Printing date 24.05.2024 Version number 4 Revision: 24.05.2024

SECTION 1: Identification of the substance/mixture and of the company/undertaking

· 1.1 Product identifier

· Trade name: Minox S

· CAS Number:

1313-13-9

· Index number:

025-001-00-3

- · 1.2 Relevant identified uses of the substance or mixture and uses advised against -
- · Application of the substance / the mixture Filter aid/ Filtration accelerator
- · 1.3 Details of the supplier of the safety data sheet

· Manufacturer/Supplier:

BWT Holding GmbH

Walter-Simmer-Straße 4 A - 5310 Mondsee

AUSTRIA

Tel.: +43/6232/5011-0 Fax: +43/6232/4058 email: office@bwt.at

· Further information obtainable from:

Abteilung F&E - Chemikalienbeauftragte(r)

Tel.: +43/6232/5011-1893 +43/6232/5011-1427

email: msds-info@bwt-group.com

· 1.4 Emergency telephone number:

Poison center Vienna Tel.: +43/1-406 43 43

SECTION 2: Hazards identification

- · 2.1 Classification of the substance or mixture
- · Classification according to Regulation (EC) No 1272/2008



GHS08 health hazard

STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure.



Acute Tox. 4 H302 Harmful if swallowed. Acute Tox. 4 H332 Harmful if inhaled.

- · 2.2 Label elements
- · Labelling according to Regulation (EC) No 1272/2008

The substance is classified and labelled according to the CLP regulation.

· Hazard pictograms





GHS07

7 GHS08

- · Signal word Warning
- · Hazard-determining components of labelling:

manganese dioxide

· Hazard statements

H302+H332 Harmful if swallowed or if inhaled.

(Contd. on page 2)

Printing date 24.05.2024 Version number 4 Revision: 24.05.2024

Trade name: Minox S

(Contd. of page 1)

H373 May cause damage to organs through prolonged or repeated exposure.

· Precautionary statements

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P264 Wash thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P271 Use only outdoors or in a well-ventilated area.

P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· 2.3 Other hazards

· Results of PBT and vPvB assessment

· **PBT:** Not applicable.

· vPvB: Not applicable.

SECTION 3: Composition/information on ingredients

· 3.1 Substance

· CAS No. Description

CAS: 1313-13-9 manganese dioxide

· Identification number(s) · EC number: 215-202-6 · Index number: 025-001-00-3

SECTION 4: First aid measures

- · 4.1 Description of first aid measures
- · General information:

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

After inhalation:

Supply fresh air.

Call a doctor immediately.

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.

In case of unconsciousness place patient stably in side position for transportation.

- · After skin contact: Immediately wash with water and soap and rinse thoroughly.
- · After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.
- · After swallowing:

Rinse out mouth and then drink plenty of water.

Induce vomiting and call for medical help.

- 4.2 Most important symptoms and effects, both acute and delayed No further relevant information available.
- · 4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

SECTION 5: Firefighting measures

- · 5.1 Extinguishing media
- · Suitable extinguishing agents:

Water spray

Dry extinguishing agent

Foam

· 5.2 Special hazards arising from the substance or mixture

Smoke may be produced during a fire. Products of combustion may contain carbon monoxide and carbon dioxide. Do not inhale smoke.

(Contd. on page 3)

Printing date 24.05.2024 Version number 4 Revision: 24.05.2024

Trade name: Minox S

(Contd. of page 2)

Carbon monoxide (CO)

Carbondioxide (CO2)

- · 5.3 Advice for firefighters
- · Protective equipment: Wear self-contained respiratory protective device.

SECTION 6: Accidental release measures

· 6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation

Avoid formation of dust.

Keep away from ignition sources.

- 6.2 Environmental precautions: Do not allow to enter sewers/ surface or ground water.
- 6.3 Methods and material for containment and cleaning up:

Pick up mechanically.

Dispose contaminated material as waste according to section 13.

Ensure adequate ventilation.

· 6.4 Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Thorough dedusting.

Ensure good ventilation/exhaustion at the workplace.

- · Information about fire and explosion protection: Keep ignition sources away Do not smoke.
- · 7.2 Conditions for safe storage, including any incompatibilities
- · Storage:
- Requirements to be met by storerooms and receptacles:

Store tightly closed, cool and dry, in a well-ventilated place.

Store only in the original receptacle.

· Information about storage in one common storage facility:

Do not store together with acids.

Store away from oxidising agents.

Store away from metals.

- · Further information about storage conditions: Keep container tightly sealed.
- · Storage class: 13
- · 7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

· 8.1 Control parameters

orr common purus			
· Ingredients with limit values that require monitoring at the workplace:			
CAS: 1313-13-9	CAS: 1313-13-9 manganese dioxide		
AGW (Germany)	Long-term value: 0,02A; 0,2E mg/m³		
	8(II):DFG.Y.10. 20		

· DNELs

CAS: 1313-13-9 manganese dioxide

Dermal	DNEL dermal	0,00414 mg/kg bw/day (worker)
		langfristige systemische Einwirkung

(Contd. on page 4)

Printing date 24.05.2024 Version number 4 Revision: 24.05.2024

Trade name: Minox S

Inhalative DNEL inhalativ 0,2 mg/m3 (worker)
langfristige systemische Einwirkung

• Ingredients with biological limit values:

CAS: 1313-13-9 manganese dioxide

BGW (Germany) 20 μg/l

Untersuchungsmaterial: Vollblut

Probennahmezeitpunkt: bei Langzeitexposition: am Schichtende nach mehreren

vorangegangenen Schichten, Expositionsende bzw. Schichtende

Parameter: Mangan

- · Additional information: The lists valid during the making were used as basis.
- · 8.2 Exposure controls
- · Appropriate engineering controls No further data; see section 7.
- · Individual protection measures, such as personal protective equipment
- General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.

Wash hands before breaks and at the end of work.

· Respiratory protection:

Dustfilter when dust develops.

Filter P3

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

· Hand protection

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

· Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

- · Eye/face protection Safety glasses
- · Body protection: Light weight protective clothing

SECTION 9: Physical and chemical properties

· 9.1 Information on basic physical and chemical properties

General Information

Colour: Black
Odourless
Odour threshold: Not determined.
Melting point/freezing point: Undetermined.

· Boiling point or initial boiling point and boiling

range Undetermined.
Flammability Product is not flammable.

· Flammability · Lower and upper explosion limit

Lower: Not determined.
Upper: Not determined.
Flash point: Not applicable.
Decomposition temperature: Not determined.
pH Not applicable.

(Contd. on page 5)

Printing date 24.05.2024 Version number 4 Revision: 24.05.2024

Trade name: Minox S

(Contd. of page 4)

· Viscosity:

Kinematic viscosityDynamic:Not applicable.Not applicable.

·Solubility

water: Insoluble.
Partition coefficient n-octanol/water (log value)
Vapour pressure: Not applicable.

· Density and/or relative density

Density: Not determined.
 Relative density at 20 °C 5,28 g/cm³
 Vapour density Not applicable.

Particle characteristics

See section 3.

· 9.2 Other information

· Appearance:

· Form: Granulate

· Important information on protection of health and

environment, and on safety.

· Ignition temperature: Not determined.

• Explosive properties: Product does not present an explosion hazard.

• Organic solvents: 0,0 %
 • Solids content: 100,0 %
 • Molecular weight 86,94 g/mol

· Change in condition

· Evaporation rate Not applicable.

· Information with regard to physical hazard classes

· Explosives Void · Flammable gases Void · Aerosols Void · Oxidising gases Void · Gases under pressure Void · Flammable liquids Void · Flammable solids Void · Self-reactive substances and mixtures Void · Pyrophoric liquids Void · Pyrophoric solids Void · Self-heating substances and mixtures Void Substances and mixtures, which emit flammable gases in contact with water Void Oxidising liquids Void · Oxidising solids Void

· Organic peroxides Void
· Corrosive to metals Void
· Desensitised explosives Void

SECTION 10: Stability and reactivity

- · 10.1 Reactivity No further relevant information available.
- · 10.2 Chemical stability The product is stable under normal storage conditions.
- · Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- · 10.3 Possibility of hazardous reactions No dangerous reactions known.
- · 10.4 Conditions to avoid Dust formation
- · 10.5 Incompatible materials:

Oxidising agent

Acids

(Contd. on page 6)

Printing date 24.05.2024 Version number 4 Revision: 24.05.2024

Trade name: Minox S

(Contd. of page 5)

Metals alkali

· 10.6 Hazardous decomposition products: Toxic metal oxide smoke

SECTION 11: Toxicological information

- · 11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008
- · Acute toxicity

Harmful if swallowed or if inhaled.

- · Skin corrosion/irritation Based on available data, the classification criteria are not met.
- · Serious eye damage/irritation Based on available data, the classification criteria are not met.
- Respiratory or skin sensitisation Based on available data, the classification criteria are not met.
- · Germ cell mutagenicity Based on available data, the classification criteria are not met.
- · Carcinogenicity Based on available data, the classification criteria are not met.
- · Reproductive toxicity Based on available data, the classification criteria are not met.
- · STOT-single exposure Based on available data, the classification criteria are not met.
- · STOT-repeated exposure

May cause damage to organs through prolonged or repeated exposure.

- · Aspiration hazard Based on available data, the classification criteria are not met.
- · 11.2 Information on other hazards
- · Endocrine disrupting properties

Substance is not listed.

SECTION 12: Ecological information

- · 12.1 Toxicity
- · Aquatic toxicity: No further relevant information available.
- · 12.2 Persistence and degradability No further relevant information available.
- · 12.3 Bioaccumulative potential No further relevant information available.
- · 12.4 Mobility in soil No further relevant information available.
- · 12.5 Results of PBT and vPvB assessment
- · **PBT:** Not applicable.
- · vPvB: Not applicable.
- · 12.6 Endocrine disrupting properties

The product does not contain substances with endocrine disrupting properties.

- · 12.7 Other adverse effects
- · Additional ecological information:
- · General notes:

Water hazard class 1 (German Regulation) (Assessment by list): slightly hazardous for water Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

SECTION 13: Disposal considerations

- · 13.1 Waste treatment methods
- · Recommendation

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

· Europear	· European waste catalogue		
19 09 99	wastes not otherwise specified		
HP5	Specific Target Organ Toxicity (STOT)/Aspiration Toxicity		
HP6	Acute Toxicity		

(Contd. on page 7)

Printing date 24.05.2024 Version number 4 Revision: 24.05.2024

Trade name: Minox S

(Contd. of page 6)

- · Uncleaned packaging:
- · Recommendation:

Empty contaminated packagings thoroughly. They may be recycled after thorough and proper cleaning. Packagings that may not be cleansed are to be disposed of in the same manner as the product.

14.1 UN number or ID number		
ADR, ADN, IMDG, IATA	Void	
14.2 UN proper shipping name		
ADR, ADN, IMDG, IATA	Void	
14.3 Transport hazard class(es)		
ADR, ADN, IMDG, IATA		
Class	Void	
14.4 Packing group		
ADR, IMDG, IATA	Void	
14.5 Environmental hazards:		
Marine pollutant:	No	
14.6 Special precautions for user	Not applicable.	
· 14.7 Maritime transport in bulk according to IMO		
instruments	Not applicable.	
UN "Model Regulation":	Void	

SECTION 15: Regulatory information

- · 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- Labelling according to Regulation (EC) No 1272/2008

The substance is classified and labelled according to the CLP regulation.

· Hazard pictograms





GHS07

GHS08

- · Signal word Warning
- · Hazard-determining components of labelling:

manganese dioxide

· Hazard statements

H302+H332 Harmful if swallowed or if inhaled.

H373 May cause damage to organs through prolonged or repeated exposure.

· Precautionary statements

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P264 Wash thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P271 Use only outdoors or in a well-ventilated area.

P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

(Contd. on page 8)

Printing date 24.05.2024 Version number 4 Revision: 24.05.2024

Trade name: Minox S

(Contd. of page 7)

- · Directive 2012/18/EU
- · Named dangerous substances ANNEX I Substance is not listed.
- DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment Annex II

Substance is not listed.

- · REGULATION (EU) 2019/1148
- · Annex I RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))

Substance is not listed.

· Annex II - REPORTABLE EXPLOSIVES PRECURSORS

Substance is not listed.

Regulation (EC) No 273/2004 on drug precursors

Substance is not listed.

Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors

Substance is not listed.

- · National regulations:
- · Technical instructions (air):

Class	Share in	%
III	100,0	

- · Waterhazard class: Water hazard class 1 (Assessment by list): slightly hazardous for water.
- · 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

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

· Abbreviations and acronyms:

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

DNEL: Derived No-Effect Level (REACH)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Acute Tox. 4: Acute toxicity - Category 4

STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2

DE/EN