergency measures on Sea.
- ICAO = International Civil Aviation Organization.
- IATA/DGR= International Air Transport Association/Dangerous Goods Regulation.

### c) Key Literature reference and sources for data

#### Biographical reference and data sources



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- Globally Harmonized System of Classification and Labelling of Chemicals.

#### **SDS US (GHS HazCom 2012)**

*This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.*

(End of Safety Data Sheet)

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