

Safety Data Sheet

legal basis:

Commission regulation (EU) 2020/878 of 18 June 2020 amending Annex II to Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)

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

1.1. Product identifier

Trade name: AquaXR MB 501
Product code: 717260
Composition for label/Other name(s): Mixture of strongly acidic cation exchange resin in hydrogen form and strongly basic anion exchange resin in hydroxide form in 1:1.5 volumetric ratio.,

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses

Uses:

Industrial water treatment.

Uses advised against:

other than named above

1.3. Details of the supplier of the safety data sheet

Name and address: Brenntag Polska Sp.z o.o
ul. Bema 21, 47-224 Kędzierzyn-Koźle
Poland
Phone number: (48/77) 4721500
Fax number: (48/77) 4721600
e-mail address for a competent person responsible for the safety data sheet: kch@brenntag.pl

1.4. Emergency telephone number

998 or 112, or contact with the nearest local Fire Department

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

General hazards

This product is classified as hazardous according to current regulations

Health hazards

Eye Irrit. 2	Eye irritation, Category 2	H319 Causes serious eye irritation
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Physical hazards

not applicable

Environmental hazards

not applicable

2.2. Label elements

Hazard pictograms:



Signal Word:

Warning

Hazard statements:

H319 Causes serious eye irritation

Precautionary statements:

P101 If medical advice is needed, have product container or label at hand.
P102 Keep out of reach of children.
P103 Read carefully and follow all instructions.
P280 Wear protective gloves/protective clothing/eye protection/face protection.

AquaXR MB 501

P264c Wash hands and parts of the body in contact with the product thoroughly after handling
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313 If eye irritation persists: Get medical advice/ attention.

2.3. Other hazards

No data available

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Concentration value	Substance	CAS	EC	Index number	Hazard class
40 - 50 %	Styrene-divinylbenzene copolymer with sulphonic acid group in H-form	69011-20-7	polymer	not applicable	Eye Irrit. 2 H319

Remarks

For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation

Move the victim to fresh air. Keep warm and in a quiet place. If any symptoms occur ensure medical aid.

Skin contact

If symptoms of irritation occur consult a doctor, Wash off immediately with soap and plenty of water.

Eye contact

Wash off immediately with plenty of water for at least 15 minutes. If any symptoms occur consult with a physician.

Ingestion

Do NOT induce vomiting. Immediately ensure a physician aid.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms and effects of exposure

Eye contact

eye irritation

4.3. Indication of any immediate medical attention and special treatment needed

no data available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

carbon dioxide (CO₂), water spray jet, alcohol-resistant foam

5.2. Special hazards arising from the substance or mixture

During thermal decomposition may be released: carbon oxides, nitrogen oxides, hydrogen chloride

5.3. Advice for firefighters

Wear self-contained breathing apparatus and full protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Ensure adequate ventilation. Avoid uplifting the dust.

6.2. Environmental precautions

Do not contaminate surface water. Do not allow material to contaminate ground water system. Prevent product from entering drains.

6.3. Methods and material for containment and cleaning up

Pick up and transfer to properly labelled containers. Transfer for disposal.

6.4. Reference to other sections

More information about suitable personal protective equipment is given in section 8 .

Dispose of in accordance with the recommendations given in Section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid eyes and skin contamination. Wash hands after handling the product. Ensure suitable ventilation. Use local ventilation if necessary. Use personal protective equipment, Do not breathe dust. Avoid repeated freeze-thaw cycles.

7.2. Conditions for safe storage, including any incompatibilities

Keep in a well-ventilated place. Keep tightly closed in a dry and cool place. Store away from oxidizing agents. Store in original packagings.

7.3. Specific end use(s)

See section 1.2.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

DNEL value

Comments

For this product DNEL value has not been derived

PNEC value**Comments**

For this product PNEC value has not been calculated

Occupational exposure limits**Comments**

For this product OELs value has not been established.

Poland. OELs - Regulation of the Minister of Family, Labour and Social Policy, of 12 June 2018; Journal of Laws 2018, item 1286 as amended.

Biological limit values comments

not available

Recommended monitoring procedures

Regulation of the Minister of Health on tests and measurements applicable for hazardous substances and other adverse factors which are present in the workplace, of 2 February 2011 (Journal of Laws No33, item 166).

8.2.Exposure controls**Appropriate engineering controls**

Provide adequate ventilation.

Ensure that eye flushing systems and safety showers are located close to the working place.

Individual protection measures**Respiratory protection**

In case of insufficient ventilation, wear suitable respiratory equipment.

Eye /face protection

Safety glasses

Skin and hand protection

Safety gloves in accordance with standard EN 374.

Take note of the information given by the producer concerning permeability and break through times, and of special workplace conditions

Other protection equipment

Protective clothing

Reference to regulations

Individual protection measures should satisfy the requirements specified in the Regulation of the Minister of Economy on basic requirements for personal protection controls, of 21 December 2005 (Journal of Laws No 259, item 2173).

General advice

Avoid eyes and skin contamination. Wash hands before breaks and at the end of workday.

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

Environ. exposure controls

Avoid release to the environment.

SECTION 9:Physical and chemical properties**9.1.Information on basic physical and chemical properties**

Physical state	solid	
	Odour threshold:	
Odour:	odourless	no data available
Melting point/freezing point:	no data available	
Boiling point or initial boiling point and boiling range:	No data available.	
Flammability:	no data available	
Lower and upper explosion limit:	no data available	
Flash point:	no data available	
Auto-ignition temperature:	Not applicable.	
Decomposition temperature:	no data available	
pH:	5 - 8	
Kinematic viscosity:	no data available	
Solubility:	Water.	insoluble

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Partition coefficient: n-octanol/water (log value):	no data available
Vapour pressure:	no data available
Density and/or relative density:	no data available
Relative vapour density:	no data available
Particle characteristics:	no data available

9.2. Other information

Information with regard to physical hazard classes:	no data available
Other safety characteristics:	no data available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is chemically stable.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reaction known if stored and used as prescribed. May react with: Oxidizing agents.

10.4. Conditions to avoid

Heat, flames and sparks. High temperature.

10.5. Incompatible materials

Strong oxidizing agents.

10.6. Hazardous decomposition products

During thermal decomposition may be released: Carbon oxides. Nitrogen oxides. Hydrogen chloride gas.

SECTION 11: Toxicological information

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

Acute oral toxicity

No data available.

Acute dermal toxicity

No data available.

Acute inhalation toxicity

No data available.

Acute toxicity - other exposure routes

No data available.

Skin corrosion/irritation

No data available.

Serious eye damage/irritation

irritant effects

Respiratory sensitisation

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

Skin sensitisation

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

Germ cell mutagenicity

Summary

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

Carcinogenicity

Summary

No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH
No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed humancarcinogen
No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP
No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA

Reproductive toxicity

Summary

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

STOT-single exposure**Summary**

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

STOT-repeated exposure**Summary**

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

Aspiration hazard

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

Information on likely routes of exposure

No data available

Symptoms related to the physical, chemical and toxicological characteristics

no data available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

no data available

11.2. Information on other hazards**Other information**

no data available

SECTION 12: Ecological information**12.1. Toxicity****Summary**

no data available

12.2. Persistence and degradability**Summary**

no data available

12.3. Bioaccumulative potential**Summary**

No bioconcentration of the polymeric component is expected because of its high molecular weight.

12.4. Mobility in soil**Summary**

no data available

12.5. Results of PBT and vPvB assessment

not applicable

12.6. Endocrine disrupting properties

no data available

12.7. Other adverse effects

no data available

SECTION 13: Disposal considerations**13.1. Waste treatment methods**

Comply with below named regulations:

Waste Disposal Law, of 14 December 2012 (Journal of Laws 2013, item 21), with further amendments.

Law on packages and spent packages, of 13 June 2013 (Journal of Laws 2013, item 888).

Regulation of the Minister of Environment on Wastes catalogue, of 9 December 2014 (Journal of Laws 2014, item 1923).

Suggested waste code: 16 03 06 Organic wastes other than those mentioned in 16 03 05.

Send to a licensed Waste management company. Dispose of in accordance with current legislation concerning Waste disposal.

Waste packaging should be recycled. Packaging that can not be cleaned, should be disposed of like the product.

SECTION 14: Transport information**14.1. UN number or ID number****Transport type****UN Number**

ADR	N/A
ADN	N/A
IMDG	N/A
ICAO	N/A
RID	N/A

14.2. UN proper shipping name

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Transport type	UN proper shipping name
ADR	not subject to transport regulations
ADN	not subject to transport regulations
IMDG	not subject to transport regulations
ICAO	not subject to transport regulations
RID	not available

14.3. Transport hazard class(es)

Transport type	Transport hazard class:	Classification code:	Hazard identification number:	Tunnel restriction code:	Labels numbers:
ADR	not relevant	not relevant	not relevant	-	not relevant
ADN	not relevant				not relevant
IMDG	not relevant				not relevant
ICAO	not relevant				not relevant
RID	not available				

14.4. Packing group

Transport type	Packing group:
ADR	not relevant
ADN	not relevant
IMDG	not relevant
ICAO	not relevant
RID	not available

14.5. Environmental hazards

The product does not pose a hazard to the environment in accordance with the criteria of the UN Model Regulations.

14.6. Special precautions for user

not available

14.7. Maritime transport in bulk according to IMO instruments

not available

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH),

Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 (OJ L 353, 31.12.2008, p. 1).

Law on chemical substances and mixtures thereof, of 14 January 2018 (Journal of Laws 2018, item 143).

15.2. Chemical safety assessment

A Chemical Safety Assessment was not carried out.

SECTION 16: Other information

Changes of previous version

Section 1

Key or legend to abbreviations and acronyms used in the safety data sheet

Asp. Tox. - Aspiration hazard

Aquatic Acute - Hazardous to the aquatic environment - Acute

Aquatic Chronic - Hazardous to the aquatic environment - Chronic

Ozone - Hazardous for the ozone layer

Lact. - Effects on or via lactation

NDS - Maximum permissible exposure level/concentration

NDSCH - Maximum short-term exposure level/concentration

NDSP - Maximum permissible ceiling exposure level/concentration

vPvB (Substance) very persistent and very bioaccumulating

PBT (Substance) persistent, bioaccumulating and toxic

PNEC - Predicted No Effect Concentration

DNEL - Derived No Effect Level

LD50 - Lethal dose 50; dose/amount of a substance which kills 50 % of the test population

LC50 - Lethal concentration; concentration of a substance which kills 50 % of the test population

LOEC - Lowest Observed Effect Concentration

NOEL - No Observed Effect Level

NOEC - No Observed Effect Concentration

ECX - Effective concentration; concentration of a substance which produces X % effect response

ADR - Agreement Concerning the International Carriage of Dangerous Goods by Road

ADN - Agreement Concerning the International Carriage of Dangerous Goods by Inland Waters

RID - Regulations Concerning the International Carriage of Dangerous Goods by Rail

IMDG - International Maritime Dangerous Goods Code

ICAO/IATA - International Civil Aviation Organization/International Air Transport Association

UVCB - Substances of Unknown or Variable composition, Complex reaction products or Biological materials

STOT RE - Specific target organ toxicity — repeated exposure
Expl. - Explosive
Flam. Gas - Flammable gas
Flam. Aerosol - Flammable aerosol
Ox. Gas - Oxidising gas
Press. Gas - Gases under pressure
Flam. Liq. - Flammable liquid
Flam. Sol. - Flammable solid
Self-react. - Self-reactive substance or mixture
Pyr. Liq. - Pyrophoric liquid
Pyr. Sol. - Pyrophoric solid
Self-heat. - Self-heating substance or mixture
Water-react. - Substance or mixture which in contact with water emits flammable gas
Ox. Liq. - Oxidising liquid
Ox. Sol. - Oxidising solid
Org. Perox. - Organic peroxide
Met. Corr. - Substance or mixture corrosive to metals
Acute Tox. - Acute toxicity
Skin Corr. - Skin corrosion
Skin Irrit. - Skin irritation
Resp. Sens. - Respiratory sensitization
Skin Sens. - Skin sensitization
Muta. - Germ cell mutagenicity
Carc. - Carcinogenicity
Repr. - Reproductive toxicity, Category 1A
STOT SE - Specific target organ toxicity — single exposure

Key literature references and sources for data

This safety data sheet has been prepared based on the MSDS provided by the manufacturer or / and internet databases and current regulations.

Advice on any training appropriate for workers to ensure protection of human health and the environment

People involved in the handling of the product should be trained in the handling, safety and hygiene.

List of relevant hazard statements and/or precautionary statements

H319 Causes serious eye irritation

not applicable

P101 If medical advice is needed, have product container or label at hand.

P102 Keep out of reach of children.

P103 Read carefully and follow all instructions.

P264c Wash hands and parts of the body in contact with the product thoroughly after handling

P280 Wear protective gloves/protective clothing/eye protection/face protection.

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

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

Other Information

This safety data sheet is prepared to provide downstream users information about product.

The information contained in this safety data sheet refer to the product in the form in which it is delivered

The data contained in this safety data sheet are based on our current knowledge and experience and describe the product in terms of safety requirements.

Mixture. Producer/importer confirmed compliance of substance/substance in product with REACH (Regulation EC 1907/2006)

CHAPTER 1

1.1.1. Introduction to the subject and its importance in the field of study.

1.1.2. Theoretical background and key concepts.

1.1.3. Methodology and research design.

1.1.4. Data collection and analysis.

1.1.5. Results and discussion.

1.1.6. Conclusion and future research.

1.2.1. Overview of the literature.

1.2.2. Critical analysis of existing studies.

1.2.3. Identification of research gaps.

1.2.4. Justification of the current study.

1.2.5. Summary of findings.

1.2.6. Implications for practice.

1.2.7. Recommendations for further research.

1.2.8. Final thoughts and reflections.

1.2.9. Acknowledgements.

1.2.10. References.

1.2.11. Appendix A.

1.2.12. Appendix B.

1.2.13. Appendix C.