

Sicherheitsdatenblatt
gemäß 1907/2006/EG, Artikel 31

Printing date 03.06.2025

Version number 4 (replaces version 3)

Revision: 03.06.2025

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

- **1.1 Product identifier**
- **Trade name:** **BWT Ioclean**
- **UFI:** 7740-Y0KM-S00C-7P87
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
- **Application of the substance / the mixture**
For cleaning the regenerating brine tank and the ion exchange resin of BWT Perla pearl water systems.
- **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**



GHS07

Skin Irrit. 2 H315 Causes skin irritation.
Eye Irrit. 2 H319 Causes serious eye irritation.
Skin Sens. 1 H317 May cause an allergic skin reaction.

- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**
The product is classified and labelled according to the CLP regulation.
- **Hazard pictograms**



GHS07

- **Signal word** Warning
- **Hazard-determining components of labelling:**
maleic acid
- **Hazard statements**
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H317 May cause an allergic skin reaction.
- **Precautionary statements**
P102 Keep out of reach of children.
P264 Wash thoroughly after handling.

(Contd. on page 2)

DE/EN

Sicherheitsdatenblatt

gemäß 1907/2006/EG, Artikel 31

Printing date 03.06.2025

Version number 4 (replaces version 3)

Revision: 03.06.2025

Trade name: BWT Ioclean

(Contd. of page 1)

- P302+P352 *IF ON SKIN: Wash with plenty of water.*
- P305+P351+P338 *IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.*
- P333+P313 *If skin irritation or rash occurs: Get medical advice/attention.*
- P337+P313 *If eye irritation persists: Get medical advice/attention.*
- P501 *Dispose of contents/container in accordance with local/regional/national/international regulations.*

· 2.3 Other hazards

· Results of PBT and vPvB assessment

- **PBT:** This substance does not fulfil the PBT criteria of REACH, Annex XIII.
- **vPvB:** This substance does not fulfil the vPvB criteria of the REACH Regulation, Annex XIII.

· Determination of endocrine-disrupting properties

This product does not contain ingredients with endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated Regulation (EU) 2017/2100 or Commission Delegated Regulation (EU) 2018/605 in quantities of 0.1% (w/w) or more.

SECTION 3: Composition/information on ingredients

· 3.2 Mixtures

- **Description:** Mixture of substances listed below with nonhazardous additions.

· Dangerous components:

CAS: 617-48-1 EINECS: 210-514-9 Reg.nr.: 01-2119552463-40	DL-malic acid	50-100%
	⚠ Eye Irrit. 2, H319	
CAS: 110-16-7 EINECS: 203-742-5	maleic acid	≥10-<20%
	⚠ Acute Tox. 4, H302; Acute Tox. 4, H312; Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317; STOT SE 3, H335 Specific concentration limit: Skin Sens. 1; H317: C ≥ 0,1 %	

- **Additional information:** For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

· 4.1 Description of first aid measures

- **General information:** No special measures required.
- **After inhalation:**
Supply fresh air.
Supply fresh air and to be sure call for a doctor.
In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:**
Immediately rinse with water.
If skin irritation persists, consult a doctor.
- **After eye contact:**
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:**
Rinse out mouth and then drink plenty of water.
Do not induce vomiting.
- **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:** CO₂, powder or water spray. Fight larger fires with water spray.

(Contd. on page 3)

DE/EN

Sicherheitsdatenblatt

gemäß 1907/2006/EG, Artikel 31

Printing date 03.06.2025

Version number 4 (replaces version 3)

Revision: 03.06.2025

Trade name: BWT Ioclean

(Contd. of page 2)

- **5.2 Special hazards arising from the substance or mixture** No further relevant information available.
- **5.3 Advice for firefighters**
- **Protective equipment:** No special measures required.
- **Additional information** Do not allow extinguishing water to enter the sewage system, soil or bodies of water.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
Avoid contact with eyes and skin.
Wear protective clothing.
- **6.2 Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **6.3 Methods and material for containment and cleaning up:**
Dispose contaminated material as waste according to section 13.
- **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** No special precautions are necessary if used correctly.
- **Information about fire - and explosion protection:** No special measures required.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** None.
- **Storage class:** 13
- **Classification according to the German Ordinance on Industrial Safety and Health (BetrSichV):** -
- **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

- **8.1 Control parameters**
- **Ingredients with limit values that require monitoring at the workplace:**
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

· DNELs

CAS: 617-48-1 DL-malic acid

Oral	DNEL oral	20 mg/kg bw/day (general population) short time exposure, systemic effects
Dermal	DNEL dermal	20 mg/kg bw/day (general population) short time exposure, systemic effects
Inhalative	DNEL inhalativ	52 mg/m ³ (general population) short time exposure, local effects

· PNECs

CAS: 617-48-1 DL-malic acid

PNEC	3 mg/L (sewage treatment plant) 0,1 mg/L (Fresh water)
------	---

CAS: 110-16-7 maleic acid

PNEC	0,334 mg/Kg (Süs)
------	-------------------

(Contd. on page 4)

Sicherheitsdatenblatt

gemäß 1907/2006/EG, Artikel 31

Printing date 03.06.2025

Version number 4 (replaces version 3)

Revision: 03.06.2025

Trade name: BWT Ioclean

(Contd. of page 3)

PNEC 44,6 mg/L (sewage treatment plant)
0,1 mg/L (Fresh water)

· **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.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

· **Respiratory protection:** Not required.

· **Hand protection**



Protective gloves

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

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

· **Material of gloves**

Nitrile rubber, NBR

Recommended thickness of the material: $\geq 0,11$ mm

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. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· **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**



Tightly sealed goggles

SECTION 9: Physical and chemical properties

· **9.1 Information on basic physical and chemical properties**

· **General Information**

· **Physical state**

Solid

· **Colour:**

White

· **Odour:**

Characteristic

· **Odour threshold:**

Not determined.

· **Melting point/freezing point:**

Undetermined.

· **Boiling point or initial boiling point and boiling range**

Undetermined.

· **Flammability**

Not determined.

· **Lower and upper explosion limit**

· **Lower:**

Not determined.

· **Upper:**

Not determined.

· **Flash point:**

Not applicable.

· **Decomposition temperature:**

Not determined.

· **pH at 20 °C**

3 (6%)

(Contd. on page 5)

DE/EN

Sicherheitsdatenblatt
gemäß 1907/2006/EG, Artikel 31

Printing date 03.06.2025

Version number 4 (replaces version 3)

Revision: 03.06.2025

Trade name: **BWT Ioclean**

(Contd. of page 4)

· Viscosity:	
· Kinematic viscosity	Not applicable.
· Dynamic:	Not applicable.
· Solubility	
· water:	Soluble.
· Partition coefficient n-octanol/water (log value)	Not determined.
· Vapour pressure:	Not applicable.
· Density and/or relative density	
· Density:	Not determined.
· Relative density	Not determined.
· Vapour density	Not applicable.
· Particle characteristics	See section 3.
9.2 Other information	
· Appearance:	
· Form:	Tablets
· Important information on protection of health and environment, and on safety.	
· Ignition temperature:	Product is not selfigniting.
· Explosive properties:	Product does not present an explosion hazard.
· Solvent content:	
· Solids content:	100,0 %
· 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** None known when used as directed.
- **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** Protect from humidity and water.
- **10.5 Incompatible materials:** No hazardous reactions known if handled as directed.
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

DE/EN

(Contd. on page 6)

Sicherheitsdatenblatt
gemäß 1907/2006/EG, Artikel 31

Printing date 03.06.2025

Version number 4 (replaces version 3)

Revision: 03.06.2025

Trade name: **BWT Ioclean**

(Contd. of page 5)

SECTION 11: Toxicological information

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

· **Acute toxicity** Based on available data, the classification criteria are not met.

· **LD/LC50 values relevant for classification:**

CAS: 110-16-7 maleic acid

Oral	LD50	708 mg/kg (rat)
Dermal	LD50	1.560 mg/kg (rabbit)

CAS: 7757-83-7 sodium sulphite

Oral	LD50	2.610 mg/kg (rat)
Dermal	LD50	>2.000 mg/kg (rat)
Inhalative	LC50/4 h	>5,5 mg/l (rat)

· **Primary irritant effect:**

· **Skin corrosion/irritation**

Causes skin irritation.

· **Serious eye damage/irritation** Causes serious eye irritation.

· **Respiratory or skin sensitisation**

May cause an allergic skin reaction.

· **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** Based on available data, the classification criteria are not met.

· **Aspiration hazard** Based on available data, the classification criteria are not met.

· **11.2 Information on other hazards**

· **Endocrine disrupting properties**

None of the ingredients is listed.

SECTION 12: Ecological information

· **12.1 Toxicity**

· **Aquatic toxicity:**

CAS: 617-48-1 DL-malic acid

EC50	240 mg/L (daphnia)
EC50/72h	>100 mg/l (algae)
LC50/96h	>100 mg/l (Danio rerio) (OECD 203)

CAS: 110-16-7 maleic acid

EC50	42,81 mg/L (daphnia) (OECD 202)
EC50/72h	74,35 mg/l (algae) (OECD 201)
LC50/96h	75 mg/l (fish) (EPA 660/3-75-009)

CAS: 7757-83-7 sodium sulphite

EC50	89 mg/L (daphnia)
EC50/72h	43,8 mg/l (algae)
LC50/96h	316 mg/l (fish)

· **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.

(Contd. on page 7)

DE/EN

Sicherheitsdatenblatt

gemäß 1907/2006/EG, Artikel 31

Printing date 03.06.2025

Version number 4 (replaces version 3)

Revision: 03.06.2025

Trade name: BWT Ioclean

(Contd. of page 6)

- **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) (Self-assessment): 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.

- **European waste catalogue**

20 01 29*	detergents containing hazardous substances
15 01 10*	packaging containing residues of or contaminated by hazardous substances
HP4	Irritant - skin irritation and eye damage
HP13	Sensitising

- **Uncleaned packaging:**
- **Recommendation:**
Completely emptied packaging can be recycled. Contaminated packaging must be treated in the same way as the substance.
- **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

SECTION 14: Transport information

- | | |
|---|-----------------|
| <ul style="list-style-type: none"> · 14.1 UN number or ID number · ADR, ADN, IMDG, IATA | Void |
| <ul style="list-style-type: none"> · 14.2 UN proper shipping name · ADR, ADN, IMDG, IATA | Void |
| <ul style="list-style-type: none"> · 14.3 Transport hazard class(es) · ADR, ADN, IMDG, IATA · Class | Void |
| <ul style="list-style-type: none"> · 14.4 Packing group · ADR, IMDG, IATA | Void |
| <ul style="list-style-type: none"> · 14.5 Environmental hazards: | Not applicable. |
| <ul style="list-style-type: none"> · 14.6 Special precautions for user | Not applicable. |
| <ul style="list-style-type: none"> · 14.7 Maritime transport in bulk according to IMO instruments | Not applicable. |
| <ul style="list-style-type: none"> · 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 product is classified and labelled according to the CLP regulation.

(Contd. on page 8)

DE/EN

Sicherheitsdatenblatt gemäß 1907/2006/EG, Artikel 31

Printing date 03.06.2025

Version number 4 (replaces version 3)

Revision: 03.06.2025

Trade name: **BWT Ioclean**

(Contd. of page 7)

· **Hazard pictograms**

GHS07

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

maleic acid

· **Hazard statements**

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H317 May cause an allergic skin reaction.

· **Precautionary statements**

P102 Keep out of reach of children.

P264 Wash thoroughly after handling.

P302+P352 IF ON SKIN: Wash with plenty of water.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P333+P313 If skin irritation or rash occurs: Get medical advice/attention.

P337+P313 If eye irritation persists: Get medical advice/attention.

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

· **Directive 2012/18/EU**· **Named dangerous substances - ANNEX I** None of the ingredients is listed.· **DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II**

None of the ingredients is listed.

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

None of the ingredients is listed.

· **Annex II - REPORTABLE EXPLOSIVES PRECURSORS**

None of the ingredients is listed.

· **Regulation (EC) No 273/2004 on drug precursors**

None of the ingredients is listed.

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

None of the ingredients is listed.

· **National regulations:**· **Waterhazard class:** Water hazard class 1 (Self-assessment): 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.

This safety data sheet complies with Regulation (EC) No 1907/2006, Article 31 as amended by Regulation (EU) 2020/878.

· **Relevant phrases**

H302 Harmful if swallowed.

(Contd. on page 9)

DE/EN

Sicherheitsdatenblatt
gemäß 1907/2006/EG, Artikel 31

Printing date 03.06.2025

Version number 4 (replaces version 3)

Revision: 03.06.2025

Trade name: BWT Ioclean

(Contd. of page 8)

*H312 Harmful in contact with skin.**H315 Causes skin irritation.**H317 May cause an allergic skin reaction.**H319 Causes serious eye irritation.**H335 May cause respiratory irritation.*· **Date of previous version:** 28.10.2024· **Version number of previous version:** 3· **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**ELINCS: European List of Notified Chemical Substances**CAS: Chemical Abstracts Service (division of the American Chemical Society)**DNEL: Derived No-Effect Level (REACH)**PNEC: Predicted No-Effect Concentration (REACH)**LC50: Lethal concentration, 50 percent**LD50: Lethal dose, 50 percent**PBT: Persistent, Bioaccumulative and Toxic**vPvB: very Persistent and very Bioaccumulative**Acute Tox. 4: Acute toxicity – Category 4**Skin Irrit. 2: Skin corrosion/irritation – Category 2**Eye Irrit. 2: Serious eye damage/eye irritation – Category 2**Skin Sens. 1: Skin sensitisation – Category 1**STOT SE 3: Specific target organ toxicity (single exposure) – Category 3*· *** Data compared to the previous version altered.**

DE/EN