

	Version number: 14.0 Revision: 2023-11-02 SDS Identifier: V9500SS						
SEC	TION 1: Identification						
1.1	Product identifier						
	SDS Identifier	V9500SS					
	Catalog numbers	A-9500, S-9500, S-9500T					
1.2	Relevant identified uses of the substance or mixt	ure 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						
2.1	Classification of the substance or mixture						
	Classification acc. to GHS						

Hazard class	Category	Hazard class and cat- egory	Hazard state- ment
substance or mixture corrosive to metals	1	Met. Corr. 1	H290
acute toxicity (oral)	5	Acute Tox. 5	H303
acute toxicity (inhal.)	3	Acute Tox. 3	H331
skin corrosion/irritation	1	Skin Corr. 1	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



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For full text of abbreviations: see SECTION 16.

#### 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, GHS06, GHS09



#### - Hazard statements

H290	May be corrosive to metals.
H303	May be harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H331	Toxic if inhaled.
H335	May cause respiratory irritation.
H400	Very toxic to aquatic life.

#### - Precautionary statements

Keep only in original packaging.
Do not breathe dusts or mists.
Wash hands thoroughly after handling. Do not touch eyes.
Use only outdoors or in a well-ventilated area.
Avoid release to the environment.
Wear eye protection/face protection.
IF SWALLOWED: Get medical help.
IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
IF ON SKIN: Take off immediately all contaminated clothing. Immediately rinse with water for several minutes.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
IF IN EYES: Immediately rinse with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Call a POISON CENTER/doctor if you feel unwell.
Get emergency medical help immediately.
Specific treatment (see on this label).
Wash contaminated clothing before reuse.
Absorb spillage to prevent material damage.
Collect spillage.
Store in a well-ventilated place. Keep container tightly closed.



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Precautionary statements						
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.					

- Hazardous ingredients for labelling

hydrochloric acid, ferric chloride, hexahydrate

#### 2.3 Other hazards

Results of PBT and vPvB assessment

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

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
hydrochloric acid	CAS No 7647-01-0	79	Met. Corr. 1 / H290 Acute Tox. 3 / H331 Skin Corr. 1A / H314 Eye Dam. 1 / H318 STOT SE 3 / H335 Aquatic Acute 1 / H400	
ferric chloride, hexahydrate	CAS No 10025-77-1 7705-08-0	21	Met. Corr. 1 / H290 Acute Tox. 4 / H302 Acute Tox. 5 / H313 Skin Irrit. 2 / H315 Eye Dam. 1 / H318	

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.



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#### 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

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.



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#### 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

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.

- 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.



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#### 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

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	Occupational exposure limit values (Workplace Exposure Limits)
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Coun- try	Name of agent	CAS No	Identi- fier		TWA [mg/m³]	STEL [ppm]	STEL [mg/m³]		Ceiling-C [mg/m³]	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 1910.100 0
US	hydrogen chloride (muriatic acid) (hy- drochloric acid)	7647-01-0	PEL (CA)	0.3	0.45			2		Cal/ OSHA PEL

Notation

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

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)



bw/day

#### Relevar

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/m <sup>3</sup>	human, inhalatory	worker (industry)	chronic - local effects		
hydrochloric acid	7647-01-0	DNEL	15 mg/m³	human, inhalatory	worker (industry)	acute - local effects		
ferric chloride, hexahy-	10025-77-1	DNEL	2.8 mg/kg	human, dermal	worker (industry)	chronic - systemic ef-		

#### 8.2 **Exposure controls**

#### Appropriate engineering controls

7705-08-0

General ventilation.

drate

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: Activator Solution: Plastic bottle contains approximately 9 mL of liquid reagent. Test kits contain one (1) bottle of solution. Activator Solution packs contain six (6) bottles of solution

fects



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Physical state	liquid			
Color	brownish gold			
Odor	sharp			
Melting point/freezing point	not determined			
Boiling point or initial boiling point and boiling range	196 °C			
Evaporation rate	not determined			
Flammability	non-combustible			
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
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#### Partition coefficient

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

## Density and/or relative density



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Density	not determined	
Relative vapour density	information on this property is not available	
Relative density	1.2 (water = 1)	

Particle characteristics	not relevant (liquid)
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## 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".

#### 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.

#### 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

May be harmful if swallowed. Toxic if inhaled.



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- Acute toxicity estimate (ATE) Oral 2,381 <sup>mg</sup>/<sub>kg</sub> Inhalation: gas 886.1 <sup>ppmV</sup>/<sub>4h</sub>

Acute toxicity estimate (ATE) of components					
Name of substance CAS No Exposure route ATE					
hydrochloric acid	7647-01-0	inhalation: gas	700 <sup>ppmV</sup> / <sub>4h</sub>		
ferric chloride, hexahydrate	10025-77-1 7705-08-0	oral	500 <sup>mg</sup> / <sub>kg</sub>		
ferric chloride, hexahydrate	10025-77-1 7705-08-0	dermal	>2,000 <sup>mg</sup> / <sub>kg</sub>		

#### 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.

#### 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

May cause respiratory irritation.

#### Specific target organ toxicity - repeated exposure

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



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#### 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.

#### 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

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



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14.2	UN proper shipping name	
14.2	on proper snipping 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)	ferric chloride, hexahydrate
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	II
	IMDG-Code	II
	ICAO-TI	II
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	UN2922, Corrosive liquid, toxic, n.o.s., (contains: ferric chloride, hexahydrate), 8 (6.1), II, environ- mentally hazardous
Reportable quantity (RQ)	4,762 lbs (2,162 kg) (ferric chloride, hexahydrate)



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Danger label(s)	8+6.1, fish and tree
Environmental hazards	<b>Yes</b> (hazardous to the aquatic environment)
Special provisions (SP)	B3, IB2, T7, TP2
ERG No	154
International Maritime Dangerous Goo	ods Code (IMDG) - Additional information
Marine pollutant	<b>Yes</b> (hazardous to the aquatic environment) (hydrochloric acid
Danger label(s)	8+6.1, fish and tree
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	on (ICAO-IATA/DGR) - Additional information
Environmental hazards	<b>Yes</b> (hazardous to the aquatic environment)
Danger label(s)	8+6.1
Special provisions (SP)	A3, A4
Excepted quantities (EQ)	E2
Limited quantities (LQ)	0,5 L



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#### **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 substanceNotesReportable quantity (pounds)Threshold pl				
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)
ferric chloride, hexahydrate		1	1000 (454)

Legend

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

"3" indicates that the source is section 112 of the Clean Air Act



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#### **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
ferric chloride, hexahydrate		CO

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
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.	all ingredients are listed
JP	CSCL-ENCS	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



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Country	Inventory	Status
TR	CICR	all ingredients are listed
TW	TCSI	all ingredients are listed
US	TSCA	all ingredients are listed (ACTIVE)
VN	NCI	all ingredients are listed

#### 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
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
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



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Abbr.	Descriptions of used abbreviations
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
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nation
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
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
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
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



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Abbr.	Descriptions of used abbreviations
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
H290	May be corrosive to metals.
H302	Harmful if swallowed.
H303	May be harmful if swallowed.
H313	May be harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H331	Toxic if inhaled.
H335	May cause respiratory irritation.
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.