

DYESORB
METAL ORGANIC FRAMEWORKSVersion: 1
Date: 14.07.2020

Watch® encourages and expects you to read and understand the entire MSDS, as there is important information throughout the document. We expect you to follow the precautions identified in this document unless your use conditions would necessitate other appropriate methods or actions.

1 IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND COMPANY

Product Name	DYESORB
Application	Adsorption & Degradation of Dye Pollutants
Company Identification/Supplier	Watch Water GmbH Fahlachstr. 14 D-68165 Mannheim Email: info@watchwater.de Website: www.watchwater.de Phone: +49 62187951-0 Fax: +49 62187951-99

Emergency Information (8:00 – 16:45) Phone: +49 62187951-50**2 POTENTIAL HAZARD****Classification of the substance or mixture**

- The substance is not classified as dangerous according to Regulation (EC) No 1272/2008.
- **Label elements Note on labeling**
This product does not require labeling according to 2008/1272/EC
- **Classification according to Directives 67/548/EEC and 1999/45/EC**
This product does not require labeling or classification according to Directive 67/548/EEC or 1999/45/EC.
- **Other hazards**
The product is not harmful to health under normal conditions of use dangerous for the environment.
This substance does not meet the criteria for classification as PBT or vPvB.

Emergency Overview:

Contact can cause irritation to eyes, skin, respiratory system, and gastrointestinal tract.

Potential health effects:**Inhalation:** May cause mild irritation to the respiratory tract.**Ingestion:** Not expected to be a health hazard via ingestion. This product can cause mild irritation of gastrointestinal tract if swallowed in small amounts. Large amounts may cause gastrointestinal disturbances. Symptoms may include irritation, nausea, vomiting, abdominal pain, diarrhea.**Skin Contact:** May cause mild irritation.**Eye Contact:** May cause irritation of eyes. Abrasive action of dust particulate may damage eye.

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Aggravation of Pre-existing Conditions: Contact may aggravate disorders of the eyes, skin, central nervous system disorders, gastrointestinal tract, and respiratory system (such as bronchitis, emphysema and asthma).

3 COMPOSITION / INFORMATION ON INGREDIENTS**Composition**

Material	CAS-Nr.	Conc. w/w
Zinc	7440-66-6	66 – 70 %
Proprietary	Proprietary	30 – 34 %

Amounts specified are typical and do not represent a specification. Remaining components are proprietary, nonhazardous and/or present at amounts below reportable limits.

4 FIRST AID MEASURES

- **Learn to pronounce general information**
First Aider: Pay attention to self-protection.
- **General Information:** Take off contaminated clothes. Wash immediately with plenty of water. Continue rinsing for at least 10 minutes. If any symptom persists, seek medical attention.
- **Eye contact:** Rinse immediately with plenty of running water. Continue for at least 15 minutes. Seek medical advice the irritation persists.
- **Skin contact:** If irritation occurs wash immediately with plenty of water and non-abrasive soap. Continue for at least 15 minutes. Obtain medical advice if there are persistent symptoms.
- **Inhalation:** Remove patient to fresh air, allow to rest and keep warm. In case of unconsciousness place patient stably on side position for transportation. Obtain medical advice.
- **Ingestion:** First rinse mouth with water. Immediately give 1-2 glasses of water, if victim is fully conscious. Seek medical attention.

5 FIRE FIGHTING MEASURES

- Not considered to be a fire hazard. However, the material contains carbon may increase the burning rate of combustibles (**Ignition Temperature:** $\geq 350^{\circ}\text{C}$)
- **Hazardous combustion products:** Material will burn in a fire, releasing combustion products of carbon monoxide and carbon dioxide.
- **General hazards:** Other material adsorbed onto the carbon may also be released.
- **Extinguishing media:** Water fog, foam, dry chemical.
- **Firefighting equipment:** Self-contained breathing apparatus and full body protective clothing.

6 ACCIDENTAL RELEASE MEASURES

- Contain the discharged material.
- **Personal precautions:** Wear eye protection and protective clothing.

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- **Methods for cleaning up:** Vacuum or sweep up material and placed in a designated waste container. Avoid dust formation.
- **Personal precautions:** protective equipment and emergency procedures method
- Avoidance of ignition sources and whirling up.
- **Environmental precautions:** keep out of drains and water courses

Methods and material for containment and cleaning

Take up mechanically. Clean floor and contaminated objects with water. If necessary, use explosion-proof vacuum cleaners.

- **Disposal method:** The material be disposed in accordance with applicable local, state and federal regulations.

7 HANDLING & STORAGE

- **Precautions for safe handling advice for safe handling:** If possible, store and transport the product in closed systems. Information about fire and explosion protection. During handling and storage, explosion protection measures may be necessary (for example, ventilation, avoidance of Ignition sources, designation of explosion protection zones / hazardous areas). These are in the scope of the risk assessment to be carried out beforehand. Remove accumulations outside the plant immediately. Hygiene measures, preventive skin protection through skin protection cream. Wash hands before the break and at work. Do not eat, drink or smoke at the workplace.
- **Storage:** Keep in a tightly closed container, stored in a cool, dry, ventilated area. Protect against physical damage. Store in a cool, dry area. Keep container closed when not in use. Containers of this material may be hazardous when empty since they retain product residues (dust, solids); observe all warnings and precautions listed for the product.
- **Conditions for safe storage, including any incompatibilities:** Requirements for storage rooms and containers. The silo system must be hermetically sealed. Avoid sources of ignition. Use only approved equipment in the specified explosion protection zones. Connect system parts electrically conductively and earth them. Storage compatibility do not store near heat sources or flammable materials. Further information on storage conditions, smoking, open light or fire close to the warehouse or the silo and loading facilities are all forbidden. Storage class according to TRGS 510: LGK 11
- **Specific end use (s):** Adsorbent, filter material

8 EXPOSURE CONTROL / PERSONAL PROTECTION

Exposure limit: no specific value; the national exposure limit for dust should be observed.

Exposure controls:

- **Protective and hygiene measures:** Avoid dust generation. Change contaminated clothing. Before the breaks and at the end of work Wash your hands. do not eat and drink during work.

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- **Respiratory protection:** In the event of dust formation: half masks or quarter masks (DIN EN 140) type P2.
- **Hand protection:** Nitrile or combined leather / cotton gloves. Protective gloves are in their execution in Dependence on hazardous substance concentration and quantity to be selected specific to the workplace. Skin protection cream for prolonged dust exposure.
- **Eye protection:** In case of dust formation: use tight-fitting glasses (dust protection glasses).
- **Limitation and monitoring of environmental exposure:** Clean delivery, fluidizing and leakage air using suitable filters.

9 PHYSICAL AND CHEMICAL PROPERTIES

General Information:	
Physical State:	Solid
Odor	Non-specific
Appearance:	Black Granules
Odor:	Odorless
Granule Size:	0.6 – 1.6 mm
Ignition Temperature:	> 825°C
Melting point:	N/A
Bulk density:	670 - 710 kg/m ³
Solubility in water at 20°C:	Not soluble

10 STABILITY AND REACTIVITY

- **Reactivity:** No dangerous reactivity under normal ambient conditions.
- **Chemical stability:** The product is stable under normal environmental conditions.
- **Possibility of hazardous reactions:** When used as directed, no hazardous reactions are expected.
- **Conditions to avoid:** To prevent self-ignition, prevent uncontrolled air supply.
- **Incompatible materials:** Not known.
- **Hazardous decomposition products:** Not known.

11 TOXICOLOGICAL INFORMATION

Information on toxicological effects

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- **Toxicity to Animals:** Acute oral toxicity (LD50): 45000 mg/kg [Rat].
- **Chronic Effects on Humans:** Not available.
- **Other Toxic Effects on Humans:** Slightly hazardous in case of skin contact (irritant), of ingestion, of inhalation
- **Special Remarks on Toxicity to Animals:** Not available.
- **Special Remarks on Chronic Effects on Humans:** Not available.

12 ECOLOGICAL INFORMATION

- **Eco toxicity:** No data available
- **Environmental fate:** No data available

The product has not been tested. The statement has been derived from the properties of the individual components.

13 DISPOSAL CONSIDERATION

- **General Information:** This product as manufactured, is not a RCRA, listed hazardous waste and does not exhibit any characteristics of a hazardous waste, including toxicity.
- **Component Waste number:** No EPA Waste Numbers are applicable for this product's components.
- **Recommendation:** Disposal must be made according to official regulations.
- **Disposal method:** This product is generally suitable for landfill disposal. Follow all applicable Federal, State, and local laws, rules, and regulations regarding the proper disposal of this material. If this product has been altered or contaminated with other hazardous materials, appropriate waste analysis may be necessary to determine proper method for disposal. A qualified environmental professional should determine waste characterization, disposal, and treatment methods for this material in accordance with applicable Federal, State and local regulations and requirements. 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.

14 TRANSPORTATION INFORMATION

- Land Transport (ADR/RID/ADN): Not classified as dangerous good under transport regulations
- Sea Transport (IMDG/IMO): Not classified as dangerous good under transport regulations
- Air Transport (IATA/ICAO): Not classified as dangerous good under transport regulations

FERROLOX-X is not classified as a hazardous material by US DOT and is not regulated by the Transportation of Dangerous Goods (TDG) when shipped by any mode of transport.

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15 | LEGISLATION

Safety, health and environmental regulations / legislation specific to the substance or mixture

Labeling according to Regulation (EC) No 1272/2008

The substance does not require classification or labeling under the CLP regulation.

Not listed or not regulated by the following inventories: CDTA, Chemical Weapon Convention

NFPA Ratings

Component	CAS No.	Health	Flammability	Reactivity	Others
Zinc	7440-66-6	1	0	0	Alkaline
Proprietary	-	0	1	0	-

National regulations

Ordinance on the Protection against Hazardous Substances (GefStoffV).

TRGS 900 - Technical Rule for Hazardous Substances: Occupational Exposure Limits.

TRGS 510 - Technical Rules for Hazardous Substances: Storage of hazardous substances in transportable Containers.

Ordinance on Installations for the Handling of Substances Hazardous to Water - AwSV: nwg - not hazardous to water (according to § 10 AwSV).

Twelfth Ordinance to Implement the Federal Immission Control Act (Störfall-Verordnung - 12. BImSchV): Not applicable.

All relevant national and local regulations and provisions must be observed.

Chemical safety assessment

For this substance no chemical safety assessment is required.

16 | OTHER INFORMATION

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product feature and shall not establish a legally valid contractual relationship.

Disclaimer:

Watch® Water GmbH provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular



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purpose. This MSDS provides selected regulatory information on this product, including its components. This is not intended to include all regulations. It is the responsibility of the user to know and comply with all applicable regulations and laws relating to the product being used.

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