



SAFETY DATA SHEET
According to Regulation (EC) No. 1907/2006 (REACH)
ZIRCOAT®-HT JYOTI

Date of Printing: 10.04.2024

SDS/Zircoat-HT/Rev 3

Created:10/04/2024

➤ **Section 1.0 Identification of the substance / mixture and of the company**

1.1 Product Identifier

Product Name : ZIRCOAT®-HT JYOTI

HSN Code : 3816 0000

Physical state : Powder

Formula : ZrSiO_4

Synonyms : NA

Chemical family : Inorganic Silicate

1.2 Recommended use of the chemical and restrictions on use

Recommended use : Refractory Coating Compound/Cement

For research and industrial use only

1.3 Details of the supplier of the safety data sheet



Jyoti Ceramic Industries Pvt Ltd

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EC	REP
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1.4 Emergency Telephone Number

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Reachable during office hours (Central European time): Monday - Friday: 8.30 AM – 5.00 PM



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➤ **Section 2.0 Hazard(s) identification**

- 2.1 Classification of the substance or mixture** : Not classified (Reg. (EG)No.1272/2008)
2.2 Label elements : Not applicable (Reg. (EG)No.1272/2008)
2.3 Hazards not otherwise classified (HNOC) : No additional information available

➤ **Section 3.0 Composition / Information on Ingredients**

3.1 Substance : Not Applicable

3.2 Mixture

Name : Zircoat HT (Zirconium Silicate Cement)
CAS No. : NA
EINECS No : NA

Name of ingredient	Product Identifier (CAS No)	EINECS No	Wt %	GHS classification	REACH Reg.
Zirconium Silicate	14940-68-2	239-019-6	> 98	Not classified	
Others			< 2	Not classified	

Full text of hazard classes and H-statement : see section 15

➤ **Section 4.0 Description of First Aid measures**

4.1 Description of first aid measures

- General** : Remove contaminated clothing and shoes. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). If possible show this sheet; If not available show packaging or label.
- After inhaled** : In case if powder / dust is inhaled and there symptoms of cough or shortness of breath, move from exposure to a well ventilated place, and if breathing difficulty occurs then consult a physician.
- After skin contact** : If irritation to skin occurs due to contact of product then wash the affected area with fresh and clean water.
- After eye contact** : If irritation occurs flush the eyes with fresh clean running tap water. Get medical attention if irritation continues
- After Ingestion** : If substantial quantity of dust is swallowed, dilute with large amount of water, then consult a physician.



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4.2 Most important symptoms and effects, both acute and delayed

Product dust generated through handling or post-setting grinding, sanding and machining may cause irritation to the mucous membrane, eyes, skin and respiratory organs.

Symptoms/injuries after inhalation	: May cause respiratory irritation
Symptoms/injuries after skin contact	: No information available
Symptoms/injuries after eye contact	: May cause eye irritation
Symptoms/injuries after ingestion	: No information available

4.3 Indication of any immediate medical attention and special treatment method

No additional information available

➤ Section 5.0 Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media	: Product is not combustible and non explosive. Use a suitable extinguishing media for the surrounding fire.
Unsuitable extinguishing media	: None known

5.2 Special hazards arising from the substrate or mixture

Fire hazard	: None known
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5.3 Advice for firefighters

Protection during firefighting	: Do not enter fire area without proper protective equipment, including respiratory protection. Avoid contact with skin and eyes. Do not breathe dust.
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➤ Section 6.0 Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

6.1.1 For non-emergency personnel

Protective equipment	: Wear protective equipment as described in Section 8
Emergency procedures	: Evacuate unnecessary and unprotected personnel.

6.1.2 For emergency responders

Protective equipment	: Do not attempt to take action without suitable protective equipment. Equip cleanup crew with proper protection. Use protective clothing, dust mask, and eye protection. For further information refer to section 8: "Exposure controls/personal protection".
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6.2 Environmental Precautions : Prevent entry of product into sewers and public waters. Notify authorities if product enters sewers or public waters.

6.3 Methods and material for contamination and cleaning up

For containment : Prevent migration and entry into sewers or streams
Methods for cleaning up : Collect the pieces or dust by vacuum or mechanically for disposal and land filling as per local regulations. Avoid dust formation during cleaning.

6.4 Reference to other sections:

See Heading 8. Exposure controls and personal protection

➤ **Section 7.0 Handling and storage**

7.1 Precautions for safe handling

Use safety shoes while handling. Wear safety glasses for eye protection. Sweep up and recover into a container for reuse or disposal. If airborne dust is generated then wear personal protecting clothing including particle filter/dust mask and eye protection.

7.2 Hygiene Measures

Wash contaminated clothing before reuse. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

7.3 Conditions for safe storage, including any incompatibilities:

Storage conditions : Keep container tightly closed
Incompatible materials : Not known
Storage area : Material should be stored in well protected dry place, in its original packing.

7.4 Specific end uses

See section 1.2



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➤ **Section 8.0 Exposure controls and personal protection**

8.1 Control parameters

Product dust generated through handling, grinding, or sanding may cause irritation to the mucous membrane, eyes, skin and respiratory organs. The limits of dust concentration (mg/m³) at the work-place have to be considered.

Zirconium Oxide (1314-23-4)*		
ACGIH	STEL (mg/m ³)	10 mg/m ³ Zr
	TWA (mg/m ³)	5 mg/m ³ Zr
OSHA	STEL (mg/m ³)	10 mg/m ³ Zr
	TWA (mg/m ³)	5 mg/m ³ Zr
Silicon Dioxide (7631-86-9)**		
ACGIH	TWA (mg/m ³)	10 mg/m ³
DFG	MAK(mg/m ³)	4 mg/m ³

* As the ingredients are present as a solid solution, the individual values for ZrO₂ (considering major component) may be applicable for this material.

** The values are for total dust containing no asbestos and < 1 % crystalline silica.

8.2 Exposure controls

Appropriate engineering controls	: Provide local exhaust or general room ventilation. Suitable ventilation / dust extraction system must be used in the workplace or on the equipment.
Personal protective equipment	: Avoid all unnecessary exposure. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.
Hand protection	: Neoprene or nitrile rubber gloves
Eye protection	: Safety glasses/goggles
Skin and body protection	: Wear suitable protective clothing. After work ensure that skin is cleaned and hand care products are used.
Respiratory protection	: In case of dust exposure respiratory protection equipment must be worn. FFP2/FFP3 dust masks with particle filters are recommended.



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➤ **Section 9.0 Physical and chemical properties**

9.1. Information on basic physical and chemical properties

Appearance	Cream
Condition	Powder
Odour	None
Melting point	>2000°C
Freezing point	Not Applicable
Ignition point	Non Flammable
Bulk Density (powder)	3.1 g/cc
Solubility in water	Non soluble
Porosity	Not Applicable
PH	Not Applicable
Vapour Pressure	Not Applicable
Viscosity	Not Applicable
Vapour Density	Not Applicable
Partition Co-efficient	Not Applicable
Explosive Properties	Not Applicable
Oxidising Properties	Not Applicable
Evaporation Rate	Not Applicable

9.2. Other information

No additional information available

➤ **Section 10.0 Stability and reactivity**

10.1 Reactivity	: Not known
10.2 Chemical stability	: Stable
10.3 Possibility of hazardous reactions	: Not known
10.4 Conditions to avoid	: Not known
10.5 Incompatible materials	: Not known
10.6 Hazardous decomposition products	: Not known

➤ **Section 11.0 Toxicological information**

11.1 Information on the toxicological effects

Acute toxicity	: Not classified
Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitization	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: No evidence of carcinogenic effect
Reproductive toxicity	: Not classified
Specific target organ toxicity (single exposure)	: Not classified
Specific target organ toxicity (repeated exposure)	: Not classified
Aspiration hazard	: Not classified



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Symptoms/injuries after inhalation	: Product dust may cause irritation to the mucous membrane, eyes, skin and respiratory organs
Symptoms/injuries after skin contact	: No information available
Symptoms/injuries after eye contact	: Product dust may cause eye irritation
Symptoms/injuries after ingestion	: No information available

Section 12.0 Ecological information

If used properly, no environmental problems are anticipated. Do not empty the product or collected dust into ground water or drains.

12.1 Toxicity	: Not known
12.2 Persistence & Degradability	: Not known
12.3 Bioaccumulative Potential	: Not known
12.4 Mobility in soil	
12.5 Results of PBT and vPvB assessment	: Product does not contain PBT or vPvB substances (see. REACH Annex XIII)

12.6 Other Adverse Effect

Effect on ozone layer	: Not known
Effect on the global warming	: No Known effects from this product.
GWP mix comment	: No Known effects from this product.

➤ Section 13.0 Disposal considerations

13.1 Waste treatment methods

Sewage disposal recommendations	: Do not dispose of waste into sewer
Waste disposal recommendations	: Unless contaminated in service, this product is neutral to the environment. Landfill Dispose in a safe manner in accordance with local/national regulations.
Ecology - waste materials	: Avoid release to the environment

➤ Section 14.0 Transport information

No dangerous goods as defined by ADR/RID/ADN/GGVSEB, ICAO/IATA, IMDG, USDOT

14.1 UN number	: Not regulated for transport.
14.2 UN proper shipping name	: Not applicable
14.3 Transport hazard class(es)	: Not applicable
14.4 Packing Group	: Not applicable
14.5 Environmental Hazards	: Not applicable
14.6 Special Precautions for the user	: See section 7 and 8
14.7 Transport in bulk according to Annex II of Marpol and the IBC Code	: Not applicable



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➤ **Section 15.0 Regulatory information**

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

No classification or labelling applicable in accordance with Regulation (EC) No 1272/2008.

None of the chemicals in this product are considered highly hazardous by OSHA.

15.2.: Chemical safety assessment

A chemical safety assessment of the product or its components is not available.

➤ **Section 16.0 Other information**

16.1.: Abbreviations and acronyms

REACH: Regulation on Registration, Evaluation, Authorisation and Restriction of Chemicals.

TWA: Time Weighted Average;

OEL: Occupational exposure limit;

MAK: Maximum Workplace Concentration of the DGF (German Research Foundation)

ACGIH: American Conference of Governmental Industrial Hygienists;

OSHA: Occupational Safety and Health Administration;

CAS No. : Chemical Abstract Service Registration Number;

EINECS: European Inventory of Existing Commercial Chemical Substances

GHS: The Globally Harmonized System of Classification and labelling;

IATA: International Air Transport Association;

DOT: Department Of Transport;

IMDG: International Maritime Dangerous Goods;

RID: Regulations concerning the International Transport of Dangerous Goods by Rail;

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road;

ICAO: International Civil Aviation Organization

PBT: Persistent, bioaccumulative and toxic substances

vPvB: Very persistent and very bioaccumulative substances



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This SDS covers Zircoat HT Refractory coating. The information is based on the current state of our knowledge and relates to the product in its condition as applied. However, no guarantee, warranty or assurance is accepted either explicitly or implicitly for the accuracy, reliability and/or completeness of this information. We expressly call on the person receiving this information to check on the suitability and completeness of this information for their particular information.