Safety Data Sheet

V7513SS

Version number: 14.0
SDS Identifier: V7513SS

Revision: 2023-11-08

SECTION 1: Identification

1.1 Product identifier

SDS Identifier **V7513SS**

Catalog numbers K-7513, R-7512

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.)	5	Acute Tox. 5	H333

For full text of abbreviations: see SECTION 16.

2.2 Label elements

Labeling

- Signal word warning

- Pictograms

GHS07

- Hazard statements

H302	Harmful if swallowed.
H333	May be harmful if inhaled.

- Precautionary statements

P264	Wash thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P301+P317	IF SWALLOWED: Get medical help.
P304+P317	IF INHALED: Get medical help.
P330	Rinse mouth.
P501	Dispose of contents/container to industrial combustion plant.

- Hazardous ingredients for labelling: diethylene glycol, sodium cyanoborohydride, potassium hydrogen phthalate, disodium 5,5'-(2-(1,3-dihydro-3-oxo-2H-indazol-2-ylidene)-1,2-dihydro-3H-indol-3-one)disulphonate

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
deionized water	CAS No 7732-18-5	≥ 76		
diethylene glycol	CAS No 111-46-6	22	Acute Tox. 4 / H302 Acute Tox. 4 / H332	

Name of substance	Identifier	Wt%	Classification acc. to GHS	Pictograms
potassium hydrogen phthalate	CAS No 877-24-7	1	Acute Tox. 5 / H303	
EDTA disodium salt	CAS No 139-33-3	0.1	Acute Tox. 5 / H303 Acute Tox. 4 / H332 STOT RE 2 / H373 Aquatic Acute 3 / H402	
sodium cyanoborohydride	CAS No 25895-60-7	0.1	Water-react. 1 / H260 Acute Tox. 2 / H300 Acute Tox. 2 / H310 Acute Tox. 2 / H330 Skin Corr. 1B / H314 Eye Dam. 1 / H318 Aquatic Acute 1 / H400 Aquatic Chronic 1 / H410	
disodium 5,5'-(2-(1,3-dihydro-3-oxo-2H-indazol-2-ylidene)-1,2-dihydro-3H-indol-3-one)disulphonate	CAS No 860-22-0	0.1	Acute Tox. 5 / H303 Skin Sens. 1 / H317 Aquatic Acute 2 / H401 Aquatic Chronic 2 / H411	
hydrochloric acid	CAS No 7647-01-0	0.08	Met. Corr. 1 / H290 Acute Tox. 3 / H331 Skin Corr. 1A / H314 Eye Dam. 1 / H318 STOT SE 3 / H335 Aquatic Acute 1 / H400	
d-iso-ascorbic acid sodium salt	CAS No 89-65-6	0.005	Aquatic Acute 3 / H402	

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. 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, Alcohol resistant foam, BC-powder, Carbon dioxide (CO2)

Unsuitable extinguishing media

Water jet

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products

Nitrogen oxides (NOx), Carbon monoxide (CO), Carbon dioxide (CO2)

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.

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. Break the ampoule tip only when it is completely immersed in sample. Breaking the tip in air may cause the glass ampoule to shatter.

- 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.

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	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

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
diethylene glycol	111-46-6	DNEL	44 mg/m³	human, inhalatory	worker (industry)	chronic - systemic effects
diethylene glycol	111-46-6	DNEL	60 mg/m³	human, inhalatory	worker (industry)	chronic - local effects
diethylene glycol	111-46-6	DNEL	43 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects
EDTA disodium salt	139-33-3	DNEL	1.5 mg/m³	human, inhalatory	worker (industry)	chronic - systemic effects
EDTA disodium salt	139-33-3	DNEL	3 mg/m³	human, inhalatory	worker (industry)	acute - systemic effects
EDTA disodium salt	139-33-3	DNEL	1.5 mg/m³	human, inhalatory	worker (industry)	chronic - local effects
EDTA disodium salt	139-33-3	DNEL	3 mg/m³	human, inhalatory	worker (industry)	acute - local 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
d-iso-ascorbic acid sodium salt	89-65-6	DNEL	70.5 mg/m³	human, inhalatory	worker (industry)	chronic - systemic effects
d-iso-ascorbic acid sodium salt	89-65-6	DNEL	10 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects

Relevant PNECs of components

Name of substance	CAS No	Endpoint	Threshold level	Organism	Environmental compartment	Exposure time
diethylene glycol	111-46-6	PNEC	10 $^{mg}/_{l}$	aquatic organisms	freshwater	short-term (single instance)
diethylene glycol	111-46-6	PNEC	1 $^{mg}/_{l}$	aquatic organisms	marine water	short-term (single instance)
diethylene glycol	111-46-6	PNEC	199.5 $^{mg}/_{l}$	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
diethylene glycol	111-46-6	PNEC	20.9 $^{mg}/_{kg}$	aquatic organisms	freshwater sediment	short-term (single instance)
diethylene glycol	111-46-6	PNEC	2.09 $^{mg}/_{kg}$	aquatic organisms	marine sediment	short-term (single instance)
diethylene glycol	111-46-6	PNEC	1.53 $^{mg}/_{kg}$	terrestrial organisms	soil	short-term (single instance)
EDTA disodium salt	139-33-3	PNEC	2.5 $^{mg}/_{l}$	aquatic organisms	freshwater	short-term (single instance)
EDTA disodium salt	139-33-3	PNEC	0.25 $^{mg}/_{l}$	aquatic organisms	marine water	short-term (single instance)
EDTA disodium salt	139-33-3	PNEC	50 $^{mg}/_{l}$	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
EDTA disodium salt	139-33-3	PNEC	1.1 $^{mg}/_{kg}$	terrestrial organisms	soil	short-term (single instance)
d-iso-ascorbic acid sodium salt	89-65-6	PNEC	0.09 $^{mg}/_{l}$	aquatic organisms	freshwater	short-term (single instance)
d-iso-ascorbic acid sodium salt	89-65-6	PNEC	0.009 $^{mg}/_{l}$	aquatic organisms	marine water	short-term (single instance)
d-iso-ascorbic acid sodium salt	89-65-6	PNEC	0.333 $^{mg}/_{kg}$	aquatic organisms	freshwater sediment	short-term (single instance)
d-iso-ascorbic acid sodium salt	89-65-6	PNEC	0.033 $^{mg}/_{kg}$	aquatic organisms	marine sediment	short-term (single instance)
d-iso-ascorbic acid sodium salt	89-65-6	PNEC	0.01 $^{mg}/_{kg}$	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 Vacu-vial™ ampoule is a 13 mm glass ampoule containing approximately 0.8 - 4.5 mL of liquid reagent sealed under vacuum.

Physical state	liquid
Color	yellow to pale green
Odor	odorless
Melting point/freezing point	-1 °C
Boiling point or initial boiling point and boiling range	110 °C at 1,013 hPa
Evaporation rate	not determined
Flammability	this material is combustible, but will not ignite readily
Lower and upper explosion limit	not determined
Flash point	not determined

Auto-ignition temperature	372 °C (auto-ignition temperature (liquids and gases))
Decomposition temperature	not relevant
pH (value)	3.5
Kinematic viscosity	not determined

Solubility(ies)

Water solubility	miscible in any proportion

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	information on this property is not available
Relative density	1.01 (water = 1)

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. May be harmful if inhaled.

- Acute toxicity estimate (ATE)

Oral	1,555 $^{mg}/_{kg}$
Inhalation: vapor	50 $^{mg}/_{l}$/4h

Acute toxicity estimate (ATE) of components

Name of substance	CAS No	Exposure route	ATE
diethylene glycol	111-46-6	oral	500 $^{mg}/_{kg}$
diethylene glycol	111-46-6	inhalation: vapor	11 $^{mg}/_{l}$/4h
diethylene glycol	111-46-6	inhalation: dust/mist	>4.6 $^{mg}/_{l}$/4h
potassium hydrogen phthalate	877-24-7	oral	>3,200 $^{mg}/_{kg}$
sodium cyanoborohydride	25895-60-7	oral	5 $^{mg}/_{kg}$
sodium cyanoborohydride	25895-60-7	dermal	50 $^{mg}/_{kg}$
sodium cyanoborohydride	25895-60-7	inhalation: dust/mist	0.05 $^{mg}/_{l}$/4h
EDTA disodium salt	139-33-3	oral	2,800 $^{mg}/_{kg}$
EDTA disodium salt	139-33-3	inhalation: dust/mist	1.5 $^{mg}/_{l}$/4h

Acute toxicity estimate (ATE) of components			
Name of substance	**CAS No**	**Exposure route**	**ATE**
disodium 5,5'-(2-(1,3-dihydro-3-oxo-2H-indazol-2-ylidene)-1,2-dihydro-3H-indol-3-one)disulphonate	860-22-0	oral	>2,000 $^{mg}/_{kg}$
hydrochloric acid	7647-01-0	inhalation: gas	700 $^{ppmV}/_{4h}$

Skin corrosion/irritation

Shall not be classified as corrosive/irritant to skin.

Serious eye damage/eye irritation

Shall not be classified as seriously damaging to the eye or eye irritant.

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

Shall not be classified as carcinogenic.

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

Legend
3 Not classifiable as to carcinogenicity in humans

Reproductive toxicity

Shall not be classified as a reproductive toxicant.

Specific target organ toxicity - single exposure

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

Specific target organ toxicity - repeated exposure

Shall not be classified as a specific target organ toxicant (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

Shall not be classified as hazardous to the aquatic environment.

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**	not subject to transport regulations
14.2	**UN proper shipping name**	not relevant
14.3	**Transport hazard class(es)**	none
14.4	**Packing group**	not assigned
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

Not subject to transport regulations.

International Maritime Dangerous Goods Code (IMDG) - Additional information

Not subject to IMDG.

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

Not subject to ICAO-IATA.

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

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

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)
hydrochloric acid		1 3	5000 (2270)

Legend
1 "1" indicates that the statutory source is section 311(b)(2) of the Clean Water Act
3 "3" indicates that the source is section 112 of the Clean Air Act

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

Legend
a Mandated for listing by Congress.
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
hydrochloric acid		CO R1

Legend
CO Corrosive
R1 Reactive - First Degree

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

none of the ingredients are listed

National inventories

Country	Inventory	Status
US	TSCA	all ingredients are listed (ACTIVE)
AU	AIIC	all ingredients are listed
CA	DSL	not all ingredients are listed
CA	NDSL	not 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	not 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
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
NDSL	Non-domestic Substances List (NDSL)
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
Aquatic Chronic	Hazardous to the aquatic environment - chronic hazard
ATE	Acute Toxicity Estimate
Cal/OSHA PEL	California Division of Occupational Safety and Health (Cal/OSHA): Permissible Exposure Limits (PELs)
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
ED	Endocrine disruptor
EINECS	European Inventory of Existing Commercial Chemical Substances
ELINCS	European List of Notified Chemical Substances
Eye Dam.	Seriously damaging to the eye
Eye Irrit.	Irritant to the eye
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IATA/DGR	Dangerous Goods Regulations (DGR) for the air transport (IATA)
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods Code
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

Abbr.	Descriptions of used abbreviations
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
RTECS	Registry of Toxic Effects of Chemical Substances (database of NIOSH with toxicological information)
Skin Corr.	Corrosive to skin
Skin Irrit.	Irritant to skin
Skin Sens.	Skin sensitization
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
Water-react.	Material which, in contact with water, emits flammable gases

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
H260	In contact with water releases flammable gases which may ignite spontaneously.
H290	May be corrosive to metals.
H300	Fatal if swallowed.
H302	Harmful if swallowed.

Code	Text
H303	May be harmful if swallowed.
H310	Fatal in contact with skin.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H330	Fatal if inhaled.
H331	Toxic if inhaled.
H332	Harmful if inhaled.
H333	May be harmful if inhaled.
H335	May cause respiratory irritation.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H401	Toxic to aquatic life.
H402	Harmful to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.

Disclaimer

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