Safety data sheet in accordance with regulation (EC) No 1907/2006

Trade name: AMMONIUMCHLORID AQ. 23%

Substance number: 337786

Version: 1 / CH

Replaces Version: - / CH

Date revised: 24.10.2023 Print date: 24.10.23

HANSELER

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

1.1. Product identifier

AMMONIUMCHLORID AQ. 23% Item No. 33778600

1.3. Details of the supplier of the safety data sheet

Address/Manufacturer

Hänseler AG Industriestrasse 35 9100 Herisau Telephone no. 0041 (0)71 353 58 58 E-mail address of sdb@haenseler.ch person responsible for this SDS

1.4. Emergency telephone number

Switzerland :145 / Abroad +41 (0)44 251 51 51

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (Regulation (EC) No. 1272/2008)

Classification (Regulation (EC) No. 1272/2008)

Eye Irrit. 2 H319

The product is classified and labelled in accordance with Regulation (EC) No 1272/2008 For explanation of abbreviations see section 16.

2.2. Label elements

Labelling according to regulation (EC) No 1272/2008

Hazard pictograms



Signal word

Warning

Hazard statements

H319

Causes serious eye irritation.

Precautionary statements

P264.1	Wash hands 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 eve irritation persists: Get medical advice/attention

P337+P313

If eye irritation persists: Get medical advice/attention.

2.3. Other hazards

The product contains no PBT substances. The product contains no vPvB substances. This product does not contain a substance that has endocrine disrupting properties with respect to human. The product does not contain a substance that has endocrine disrupting properties with respect to non-target

rade name: AMM	ONIUMCHI	LORID AQ. 23%				Source (the dispersion)
Substance number	: 337786	Versior	n: 1/CH			Date revised: 24.10.2023
		Replac	es Versio	on: -/	CH	Print date: 24.10.23
organisms	5.					
		ition/information	on in	grea	<u>dients</u>	
Hazardous	-	ts				
	o. on no.			0.5	~	
Concentra Classificat		>= 10 tion (EC) No. 1272/2008)	<	25	%	
Classificat	ion (Regula	Acute Tox. 4 Eye Irrit. 2	H302 H319			
ATE	oral		1'410		mg/kg	
Further ing	redients					
water CAS No. EINECS n Concentra Advice: [4]	ition	7732-18-5 231-791-2	>=	50	%	

4.1. Description of first aid measures

After inhalation

Ensure supply of fresh air. In the event of symptoms take medical treatment.

After skin contact

Wash off immediately with soap and water and rinse well. Consult a doctor if symptoms occur.

After eye contact

Remove contact lenses. In case of contact with the eyes, rinse immediately for at least 15 minutes with plenty of water. Summon a doctor immediately.

After ingestion

If swallowed, rinse mouth with water (only if the person is conscious). Do not induce vomiting. Summon a doctor immediately.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Extinguishing measures to suit surroundings

Non suitable extinguishing media

not applicable

5.2. Special hazards arising from the substance or mixture The product is not combustible.

5.3. Advice for firefighters

Special protective equipment for fire-fighting

Safety data sheet in accordance with regulation (EC) No 1907/2006

Trade name: AMMONIUMCHLORID AQ. 23%

Substance number: 337786

Version: 1 / CH

Replaces Version: - / CH

Date revised: 24.10.2023

HANSELER

Print date: 24.10.23

Use self-contained breathing apparatus. Use personal protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures Remove persons to safety. Wear protective equipment

6.2. Environmental precautions

Do not allow to enter drains or waterways. Advise water authority if spillage has entered water course or drainage system.

6.3. Methods and material for containment and cleaning up

Take up with absorbent material (eg sand, kieselguhr, universal binder). Dispose of absorbed material in accordance with the regulations.

6.4. Reference to other sections

Information regarding Safe handling, see Section 7. Information regarding personal protective measures, see Section 8.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Ensure adequate ventilation. Avoid contact with skin and eyes. Smoking, eating and drinking should be prohibited in application area. Observe the usual precautions for handling chemicals.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Suitable materials: Polyethylene. plastic materials

Storage classes

Storage class according to TRGS 51012Storage category (Switzerland)10/12

Non-combustible liquids Other liquid hazardous substances

mg/m³

Further information on storage conditions

Keep only in the original container, tightly closed, in a well ventilated place. Store in a dry place

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limit values

ammonium chloride

List	SUVA	
Туре	MAK	
Value	3	mg/m³
Remarks: Auge & OAW		•

Derived No/Minimal Effect Levels (DNEL/DMEL)

ammonium chloride

Type of value	Derived No Effect Level (DNEL)
Reference group	Worker
Duration of exposure	Long term
Route of exposure	inhalative
Mode of action	Systemic effects
Concentration	43.97

Type of value

Derived No Effect Level (DNEL)

	with regulation (EC) No 1907/2006	HANSELER C
rade name: AMMONIUMCHLOR	ID AQ. 23%	50200-0004-0002-00-501
Substance number: 337786	Version: 1 / CH	Date revised: 24.10.2023
	Replaces Version: - / CH	Print date: 24.10.2
Reference group	Worker	
Duration of exposure	Long term	
Route of exposure	dermal	
Mode of action	Systemic effects	
Concentration	128.9	mg/kg
Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	9.4	mg/m³
Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long term	
Route of exposure	dermal	
Mode of action	Systemic effects	
		malka
Concentration	55.2	mg/kg
Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long term	
Route of exposure	oral	
Mode of action	Chronic effects	
-		
Concentration	55.2	mg/kg
Predicted No Effect Conc ammonium chloride	centration (PNEC)	mg/kg
Predicted No Effect Conc ammonium chloride Type of value	centration (PNEC)	mg/kg
Predicted No Effect Conc ammonium chloride	centration (PNEC)	mg/kg mg/l
Predicted No Effect Cond ammonium chloride Type of value Type Concentration	centration (PNEC) PNEC Freshwater 0.25	
Predicted No Effect Cond ammonium chloride Type of value Type Concentration Type of value	Centration (PNEC) PNEC Freshwater 0.25 PNEC	
Predicted No Effect Cond ammonium chloride Type of value Type Concentration	centration (PNEC) PNEC Freshwater 0.25	
Predicted No Effect Cond ammonium chloride Type of value Type Concentration Type of value Type Concentration	centration (PNEC) PNEC Freshwater 0.25 PNEC Saltwater 0.025	mg/l
Predicted No Effect Cond ammonium chloride Type of value Type Concentration Type of value Type Concentration Type of value	centration (PNEC) PNEC Freshwater 0.25 PNEC Saltwater 0.025 PNEC	mg/l
Predicted No Effect Cond ammonium chloride Type of value Type Concentration Type of value Type Concentration	centration (PNEC) PNEC Freshwater 0.25 PNEC Saltwater 0.025	mg/l
Predicted No Effect Cond ammonium chloride Type of value Type Concentration Type of value Type Concentration Type of value Conditions Concentration	centration (PNEC) PNEC Freshwater 0.25 PNEC Saltwater 0.025 PNEC Intermittend 0.43	mg/l mg/l
Predicted No Effect Cond ammonium chloride Type of value Type Concentration Type of value Type Concentration Type of value Conditions Concentration Type of value	centration (PNEC) PNEC Freshwater 0.25 PNEC Saltwater 0.025 PNEC Intermittend 0.43 PNEC	mg/l mg/l
Predicted No Effect Cond ammonium chloride Type of value Type Concentration Type of value Type Concentration Type of value Conditions Concentration	centration (PNEC) PNEC Freshwater 0.25 PNEC Saltwater 0.025 PNEC Intermittend 0.43	mg/l mg/l
Predicted No Effect Cond ammonium chloride Type of value Type Concentration Type of value Type Concentration Type of value Conditions Concentration Type of value Type Concentration	centration (PNEC) PNEC Freshwater 0.25 PNEC Saltwater 0.025 PNEC Intermittend 0.43 PNEC Freshwater sediment 0.9	mg/l mg/l mg/l
Predicted No Effect Cond ammonium chloride Type of value Type Concentration Type of value Type Concentration Type of value Conditions Concentration Type of value Type Concentration	centration (PNEC) PNEC Freshwater 0.25 PNEC Saltwater 0.025 PNEC Intermittend 0.43 PNEC Freshwater sediment 0.9 PNEC	mg/l mg/l mg/l
Predicted No Effect Cond ammonium chloride Type of value Type Concentration Type of value Type Concentration Type of value Conditions Concentration Type of value Type Concentration	centration (PNEC) PNEC Freshwater 0.25 PNEC Saltwater 0.025 PNEC Intermittend 0.43 PNEC Freshwater sediment 0.9 PNEC Marine sediment	mg/l mg/l mg/kg
Predicted No Effect Cond ammonium chloride Type of value Type Concentration Type of value Type Concentration Type of value Conditions Concentration Type of value Type Concentration	centration (PNEC) PNEC Freshwater 0.25 PNEC Saltwater 0.025 PNEC Intermittend 0.43 PNEC Freshwater sediment 0.9 PNEC	mg/l mg/l mg/l
Predicted No Effect Cond ammonium chloride Type of value Type Concentration Type of value Type Concentration Type of value Conditions Concentration Type of value Type Concentration Type of value Type Concentration	centration (PNEC) PNEC Freshwater 0.25 PNEC Saltwater 0.025 PNEC Intermittend 0.43 PNEC Freshwater sediment 0.9 PNEC Marine sediment	mg/l mg/l mg/kg
Predicted No Effect Cond ammonium chloride Type of value Type Concentration Type of value Type Concentration Type of value Conditions Concentration Type of value Type Concentration Type of value Type Concentration	centration (PNEC) PNEC Freshwater 0.25 PNEC Saltwater 0.025 PNEC Intermittend 0.43 PNEC Freshwater sediment 0.9 PNEC Marine sediment 0.09	mg/l mg/l mg/kg
Predicted No Effect Cond ammonium chloride Type of value Type Concentration Type of value Type Concentration Type of value Conditions Concentration Type of value Type Concentration Type of value Type Concentration	centration (PNEC) PNEC Freshwater 0.25 PNEC Saltwater 0.025 PNEC Intermittend 0.43 PNEC Freshwater sediment 0.9 PNEC Marine sediment 0.09 PNEC	mg/l mg/l mg/kg
Predicted No Effect Cond ammonium chloride Type of value Type Concentration Type of value Type Concentration Type of value Conditions Concentration Type of value Type Concentration Type of value Type Concentration Type of value Type Concentration	centration (PNEC) PNEC Freshwater 0.25 PNEC Saltwater 0.025 PNEC Intermittend 0.43 PNEC Freshwater sediment 0.9 PNEC Marine sediment 0.09 PNEC Soil 50.7	mg/l mg/l mg/kg mg/kg
Predicted No Effect Cond ammonium chloride Type of value Type Concentration Type of value Type Concentration Type of value Conditions Concentration Type of value Type Concentration Type of value Type Concentration Type of value Type Concentration	centration (PNEC) PNEC Freshwater 0.25 PNEC Saltwater 0.025 PNEC Intermittend 0.43 PNEC Freshwater sediment 0.9 PNEC Marine sediment 0.09 PNEC Soil	mg/l mg/l mg/kg mg/kg

Safety data sheet in accordance with regulation (EC) No 1907/2006
---	------------------

Trade name: AMMONIUMCHLORID AQ. 23%

Substance number: 337786

Version: 1 / CH

Date revised: 24.10.2023

HANSELER

Replaces Version: - / CH

Print date: 24.10.23

8.2. Exposure controls

General protective and hygiene measures

Do not eat or drink during work time. Keep away from food-stuffs, beverages and feed-stocks. Hold eye wash fountain available. Observe the usual precautions for handling chemicals. Wash hands before breaks and after work.

Environmental exposure controls

Do not allow to enter drains or water courses.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

 Physical state
 liquid

 Boiling point or initial boiling point and boiling range

 Remarks
 not determined

 Flash point

Value Remarks

°C Not applicable

Vapour pressure Remarks

not determined

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactions with strong acids.

10.2. Chemical stability

No decomposition if stored and applied as directed.

10.3. Possibility of hazardous reactions No hazardous reactions known.

10.4. Conditions to avoid

No decomposition if stored and applied as directed.

- **10.5. Incompatible materials** aluminium (Al)
- 10.6. Hazardous decomposition products None

SECTION 11: Toxicological information

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

ATE	6'103.89	mg/kg
	61	
Method	calculated value (Regulation	n (EC) No. 1272/2008)
Acute oral toxicity (Com	iponents)	
ammonium chloride		
Species	rat	
LD50	1650	mg/kg
Remarks	Harmful if swallowed.	

Salety data sheet in accordance	e with regulation (EC) No 1907/2006	HÄNSELER (
Trade name: AMMONIUMCHLOF	RID AQ. 23%	
Substance number: 337786	Version: 1 / CH	Date revised: 24.10.202
	Replaces Version: - / CH	Print date: 24.10.2
ammonium chloride		
Species	rat	
LD50	1410 mg/kg	
Remarks	Harmful if swallowed.	
Acute dermal toxicity (C	components)	
ammonium chloride		
Species LD50	rat > 2000 mg/kg	
Remarks	Test conducted with a similar formulation.	
Acute inhalative toxicity		
ammonium chloride		
Remarks	Not applicable	
Skin corrosion/irritation	(Components)	
ammonium chloride		
Species	rabbit	
evaluation	irritant	
Method	Draize method	
Serious eye damage/irri	tation (Components)	
ammonium chloride		
Species evaluation	rabbit irritant	
Sensitization (Compone		
ammonium chloride		
Remarks	No sensitation effect known.	
	chronic toxicity (Components)	
ammonium chloride		
Remarks	No data available.	
Mutagenicity (Compone	ents)	
ammonium chloride		
evaluation	Not considered mutagenic based on several in v	vitro and in vivo studies.
Reproduction toxicity (C	Components)	
ammonium chloride		
Remarks	Indications of toxic effects are available from rep animals.	production studies in
Carcinogenicity (Compo		
ammonium chloride	Shentay	
Remarks	No data available.	
	oxicity (STOT) (Components)	
ammonium chloride		
Remarks	Not applicable	
11.2 Information on other	hazards	
Endocrine disrupting pr	operties with respect to humans	
	ntain a substance that has endocrine disrupting prope	erties with respect to
SECTION 12: Ecologica	al information	

Safety data sheet in accordance v	vith regulation (E	C) No 1907/	2006	HÄNSELER
Trade name: AMMONIUMCHLORI	D AQ. 23%			
Substance number: 337786	Versi	on: 1/CH		Date revised: 24.10.2023
	Repla	aces Version:	: - / CH	Print date: 24.10.23
12.1. Toxicity				
Fish toxicity (Component	s)			
ammonium chloride				
Species LC50	carp (Cyprinus 209	carpio)	mg/l	
Duration of exposure	96	h	ing/i	
ammonium chloride				
Species	rainbow trout (C	Dncorhynchu		
LC50 Duration of exposure	3.98 96	h	mg/l	
ammonium chloride	50	11		
Species	rainbow trout (C	Oncorhynchu	s mykiss)	
NOEC	57	-	mg/l	
Duration of exposure	96	h		
ammonium chloride Species	rainbow trout (0	Jacorhyachu	c mykicc)	
LC50	42.91	JICOMITINICITU	mg/l	
Duration of exposure	96	h	0	
Daphnia toxicity (Compor	nents)			
ammonium chloride				
Species	Daphnia magna	a		
LC50 Duration of exposure	161 48	h	mg/l	
ammonium chloride	40	11		
Species	Daphnia magna	a		
NOEC	0.1		mg/l	
Duration of exposure	216	h		
ammonium chloride Species	Daphnia magna	2		
EC50	136.6	A	mg/l	
Duration of exposure	48	h	Ū	
ammonium chloride	.			
Species EC50	Ceriodaphnia s 98.5	pec	mg/l	
Duration of exposure	48	h	ing/i	
Algae toxicity (Componer	nts)			
ammonium chloride				
Species	Chlorella vulga	ris		
EC50	1300		mg/l	
Duration of exposure Remarks	5 Test conducted	d I with a simila	ar formulation	
ammonium chloride				
Species	Chlorella vulga	ris		
EC50	2700		mg/l	
Duration of exposure Remarks	18 Test conducted	d I with a simila	ar formulation	
Bacteria toxicity (Compor				
ammonium chloride	·····,			
Species	activated sludg	e		
EC20	appr. 850		mg/l	
Method	OECD 209			

Safety data sheet in accord	ance with regulation (EC) N	lo 1907/2006	HÄNSELER SWISS PHARMA		
Trade name: AMMONIUMCH	ILORID AQ. 23%				
Substance number: 337786	Version:	1 / CH	Date revised: 24.10.202		
	Replaces	Version: -/CH	Print date: 24.10.		
12.2. Persistence and o	degradability				
Biodegradability (Co	• •				
ammonium chloride Remarks	Inorganic product, cannot be eliminated from the water by biological purification processes.				
12.3. Bioaccumulative					
General information No data available	•				
Octanol/water partit	ion coefficient (log Pow)	(Components)			
ammonium chloride	4.07				
log Pow	-4.37				
12.4. Mobility in soil General information No data available					
Mobility in soil (Com	iponents)				
ammonium chloride Adsorbs on soil.					
12.5. Results of PBT a	nd vPvB assessment				
•	vPvB assessment s no PBT substances s no vPvB substances.				
12.6 Endocrine disrupt					
Endocrine disruptin	g properties with respec	t to the envrionment as endocrine disrupting prope	rties with respect to non-		
SECTION 13: Dispos	al considerations				
13.1. Waste treatment	methods				
Disposal in complian	dations for the product ce with local and national reg dations for packaging d product.	gulations.			
SECTION 14: Transp					
	Land transport ADR/RID	Marine transport IMDG/GGVSee	Air transport ICAO/IATA		
14.1. UN number	The product does not constitute a hazardous substance in land transport.	The product does not constitute a hazardous substance in sea transport.	The product does not constitute a hazardous substance in air transport.		

SECTION 15: Regulatory information

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

Safety data sheet in accordance with regulation (EC) No 1907/2006

Trade name: AMMONIUMCHLORID AQ. 23%

Substance number: 337786

Version: 1 / CH Replaces Version: - / CH Date revised: 24.10.2023 Print date: 24.10.23

HANSELER

or mixture

Water Hazard Class (Germany)

Water Hazard ClassWGK 1(Germany)Derivation of WGK according to Annex 1 No. 5.2 AwSV

SECTION 16: Other information

Hazard statements listed in Chapter 3

H302	Harmful if swallowed.
H319	Causes serious eye irritation.

CLP categories listed in Chapter 3

Acute Tox. 4	Acute toxicity, Category 4
Eye Irrit. 2	Eye irritation, Category 2

Supplemental information

Relevant changes compared with the previous version of the safety data sheet are marked with: *** This information is based on our present state of knowledge. However, it should not constitute a guarantee for any specific product properties and shall not establish a legally valid relationship.