

	n number: 12.0 lentifier: V1523SS	Revision: 2023-11-08
SEC	TION 1: Identification	
1.1	Product identifier	
	SDS Identifier	V1523SS
	Catalog numbers	K-1523, K-1523T, AC4011
1.2	Relevant identified uses of the substance or mix	xture 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
SEC	TION 2: Hazard(s) identification	
21	Classification of the substance or mixture	

2.1 Classification of the substance or mixture

Classification acc. to GHS

Hazard class	Category	Hazard class and cat- egory	Hazard state- ment
acute toxicity (oral)	4	Acute Tox. 4	H302
acute toxicity (dermal)	5	Acute Tox. 5	H313
skin corrosion/irritation	1	Skin Corr. 1	H314
serious eye damage/eye irritation	1	Eye Dam. 1	H318
skin sensitization	1	Skin Sens. 1	H317
reproductive toxicity	1B	Repr. 1B	H360FD
specific target organ toxicity - repeated exposure	2	STOT RE 2	H373

For full text of abbreviations: see SECTION 16.



Version number: 12.0 SDS Identifier: V1523SS 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. Delayed or immediate effects can be expected after short or long-term exposure.

2.2 Label elements

Labeling

- Signal word danger
- Pictograms

GHS05, GHS07, GHS08



- Hazard st	atements
-------------	----------

H302	Harmful if swallowed.
H313	May be harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H360FD	May damage fertility. May damage the unborn child.
H373	May cause damage to organs through prolonged or repeated exposure.

- Precautionary statements

Trecautionary Staten	
P203	Obtain, read and follow all safety instructions before use.
P260	Do not breathe dusts or mists.
P264+P265	Wash hands thoroughly after handling. Do not touch eyes.
P270	Do not eat, drink or smoke when using this product.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear eye protection/face protection.
P301+P317	IF SWALLOWED: Get medical help.
P301+P330+P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P302+P317	IF ON SKIN: Get medical help.
P302+P352	IF ON SKIN: Wash with plenty of water.
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.
P316	Get emergency medical help immediately.
P318	IF exposed or concerned, get medical advice.
P321	Specific treatment (see on this label).
P333+P317	If skin irritation or rash occurs: Get medical help.
P362+P364	Take off contaminated clothing and wash it before reuse.
P363	Wash contaminated clothing before reuse.



Version number: 12.0 SDS Identifier: V1523SS Revision: 2023-11-08

Precautionary statements
P405 Store locked up.
P501 Dispose of contents/container to industrial combustion plant.

- Hazardous ingredients for labelling

disodium tetraborate decahydrate, mercury(II) iodide, potassium iodide, sodium hydroxide

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 $\ge 0.1\%$.

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	92 - 96		
sodium hydroxide	CAS No 1310-73-2	1 - 3	Acute Tox. 4 / H302 Skin Corr. 1A / H314 Eye Dam. 1 / H318 Aquatic Acute 3 / H402	
mercury(ll) iodide	CAS No 7774-29-0	1 - 2	Acute Tox. 2 / H300 Acute Tox. 2 / H310 Skin Irrit. 2 / H315 Eye Irrit. 2A / H319 Skin Sens. 1 / H317	
disodium tetraborate decahydrate	CAS No 1303-96-4 1330-43-4	1-2	Acute Tox. 5 / H303 Acute Tox. 5 / H313 Acute Tox. 4 / H332 Repr. 1B / H360FD	
potassium iodide	CAS No 7681-11-0	1	Acute Tox. 5 / H303 STOT RE 1 / H372 Aquatic Acute 3 / H402 Aquatic Chronic 3 / H412	

For full text of abbreviations: see SECTION 16.



Version number: 12.0 SDS Identifier: V1523SS

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

Unsuitable extinguishing media

Water jet

5.2 Special hazards arising from the substance or mixture

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.



Version number: 12.0 SDS Identifier: V1523SS

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

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 acids.



Version number: 12.0 SDS Identifier: V1523SS Revision: 2023-11-08

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

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	disodium tetrabor- ate decahydrate	1303-96-4	PEL (CA)		5						Cal/ OSHA PEL
US	disodium tetrabor- ate decahydrate	1303-96-4	REL		5 (10 h)						NIOSH REL
US	sodium borate decahydrate	1303-96-4	TLV®		2		6			i	ACGIH® 2023
US	sodium hydroxide	1310-73-2	REL						2		NIOSH REL
US	sodium hydroxide	1310-73-2	TLV®						2		ACGIH® 2023
US	sodium hydroxide	1310-73-2	PEL		2						29 CFR 1910.100 0
US	sodium hydroxide (caustic soda)	1310-73-2	PEL (CA)						2		Cal/ OSHA PEL
US	disodium tetrabor- ate, anhydrous	1330-43-4	PEL (CA)		5						Cal/ OSHA PEL
US	disodium tetrabor- ate, anhydrous	1330-43-4	REL		1 (10 h)						NIOSH REL
US	sodium tetrabor- ate, anhydrous	1330-43-4	TLV®		2		6			i	ACGIH® 2023

Notation

Ceiling-C ceiling value is a limit value above which exposure should not occur



Version number: 12.0 SDS Identifier: V1523SS Revision: 2023-11-08

Notation	
i	inhalable fraction
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-

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

Relevant DNELs of components								
Name of substance	CAS No	Endpoint	Threshold level	Protection goal, route of exposure	Used in	Exposure time		
sodium hydroxide	1310-73-2	DNEL	1 mg/m³	human, inhalatory	worker (industry)	chronic - local effects		
disodium tetraborate decahydrate	1303-96-4 1330-43-4	DNEL	6.7 mg/m³	human, inhalatory	worker (industry)	chronic - systemic ef- fects		
disodium tetraborate decahydrate	1303-96-4 1330-43-4	DNEL	316.4 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic ef- fects		
potassium iodide	7681-11-0	DNEL	0.07 mg/m ³	human, inhalatory	worker (industry)	chronic - systemic ef- fects		
potassium iodide	7681-11-0	DNEL	1 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		
disodium tetraborate decahydrate	1303-96-4 1330-43-4	PNEC	2.9 ^{mg} / _l	aquatic organisms	freshwater	short-term (single in- stance)		
disodium tetraborate decahydrate	1303-96-4 1330-43-4	PNEC	2.9 ^{mg} / _l	aquatic organisms	marine water	short-term (single in- stance)		
disodium tetraborate decahydrate	1303-96-4 1330-43-4	PNEC	10 ^{mg} / _l	aquatic organisms	sewage treatment plant (STP)	short-term (single in- stance)		
disodium tetraborate decahydrate	1303-96-4 1330-43-4	PNEC	5.7 ^{mg} / _{kg}	terrestrial organ- isms	soil	short-term (single in- stance)		
potassium iodide	7681-11-0	PNEC	0.007 ^{mg} / _l	aquatic organisms	freshwater	short-term (single in- stance)		
potassium iodide	7681-11-0	PNEC	0.007 ^{mg} / _{kg}	aquatic organisms	freshwater sediment	short-term (single in- stance)		

8.2 Exposure controls

Appropriate engineering controls

General ventilation.



Version number: 12.0 SDS Identifier: V1523SS Revision: 2023-11-08

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	pale yellow
Odor	odorless
Melting point/freezing point	0 °C
Boiling point or initial boiling point and boiling range	100 °C
Evaporation rate	not determined
Flammability	non-combustible
Lower and upper explosion limit	not determined
Flash point	not determined



Version number: 12.0 SDS Identifier: V1523SS Revision: 2023-11-08

Auto-ignition temperature	not determined			
Decomposition temperature	not relevant			
pH (value)	13.5 (base)			
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 pressure23.7 mmHg at 25	5°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".

10.2 Chemical stability

See below "Conditions to avoid".

10.3 Possibility of hazardous reactions

No known hazardous reactions.



Version number: 12.0 SDS Identifier: V1523SS

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 swallowed. May be harmful in contact with skin.

- Acute toxicity estimate (ATE)		
Oral	844.7 ^{mg} / _{kg}	
Dermal	3,614 ^{mg} / _{kg}	

Acute toxicity estimate (ATE) of components

Name of substance	CAS No	Exposure route	ATE	
sodium hydroxide	1310-73-2	oral	325 ^{mg} / _{kg}	
disodium tetraborate decahydrate	1303-96-4 1330-43-4	oral	>2,500 ^{mg} / _{kg}	
disodium tetraborate decahydrate	1303-96-4 1330-43-4	dermal	>2,000 ^{mg} / _{kg}	
disodium tetraborate decahydrate	1303-96-4 1330-43-4	inhalation: dust/mist	>2.04 ^{mg} / _l /4h	
mercury(II) iodide	7774-29-0	oral	18 ^{mg} / _{kg}	
mercury(II) iodide	7774-29-0	dermal	75 ^{mg} / _{kg}	
potassium iodide	7681-11-0	oral	3,118 ^{mg} / _{kg}	

Revision: 2023-11-08



Revision: 2023-11-08

Skin corrosion/irritation

Causes severe skin burns and eye damage.

Serious eye damage/eye irritation

Causes serious eye damage.

Respiratory or skin sensitization

May cause an allergic skin reaction.

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				
mercury(II) iodide		3		

Legend 3

Not classifiable as to carcinogenicity in humans

Reproductive toxicity

May damage the unborn child. May damage fertility.

Specific target organ toxicity - single exposure

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

Specific target organ toxicity - repeated exposure

May cause 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.



Version number: 12.0 SDS Identifier: V1523SS

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 \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			
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 danger- ous goods regulations	

Revision: 2023-11-08



Version number: 12.0 SDS Identifier: V1523SS Revision: 2023-11-08

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)

none of the ingredients are listed

- Specific Toxic Chemical Listings (EPCRA Section 313)

Toxics Release Inventory: Specific Toxic Chemical Listings			
Name of substance Remarks Effective date			
mercury(II) iodide		1986-12-31	



Version number: 12.0 SDS Identifier: V1523SS Revision: 2023-11-08

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)
sodium hydroxide		1	1000 (454)

Legend

1

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

Clean Air Act

none of the ingredients are listed

Right to Know Hazardous Substance List

- Hazardous Substance List (NJ-RTK)

Name of substance	Remarks	Classifications
sodium hydroxide		CO R1
mercury(II) iodide		
disodium tetraborate decahydrate		

Legend

CO Corrosive

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
mercury compounds		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



Version number: 12.0 SDS Identifier: V1523SS Revision: 2023-11-08

Country	Inventory	Status
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
VN	NCI	all ingredients are listed
US	TSCA	all ingredients are listed (ACTIVE)

Legend

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 Sub- stances (permissible exposure limits)
49 CFR US DOT	49 CFR U.S. Department of Transportation



Version number: 12.0 SDS Identifier: V1523SS Revision: 2023-11-08

Abbr.Descriptions of used abbreviationsACGIH® 2023From ACGIH®, 2023 TLVs® and BEIs® Book. Copyright 2023. Reprinted with permission. Informat proper use of the TLVs® and BEIs®: http://www.acgih.org/tlv-bei-guidelines/policies-procedures- tions/tlv-bei-position-statementAcute Tox.Acute toxicityAquatic AcuteHazardous to the aquatic environment - acute hazardAquatic ChronicHazardous to the aquatic environment - chronic hazardATEAcute Toxicity EstimateCal/OSHA PELCalifornia Division of Occupational Safety and Health (Cal/OSHA): Permissible Exposure LimitsCASChemical Abstracts Service (service that maintains the most comprehensive list of chemical subCeiling-CCeiling valueDGRDangerous Goods Regulations (see IATA/DGR)DNELDerived No-Effect LevelEDEndocrine disruptor	ion on the presenta-
proper use of the TLVs® and BEIs®: http://www.acgih.org/tlv-bei-guidelines/policies-procedures- tions/tlv-bei-position-statementAcute Tox.Acute toxicityAquatic AcuteHazardous to the aquatic environment - acute hazardAquatic ChronicHazardous to the aquatic environment - chronic hazardATEAcute Toxicity EstimateCal/OSHA PELCalifornia Division of Occupational Safety and Health (Cal/OSHA): Permissible Exposure LimitsCASChemical Abstracts Service (service that maintains the most comprehensive list of chemical subCeiling-CCeiling valueDGRDangerous Goods Regulations (see IATA/DGR)DNELEndocrine disruptor	ion on the presenta-
Aquatic AcuteHazardous to the aquatic environment - acute hazardAquatic ChronicHazardous to the aquatic environment - chronic hazardATEAcute Toxicity EstimateCal/OSHA PELCalifornia Division of Occupational Safety and Health (Cal/OSHA): Permissible Exposure LimitsCASChemical Abstracts Service (service that maintains the most comprehensive list of chemical sub-Ceiling-CCeiling valueDGRDangerous Goods Regulations (see IATA/DGR)DNELEndocrine disruptor	
Aquatic ChronicHazardous to the aquatic environment - chronic hazardATEAcute Toxicity EstimateCal/OSHA PELCalifornia Division of Occupational Safety and Health (Cal/OSHA): Permissible Exposure LimitsCASChemical Abstracts Service (service that maintains the most comprehensive list of chemical subCeiling-CCeiling valueDGRDangerous Goods Regulations (see IATA/DGR)DNELDerived No-Effect LevelEDEndocrine disruptor	
ATEAcute Toxicity EstimateCal/OSHA PELCalifornia Division of Occupational Safety and Health (Cal/OSHA): Permissible Exposure LimitsCASChemical Abstracts Service (service that maintains the most comprehensive list of chemical sub- Ceiling-CCeiling-CCeiling valueDGRDangerous Goods Regulations (see IATA/DGR)DNELDerived No-Effect LevelEDEndocrine disruptor	
Cal/OSHA PEL California Division of Occupational Safety and Health (Cal/OSHA): Permissible Exposure Limits CAS Chemical Abstracts Service (service that maintains the most comprehensive list of chemical sub- Ceiling-C Ceiling value DGR Dangerous Goods Regulations (see IATA/DGR) DNEL Derived No-Effect Level ED Endocrine disruptor	
CAS Chemical Abstracts Service (service that maintains the most comprehensive list of chemical sub- Ceiling-C Ceiling value DGR Dangerous Goods Regulations (see IATA/DGR) DNEL Derived No-Effect Level ED Endocrine disruptor	
Ceiling-C Ceiling value DGR Dangerous Goods Regulations (see IATA/DGR) DNEL Derived No-Effect Level ED Endocrine disruptor	(PELs)
DGR Dangerous Goods Regulations (see IATA/DGR) DNEL Derived No-Effect Level ED Endocrine disruptor	stances)
DNEL Derived No-Effect Level ED Endocrine disruptor	
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 Unite	d 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	
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	



Version number: 12.0 SDS Identifier: V1523SS Revision: 2023-11-08

Abbr.	Descriptions of used abbreviations
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
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
H300	Fatal if swallowed.
H302	Harmful if swallowed.
H303	May be harmful if swallowed.
H310	Fatal in contact with skin.
H313	May be harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.



Version number: 12.0 SDS Identifier: V1523SS Revision: 2023-11-08

Code	Text
H360FD	May damage fertility. May damage the unborn child.
H372	Causes damage to organs through prolonged or repeated exposure.
H373	May cause damage to organs through prolonged or repeated exposure.
H402	Harmful to aquatic life.
H412	Harmful 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.