Safety Data Sheet

V1002SS

Version number: 12.0
SDS Identifier: V1002SS

Revision: 2023-11-08

SECTION 1: Identification

1.1 Product identifier

SDS Identifier **V1002SS**

Catalog numbers R-1002, R-1000E

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

Relevant identified uses Components of water analysis test kits

1.3 Details of the supplier of the safety data sheet

AquaPhoenix Scientific, Inc.
860 Gitts Run Road
Hanover PA 17331
United States

Telephone: (717) 632-1291
e-mail: info@aquaphoenixsci.com
Website: https://www.aquaphoenixsci.com/

e-mail (competent person) scraig@aquaphoenixsci.com (Stephen Craig)

1.4 Emergency telephone number

Emergency information service ChemTel Inc.: 1-800-255-3924, +01-813-248-0585

SECTION 2: Hazard(s) identification

2.1 Classification of the substance or mixture

Classification acc. to GHS

Hazard class	Category	Hazard class and category	Hazard statement
acute toxicity (oral)	4	Acute Tox. 4	H302
acute toxicity (inhal.)	3	Acute Tox. 3	H331
skin corrosion/irritation	2	Skin Irrit. 2	H315
serious eye damage/eye irritation	2	Eye Irrit. 2	H319
carcinogenicity	2	Carc. 2	H351
reproductive toxicity	2	Repr. 2	H361d
specific target organ toxicity - repeated exposure	1	STOT RE 1	H372
hazardous to the aquatic environment - acute hazard	3	Aquatic Acute 3	H402

For full text of abbreviations: see SECTION 16.

The most important adverse physicochemical, human health and environmental effects

Delayed or immediate effects can be expected after short or long-term exposure. Spillage and fire water can cause pollution of watercourses.

2.2 Label elements

Labeling

- Signal word danger

- Pictograms

GHS06, GHS08

- Hazard statements

H302	Harmful if swallowed.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H331	Toxic if inhaled.
H351	Suspected of causing cancer.
H361d	Suspected of damaging the unborn child.
H372	Causes damage to organs through prolonged or repeated exposure.
H402	Harmful to aquatic life.

- Precautionary statements

P203	Obtain, read and follow all safety instructions before use.
P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P264+P265	Wash hands thoroughly after handling. Do not touch eyes.
P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
P273	Avoid release to the environment.
P280	Wear protective gloves.
P301+P317	IF SWALLOWED: Get medical help.
P302+P352	IF ON SKIN: Wash with plenty of water.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P316	Get emergency medical help immediately.
P318	IF exposed or concerned, get medical advice.
P321	Specific treatment (see on this label).
P330	Rinse mouth.
P332+P317	If skin irritation occurs: Get medical help.

- Precautionary statements

P337+P317	If eye irritation persists: Get medical help.
P362+P364	Take off contaminated clothing and wash it before reuse.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.
P501	Dispose of contents/container to industrial combustion plant.

- Hazardous ingredients for labelling — chloroform, hydrochloric acid, sodium acetate, trihydrate

2.3 Other hazards

Results of PBT and vPvB assessment

Does not contain a PBT-/vPvB-substance in a concentration of ≥ 0.1%.

Endocrine disrupting properties

Does not contain an endocrine disruptor (ED) in a concentration of ≥ 0.1%.

SECTION 3: Composition/information on ingredients

3.1 Substances

Not relevant (mixture)

3.2 Mixtures

Description of the mixture

Name of substance	Identifier	Wt%	Classification acc. to GHS	Pictograms
chloroform	CAS No 67-66-3	71	Acute Tox. 4 / H302 Acute Tox. 3 / H331 Skin Irrit. 2 / H315 Eye Irrit. 2 / H319 Carc. 2 / H351 Repr. 2 / H361d STOT RE 1 / H372 Aquatic Acute 3 / H402	
deionized water	CAS No 7732-18-5	16		
acetic acid	CAS No 64-19-7	9	Flam. Liq. 3 / H226 Skin Corr. 1A / H314 Eye Dam. 1 / H318	
sodium chloride	CAS No 7647-14-5	2		

Name of substance	Identifier	Wt%	Classification acc. to GHS	Pictograms
hydrochloric acid	CAS No 7647-01-0	1	Met. Corr. 1 / H290 Acute Tox. 3 / H331 Skin Corr. 1A / H314 Eye Dam. 1 / H318 STOT SE 3 / H335 Aquatic Acute 1 / H400	
sodium acetate, trihydrate	CAS No 6131-90-4 127-09-3	1	Acute Tox. 4 / H302 Acute Tox. 5 / H333	
methyl orange	CAS No 547-58-0	≤ 0.1	Acute Tox. 3 / H301	

For full text of abbreviations: see SECTION 16.

SECTION 4: First-aid measures

4.1 Description of first-aid measures

General notes

Do not leave affected person unattended. Remove victim out of the danger area. Keep affected person warm, still and covered. Take off immediately all contaminated clothing. In all cases of doubt, or when symptoms persist, seek medical advice. In case of unconsciousness place person in the recovery position. Never give anything by mouth.

Following inhalation

If breathing is irregular or stopped, immediately seek medical assistance and start first aid actions. In case of respiratory tract irritation, consult a physician. Provide fresh air.

Following skin contact

Wash with plenty of soap and water.

Following eye contact

Remove contact lenses, if present and easy to do. Continue rinsing. Irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart.

Following ingestion

Rinse mouth with water (only if the person is conscious). Do NOT induce vomiting.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms and effects are not known to date.

4.3 Indication of any immediate medical attention and special treatment needed

none

SECTION 5: Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media

Water spray, BC-powder, Carbon dioxide (CO2)

Unsuitable extinguishing media

Water jet

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products

Carbon monoxide (CO), Carbon dioxide (CO2), Hydrogen chloride (HCl)

5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes. Coordinate firefighting measures to the fire surroundings. Do not allow firefighting water to enter drains or water courses. Collect contaminated firefighting water separately. Fight fire with normal precautions from a reasonable distance.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Remove persons to safety.

For emergency responders

Wear breathing apparatus if exposed to vapors/dust/aerosols/gases.

6.2 Environmental precautions

Keep away from drains, surface and ground water. Retain contaminated washing water and dispose of it. If substance has entered a water course or sewer, inform the responsible authority.

6.3 Methods and material for containment and cleaning up

Advice on how to contain a spill

Covering of drains

Advice on how to clean up a spill

Wipe up with absorbent material (e.g. cloth, fleece). Collect spillage: sawdust, kieselgur (diatomite), sand, universal binder

Appropriate containment techniques

Use of adsorbent materials.

Other information relating to spills and releases

Place in appropriate containers for disposal. Ventilate affected area.

6.4 Reference to other sections

Hazardous combustion products: see section 5. Personal protective equipment: see section 8. Incompatible materials: see section 10. Disposal considerations: see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Recommendations

Wear impact- and splash-resistant eyewear.

- Measures to prevent fire as well as aerosol and dust generation

Use local and general ventilation. Use only in well-ventilated areas.

Advice on general occupational hygiene

Wash hands after use. Do not eat, drink and smoke in work areas. Remove contaminated clothing and protective equipment before entering eating areas. Never keep food or drink in the vicinity of chemicals. Never place chemicals in containers that are normally used for food or drink. Keep away from food, drink and animal feedingstuffs.

7.2 Conditions for safe storage, including any incompatibilities

Control of the effects

Protect against external exposure, such as

heat, high temperatures, light, UV-radiation/sunlight

- Ventilation requirements

Keep any substance that emits harmful vapors or gases in a place that allows these to be permanently extracted.

- Packaging compatibilities

Only packagings which are approved (e.g. acc. to the Dangerous Goods Regulations) may be used.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limit values (Workplace Exposure Limits)

Country	Name of agent	CAS No	Identifier	TWA [ppm]	TWA [mg/m³]	STEL [ppm]	STEL [mg/m³]	Ceiling-C [ppm]	Ceiling-C [mg/m³]	Notation	Source
US	acetic acid	64-19-7	PEL (CA)	10	25	15	37	40			Cal/OSHA PEL
US	acetic acid	64-19-7	REL	10 (10 h)	25 (10 h)	15	37				NIOSH REL
US	acetic acid	64-19-7	TLV®	10		15					ACGIH® 2023

Occupational exposure limit values (Workplace Exposure Limits)

Country	Name of agent	CAS No	Identifier	TWA [ppm]	TWA [mg/m³]	STEL [ppm]	STEL [mg/m³]	Ceiling-C [ppm]	Ceiling-C [mg/m³]	Notation	Source
US	acetic acid	64-19-7	PEL	10	25						29 CFR 1910.1000
US	chloroform	67-66-3	TLV®	10							ACGIH® 2023
US	chloroform	67-66-3	REL			2 (60 min)	9.78 (60 min)			appx-A	NIOSH REL
US	chloroform (trichloromethane)	67-66-3	PEL (CA)	2	9.78						Cal/OSHA PEL
US	trichloromethane (chloroform)	67-66-3	PEL					50	240		29 CFR 1910.1000
US	hydrogen chloride	7647-01-0	REL					5	7		NIOSH REL
US	hydrogen chloride	7647-01-0	TLV®					2			ACGIH® 2023
US	hydrogen chloride	7647-01-0	PEL					5	7		29 CFR 1910.1000
US	hydrogen chloride (muriatic acid) (hydrochloric acid)	7647-01-0	PEL (CA)	0.3	0.45			2			Cal/OSHA PEL

Notation

appx-A	NIOSH Potential Occupational Carcinogen (Appendix A)
Ceiling-C	ceiling value is a limit value above which exposure should not occur
STEL	short-term exposure limit: a limit value above which exposure should not occur and which is related to a 15-minute period (unless otherwise specified)
TWA	time-weighted average (long-term exposure limit): measured or calculated in relation to a reference period of 8 hours time-weighted average (unless otherwise specified

Relevant DNELs of components

Name of substance	CAS No	Endpoint	Threshold level	Protection goal, route of exposure	Used in	Exposure time
chloroform	67-66-3	DNEL	2.5 mg/m³	human, inhalatory	worker (industry)	chronic - systemic effects
chloroform	67-66-3	DNEL	5 mg/m³	human, inhalatory	worker (industry)	acute - systemic effects
chloroform	67-66-3	DNEL	2.5 mg/m³	human, inhalatory	worker (industry)	chronic - local effects
chloroform	67-66-3	DNEL	5 mg/m³	human, inhalatory	worker (industry)	acute - local effects

Relevant DNELs of components

Name of substance	CAS No	Endpoint	Threshold level	Protection goal, route of exposure	Used in	Exposure time
chloroform	67-66-3	DNEL	2.86 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects
sodium chloride	7647-14-5	DNEL	2,069 mg/m³	human, inhalatory	worker (industry)	chronic - systemic effects
sodium chloride	7647-14-5	DNEL	2,069 mg/m³	human, inhalatory	worker (industry)	acute - systemic effects
sodium chloride	7647-14-5	DNEL	295.5 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects
sodium chloride	7647-14-5	DNEL	295.5 mg/kg bw/day	human, dermal	worker (industry)	acute - systemic effects
hydrochloric acid	7647-01-0	DNEL	8 mg/m³	human, inhalatory	worker (industry)	chronic - local effects
hydrochloric acid	7647-01-0	DNEL	15 mg/m³	human, inhalatory	worker (industry)	acute - local effects
sodium acetate, trihydrate	6131-90-4 127-09-3	DNEL	1,058 mg/m³	human, inhalatory	worker (industry)	chronic - systemic effects
sodium acetate, trihydrate	6131-90-4 127-09-3	DNEL	6,347 mg/m³	human, inhalatory	worker (industry)	acute - systemic effects
sodium acetate, trihydrate	6131-90-4 127-09-3	DNEL	12 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects
sodium acetate, trihydrate	6131-90-4 127-09-3	DNEL	72 mg/kg bw/day	human, dermal	worker (industry)	acute - systemic effects

Relevant PNECs of components

Name of substance	CAS No	Endpoint	Threshold level	Organism	Environmental compartment	Exposure time
chloroform	67-66-3	PNEC	0.146 $^{mg}/_{l}$	aquatic organisms	freshwater	short-term (single instance)
chloroform	67-66-3	PNEC	0.015 $^{mg}/_{l}$	aquatic organisms	marine water	short-term (single instance)
chloroform	67-66-3	PNEC	0.048 $^{mg}/_{l}$	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
chloroform	67-66-3	PNEC	0.45 $^{mg}/_{kg}$	aquatic organisms	freshwater sediment	short-term (single instance)
chloroform	67-66-3	PNEC	0.09 $^{mg}/_{kg}$	aquatic organisms	marine sediment	short-term (single instance)
chloroform	67-66-3	PNEC	0.56 $^{mg}/_{kg}$	terrestrial organisms	soil	short-term (single instance)

Relevant PNECs of components

Name of substance	CAS No	Endpoint	Threshold level	Organism	Environmental compartment	Exposure time
sodium chloride	7647-14-5	PNEC	5 $^{mg}/_{l}$	aquatic organisms	freshwater	short-term (single instance)
sodium chloride	7647-14-5	PNEC	500 $^{mg}/_{l}$	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
sodium chloride	7647-14-5	PNEC	4.86 $^{mg}/_{kg}$	terrestrial organisms	soil	short-term (single instance)
sodium acetate, trihydrate	6131-90-4 127-09-3	PNEC	0.1 $^{mg}/_{l}$	aquatic organisms	freshwater	short-term (single instance)
sodium acetate, trihydrate	6131-90-4 127-09-3	PNEC	0.01 $^{mg}/_{l}$	aquatic organisms	marine water	short-term (single instance)
sodium acetate, trihydrate	6131-90-4 127-09-3	PNEC	0.72 $^{g}/_{l}$	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
sodium acetate, trihydrate	6131-90-4 127-09-3	PNEC	0 $^{mg}/_{kg}$	aquatic organisms	freshwater sediment	short-term (single instance)
sodium acetate, trihydrate	6131-90-4 127-09-3	PNEC	0 $^{mg}/_{kg}$	aquatic organisms	marine sediment	short-term (single instance)
sodium acetate, trihydrate	6131-90-4 127-09-3	PNEC	0 $^{mg}/_{kg}$	terrestrial organisms	soil	short-term (single instance)

8.2 Exposure controls

Appropriate engineering controls

General ventilation.

Individual protection measures (personal protective equipment)

Eye/face protection

Wear eye/face protection.

Skin protection

- Hand protection

Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374. Check leak-tightness/impermeability prior to use. In the case of wanting to use the gloves again, clean them before taking off and air them well. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

- Other protection measures

Wash hands thoroughly after handling.

Respiratory protection

In case of inadequate ventilation wear respiratory protection.

Environmental exposure controls

Use appropriate container to avoid environmental contamination. Keep away from drains, surface and ground water.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Product description: Each double-tipped ampoule is a sealed glass ampoule containing approximately 4 mL of liquid reagent.

Physical state	liquid
Color	Two phase - Reddish orange / Colorless to pale yellow
Odor	characteristic
Melting point/freezing point	not determined
Boiling point or initial boiling point and boiling range	100 °C
Evaporation rate	not determined
Flammability	this material is combustible, but will not ignite readily
Lower and upper explosion limit	4 vol% - 19.9 vol%
Flash point	118 °C at 101.3 kPa
Auto-ignition temperature	463 °C
Decomposition temperature	not relevant
pH (value)	1.18 (aqueous layer)
Kinematic viscosity	not determined
Solubility(ies)	not determined

Partition coefficient

Partition coefficient n-octanol/water (log value)	this information is not available

Vapor pressure	23.7 mmHg at 25 °C

Density and/or relative density

Density	not determined
Relative vapour density	1.49 (chloroform layer)

Particle characteristics	not relevant (liquid)

SECTION 10: Stability and reactivity

10.1 Reactivity

Concerning incompatibility: see below "Conditions to avoid" and "Incompatible materials".

10.2 Chemical stability

See below "Conditions to avoid".

10.3 Possibility of hazardous reactions

No known hazardous reactions.

10.4 Conditions to avoid

There are no specific conditions known which have to be avoided.

10.5 Incompatible materials

Oxidizers

10.6 Hazardous decomposition products

Reasonably anticipated hazardous decomposition products produced as a result of use, storage, spill and heating are not known. Hazardous combustion products: see section 5.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Test data are not available for the complete mixture.

Classification procedure

The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

Classification acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200)

Acute toxicity

Harmful if swallowed. Toxic if inhaled.

- Acute toxicity estimate (ATE)

Oral	1,271 $^{mg}/_{kg}$
Inhalation: vapor	4.218 $^{mg}/_{l}$/4h

Acute toxicity estimate (ATE) of components

Name of substance	CAS No	Exposure route	ATE
chloroform	67-66-3	oral	908 $^{mg}/_{kg}$
chloroform	67-66-3	inhalation: vapor	3 $^{mg}/_{l}$/4h
hydrochloric acid	7647-01-0	inhalation: gas	700 $^{ppmV}/_{4h}$
sodium acetate, trihydrate	6131-90-4 127-09-3	oral	1,943 $^{mg}/_{kg}$
sodium acetate, trihydrate	6131-90-4 127-09-3	inhalation: vapor	25 $^{mg}/_{l}$/4h
sodium acetate, trihydrate	6131-90-4 127-09-3	inhalation: dust/mist	>5.6 $^{mg}/_{l}$/4h
methyl orange	547-58-0	oral	60 $^{mg}/_{kg}$

Skin corrosion/irritation

Causes skin irritation.

Serious eye damage/eye irritation

Causes serious eye irritation.

Respiratory or skin sensitization

Shall not be classified as a respiratory or skin sensitizer.

Germ cell mutagenicity

Shall not be classified as germ cell mutagenic.

Carcinogenicity

Suspected of causing cancer.

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans			
Name of substance	**CAS No**	**Classification**	**Number**
hydrochloric acid	7647-01-0	3	
chloroform	67-66-3	2B	

Legend
2B Possibly carcinogenic to humans
3 Not classifiable as to carcinogenicity in humans

National Toxicology Program (United States): Report on Carcinogens			
Name of substance	**CAS No**	**Classification**	**Number**
chloroform	67-66-3	Reasonably anticipated to be a human carcinogen	2nd Report on Carcinogens

Reproductive toxicity

Suspected of damaging the unborn child.

Specific target organ toxicity - single exposure

Shall not be classified as a specific target organ toxicant (single exposure).

Specific target organ toxicity - repeated exposure

Causes damage to organs through prolonged or repeated exposure.

Aspiration hazard

Shall not be classified as presenting an aspiration hazard.

11.2 Information on other hazards

There is no additional information.

SECTION 12: Ecological information

12.1 Toxicity

Harmful to aquatic life.

Aquatic toxicity (acute) of components					
Name of substance	**CAS No**	**Endpoint**	**Value**	**Species**	**Exposure time**
chloroform	67-66-3	EC50	152.5 $^{mg}/_{l}$	aquatic invertebrates	48 h
chloroform	67-66-3	ErC50	13.3 $^{mg}/_{l}$	algae	72 h

Aquatic toxicity (acute) of components

Name of substance	CAS No	Endpoint	Value	Species	Exposure time
acetic acid	64-19-7	LC50	>1,000 mg/l	fish	96 h
acetic acid	64-19-7	EC50	>1,000 mg/l	aquatic invertebrates	48 h
acetic acid	64-19-7	ErC50	>1,000 mg/l	algae	72 h
sodium chloride	7647-14-5	LC50	5,840 mg/l	fish	96 h
sodium acetate, tri-hydrate	6131-90-4 127-09-3	LC50	>100 mg/l	fish	96 h
sodium acetate, tri-hydrate	6131-90-4 127-09-3	EC50	>1,000 mg/l	aquatic invertebrates	24 h
sodium acetate, tri-hydrate	6131-90-4 127-09-3	ErC50	>417.9 mg/l	algae	72 h

12.2 Persistence and degradability

Data are not available.

12.3 Bioaccumulative potential

Data are not available.

12.4 Mobility in soil

Data are not available.

12.5 Results of PBT and vPvB assessment

According to the results of its assessment, this substance is not a PBT or a vPvB. Does not contain a PBT-/vPvB-substance in a concentration of ≥ 0.1%.

12.6 Endocrine disrupting properties

Does not contain an endocrine disruptor (ED) in a concentration of ≥ 0.1%.

12.7 Other adverse effects

Data are not available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Please consider the relevant national or regional provisions.

SECTION 14: Transport information

14.1 UN number

DOT	UN 2922
IMDG-Code	UN 2922
ICAO-TI	UN 2922

14.2 UN proper shipping name

DOT	Corrosive liquid, toxic, n.o.s.
IMDG-Code	CORROSIVE LIQUID, TOXIC, N.O.S.
ICAO-TI	Corrosive liquid, toxic, n.o.s.
Technical name (hazardous ingredients)	acetic acid, chloroform

14.3 Transport hazard class(es)

DOT	8 (6.1)
IMDG-Code	8 (6.1)
ICAO-TI	8 (6.1)

14.4 Packing group

DOT	III
IMDG-Code	III
ICAO-TI	III

14.5 Environmental hazards

non-environmentally hazardous acc. to the dangerous goods regulations

14.6 Other relevant information

Shipping container markings and labels, received from CHEMetrics, may vary from the above information. Products that are regulated for transport will be packaged by CHEMetrics as Dangerous Goods in Excepted Quantities according to IATA, US DOT, and IMDG regulations. CHEMetrics may also elect to ship certain products as UN 3316 Chemical Kit, Hazard Class 9, Packing Group II or III. In case of reshipment, it is the responsibility of the shipper to determine appropriate labels and markings in accordance with applicable transportation regulations.

14.7 Maritime transport in bulk according to IMO instruments

The cargo is not intended to be carried in bulk.

Information for each of the UN Model Regulations

Transport of dangerous goods by road or rail (49 CFR US DOT) - Additional information

Particulars in the shipper's declaration	UN2922, Corrosive liquid, toxic, n.o.s., (contains: acetic acid, chloroform), 8 (6.1), III
Reportable quantity (RQ)	14.08 lbs (6.394 kg) (chloroform) (acetic acid)
Danger label(s)	8+6.1

Special provisions (SP)	IB3, T7, TP1, TP28
ERG No	154

International Maritime Dangerous Goods Code (IMDG) - Additional information

Marine pollutant	-
Danger label(s)	8+6.1

Special provisions (SP)	223, 274
Excepted quantities (EQ)	E1
Limited quantities (LQ)	5 L
EmS	F-A, S-B
Stowage category	B

International Civil Aviation Organization (ICAO-IATA/DGR) - Additional information

Danger label(s)	8+6.1

Special provisions (SP)	A3, A4
Excepted quantities (EQ)	E1
Limited quantities (LQ)	1 L

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations specific for the product in question

National regulations (United States)

Toxic Substance Control Act (TSCA) all ingredients are listed (ACTIVE) or exempt from listing

Superfund Amendment and Reauthorization Act (SARA TITLE III)

- The List of Extremely Hazardous Substances and Their Threshold Planning Quantities (EPCRA Section 302, 304)

The List of Extremely Hazardous Substances and Their Threshold Planning Quantities

Name of substance	Notes	Reportable quantity (pounds)	Threshold planning quantity (pounds)
hydrochloric acid	f	5,000	500
chloroform	f	10	10000

Legend
f Chemical on the original list that does not meet toxicity criteria but because of its acute lethality, high production volume and known risk is considered chemical of concern ("Other chemicals"). (November 17, 1986, and February 15, 1990.)

- Specific Toxic Chemical Listings (EPCRA Section 313)

Toxics Release Inventory: Specific Toxic Chemical Listings

Name of substance	Remarks	Effective date
hydrochloric acid	acid aerosols including mists, vapors, gas, fog, and other airborne forms of any particle size	1986-12-31
chloroform		1986-12-31

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)

- List of Hazardous Substances and Reportable Quantities (CERCLA section 102a) (40 CFR 302.4)

Name of substance	Remarks	Statutory code	Final RQ pounds (Kg)
acetic acid		1	5000 (2270)
hydrochloric acid		1 3	5000 (2270)
chloroform		1 2 3 4	10 (4,54)

Legend

1	"1" indicates that the statutory source is section 311(b)(2) of the Clean Water Act
2	"2" indicates that the source is section 307(a) of the Clean Water Act
3	"3" indicates that the source is section 112 of the Clean Air Act
4	"4" indicates that the source is section 3001 of the Resource Conservation and Recovery Act (RCRA)

Clean Air Act

Name of substance	Type of registration	Basis for listing	Threshold quantity (lbs)
hydrochloric acid	Toxic substance	a	5000
hydrochloric acid	Toxic substance	d	15000
chloroform	Toxic substance	b	20000

Legend

a	Mandated for listing by Congress.
b	On EHS list, vapor pressure 10 mmHg or greater.
d	Toxicity of hydrogen chloride, potential to release hydrogen chloride, and history of accidents.

Right to Know Hazardous Substance List

- Hazardous Substance List (NJ-RTK)

Name of substance	Remarks	Classifications
acetic acid		CO F2
hydrochloric acid		CO R1
chloroform		CA

Legend

CA	Carcinogenic
CO	Corrosive
F2	Flammable - Second Degree
R1	Reactive - First Degree

California Environmental Protection Agency (Cal/EPA): Proposition 65 - Safe Drinking Water and Toxic Enforcement Act of 1987

Proposition 65 List of chemicals

Name acc. to inventory	Remarks	Type of the toxicity
chloroform		cancer
chloroform		developmental

National inventories

Country	Inventory	Status
AU	AIIC	all ingredients are listed
CA	DSL	all ingredients are listed
CN	IECSC	all ingredients are listed
EU	ECSI	all ingredients are listed
EU	REACH Reg.	not all ingredients are listed
JP	CSCL-ENCS	all ingredients are listed
JP	ISHA-ENCS	not all ingredients are listed
KR	KECI	all ingredients are listed
MX	INSQ	all ingredients are listed
NZ	NZIoC	all ingredients are listed
PH	PICCS	all ingredients are listed
TR	CICR	not all ingredients are listed
TW	TCSI	all ingredients are listed
US	TSCA	all ingredients are listed (ACTIVE)
VN	NCI	all ingredients are listed

Legend

AIIC	Australian Inventory of Industrial Chemicals
CICR	Chemical Inventory and Control Regulation
CSCL-ENCS	List of Existing and New Chemical Substances (CSCL-ENCS)
DSL	Domestic Substances List (DSL)
ECSI	EC Substance Inventory (EINECS, ELINCS, NLP)
IECSC	Inventory of Existing Chemical Substances Produced or Imported in China
INSQ	National Inventory of Chemical Substances
ISHA-ENCS	Inventory of Existing and New Chemical Substances (ISHA-ENCS)
KECI	Korea Existing Chemicals Inventory
NCI	National Chemical Inventory
NZIoC	New Zealand Inventory of Chemicals
PICCS	Philippine Inventory of Chemicals and Chemical Substances (PICCS)
REACH Reg.	REACH registered substances
TCSI	Taiwan Chemical Substance Inventory
TSCA	Toxic Substance Control Act

15.2 Chemical Safety Assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information, including date of preparation or last revision

Abbreviations and acronyms

Abbr.	Descriptions of used abbreviations
29 CFR 1910.1000	29 CFR 1910.1000, Tables Z-1, Z-2, Z-3 - Occupational Safety and Health Standards: Toxic and Hazardous Substances (permissible exposure limits)
49 CFR US DOT	49 CFR U.S. Department of Transportation
ACGIH® 2023	From ACGIH®, 2023 TLVs® and BEIs® Book. Copyright 2023. Reprinted with permission. Information on the proper use of the TLVs® and BEIs®: http://www.acgih.org/tlv-bei-guidelines/policies-procedures-presentations/tlv-bei-position-statement
Acute Tox.	Acute toxicity
Aquatic Acute	Hazardous to the aquatic environment - acute hazard
ATE	Acute Toxicity Estimate
Cal/OSHA PEL	California Division of Occupational Safety and Health (Cal/OSHA): Permissible Exposure Limits (PELs)
Carc.	Carcinogenicity
CAS	Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)
Ceiling-C	Ceiling value
DGR	Dangerous Goods Regulations (see IATA/DGR)
DNEL	Derived No-Effect Level
DOT	Department of Transportation (USA)
EC50	Effective Concentration 50 %. The EC50 corresponds to the concentration of a tested substance causing 50 % changes in response (e.g. on growth) during a specified time interval
ED	Endocrine disruptor
EINECS	European Inventory of Existing Commercial Chemical Substances
ELINCS	European List of Notified Chemical Substances
EmS	Emergency Schedule
ErC50	≡ EC50: in this method, that concentration of test substance which results in a 50 % reduction in either growth (EbC50) or growth rate (ErC50) relative to the control
ERG No	Emergency Response Guidebook - Number
Eye Dam.	Seriously damaging to the eye
Eye Irrit.	Irritant to the eye
Flam. Liq.	Flammable liquid
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations
IARC	International Agency for Research on Cancer

Abbr.	Descriptions of used abbreviations
IATA	International Air Transport Association
IATA/DGR	Dangerous Goods Regulations (DGR) for the air transport (IATA)
ICAO	International Civil Aviation Organization
ICAO-TI	Technical instructions for the safe transport of dangerous goods by air
IMDG	International Maritime Dangerous Goods Code
IMDG-Code	International Maritime Dangerous Goods Code
LC50	Lethal Concentration 50%: the LC50 corresponds to the concentration of a tested substance causing 50 % lethality during a specified time interval
Met. Corr.	Substance or mixture corrosive to metals
NIOSH REL	National Institute for Occupational Safety and Health (NIOSH): Recommended Exposure Limits (RELs)
NLP	No-Longer Polymer
OSHA	Occupational Safety and Health Administration (United States)
PBT	Persistent, Bioaccumulative and Toxic
PEL	Permissible exposure limit
PNEC	Predicted No-Effect Concentration
ppm	Parts per million
Repr.	Reproductive toxicity
RTECS	Registry of Toxic Effects of Chemical Substances (database of NIOSH with toxicological information)
Skin Corr.	Corrosive to skin
Skin Irrit.	Irritant to skin
STEL	Short-term exposure limit
STOT RE	Specific target organ toxicity - repeated exposure
STOT SE	Specific target organ toxicity - single exposure
TLV®	Threshold Limit Values
TWA	Time-weighted average
vPvB	Very Persistent and very Bioaccumulative

Key literature references and sources for data

Globally Harmonized System of Classification and Labelling of Chemicals ("Purple book").

Transport of dangerous goods by road or rail (49 CFR US DOT). International Maritime Dangerous Goods Code (IMDG). Dangerous Goods Regulations (DGR) for the air transport (IATA).

Classification procedure

Physical and chemical properties: The classification is based on tested mixture.
Health hazards, Environmental hazards: The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

List of relevant phrases (code and full text as stated in section 2 and 3)

Code	Text
H226	Flammable liquid and vapour.
H290	May be corrosive to metals.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H331	Toxic if inhaled.
H333	May be harmful if inhaled.
H335	May cause respiratory irritation.
H351	Suspected of causing cancer.
H361d	Suspected of damaging the unborn child.
H372	Causes damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H402	Harmful to aquatic life.

Disclaimer

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.