

Product
KATALOX LIGHT®
Catalytic Advanced Filtration

Version: 2.2
 Printing Date: 15.01.2024
 Language: EN

Watch-Water® 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 precautionary measures identified in this document unless your use conditions necessitate other appropriate methods or actions.

1 IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product Name: **Katalox Light®**
(Also known as Katalyst Light)

Application: Water Treatment, POE Filtration, Catalytic Filtration. Iron, Manganese and Hydrogen Sulfide removal. Reduction of Arsenic, Lead, Zinc, Copper and Heavy Metals from Drinking Water Treatment. Waste Water Treatment.

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2 HAZARDS IDENTIFICATION

CLASSIFICATION OF THE SUBSTANCE OR MIXTURE

Classification according to the regulation (EC) no 1272/2008 (CLP) and its amendments

LABEL ELEMENTS

Label elements according to the regulation (EC) no 1272/2008 (CLP) and its amendments

Hazard Statements:

- H303 – May be harmful if swallowed.
- H313 – May be harmful in contact with skin.
- H333 – May be harmful if inhaled.
- H318 Causes eye irritation.
- H373 May cause damage to organs through prolonged or repeated exposure.

Precautionary Statements – Prevention:

- P260 Do not breathe dust/fume/gas/mist/vapours/spray.
- P280 Wear protective gloves/protective clothing/eye protection/face protection.

Precautionary Statements – Response:

- P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P310 Immediately call a POISON CENTER/doctor/...

OTHER HAZARDS

- According to Regulation (EU) 1907/2006, no substances are assessed as PBT or vPvB.
- According to Regulation (EU) 2017/2100 or Regulation (EU) 2018/605, no substances are known to have endocrine disrupting properties.

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Component	CAS-Nr.	Conc.	OSHA PEL TWA 8/40h	OSHA PEL CEILING	ACGIH TLV	Listed Carcinogenic		
		w/w	mg/m ³	mg/m ²	mg/m ²	NTP	IARC	OSH A
ZEOSORB	12173-10-3	>85%	15 (total dust)	N/A	N/A	No	No	No
Manganese dioxide	1313-13-9	>10%	5 (as Mn)	5	0.2 (as Mn)	No	No	No
Hydrated lime	1305-62-0	<5%	15 (total dust) 5 (respirable)	N/A	10	No	No	No

3 COMPOSITION / INFORMATION ON INGREDIENTS

In accordance with the product knowledge, no nanomaterials have been identified. The mixture does not contain any substances classified as Substances of Very High Concern (SVHC) by the European CHemicals Agency (ECHA) under article 57 of REACH: <http://echa.europa.eu/fr/candidate-list-table>.

Chemical characterization: Manganese dioxide coated ZEOSORB

Substance		Chemical Composition/Formula	Concentration (%)	Classification
ZEOSORB				
CAS No	12173-10-3	Clinoptilolite (Ca,K ₂ ,Na ₂ ,Mg) ₄ Al ₈ Si ₄₀ O ₉₆ • 24H ₂ O	>85%	
EC No	215-283-8			
MANGANESE DIOXIDE				
CAS No	1313-13-9	Manganese dioxide MnO ₂	>10%	H302 Acute Tox. 4 ORAL H332 Acute Tox. 4 INHALATION H373 STOT RE 2
EC No	215-202-6			
HYDRATED LIME				
CAS No	1305-62-0	Calcium hydroxide Ca(OH) ₂	≤ 5 %	H313 Skin Irrit. 3 H318 Eye Irrit. 2B H335 STOT SE 3 H335
EC No	215-137-3			

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

REMARK

Text phrases and H- EUH-: see section 16.

4 FIRST-AID MEASURES

DESCRIPTION OF FIRST AID MEASURES

General information:

- In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).
- Do not leave the affected person unattended.
- Remove victim out of the danger area.
- Keep the affected person warm, still and covered.

Following inhalation:

- Remove person to fresh air and keep comfortable for breathing.

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Following skin contact:

- Change contaminated, saturated clothing.
- After contact with skin, wash immediately with plenty of water and soap.

Following eye contact:

- Remove contact lenses, if present and easy to do. Continue rinsing.
- In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist.
- Protect unharmed eyes.

Following ingestion:

- Never give anything by mouth to an unconscious person or a person with cramps.
- IF SWALLOWED: Rinse mouth.
- Do NOT induce vomiting.

Self-protection of the first aider:

- First aider: Pay attention to self-protection!

Most important symptoms and effects, both acute and delayed.

The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11.

Indication of any immediate medical attention and special treatment needed.

Notes for the doctor:

Treat symptomatically.

5	FIRE FIGHTING MEASURES
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EXTINGUISHING MEDIA

Suitable extinguishing media:

- Foam
- Extinguishing powder
- Carbon dioxide (CO₂)
- Sand

Unsuitable extinguishing media:

- Strong water jet

SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE.

Formation of toxic gases is possible during heating or in case of fire.

ADVICE FOR FIREFIGHTERS

- Wear a self-contained breathing apparatus and chemical protective clothing.

ADDITIONAL INFORMATION

- Do not inhale vapors and fumes.
- Co-ordinate fire-fighting measures to the fire surroundings.
- Move undamaged containers from immediate hazard area if it can be done safely.
- Use caution when applying carbon dioxide in confined spaces. Carbon dioxide can displace oxygen.
- Use water spray jet to protect personnel and to cool endangered containers.

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- Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

6	ACCIDENTAL RELEASE MEASURES
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PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES

- Use personal protection equipment.
- Remove persons to safety.
- Use appropriate respiratory protection.
- Provide adequate ventilation.

ENVIRONMENTAL PRECAUTIONS

- Ensure that waste is collected and contained.

METHODS AND MATERIAL FOR CONTAINMENT AND CLEANING UP

- Treat the recovered material as prescribed in the section on waste disposal.
- Collect in closed and suitable containers for disposal.
- Clean contaminated objects and areas thoroughly observing environmental regulations.

REFERENCE TO OTHER SECTIONS

- Safe handling: see section 7.
- Disposal: see section 13.
- Personal protection equipment: see section 8.

7	HANDLING AND STORAGE
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PRECAUTIONS FOR SAFE HANDLING

Protective measures:

- Avoid contact with skin, eyes, and clothes.
- Wear personal protective clothing (see section 8).
- Sewers and ducts must be protected against the entry of the product.
- Use only in well-ventilated areas.
- If local exhaust ventilation is not possible or not enough, the entire work area must be ventilated by technical means.
- Provide adequate ventilation as well as local exhaustion at critical locations.
- Dust should be exhausted directly at the point of origin.
- Avoid breathing dust.

Advice on general occupational hygiene:

- Wash hands before breaks and after work.
- Remove contaminated, saturated clothing immediately.
- Work in well-ventilated zones or use proper respiratory protection.

In the immediate working surroundings, there must be:

- Provide eye shower and label its location conspicuously.

CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES

- Keep container tightly closed in a dry, cool, and well-ventilated place.
- Keep container in upright position to prevent leakage.

Requirements for storage rooms and vessels:

Ensure adequate ventilation of the storage area.

Advice on joint storage:

Keep away from food, drink, and animal feeding stuff.

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8 EXPOSURE CONTROL/ PERSONAL PROTECTION

APPROPRIATE ENGINEERING CONTROLS

Technical measures and the application of suitable work processes have priority over personal protection equipment.

Provide adequate ventilation as well as local exhaustion at critical locations.

INDIVIDUAL PROTECTION MEASURES



Eye/face protection:

- Suitable eye protection- Wear eye protection equipment.
- Recommended eye protection articles- Eyeglasses with side protection.

Skin protection:

- Hand protection- Wear protective gloves.
- Suitable material- Butyl caoutchouc (butyl rubber).
- Do not wear gloves near machines and rotating tools.
- Use gloves only once.

Remarks:

- When handling chemical substances, protective gloves must be worn with the CE-label including the four control digits.
- The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances.
- For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.
- Breakthrough times and swelling properties of the material must be taken into consideration.

Body protection:

Suitable protective clothing- Lab coat.

Respiratory protection:

- Respiratory protection necessary- If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn.
- Suitable respiratory protection apparatus- Wear respiratory protection.

Remarks:

- The filter class must be suitable for the maximum contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product. If the concentration is exceeded, self-contained breathing apparatus must be used.
- Observe the wear time limits as specified by the manufacturer.
- Use only respiratory protection equipment with CE-symbol including four-digit test number.

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9 | PHYSICAL AND CHEMICAL PROPERTIES

GENERAL INFORMATION	
Physical State	solid
Appearance	black granules
Odour	odorless
Granule size	0.6 - 1.4 mm
MELTING POINT/ FREEZING POINT	n.a.
FLASH POINT	n.a.
BULK DENSITY (Kg/m³)	ca. 1060
SOLUBILITY IN WATER 20 °C	not soluble

10 | STABILITY AND REACTIVITY

CHEMICAL STABILITY

The product is stable when stored at normal ambient temperatures.

MATERIALS TO AVOID

Manganese Dioxide is a powerful oxidizing agent, therefore it should not be heated or rubbed with organic matter or other easily oxidizable substances such as sulfur, magnesium, powder of zinc or aluminum, etc. Act as a catalyst in hydrogen peroxide fast decomposition. Keep away from heat and flammable materials.

POSSIBILITY OF HAZARDOUS REACTIONS

No hazardous reaction when handled and stored according to provisions.

CONDITIONS TO AVOID

Dusting and incompatibles

HAZARDOUS DECOMPOSITION PRODUCTS

Does not decompose when used for intended uses.

11 | TOXICOLOGICAL INFORMATION

INFORMATION ON HAZARD CLASSES AS DEFINED IN REGULATION (EC) NO 1272/2008

Acute toxicity	Zeolite / Clinoptilolite: Acute toxicity (LD/LC50 values relevant for classification): Oral LD50, rat: N/A [dosage 20,000 mg/kg (max.) didn't show any adverse effect] Dermal LD50, rat:N/A [dosage 5,000 mg/kg (max.) didn't show any adverse effect] Manganese Dioxide: Acute toxicity (LD/LC50 values relevant for classification): Oral LD50, rat: 3478 mg/kg Dermal (subcutaneous) LD50, rat: 422 mg/kg Chronic toxicity (LD/LC50 values relevant for classification): Inhalation LD50, rat: 1.82 mg/m ³ , 34 hours/35 days
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	Hydrated Lime: Acute toxicity (LD/LC50 values relevant for classification): Oral LD50, rat: 7340 mg/kg
Skin corrosion/irritation	The product is not classified.
Eye damage/irritation	Calcium Hydroxide: The product is classified Eye Irri. 2B according to the referenced regulation. Can cause eye irritation.
Skin sensitisation	The product is not classified.
Specific target organ toxicity (single exposure)	The product is not classified.
Carcinogenicity	The product is not classified.
Reproductive toxicity	The product is not classified.
Germ cell mutagenicity	The product is not classified.
Sensitisation to the respiratory tract	The product is not classified.
Note: Sub-Sections not mentioned are not classified	

INFORMATION ON OTHER HAZARDS

Endocrine disrupting properties:

According to Regulation (EU) 2017/2100 or Regulation (EU) 2018/605, no substances are known to have endocrine disrupting properties.

12 ECOLOGICAL INFORMATION

Toxicity

No toxic effect known

Persistence and degradability

Not applicable for inorganic substances.

Bioaccumulative potential

Not applicable for inorganic substances.

Mobility in soil

Due to low solubility, there is only low mobility in most soils.

Results of PBT and vPvB assessment

Not applicable for inorganic substances.

Endocrine disrupting properties

According to Regulation (EU) 2017/2100 or Regulation (EU) 2018/605, no substances are known to have endocrine disrupting properties.

Other adverse effects

Not applicable

Additional ecotoxicological information

Not available

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13 | DISPOSAL CONSIDERATIONS

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.
Recommendation: Disposal must be made according to official regulations
Disposal methods: 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 the 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 containers and unused contents in accordance with federal, state and local requirements.

14 | TRANSPORT INFORMATION

- **Land transport ADR/RID and GGVS/GGVE:** Not classified as dangerous good under transport regulations.
- **Sea transport IMDG:** Not classified as dangerous good under transport regulations.
- **Air transport IATA/ICAO:** Not classified as dangerous good under transport regulations.

Katalox Light® /Katalyst Light 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.

15 | REGULATORY INFORMATION

SAFETY, HEALTH, AND ENVIRONMENTAL REGULATIONS/LEGISLATION SPECIFIC FOR THE SUBSTANCE OR MIXTURE

- This SDS has been established in accordance with REACH regulation, including its amendments: REACH Regulation (EC) No 1907/2006.
- This SDS has been established in accordance with CLP regulation, including its amendments: CLP Regulation EC No. 1272/2008
- EU regulations: Zeolite is not a hazardous substance, not a substance according to Directive 96/82/EC ("SEVESO"), not a substance that damages the ozone layer and not a persistent organic pollutant:
- Water hazard class: (not hazardous to water) according to AwSV (Germany)

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

COMPONENTS LISTED IN FEDERAL REGULATIONS

Component	CAS No.	TSCA	RCRA	CERCLA	SARA 311/312	SARA 313	SARA 302
Zeosorb	12173-10-3	Yes	No	No	immediate health	No	No
Manganese dioxide	1313-13-9	Yes	No	Yes	Yes (as compound)	No	No
Hydrated lime	1305-62-0	Yes	No	No	No	No	No

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COMPONENTS LISTED IN INTERNATIONAL REGULATIONS

Component	CAS No.	AICS	DSL	ECL	EINECS	ENCS	Philippines
Zeosorb	12173-10-3	Yes	No	-	Yes	Yes	-
Manganese dioxide	1313-13-9	Yes	Yes	Yes	Yes	Yes	Yes
Hydrated lime	1305-62-0	Yes	No	Yes	Yes	Yes	Yes

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

NFPA RATINGS

Component	CAS No.	Health	Flammability	Reactivity	Others
Zeosorb	12173-10-3	1	0	0	-
Manganese dioxide	1313-13-9	2	0	0	Oxidizer
Hydrated lime	1305-62-0	2	0	0	alkaline

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.

ABBREVIATIONS AND ACRONYMS

- CAS: Chemical Abstract Service Number.
- IATA: International Air Transport Association.
- IMDG: International Maritime Dangerous Goods Code.
- DPD Dangerous Preparation Directive.
- UN number: United Nations number.
- No EC: European Commission Number.
- ADN/ADNR: Regulations concerning the transport of dangerous substances in barges on waterways.
- ADR/RID: European Agreement concerning the International Carriage of Dangerous Goods by Road/Regulations concerning the international carriage of dangerous goods by rail.
- CLP: Classification, labeling and packaging.
- VPvB: very persistent and very bio-accumulative substances.

Classification for mixtures and used evaluation method according to regulation (EC) 1272/2008 [CLP]

- Classification of the mixture is in accordance with the evaluation method described in Regulation (EC) No 1272/2008.
- Complies with ATP 18, Regulation (EU) no 2022/692.

RELEVANT R-, H- AND EUH-PHRASES (NUMBER AND FULL TEXT)

H302	Acute Tox. 4 ORAL	Harmful if swallowed
H315	Skin Irrit. 2	Causes skin irritation.
H318	Eye Dam. 1	Causes eye damage.

Material Safety Data Sheet



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H332	Acute Tox. 4 INHALATION	Harmful if inhaled.
H335	STOT SE 3 H335	May cause respiratory irritation
H373	STOT RE 2	May cause damage to organs through prolonged or repeated exposure

TRAINING ADVICE

Refer to Sections 4, 5, 6, 7 and 8 of this safety data sheet.

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 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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