

	n number: 14.0 lentifier: V9523SS			Revision: 2023-11-08
SECT	TION 1: Identification			
1.1	Product identifier			
	SDS Identifier	V9523SS		
	Catalog numbers	K-9523		
1.2	Relevant identified uses of the substance or mixt	ure and uses	advised against	
	Relevant identified uses	Component	s 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@aqu	aphoenixsci.com (Steph	ien Craig)
1.4	Emergency telephone number			
	Emergency information service	ChemTel In	c.: 1-800-255-3924, +01-	813-248-0585
SECT	TION 2: Hazard(s) identification			
2.1	Classification of the substance or mixture			
	Classification acc. to GHS			
	Hazard class	Category	Hazard class and cat-	Hazard state-

Hazard class	Category	Hazard class and cat- egory	Hazard state- ment
substance or mixture corrosive to metals	1	Met. Corr. 1	H290
acute toxicity (inhal.)	4	Acute Tox. 4	H332
skin corrosion/irritation	1A	Skin Corr. 1A	H314
serious eye damage/eye irritation	1	Eye Dam. 1	H318
specific target organ toxicity - single exposure (respiratory tract irrit- ation)	3	STOT SE 3	H335
hazardous to the aquatic environment - acute hazard	1	Aquatic Acute 1	H400

For full text of abbreviations: see SECTION 16.



Version number: 14.0 SDS Identifier: V9523SS Revision: 2023-11-08

The most important adverse physicochemical, human health and environmental effects

Skin corrosion produces an irreversible damage to the skin; namely, visible necrosis through the epidermis and into the dermis. Spillage and fire water can cause pollution of watercourses.

2.2 Label elements

Labeling

- Signal word danger
- Pictograms

GHS05, GHS07, GHS09



- Hazard statements

H290	May be corrosive to metals.
H314	Causes severe skin burns and eye damage.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H400	Very toxic to aquatic life.

Precautionary statements

Precautionary statem	ents
P234	Keep only in original packaging.
P260	Do not breathe dusts or mists.
P264+P265	Wash hands thoroughly after handling. Do not touch eyes.
P271	Use only outdoors or in a well-ventilated area.
P273	Avoid release to the environment.
P280	Wear eye protection/face protection.
P301+P330+P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P302+P361+P354	IF ON SKIN: Take off immediately all contaminated clothing. Immediately rinse with water for several minutes.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P354+P338	IF IN EYES: Immediately rinse with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312	Call a POISON CENTER/doctor if you feel unwell.
P316	Get emergency medical help immediately.
P321	Specific treatment (see on this label).
P363	Wash contaminated clothing before reuse.
P390	Absorb spillage to prevent material damage.
P391	Collect spillage.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.
P406	Store in a corrosion resistant container with a resistant inner liner.
P501	Dispose of contents/container to industrial combustion plant.



hydrochloric acid

Version number: 14.0 SDS Identifier: V9523SS Revision: 2023-11-08

- Hazardous ingredients for labelling

2.3 Other hazards

Results of PBT and vPvB assessment

Does not contain a PBT-/vPvB-substance in a concentration of $\ge 0.1\%$.

Endocrine disrupting properties

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

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	71 – 86		
hydrochloric acid	CAS No 7647-01-0	14 - 27	Met. Corr. 1 / H290 Acute Tox. 3 / H331 Skin Corr. 1A / H314 Eye Dam. 1 / H318 STOT SE 3 / H335 Aquatic Acute 1 / H400	
propan-2-ol	CAS No 67-63-0	1	Flam. Liq. 2 / H225 Eye Irrit. 2 / H319 STOT SE 3 / H336	
n,n-dimethyl-1,4-phenylene- diamine oxalate	CAS No 62778-12-5	≤ 0.1		

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.



Revision: 2023-11-08

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

Substance or mixture corrosive to metals.

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.



Version number: 14.0 SDS Identifier: V9523SS Revision: 2023-11-08

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

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.

- Handling of incompatible substances or mixtures

Do not mix with alkali.

- Keep away from

Caustic solutions

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.



Version number: 14.0 SDS Identifier: V9523SS Revision: 2023-11-08

7.2 Conditions for safe storage, including any incompatibilities

Managing of associated risks

- Corrosive conditions
- Store in corrosive resistant container with a resistant inner liner.
- 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

Occup	Occupational exposure limit values (Workplace Exposure Limits)										
Coun- try	Name of agent	CAS No	Identi- fier	TWA [ppm]	TWA [mg/m³]	STEL [ppm]	STEL [mg/m³]	Ceiling-C [ppm]	Ceiling-C [mg/m³]	Nota- tion	Source
US	2-propanol	67-63-0	TLV®	200		400					ACGIH® 2023
US	isopropyl alcohol	67-63-0	PEL (CA)	400	980	500	1,225				Cal/ OSHA PEL
US	isopropyl alcohol	67-63-0	REL	400 (10 h)	980 (10 h)	500	1,225				NIOSH REL
US	isopropyl alcohol	67-63-0	PEL	400	980						29 CFR 1910.100 0
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 1910.100 0
US	hydrogen chloride (muriatic acid) (hy- drochloric acid)	7647-01-0	PEL (CA)	0.3	0.45			2			Cal/ OSHA PEL



Version number: 14.0 SDS Identifier: V9523SS Revision: 2023-11-08

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 timeweighted average (unless otherwise specified

Biological limit values Country Name of agent Parameter Notation Identifier Value Source US isopropanol acetone BEI® 40 mg/l ACGIH® 2023

Relevant DNELS of components							
Name of substance	CAS No	Endpoint	Threshold level	Protection goal, route of exposure	Used in	Exposure time	
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	
propan-2-ol	67-63-0	DNEL	500 mg/m ³	human, inhalatory	worker (industry)	chronic - systemic ef- fects	
propan-2-ol	67-63-0	DNEL	1,000 mg/m ³	human, inhalatory	worker (industry)	acute - systemic ef- fects	
propan-2-ol	67-63-0	DNEL	888 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic ef- fects	

Relevant PNECs of components								
Name of substance	CAS No	Endpoint	Threshold level	Organism	Environmental compartment	Exposure time		
propan-2-ol	67-63-0	PNEC	140.9 ^{mg} / _l	aquatic organisms	freshwater	short-term (single in- stance)		
propan-2-ol	67-63-0	PNEC	140.9 ^{mg} / _l	aquatic organisms	marine water	short-term (single in- stance)		
propan-2-ol	67-63-0	PNEC	2,251 ^{mg} / _l	aquatic organisms	sewage treatment plant (STP)	short-term (single in- stance)		
propan-2-ol	67-63-0	PNEC	552 ^{mg} / _{kg}	aquatic organisms	freshwater sediment	short-term (single in- stance)		
propan-2-ol	67-63-0	PNEC	552 ^{mg} / _{kg}	aquatic organisms	marine sediment	short-term (single in- stance)		
propan-2-ol	67-63-0	PNEC	28 ^{mg} / _{kg}	terrestrial organ- isms	soil	short-term (single in- stance)		



Version number: 14.0 SDS Identifier: V9523SS Revision: 2023-11-08

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	colorless
Odor	sharp
Melting point/freezing point	not determined
Boiling point or initial boiling point and boiling range	150 °C
Evaporation rate	not determined
Flammability	this material is combustible, but will not ignite readily



Version number: 14.0 SDS Identifier: V9523SS Revision: 2023-11-08

Lower and upper explosion limit	not determined			
Flash point	not determined			
Auto-ignition temperature	not determined			
Decomposition temperature	not relevant			
pH (value)	<1 (acid)			
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	1.1 (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". Substance or mixture corrosive to metals.

10.2 Chemical stability

See below "Conditions to avoid".



Version number: 14.0 SDS Identifier: V9523SS Revision: 2023-11-08

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

There is no additional information.

Release of flammable materials with:

Light metals (due to the release of hydrogen in an acid/alkaline medium)

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 inhaled.

```
- Acute toxicity estimate (ATE)
```

Inhalation: gas 2,593 ^{ppmV}/_{4h}

Acute toxicity estimate (ATE) of components				
Name of substance CAS No Exposure route ATE				
hydrochloric acid	7647-01-0	inhalation: gas	700 ^{ppmV} / _{4h}	

Skin corrosion/irritation

Causes severe skin burns and eye damage.

Serious eye damage/eye irritation

Causes serious eye damage.

Respiratory or skin sensitization

Shall not be classified as a respiratory or skin sensitizer.



Revision: 2023-11-08

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	Number			
hydrochloric acid	7647-01-0	3		
propan-2-ol	67-63-0	3		

L<u>egend</u> 3

Not classifiable as to carcinogenicity in humans

Reproductive toxicity

Shall not be classified as a reproductive toxicant.

Specific target organ toxicity - single exposure

May cause respiratory irritation.

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

Very toxic to aquatic life.

Aquatic toxicity (acute) of components					
Name of substance	CAS No	Endpoint	Value	Species	Exposure time
propan-2-ol	67-63-0	LC50	10,000 ^{mg} / _l	fish	96 h

12.2 Persistence and degradability

Data are not available.



Version number: 14.0 SDS Identifier: V9523SS Revision: 2023-11-08

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 \geq 0.1%.

12.6 Endocrine disrupting properties

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

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 UN number 14.1 DOT UN 1760 IMDG-Code UN 1760 ICAO-TI UN 1760 14.2 UN proper shipping name DOT Corrosive liquid, n.o.s. IMDG-Code CORROSIVE LIQUID, N.O.S. ICAO-TI Corrosive liquid, n.o.s. hydrochloric acid, propan-2-ol Technical name (hazardous ingredients) 14.3 Transport hazard class(es) DOT 8 IMDG-Code 8 ICAO-TI 8



	n number: 14.0 entifier: V9523SS	Revision: 2023-11-08
14.4	Packing group	
	DOT	II
	IMDG-Code	II
	ICAO-TI	Π
14.5	Environmental hazards	hazardous to the aquatic environment
	Environmentally hazardous substance (aquatic environment)	hydrochloric acid

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	UN1760, Corrosive liquid, n.o.s., (contains: hydro- chloric acid, propan-2-ol), 8, II, environmentally hazardous
Reportable quantity (RQ)	18,519 lbs (8,407 kg)
Danger label(s)	8, fish and tree
Environmental hazards	Yes (hazardous to the aquatic environment)
Special provisions (SP)	B2, IB2, T11, TP2, TP27
ERG No	154
International Maritime Dangerous Goods Code (IN	/DG) - Additional information
Marine pollutant	Yes (hazardous to the aquatic environment) (hydrochloric acid)
Danger label(s)	8, fish and tree



Version number: 14.0 SDS Identifier: V9523SS	Revision: 2023-11-08
Special provisions (SP)	274
Excepted quantities (EQ)	E2
Limited quantities (LQ)	1 L
EmS	F-A, S-B
Stowage category	В
International Civil Aviation Organization (ICAO-I/	ATA/DGR) - Additional information
Environmental hazards	Yes (hazardous to the aquatic environment)
Danger label(s)	8
Special provisions (SP)	A3
Excepted quantities (EQ)	E2
Limited quantities (LQ)	0,5 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 Threshold planning (pounds) quantity (pounds)				
hydrochloric acid f 5,000 500					

Legend

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.)



Revision: 2023-11-08

- Specific Toxic Chemical Listings (EPCRA Section 313)

Toxics Release Inventory: Specific Toxic Chemical Listings			
Name of substanceRemarksEffective date			
hydrochloric acid	acid aerosols including mists, vapors, gas, fog, and other airborne forms of any particle size	1986-12-31	
propan-2-ol	only persons who manufacture by the strong acid process are subject, supplier notification not required	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			

Legend

"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	а	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
propan-2-ol		F3

Legend

CO Corrosive

F3 Flammable - Third Degree



Version number: 14.0 SDS Identifier: V9523SS Revision: 2023-11-08

Legend 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
AU	AIIC	all ingredients are listed
CA	DSL	all ingredients are listed
CN	IECSC	not 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	not all ingredients are listed
MX	INSQ	not all ingredients are listed
NZ	NZIoC	all ingredients are listed
PH	PICCS	not 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



Version number: 14.0 SDS Identifier: V9523SS Revision: 2023-11-08

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 Sub- stances (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-presenta-tions/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)
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)
ED	Endocrine disruptor
EINECS	European Inventory of Existing Commercial Chemical Substances
ELINCS	European List of Notified Chemical Substances
EmS	Emergency Schedule
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
IATA	International Air Transport Association
IATA/DGR	Dangerous Goods Regulations (DGR) for the air transport (IATA)



Version number: 14.0 SDS Identifier: V9523SS Revision: 2023-11-08

Abbr.	Descriptions of used abbreviations
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
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 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).



Version number: 14.0 SDS Identifier: V9523SS Revision: 2023-11-08

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

Code	Text
H225	Highly flammable liquid and vapour.
H290	May be corrosive to metals.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H331	Toxic if inhaled.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H400	Very toxic 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.