

# BIRM

## Safety Data Sheet

According to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

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Version: 1.0

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

#### 1.1. Product Identifier

Product Form : Mixture  
Product Name : BIRM

#### 1.2. Relevant Identified Uses of the Substance or Mixture and Uses Advised Against

##### 1.2.1. Relevant Identified Uses

Use of the Substance/Mixture : Water conditioner

##### 1.2.2. Uses Advised Against

No additional information available

#### 1.3. Details of the Supplier of the Safety Data Sheet

##### Corporation

Clack Corporation  
4462 Duraform Lane  
Windsor, WI 53598 USA  
Tel: +1 608-846-3010  
[SDS@Clackcorp.com](mailto:SDS@Clackcorp.com)

#### 1.4. Emergency Telephone Number

Emergency Number : VelocityEHS  
Domestic: 1-800-255-3924  
International: +1-813-248-0585

### SECTION 2: HAZARDS IDENTIFICATION

#### 2.1. Classification of the Substance or Mixture

##### Classification According to Regulation (EC) No. 1272/2008

Carc. 1A H350  
STOT SE 3 H335  
STOT RE 1 H372

Full text of hazard classes, H- and EUH-statements: see section 16

#### 2.2. Label Elements

##### Labelling According to Regulation (EC) No. 1272/2008 [CLP]

##### Hazard Pictograms (CLP)



##### Signal Word (CLP)

: Danger

##### Hazard Statements (CLP)

: H335 - May cause respiratory irritation.  
H350 - May cause cancer ( by inhalation).  
H372 - Causes damage to organs (lungs, central nervous system) through prolonged or repeated exposure.

##### Precautionary Statements (CLP)

: P201 - Obtain special instructions before use.  
P202 - Do not handle until all safety precautions have been read and understood.  
P260 - Do not breathe dust.  
P264 - Wash hands, forearms and face thoroughly after handling.  
P270 - Do not eat, drink or smoke when using this product.  
P271 - Use only outdoors or in a well-ventilated area.  
P280 - Wear protective gloves/protective clothing/eye protection.  
P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
P308+P313 - IF exposed or concerned: Get medical advice/attention.  
P403+P233 - Store in a well-ventilated place. Keep container tightly closed.  
P405 - Store locked up.  
P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

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### 2.3. Other Hazards

**Other Hazards Not Contributing to the Classification** : Exposure may aggravate pre-existing eye, skin, or respiratory conditions.

This substance/mixture does not meet the PBT/vPvB criteria of REACH regulation, annex XIII

The mixture contains substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605

Component	
Quartz(14808-60-7)	The substance is included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1. Substances

Not applicable

### 3.2. Mixtures

Name	Product Identifier	%	Classification According to Regulation (EC) No. 1272/2008
Pumice	(CAS-No.) 1332-09-8 (EC-No.) 603-719-3	60 – 100	Not classified
Quartz	(CAS-No.) 14808-60-7 (EC-No.) 238-878-4	40 – 60	Carc. 1A, H350 STOT SE 3, H335 STOT RE 1, H372
Manganese oxide (MnO <sub>2</sub> )	(CAS-No.) 1313-13-9 (EC-No.) 215-202-6 (EC Index-No.) 025-001-00-3	10 – 20	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Inhalation:dust,mist), H332 STOT RE 2, H373

Full text of H- and EUH-statements: see section 16

## SECTION 4: FIRST AID MEASURES

### 4.1. Description of First-aid Measures

- First-Aid Measures General** : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
- First-Aid Measures After Inhalation** : When symptoms occur: go into open air and ventilate suspected area. Obtain medical attention if breathing difficulty persists.
- First-Aid Measures After Skin Contact** : Remove contaminated clothing. Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention.
- First-Aid Measures After Eye Contact** : Rinse cautiously with water for at least 5 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention if irritation develops or persists.
- First-Aid Measures After Ingestion** : Rinse mouth. Do NOT induce vomiting. Obtain medical attention.

### 4.2. Most Important Symptoms and Effects Both Acute and Delayed

- Symptoms/Effects** : May cause respiratory irritation. May cause cancer by inhalation. . Causes damage to organs (lungs, central nervous system) through prolonged or repeated exposure.
- Symptoms/Effects After Inhalation** : Irritation of the respiratory tract and the other mucous membranes.
- Symptoms/Effects After Skin Contact** : Prolonged exposure may cause skin irritation.
- Symptoms/Effects After Eye Contact** : May cause slight irritation to eyes.
- Symptoms/Effects After Ingestion** : Ingestion may cause adverse effects.
- Chronic Symptoms** : Causes damage to organs (lungs, central nervous system) through prolonged or repeated exposure. May cause cancer by inhalation.

### 4.3. Indication of Any Immediate Medical Attention and Special Treatment Needed

If exposed or concerned, get medical advice and attention. If medical advice is needed, have product container or label at hand.

## SECTION 5: FIREFIGHTING MEASURES

### 5.1. Extinguishing Media

- Suitable Extinguishing Media** : Not flammable. Use extinguishing media appropriate for surrounding fire.
- Unsuitable Extinguishing Media** : None known.

### 5.2. Special Hazards Arising From the Substance or Mixture

- Fire Hazard** : Product is not flammable. Contains an oxidiser.
- Explosion Hazard** : Product is not explosive.

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<b>Reactivity</b>	: Hazardous reactions will not occur under normal conditions.
<b>Hazardous Combustion Products</b>	: Oxygen.
<b>5.3. Advice for Firefighters</b>	
<b>Precautionary Measures Fire</b>	: Exercise caution when fighting any chemical fire.
<b>Firefighting Instructions</b>	: Use water spray or fog for cooling exposed containers.
<b>Protection During Firefighting</b>	: Do not enter fire area without proper protective equipment, including respiratory protection.
<b>Other Information</b>	: No additional information available.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

### 6.1. Personal Precautions, Protective Equipment and Emergency Procedures

<b>General Measures</b>	: Do not breathe dust. Do not get in eyes, on skin, or on clothing. Do not handle until all safety precautions have been read and understood.
<b>6.1.1. For Non-Emergency Personnel</b>	
<b>Protective Equipment</b>	: Use appropriate personal protective equipment (PPE).
<b>Emergency Procedures</b>	: Evacuate unnecessary personnel.
<b>6.1.2. For Emergency Responders</b>	
<b>Protective Equipment</b>	: Equip cleanup crew with proper protection.
<b>Emergency Procedures</b>	: Upon arrival at the scene, a first responder is expected to recognise the presence of dangerous goods, protect oneself and the public, secure the area, and call for the assistance of trained personnel as soon as conditions permit. Ventilate area.

### 6.2. Environmental Precautions

Prevent entry to sewers and public waters.

### 6.3. Methods and Materials for Containment and Cleaning Up

<b>For Containment</b>	: Contain solid spills with appropriate barriers and prevent migration and entry into sewers or streams.
<b>Methods for Cleaning Up</b>	: Clean up spills immediately and dispose of waste safely. Recover the product by vacuuming, shoveling or sweeping. Transfer spilled material to a suitable container for disposal. Contact competent authorities after a spill.

### 6.4. Reference to Other Sections

See Section 8 for exposure controls and personal protection and Section 13 for disposal considerations.

## SECTION 7: HANDLING AND STORAGE

### 7.1. Precautions for Safe Handling

<b>Additional Hazards When Processed</b>	: Avoid dust production. Keep dust levels to a minimum and follow applicable regulations.
<b>Precautions for Safe Handling</b>	: Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Avoid contact with eyes, skin and clothing. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe dust.
<b>Hygiene Measures</b>	: Handle in accordance with good industrial hygiene and safety procedures.
<b>7.2. Conditions for Safe Storage, Including Any Incompatibilities</b>	
<b>Technical Measures</b>	: Comply with applicable regulations.
<b>Storage Conditions</b>	: Store in accordance with applicable national storage class systems. Keep container closed when not in use. Store in a dry, cool place. Keep/Store away from direct sunlight, extremely high or low temperatures and incompatible materials. Store locked up/in a secure area.
<b>Incompatible Materials</b>	: Strong acids, strong bases, strong oxidisers.

### 7.3. Specific End Use(S)

Water conditioner

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1. Control Parameters

Please see section 16 for the legal basis of limit value information in section 8.1, including the national legislation or provision which gives rise to a given limit.

Quartz (14808-60-7)		
<b>Austria</b>	OEL TWA (Legal Basis:BGBl. II Nr. 254/2018)	0,05 mg/m <sup>3</sup> (alveolar dust, respirable fraction)
<b>Austria</b>	OEL Chemical Category (Legal Basis:BGBl. II Nr. 254/2018)	Group C Carcinogen alveolar dust
<b>Belgium</b>	OEL TWA (Legal Basis:Royal Decree 21/01/2020)	0,1 mg/m <sup>3</sup> (alveolar dust)

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Quartz (14808-60-7)		
Belgium	OEL Chemical Category (Legal Basis:Royal Decree 21/01/2020)	Carcinogen alveolar dust
Croatia	OEL TWA (Legal Basis:OG No. 91/2018)	0,1 mg/m <sup>3</sup> (regulated under Quartz sand-respirable dust; respirable particle)
Czech Republic	OEL TWA (Legal Basis:Reg. 41/2020)	0,1 mg/m <sup>3</sup> (dust)
Denmark	OEL TWA (Legal Basis:BEK No. 698 of 28/05/2020)	0,3 mg/m <sup>3</sup> (total) 0,1 mg/m <sup>3</sup> (respirable)
Estonia	OEL TWA (Legal Basis:Regulation No. 105)	0,1 mg/m <sup>3</sup> (respirable dust)
Estonia	OEL Chemical Category (Legal Basis:Regulation No. 105)	Carcinogenic substance respirable dust
Finland	OEL TWA (Legal Basis:HTP-ARVOT 2020)	0,05 mg/m <sup>3</sup> (respirable dust (Silicon dioxide, crystalline))
France	OEL TWA (Legal Basis:INRS ED 984)	0,1 mg/m <sup>3</sup> (restrictive limit-alveolar fraction)
Hungary	OEL TWA (Legal Basis:Decree No. 05/2020)	0,1 mg/m <sup>3</sup> (respirable (flying and fibrous powders))
Ireland	OEL TWA (Legal Basis:2020 COP)	0,1 mg/m <sup>3</sup> (respirable dust)
Ireland	OEL STEL (Legal Basis:2020 COP)	0,3 mg/m <sup>3</sup>
USA ACGIH	OEL TWA (Legal Basis:IMDFN1)	0,025 mg/m <sup>3</sup> (respirable particulate matter)
Lithuania	OEL TWA (Legal Basis:HN 23:2011)	0,1 mg/m <sup>3</sup> (Silicon dioxide variation-respirable fraction)
Netherlands	OEL TWA (Legal Basis:OWCRLV)	0,075 mg/m <sup>3</sup> (respirable fraction (Silica, crystalline))
Norway	OEL TWA (Legal Basis:FOR-2020-04-06-695)	0,05 mg/m <sup>3</sup> (dust containing .alpha.-Quartz, Cristobalite and/or Tridymite is evaluated by summation formula. At the same time, the values for Nuisance dust must be observed-respirable dust) 0,1 mg/m <sup>3</sup> (the Other mining and quarrying (industry code 08) and Civil engineering (industry code 42) valid until February 1, 2022-respirable dust) 0,3 mg/m <sup>3</sup> (dust containing .alpha.-Quartz, Cristobalite and/or Tridymite is evaluated by summation formula. At the same time, the values for Nuisance dust must be observed-total dust)
Norway	OEL STEL (Legal Basis:FOR-2020-04-06-695)	0,9 mg/m <sup>3</sup> (value calculated-total dust) 0,15 mg/m <sup>3</sup> (value calculated-respirable dust) 0,3 mg/m <sup>3</sup> (value calculated-respirable dust)
Norway	OEL Chemical Category (Legal Basis:FOR-2020-04-06-695)	Carcinogen
Poland	OEL TWA (Legal Basis:Dz. U. 2020 Nr. 61)	0,1 mg/m <sup>3</sup> (respirable fraction)
Portugal	OEL TWA (Legal Basis:Portuguese Norm NP 1796:2014)	0,025 mg/m <sup>3</sup> (respirable fraction)
Portugal	OEL Chemical Category (Legal Basis:Portuguese Norm NP 1796:2014)	A2 - Suspected Human Carcinogen
Romania	OEL TWA (Legal Basis:Gov. Dec. No 1.218)	0,1 mg/m <sup>3</sup> (dust, respirable fraction)
Spain	OEL TWA (Legal Basis:OELCAIS)	0,05 mg/m <sup>3</sup> (reclassified IARC group 2A to group 1-respirable fraction)
Sweden	OEL TLV (Legal Basis:AFS 2018:1)	0,1 mg/m <sup>3</sup> (respirable fraction)
Sweden	OEL Chemical Category (Legal Basis:AFS 2018:1)	Carcinogen
Switzerland	OEL TWA (Legal Basis:OLVSNAIF)	0,15 mg/m <sup>3</sup> (respirable dust)
Switzerland	OEL Chemical Category (Legal Basis:OLVSNAIF)	Category C1A carcinogen
Manganese oxide (MnO2) (1313-13-9)		
Finland	OEL TWA (Legal Basis:HTP-ARVOT 2020)	0,02 mg/m <sup>3</sup> (respirable dust)
Latvia	OEL TWA (Legal Basis:Reg. No. 325)	0,3 mg/m <sup>3</sup> (disintegration aerosol)
Pumice (1332-09-8)		
Latvia	OEL TWA (Legal Basis:Reg. No. 325)	4 mg/m <sup>3</sup> (Silicates and aluminosilicates, Vitreous silicates of volcanic origin)

## 8.2. Exposure Controls

### Appropriate Engineering Controls

: Suitable eye/body wash equipment should be available in the vicinity of any potential exposure. Ensure adequate ventilation, especially in confined areas. Ensure all national/local regulations are observed.

### Personal Protective Equipment

: Gloves. Protective clothing. Protective goggles or glasses. Insufficient ventilation: wear respiratory protection. Personal protective equipment should be chosen in accordance with Regulation (EU) 2016/425, CEN standards, and in discussion with the supplier of the protective equipment.



### Materials for Protective Clothing

: Chemically resistant materials and fabrics.

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<b>Hand Protection</b>	: When needed, wear protective gloves to protect against thermal and/or mechanical hazards.
<b>Eye Protection</b>	: Chemical safety goggles or safety glasses with side shields.
<b>Skin and Body Protection</b>	: Wear suitable protective clothing.
<b>Respiratory Protection</b>	: If exposure limits are exceeded or irritation is experienced, approved respiratory protection should be worn. In case of inadequate ventilation, oxygen deficient atmosphere, or where exposure levels are not known wear approved respiratory protection.
<b>Other Information</b>	: When using, do not eat, drink or smoke.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1. Information on Basic Physical and Chemical Properties

<b>Physical State</b>	: Solid
<b>Colour, Appearance</b>	: Dark brown powder Dark brown.
<b>Colour</b>	: Dark brown.
<b>Odour</b>	: Characteristic.
<b>Odour Threshold</b>	: No data available
<b>pH</b>	: Not available
<b>pH solution</b>	: Not available
<b>Evaporation Rate</b>	: No data available
<b>Melting Point</b>	: Not available
<b>Freezing Point</b>	: Not available
<b>Boiling Point</b>	: > 999 °C
<b>Flash Point</b>	: No data available
<b>Auto-Ignition Temperature</b>	: Not applicable
<b>Decomposition Temperature</b>	: No data available
<b>Flammability</b>	: No data available
<b>Vapour Pressure</b>	: No data available
<b>Relative Vapour Density At 20 °C</b>	: No data available
<b>Relative Density</b>	: No data available
<b>Density</b>	: 2,25 g/cm <sup>3</sup> (20 °C)
<b>Solubility</b>	: Insoluble in water.
<b>Partition Coefficient n-Octanol/Water</b>	: No data available
<b>Viscosity</b>	: No data available
<b>Explosive Properties</b>	: No data available
<b>Oxidising Properties</b>	: Contains an oxidizing material which may accelerate fire.
<b>Explosive Limits</b>	: Not applicable
<b>Particle Size</b>	: Not available
<b>Particle Size Distribution</b>	: Not available
<b>Particle Shape</b>	: Not available
<b>Particle Aspect Ratio</b>	: Not available
<b>Particle Aggregation State</b>	: Not available
<b>Particle Agglomeration State</b>	: Not available
<b>Particle Specific Surface Area</b>	: Not available
<b>Particle Dustiness</b>	: Not available

### 9.2. Other Information

No additional information available

## SECTION 10: STABILITY AND REACTIVITY

### 10.1. Reactivity

Hazardous reactions will not occur under normal conditions.

### 10.2. Chemical Stability

Stable under recommended handling and storage conditions (see section 7).

### 10.3. Possibility of Hazardous Reactions

Hazardous polymerization will not occur.

### 10.4. Conditions to Avoid

Direct sunlight, extremely high or low temperatures, and incompatible materials.

### 10.5. Incompatible Materials

Strong acids, strong bases, strong oxidisers.

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### 10.6. Hazardous Decomposition Products

Thermal decomposition may produce: Oxygen.

## SECTION 11: TOXICOLOGICAL INFORMATION

### 11.1. Information On Hazard Classes As Defined In Regulation (Ec) No 1272/2008

Likely Routes of Exposure	:	
Acute Toxicity (Oral)	:	Not classified (Based on available data, the classification criteria are not met)
Acute Toxicity (Dermal)	:	Not classified (Based on available data, the classification criteria are not met)
Acute Toxicity (Inhalation)	:	Not classified (Based on available data, the classification criteria are not met)

Quartz (14808-60-7)	
LD50 Oral Rat	> 5000 mg/kg
LD50 Dermal Rat	> 5000 mg/kg
Manganese oxide (MnO <sub>2</sub> ) (1313-13-9)	
LC50 Inhalation Rat	> 1500 mg/m <sup>3</sup> (Exposure time: 4 h)
ATE CLP (oral)	500,00 mg/kg bodyweight
ATE CLP (dust,mist)	1,50 mg/l/4h

Skin Corrosion/Irritation	:	Not classified (Based on available data, the classification criteria are not met)
Eye Damage/Irritation	:	Not classified (Based on available data, the classification criteria are not met)
Respiratory or Skin Sensitisation	:	Not classified (Based on available data, the classification criteria are not met)
Germ Cell Mutagenicity	:	Not classified (Based on available data, the classification criteria are not met)
Carcinogenicity	:	May cause cancer (inhalation).

Quartz (14808-60-7)	
IARC Group	1
National Toxicology Program (NTP) Status	Known Human Carcinogens.

Reproductive Toxicity	:	Not classified (Based on available data, the classification criteria are not met)
Specific Target Organ Toxicity (Single Exposure)	:	May cause respiratory irritation.

Specific Target Organ Toxicity (Repeated Exposure)	:	Causes damage to organs (lungs, central nervous system) through prolonged or repeated exposure.
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Aspiration Hazard	:	Not classified (Based on available data, the classification criteria are not met)
Symptoms/Injuries After Inhalation	:	Irritation of the respiratory tract and the other mucous membranes.
Symptoms/Injuries After Skin Contact	:	Prolonged exposure may cause skin irritation.
Symptoms/Injuries After Eye Contact	:	May cause slight irritation to eyes.
Symptoms/Injuries After Ingestion	:	Ingestion may cause adverse effects.
Chronic Symptoms	:	Causes damage to organs (lungs, central nervous system) through prolonged or repeated exposure. May cause cancer by inhalation.

### 11.2. Information On Other Hazards

Based on available data this substance/the substances in this mixture not listed below do(es) not have endocrine disrupting properties with respect to humans as it does not meet the criteria set out in section A of Regulation (EU) No 2017/2100 and/or the criteria set out in Regulation (EU) 2018/605, or the substance(s) are not required to be disclosed.

Adverse Health Effects Caused By Endocrine Disrupting Properties	:	This chemical is considered to have endocrine-disrupting properties with respect to animals and humans in the lungs, producing changes to morphology, physiology, growth as it meets the criteria set out in section A of Regulation (EU) 2017/2100, and/or the criteria set out in Regulation (EU) 2018/605. This conclusion is based on evidence from studies and data obtained from a literature search conducted on this chemical, and shows a link between the effects above and endocrine activity, which is relevant for humans.
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Component	
Quartz (14808-60-7)	This chemical is considered to have endocrine-disrupting properties with respect to animals and humans in the lungs, producing changes to morphology as it meets the criteria set out in section A of Regulation (EU) 2017/2100, and/or the criteria set out in Regulation (EU) 2018/605. This conclusion is based on evidence from studies and data obtained from a literature search conducted on this chemical, and shows a link between the effects above and endocrine activity, which is relevant for humans.

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### SECTION 12: ECOLOGICAL INFORMATION

#### 12.1. Toxicity

**Hazardous To The Aquatic Environment, Short-Term (Acute)** : Not classified (Based on available data, the classification criteria are not met)

**Hazardous To The Aquatic Environment, Long-Term (Chronic)** : Not classified (Based on available data, the classification criteria are not met)

#### 12.2. Persistence and Degradability

BIRM	
Persistence and Degradability	Inorganic product which cannot be eliminated from water by biological purification processes.

#### 12.3. Bioaccumulative Potential

BIRM	
Bioaccumulative Potential	Bioaccumulation not expected.
Manganese oxide (MnO <sub>2</sub> ) (1313-13-9)	
BCF Fish 1	(no bioaccumulation expected)
Partition coefficient n-octanol/water (Log Pow)	< 0 (at 20 °C)

#### 12.4. Mobility in Soil

BIRM	
Ecology - Soil	No data available.

#### 12.5. Results of PBT and vPvB Assessment

Does not contain any PBT/vPvB substances  $\geq 0.1\%$  assessed in accordance with REACH Annex XVIII

#### 12.6. Endocrine Disrupting Properties

Based on available data this substance/the substances in this mixture not listed below do(es) not have endocrine disrupting properties with respect to non-target organisms as it does not meet the criteria set out in section B of Regulation (EU) No 2017/2100 and/or the criteria set out in Regulation (EU) 2018/605, or the substance(s) are not required to be disclosed.

**Adverse Effects On The Environment Caused By Endocrine Disrupting Properties** : This chemical is considered to have endocrine-disrupting properties with respect to animals, humans, and non-target organisms in the lungs (respiratory apparatus), producing changes to morphology, physiology, and growth, as it meets the criteria set out in section B of Regulation (EU) 2017/2100, and/or the criteria set out in Regulation (EU) 2018/605. This conclusion is based on evidence from studies and data obtained from a literature search conducted on this chemical, and shows a link between the effects above and endocrine activity, which may be relevant for non-target organisms.

#### 12.7. Other Adverse Effects

**Other Adverse Effects** : None known.

**Other Information** : Avoid unnecessary release into the environment.

### SECTION 13: DISPOSAL CONSIDERATIONS

#### 13.1. Waste Treatment Methods

**Regional Legislation (Waste)** : Disposal must be done according to official regulations.  
**Waste Treatment Methods** : Can be landfilled or incinerated, when in compliance with local regulations.  
**Sewage Disposal Recommendations** : Do not dispose of waste into sewer.  
**Product/Packaging Disposal Recommendations** : Dispose of contents/container in accordance with local, regional, national, territorial, provincial, and international regulations.  
**Additional Information** : Reuse or recycle material whenever possible. If reuse or recycling is not possible, disposal must be made according to local or governmental regulations.  
**Ecology - Waste Materials** : Avoid unnecessary release into the environment.

### SECTION 14: TRANSPORT INFORMATION

The shipping description(s) stated herein were prepared in accordance with certain assumptions at the time the SDS was authored, and can vary based on a number of variables that may or may not have been known at the time the SDS was issued.

In accordance with ADR / RID / IMDG / IATA / ADN

<b>14.1. UN Number or ID Number</b>	
Not regulated for transport	
<b>14.2. UN Proper Shipping Name</b>	
Not regulated for transport	
<b>14.3. Transport Hazard Class(Es)</b>	
Not regulated for transport	

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### 14.4. Packing Group

Not regulated for transport

### 14.5. Environmental Hazards

Not regulated for transport

### 14.6. Special Precautions For User

No additional information available

### 14.7. Maritime Transport in Bulk According to IMO instruments

Not applicable

## SECTION 15: REGULATORY INFORMATION

### 15.1. Safety, Health and Environmental Regulations/Legislation Specific for the Substance or Mixture

#### 15.1.1. EU-Regulations

##### 15.1.1.1. REACH Annex XVII Information

The following restrictions are applicable according to Annex XVII of the REACH Regulation (EC) No 1907/2006:

28. Substances which are classified as carcinogen category 1A or 1B in Part 3 of Annex VI to Regulation (EC) No 1272/2008 and are listed in Appendix 1 or Appendix 2, respectively.	BIRM, Quartz
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##### 15.1.1.2. REACH Candidate List Information

Contains no substance on the REACH candidate list

##### 15.1.1.3. POP (2019/1021) - Persistent Organic Pollutants Information

Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

##### 15.1.1.4. PIC Regulation EU (649/2012) - Export and Import of Hazardous Chemicals Information

Contains no substance subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

##### 15.1.1.5. REACH Annex XIV Information

Contains no REACH Annex XIV substances

##### 15.1.1.6. Substances Depleting the Ozone layer (1005/2009) Information

No additional information available

##### 15.1.1.7. EC Inventory Information

###### Quartz (14808-60-7)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

###### Manganese oxide (MnO<sub>2</sub>) (1313-13-9)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

##### 15.1.1.8. Other Information

No additional information available

#### 15.1.2. National Regulations

No additional information available

#### 15.1.3. International Inventory Lists

##### Quartz (14808-60-7)

Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active  
Listed on the Canadian DSL (Domestic Substances List)  
Listed on IARC (International Agency for Research on Cancer)  
Listed on the Canadian IDL (Ingredient Disclosure List)  
Listed as carcinogen on NTP (National Toxicology Program)  
Listed introduction on Australian Industrial Chemicals Introduction Scheme (AICIS Inventory)  
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)  
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory  
Listed on KECL/KECI (Korean Existing Chemicals Inventory)  
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)  
Listed on NZIoC (New Zealand Inventory of Chemicals)  
Listed on the Japanese ISHL (Industrial Safety and Health Law)  
Listed on INSQ (Mexican National Inventory of Chemical Substances)  
Listed on the TCSI (Taiwan Chemical Substance Inventory)  
Listed on the NCI (Vietnam - National Chemicals Inventory)

##### Manganese oxide (MnO<sub>2</sub>) (1313-13-9)

Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active  
Listed on the Canadian DSL (Domestic Substances List)  
Listed introduction on Australian Industrial Chemicals Introduction Scheme (AICIS Inventory)  
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)  
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory  
Listed on KECL/KECI (Korean Existing Chemicals Inventory)  
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)

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Japanese Pollutant Release and Transfer Register Law (PRTR Law)  
Listed on NZIoC (New Zealand Inventory of Chemicals)  
Listed on the Japanese ISHL (Industrial Safety and Health Law)  
Listed on INSQ (Mexican National Inventory of Chemical Substances)  
Listed on the TCSI (Taiwan Chemical Substance Inventory)  
Listed on the NCI (Vietnam - National Chemicals Inventory)

### Pumice (1332-09-8)

Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active  
Listed on the Canadian DSL (Domestic Substances List)  
Listed introduction on Australian Industrial Chemicals Introduction Scheme (AICIS Inventory)  
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)  
Listed on KECL/KECI (Korean Existing Chemicals Inventory)  
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)  
Listed on NZIoC (New Zealand Inventory of Chemicals)  
Listed on the TCSI (Taiwan Chemical Substance Inventory)  
Listed on the NCI (Vietnam - National Chemicals Inventory)

## 15.2. Chemical Safety Assessment

No chemical safety assessment has been carried out

## SECTION 16: OTHER INFORMATION

**Date of Preparation or Latest Revision** : 27/09/2022

**Data Sources** : Information and data obtained and used in the authoring of this safety data sheet could come from database subscriptions, official government regulatory body websites, product/ingredient manufacturer or supplier specific information, and/or resources that include substance specific data and classifications according to GHS or their subsequent adoption of GHS.

**Other Information** : According to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

### Full Text of H- and EUH-statements:

Acute Tox. 4 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Carc. 1A	Carcinogenicity, Category 1A
H302	Harmful if swallowed.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H350	May cause cancer.
H372	Causes damage to organs through prolonged or repeated exposure.
H373	May cause damage to organs through prolonged or repeated exposure.
STOT RE 1	Specific target organ toxicity — Repeated exposure, Category 1
STOT RE 2	Specific target organ toxicity — Repeated exposure, Category 2
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation

### Classification and Procedure Used to Derive the Classification for Mixtures According to Regulation (EC) 1272/2008 [CLP]:

Carc. 1A	Calculation method
STOT SE 3	Calculation method
STOT RE 1	Calculation method

## Indication of Changes

No additional information available

## Abbreviations and Acronyms

ACGIH – American Conference of Governmental Industrial Hygienists  
ADN – European Agreement Concerning the International Carriage of Dangerous Goods by Inland Waterways  
ADR – European Agreement Concerning the International Carriage of Dangerous Goods by Road  
ATE – Acute Toxicity Estimate  
BCF – Bioconcentration Factor  
BEI – Biological Exposure Indices (BEI)  
BOD – Biochemical Oxygen Demand  
CAS No. – Chemical Abstracts Service Number  
CLP – Classification, Labeling and Packaging Regulation (EC) No 1272/2008  
COD – Chemical Oxygen Demand  
EC – European Community  
EC50 – Median Effective Concentration  
EEC – European Economic Community  
EINECS – European Inventory of Existing Commercial Chemical Substances  
EmS-No. (Fire) – IMDG Emergency Schedule Fire  
EmS-No. (Spillage) – IMDG Emergency Schedule Spillage

NDS – Najwyższe Dopuszczalne Steżenie  
NDSch – Najwyższe Dopuszczalne Steżenie Chwilowe  
NDSP – Najwyższe Dopuszczalne Steżenie Pulapowe  
NOAEL – No-Observed Adverse Effect Level  
NOEC – No-Observed Effect Concentration  
NRD – Nevirsytinas Ribinis Dydis  
NTP – National Toxicology Program  
OEL – Occupational Exposure Limits  
PBT – Persistent, Bioaccumulative and Toxic  
PEL – Permissible Exposure Limit  
pH – Potential Hydrogen  
REACH – Registration, Evaluation, Authorisation, and Restriction of Chemicals  
RID – Regulations Concerning the International Carriage of Dangerous Goods by Rail  
SADT – Self Accelerating Decomposition Temperature  
SDS – Safety Data Sheet  
STEL – Short Term Exposure Limit  
STOT – Specific Target Organ Toxicity

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EU – European Union  
ErC50 - EC50 in Terms of Reduction Growth Rate  
GHS – Globally Harmonized System of Classification and Labeling of Chemicals  
IARC - International Agency for Research on Cancer  
IATA - International Air Transport Association  
IBC Code - International Bulk Chemical Code  
IMDG - International Maritime Dangerous Goods  
IPRV - Ilgalaikio Poveikio Ribinis Dydis  
IOELV – Indicative Occupational Exposure Limit Value  
LC50 - Median Lethal Concentration  
LD50 - Median Lethal Dose  
LOAEL - Lowest Observed Adverse Effect Level  
LOEC - Lowest-Observed-Effect Concentration  
Log K<sub>oc</sub> - Soil Organic Carbon-water Partitioning Coefficient  
Log K<sub>ow</sub> - Octanol/water Partition Coefficient  
Log Pow - Ratio of the equilibrium concentration (C) of a dissolved substance in a two-phase system consisting of two largely immiscible solvents, in this case octanol and water  
MAK – Maximum Workplace Concentration/Maximum Permissible Concentration  
MARPOL - International Convention for the Prevention of Pollution

TA-Luft - Technische Anleitung zur Reinhaltung der Luft  
TEL TRK – Technical Guidance Concentrations  
ThOD – Theoretical Oxygen Demand  
TLM - Median Tolerance Limit  
TLV - Threshold Limit Value  
TPRD - Trumpalaikio Poveikio Ribinis Dydis  
TRGS 510 - Technische Regel für Gefahrstoffe 510 - Lagerung von Gefahrstoffen in ortsbeweglichen Behältern  
TRGS 552 – Technische Regeln für Gefahrstoffe - N-Nitrosamine  
TRGS 900 - Technische Regel für Gefahrstoffe 900 – Arbeitsplatzgrenzwerte  
TRGS 903 - Technische Regel für Gefahrstoffe 903 - Biologische Grenzwerte  
TSCA - Toxic Substances Control Act  
TWA - Time Weighted Average  
VOC – Volatile Organic Compounds  
VLA-EC - Valor Límite Ambiental Exposición de Corta Duración  
VLA-ED - Valor Límite Ambiental Exposición Diaria  
VLE – Valeur Limite D'exposition  
VME – Valeur Limite De Moyenne Exposition  
vPvB - Very Persistent and Very Bioaccumulative  
WEL – Workplace Exposure Limit  
WGK - Wassergefährdungsklasse

### Limit Value Legal Basis\*

\*Includes the below and any related regulations/provisions, and subsequent amendments

**EU - 2019/1831 EU in accor. with 98/24/EC** - Directive 2019/1831/EU of October 24, 2019 establishing a fifth list of indicative occupational exposure limit values pursuant to Council Directive 98/24/EC, and amending Commission Directives 2000/39/EC.  
**EU - 2019/1243/EU, and 98/24/EC** - Council Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work and amendment Regulation (EU) 2019/1243.  
**Austria - BGBl. II Nr. 254/2018** - Ordinance on Limit Values for Workplace Substances and on Carcinogens from the Federal Ministry of Economics and Labour, Published in 2003, Appendix 1: Substance List, Published through: Ministry of Economics and Labour of the Republic of Austria amended through the Government Gazette II (BGBl. II) No 119/2004) & BGBl. II No. 242/2006, BGBl. II No. 243/2007, lastly changed through BGBl. I Nr. 51/2011), BGBl. II Nr. 186/2015, BGBl. II Nr. 288/2017 amended by BGBl. II Nr. 254/2018.  
**Austria - BLV BGBl. II Nr. 254/2018** - Ordinance on health monitoring at the workplace 2008, published through BGBl. II Nr. 224/2007 by Austria Minister for Labor and Social Affairs, Lastly changed through BGBl. II Nr. 254/2018  
**Belgium - Royal Decree 21/01/2020** - Royal decree amending title 1 relating to chemical agents in Book VI of the code of well-being at work, with regard to the list of limit values of exposure to chemical agents and title 2 relating to carcinogens, mutagens and reprotoxics of Book VI of the code of well-being at work (1)  
**Bulgaria - Reg. No. 13/10** - Regulation No. 13 of December 30, 2003 on the Protection of Workers from Hazards Related to Exposure to Chemical Agents at Work Labor Code, Annex No.1 Limit values of chemical agents in the air of the working environment, and Annex № 2 Biological limit values of chemical agents and their metabolites (bio markers of exposure) or bio markers of effect Amended by: 71/2006, 67/2007, 2/2012, 46/2015, 73/2018, 5/2020), and Regulation No.10 of September 26, 2003 on the Protection of Workers from the Risks Associated with Exposure to Carcinogens and Mutagens at Work Annex No.1 Occupational Exposure Limits, Amended by: 8/2004, 46/2015, 5/2020  
**Croatia - OG No. 91/2018** - Regulation on the Protection of Workers from Exposure to Hazardous Chemicals at Work, the Limit Values of Exposure and the Biological Limit Values. Official Gazette No. 91 of October 12, 2018  
**Cyprus - KDP 16/2019** - Government of Cyprus Cabinet of Ministers Regulation 268/2001 - Safety and Health in the Working Environment (Chemical Substances) Article 38, As amended by Regulation 16/2019 and Cabinet of Ministers Regulation 153/2001 - Safety and Health in the Working Environment (Chemical Substances-Carcinogens), as amended by Regulation 493/2004 - Safety and Health in the Working Environment (Chemical Substances - Carcinogens) AND Law 47(I) 2000 - Occupational Health and Safety (Asbestos), as amended by Decree 316/2006.  
**Czech Republic - Reg. 41/2020** - Regulation 41/2020 amending Regulation 361/2007 of Coll. establishing Occupation Exposure Limits as amended  
**Czech Republic - Decree No. 107/2013** - Decree No. 107/2013 Coll., amending Decree No. 432/2003 Coll., laying down the conditions for the

**Greece - PWHSE** - Occupational Exposure Limits - Protection of workers' health and safety from exposure to certain chemical substances during the workday, (latest amendment 82/2018) and Occupation Exposure Limits - Protection of workers' health and safety from exposure to certain carcinogenic and mutagenic chemical substances (latest amendment 26/2020), and Presidential Decree 212/2006 - Protection of workers that are exposed to asbestos.  
**Hungary - Decree 05/2020** - 5/2020. (II. 6.) ITM decree on the protection of the health and safety of workers from the risks related to chemical agents  
**Ireland - 2020 COP** - 2020 Code of Practice for the Chemical Agents Regulations, Schedule 1  
**Italy - Decree 81** - Title IX, Annex XLIII and XXXVIII, Professional Exposure Limits and Annex XXXIX Mandatory Biological Limit Values and Health Monitoring, Article 1, Law 123 of August 3, 2007, Legislative Decree 81 of April 9, 2008, Last amended: January 2020  
**Italy - IMDFN1** - Ministerial Decree of August 20, 1999 Final Note (1)  
**Latvia - Reg. No. 325** - Cabinet of Ministers Regulation No. 325 - Labour Protection Requirements when Coming in Contact with Chemical Substances at Workplaces, Amended by Cabinet of Ministers Regulation No. 92, 163, 407 and No. 11.  
**Lithuania - HN 23:2011** - Lithuanian Hygiene Standard HN 23:2011 Occupational Exposure Limit Values, Amended by Order V-695/A1-272.  
**Luxembourg - A-N 684** - Grand-Ducal Regulation of 20 July 2018 amending the Grand-Ducal Regulation of 14 November 2016 concerning the protection of the safety and health of employees against the risks associated with chemical agents in the workplace. Official journal of the Grand-Duke of Luxembourg, A-N°684 of 2018  
**Malta - MOSHAA Ch. 424** - Malta Occupational Health and Safety Authority Act: Chapter 424 as amended by: Legal Notice 353, 53, 198, and 57.  
**Netherlands- OWCRLV** - Occupational Working Conditions Regulation, Limit Values for substances harmful to health, Annex XVIII, Updated from August 1, 2020.  
**Norway - FOR-2020-04-060695** - Regulations concerning action and limit values for physical and chemical agents in the working environment and classified biological agents, FOR-2011-12-06-1358, Updated by: FOR-2020-04-06-695, FOR-2020-03-23-402, FOR-2018-12-20-2186, FOR-2018-08-21-1255, FOR-2017-12-20-2353.  
**Poland - Dz. U. 2020 Nr. 61** - Regulation of the Minister of Family, Labor and Social Policy of June 12, 2018 on the Highest Allowable Concentrations and Intensities of Factors Harmful to Health in the Work Environment Dz.U. 2018 Nr. 1286 of June 12, 2018, Annex 1 - List of values of the highest permissible chemical concentrations and dust factors harmful to health in the work environment, amended by: Dz. U. 2020 Nr. 61.  
**Portugal - Portuguese Norm NP 1796:2014** - Occupational exposure limits and biological exposure indices to chemical agents. Table 1 - Occupational exposure limits and biological exposure indices to chemical agents (OELs), Law Decree 35/2020.  
**Romania - Gov. Dec. No 1.218** - Governmental Decision No. 1.218 from

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application of the work into categories, limit values for the parameters of biological exposure tests, collection of biological material conditions for the implementation of biological exposure tests and requirements for reporting work with asbestos and biological agents

**Denmark - BEK No. 698 of 28/05/2020** - Order on Limit Values for Substances and Materials, The Statutory Order No. 507 of May 17, 2011, Appendix 1 - Limits for air pollution, etc. and Appendix 3 - Biological Exposure Values, Amended by: No. 986 of October 11, 2012, No. 655 of May 31, 2018, No. 1458 December 13, 2019, No. 698 of May 28, 2020

**Estonia - Regulation No. 105** - Health and Safety Requirements for the Use of Dangerous Chemicals and Materials Containing Them and Occupational Exposure Limits to Chemical Agents

Government of the Republic, Regulation No. 105 of 20 March 2001, Amended 17 October 2019, and 17 January, 2020.

**Finland - HTP-ARVOT 2020** - Concentrations Known to be Hazardous, 654/2020 OEL values 2020 Publications of Ministry of Social Affairs and Health 2020:24 Annexes1, 2 and 3.

**France - INRS ED 984** - Occupational Exposure Limit Values to Chemical Agents in France Published 2016 by the INRS National Institute of Research and Safety Health and safety of work, revised, updated by: Decree 2016-344, JORF No 0119, and Decree 2019-1487.

**France - Decree 2009-1570** - Decree 2009-1570 of December 15, 2009, relative to the control of chemical risk on workplaces.

**Germany - TRGS 900** - Occupational Exposure Limits, Technical Rules for Dangerous Substances, latest amendment March, 2020

**Germany - TRGS 903** - Biological Threshold Limits (BGW-Values), Technical Rules for Dangerous Substances, latest amendment March, 2020

**Gibraltar - LN. 2018/131** - Factories (Control of Chemical Agents at Work) Regulations 2003 LN. 2003/035, amended by LN. 2008/035, LN. 2008/050, LN. 2012/021, LN. 2015/143, LN. 2018/181.

EU GHS SDS (2020/878)

06/09/2006 on the minimum health and safety requirements for protection of workers from the risks related to exposure to chemical agents, Annex No. 1 Mandatory National Occupational Exposure Limit Values for Chemical Agents. Amended by Decision no. 157, 584, 359, and 1.

**Slovakia - Gov. Decree 33/2018** - Government Decree of Slovak Republic 33/2018 on January 17, 2018 amending Government Decree of Slovak Republic 355/2006 about protection of health of employees when working with chemical agents

**Slovenia - No. 79/19** - Regulation for protection of workers against risks related to carcinogenic or mutagenic substances exposure. Annex III - Classification and binding levels of carcinogenic or mutagenic substances for occupational exposure. The Official Journal of the Republic of Slovenia, No. 101/2005. Amended by 38/15, 79/19. Regulation for protection of workers against risks related to exposure to chemical substances at the workplace. Republic of Slovenia, No. 100/2001 . Annex I - List of Binding Occupational Exposure Limit Values. Amended by 39/05, 53/07, 102/10, 38/15, 78/18, 78/19

**Spain - AFS 2018:1** - NATIONAL INSTITUTE FOR HEALTH AND SAFETY AT WORK. Occupational exposure limits for chemical agents in Spain. Tables 1 and 3. Latest edition Feb. 2019

**Sweden - AFS 2018:1** - Statute Book of the Swedish Work Environment Authority, AFS 2018:1

The Swedish Work Environment Authority's Ordinance and General Guidance on Hygienic Limit Values

**Switzerland - OLVSNALF** - Occupational Limit Values 2020 Swiss National Accident Insurance Fund. List of Biological Limit Values (BAT-Werte) and List of MAK Values.

*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.*