

## Product

**REDOXY - 3C***(Reduction / Oxidation Reaction) – Solid Granules*

Version: 1.1  
 Spelling and grammatic changes to MSDS for clear understanding. All components and characteristics of product remain the same as to Version 1.0  
 Printing Date: 01.01.2019

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.

<b>1</b>	<b>CHEMICAL PRODUCT &amp; COMPANY IDENTIFICATION</b>
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**Product Name:** **REDOXY - 3C**

**Application:** For water treatment (surface water, drinking water, wastewater)

**Company Identification/Supplier** Watch Water GmbH  
 Fahrlachstr. 14  
 D-68165 Mannheim  
 Germany  
 Phone: + 49 62187951-0  
 Fax: + 49 62187951-99

**Emergency information (8:00- 16:45)** Phone: +49 621 87951-50

<b>2</b>	<b>HAZARDS IDENTIFICATION</b>
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**Classification of the substance or mixture**

- **Classification according to Regulation (EC) No. 1272/2008**  
 This product requires labeling or classification according to 2008/1272/EC.
- **Classification according to Directives 67/548/EEC and 1999/45/EC**  
 This product requires labeling or classification according to Directive 67/548/EEC or 1999/45/EC.

**Labeling:**

- **Labeling according to Regulation (EC) No 1272/2008**  
 This product requires labeling according to 2008/1272/EC.
- **Labeling according to Directive 67/548/EEC or 1999/45/EC**  
 This product requires labeling according to 67/548/EEC or 1999/45/EC

**Xi: IRRITANT****Other hazards**

The product does not contain any organic halogen compounds (AOX), nitrates, heavy metal compounds or formaldehydes.

**Results of PBT and vPvB assessment**

- **PBT:** Not applicable.
- **vPvB:** Not applicable.

<b>3</b>	<b>COMPOSITION / INFORMATION ON INGREDIENTS</b>
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- Chemical characterization: solid mixture

Component, name	CAS-Nr.	Classification	R-Phrase/Hazard	Conc.
Iron (III)	20074-52-6	none	R41,R38	16 -18%
Iron (II)	15438-31-0	none	R41,R38	0.8%
proprietary	proprietary	none	none	40 - 48%
H <sub>2</sub> O	7732-18-5	none	none	16 - 20%
Calcium Hydroxide	130-62-0	irritant	R41,R38	2 - 3 %
proprietary	proprietary	none	none	14 - 16%
Sodium bicarbonate	144-55-8	none	none	0.2 - 1%

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

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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.
- **Skin contact:** Remove contaminated clothing. Wash immediately with plenty of water. 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 in 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.

**Note to physician:**

Treatment: Treat according to symptoms (decontamination, vital functions), no known specific antidote.

**5 FIRE FIGHTING MEASURES**

- **Extinguishing media:** Extinguish with water
- **Unsuitable extinguishing media:** High volume water jet
- **Exposure hazards:** harmful gases
- **Combustion products:** oxides of sulfur may be evolved
- **Protective equipment:** Firefighters and other exposed, wear self-contained breathing apparatus and protective suit.

**6 ACCIDENTAL RELEASE MEASURES**

- The product forms a slippery surface in contact with water.
- **Personal precautions:** Wear eye protection and protective clothing.
- **Environmental precautions:** Keep out of drains and water courses.
- **Methods for cleaning up:** Vacuum or sweep up material and placed in a designated waste container. Avoid dust formation.
- **Disposal method:** The material be disposed in accordance with applicable local, state and federal regulations.

**7 HANDLING AND STORAGE**

- **Handling:** Normal chemical handling. Dust mask should be used when large quantities are used in the absence of good local exhaust ventilation. Avoid the formation and deposition of dust. Take precautionary measures to avoid static charges. Wash hands after handling.
- **Storage:** Protect from sun. Store in a dry, cool place. Keep container sealed and dry.
- The relevant fire protection measures should be noted.

**8 EXPOSURE CONTROL/PERSONAL PROTECTION**

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

**Personal protective equipment:**

- **Respiratory protection:** Respiratory protection if dust is formed. In case of insufficient ventilation, use an appropriate approved particulate respirators (for example EN 143 or 149, type P2 or FFP2).
- **Eye protection:** Safety glasses with side-shields (frame goggles). Where eye contact or dusty conditions may be likely, dust tight goggles are recommended.
- **Hands:** Chemicals resistant gloves butyl-rubber protective gloves.
- **Skin protection:** Wear appropriate protective clothing. Avoid skin contact with the spilled product.
- **General protective and hygienic measures:** Keep away from foodstuffs, beverages and feed. Immediately remove all soiled and contaminated clothing. Wash hands before breaks and at the end of work. Avoid contact with the eyes and skin.

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**9 PHYSICAL AND CHEMICAL PROPERTIES****General Information:**

<b>Appearance:</b>	Yellowish granules
<b>Odor:</b>	Slight, product specific
<b>Form:</b>	Solid granules

<b>Flash point:</b>	Not flammable.
<b>Bulk density:</b>	ca. 1058 – 1088 kg/m <sup>3</sup>
<b>pH</b>	7.2 (in 0.01% solution)
<b>Solubility in water:</b>	soluble
<b>Vapor Density (Air=1)</b>	N/A
<b>Percent volatility by volume</b>	N/A
<b>Freezing Point</b>	N/A

**10 STABILITY AND REACTIVITY**

- **Thermal decomposition/conditions to be avoided:** No decomposition if used according to specifications. Avoid storing at high temperatures or in direct sunlight.
- **Materials to avoid:** Contact with strong oxidizing agents and alkaline substances. Corrosive to copper, copper alloys, mild steel and galvanized steel. Avoid contact with strong oxidizing agent.
- **Conditions to avoid:** Heat, flame and other sources of ignition. Avoid contact with mineral acids, excessive heat and bases/alkalis.
- **Hazardous decomposition products:** None when used according to specifications

**11 TOXICOLOGICAL INFORMATION****Information on toxicological effects****Acute toxicity**

Oral LD50 (rat) &gt;170 mg/kg

**Primary irritant effect:**

Skin (rabbit): No skin irritation  
 Eye (rabbit): Avoid contact with eyes

**Mutagenicity:**

Geno toxicity in vitro: In vitro tests did not show mutagenic effects  
 Geno toxicity in vivo: no data available

**Carcinogenicity:**

Not classifiable as a human carcinogen. This product does not contain any ingredient designated as probable or suspected human carcinogens by: IARC and ACGIH

**12 ECOLOGICAL INFORMATION****Toxicity**

- **Aquatic toxicity to fish:** No data available
- **Toxicity to aquatic plants:** No data available
- **Bio-accumulative potential:** Not applicable.
- **Mobility in soil:** No further relevant information available.
- **Additional ecological information:** Do not release untreated into natural waters.

**13 DISPOSAL CONSIDERATIONS**

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- **Product Disposal**
  - Dispose of wastes in an approved waste disposal facility.
  - This material shows the characteristics of corrosivity to metals and other building materials and any disposal must comply with hazardous waste disposal requirements.
  - In accordance with local and national regulations.
  
- **Advice on cleaning and disposal of packaging**
  - Clean container with water.
  - Empty containers should be taken to an approved waste handling site for recycling or disposal.
  - Uncleaned empty packaging
  - Dispose of as unused product.
  - In accordance with local and national regulations.

**14 | TRANSPORT 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

**15 | REGULATORY INFORMATION**

**Safety, health and environmental regulations/legislation specific for the substance or mixture**  
Labeling according to Regulation (EC) No 1272/2008

**16 | OTHER INFORMATION**

- **NFPA (National Fire Protection Association) & HMIS (Hazardous Materials Identification System (Paint & Coating)) - Classification**

Health:	2 moderate
Flammability:	0 minimal
Instability or Reactivity:	0 minimal
PPE:	Corrosive
  
- The 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:**  
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