

# Safety Data Sheet

according to GHS of the United Nations, annex 4

## SSS/VSD Coolant

Version number: 2.0  
Replaces version of: 2024-01-08 (1)

Revision: 2024-05-01

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1 Product identifier

Trade name **SSS/VSD Coolant**  
Product code(s) 013-04129-000

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

Relevant identified uses laboratory and analytical use

#### 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

#### 1.4 Emergency telephone number

Emergency information service ChemTel Inc. (800) 255-3924 (North America)  
+1 (813) 248-0585 (International)

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

Classification acc. to GHS  
This mixture does not meet the criteria for classification.

#### 2.2 Label elements

Labelling  
not required

#### 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  $\geq 0,1\%$ .

### SECTION 3: Composition/information on ingredients

#### 3.1 Substances

Not relevant (mixture)

#### 3.2 Mixtures

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### Description of the mixture

Name of substance	Identifier	Wt%	Classification acc. to GHS	Pictograms
Deionized water	CAS No 7732-18-5	> 90	not classified	none
Sodium hydroxide	CAS No 1310-73-2	< 0.1	Acute Tox. 4 / H302 Skin Corr. 1A / H314 Eye Dam. 1 / H318	
Sodium nitrite	CAS No 7632-00-0	< 0.1	Ox. Sol. 2 / H272 Acute Tox. 3 / H301 Eye Irrit. 2 / H319 Aquatic Acute 1 / H400	
Benzotriazole	CAS No 95-14-7	< 0.1	Acute Tox. 4 / H302 Eye Irrit. 2 / H319 Aquatic Chronic 2 / H411	
Sodium molybdate dihydrate	CAS No 7631-95-0	< 0.1	not classified	none
D-Gluconic acid	CAS No 526-95-4	< 0.1	not classified	none
Non-hazardous dye		< 0.1	not classified	none

Name of substance	Specific Conc. Limits	M-Factors	ATE	Exposure route
sodium hydroxide	Skin Corr. 1A; H314: $C \geq 5\%$ Skin Corr. 1B; H314: $2\% \leq C < 5\%$ Skin Irrit. 2; H315: $0.5\% \leq C < 2\%$ Eye Dam. 1; H318: $C \geq 2\%$ Eye Irrit. 2; H319: $0.5\% \leq C < 2\%$	-	325 mg/kg	oral
sodium nitrite	-	-	100 mg/kg	oral
benzotriazole	-	-	500 mg/kg	oral

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.

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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: Firefighting measures

### 5.1 Extinguishing media

Suitable extinguishing media

Water spray, Alcohol resistant foam, BC-powder, Carbon dioxide (CO<sub>2</sub>)

Unsuitable extinguishing media

Water jet

### 5.2 Special hazards arising from the substance or mixture

Hazardous combustion products

Nitrogen oxides (NO<sub>x</sub>)

### 5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes. Co-ordinate 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 vapours/dust/spray/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.

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### 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

- 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 effects

Protect against external exposure, such as frost

### 7.3 Specific end use(s)

See section 16 for a general overview.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

Occupational exposure limit values (Workplace Exposure Limits)  
this information is not available

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/m <sup>3</sup>	human, inhalatory	worker (industry)	chronic - local effects
sodium nitrite	7632-00-0	DNEL	2 mg/m <sup>3</sup>	human, inhalatory	worker (industry)	chronic - systemic effects
sodium nitrite	7632-00-0	DNEL	2 mg/m <sup>3</sup>	human, inhalatory	worker (industry)	acute - systemic effects
benzotriazole	95-14-7	DNEL	4.2 mg/m <sup>3</sup>	human, inhalatory	worker (industry)	chronic - systemic effects
benzotriazole	95-14-7	DNEL	0.24 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects
Sodium molybdate dihydrate	7631-95-0	DNEL	23.97 mg/m <sup>3</sup>	human, inhalatory	worker (industry)	chronic - systemic effects
D-gluconic acid	526-95-4	DNEL	59 mg/m <sup>3</sup>	human, inhalatory	worker (industry)	chronic - systemic effects

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### Relevant DNELs of components

Name of substance	CAS No	Endpoint	Threshold level	Protection goal, route of exposure	Used in	Exposure time
D-gluconic acid	526-95-4	DNEL	11.9 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
sodium nitrite	7632-00-0	PNEC	0.005 mg/l	aquatic organisms	freshwater	short-term (single instance)
sodium nitrite	7632-00-0	PNEC	0.006 mg/l	aquatic organisms	marine water	short-term (single instance)
sodium nitrite	7632-00-0	PNEC	21 mg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
sodium nitrite	7632-00-0	PNEC	0.019 mg/kg	aquatic organisms	freshwater sediment	short-term (single instance)
sodium nitrite	7632-00-0	PNEC	0.022 mg/kg	aquatic organisms	marine sediment	short-term (single instance)
sodium nitrite	7632-00-0	PNEC	0.001 mg/kg	terrestrial organisms	soil	short-term (single instance)
benzotriazole	95-14-7	PNEC	97 µg/l	aquatic organisms	freshwater	short-term (single instance)
benzotriazole	95-14-7	PNEC	9.7 µg/l	aquatic organisms	marine water	short-term (single instance)
benzotriazole	95-14-7	PNEC	9.4 mg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
benzotriazole	95-14-7	PNEC	1.1 mg/kg	aquatic organisms	freshwater sediment	short-term (single instance)
benzotriazole	95-14-7	PNEC	0.11 mg/kg	aquatic organisms	marine sediment	short-term (single instance)
benzotriazole	95-14-7	PNEC	0.169 mg/kg	terrestrial organisms	soil	short-term (single instance)
Sodium molybdate dihydrate	7631-95-0	PNEC	25.5 mg/l	aquatic organisms	freshwater	short-term (single instance)
Sodium molybdate dihydrate	7631-95-0	PNEC	4.89 mg/l	aquatic organisms	marine water	short-term (single instance)
Sodium molybdate dihydrate	7631-95-0	PNEC	46.6 mg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
Sodium molybdate dihydrate	7631-95-0	PNEC	45,500 mg/kg	aquatic organisms	freshwater sediment	short-term (single instance)
Sodium molybdate dihydrate	7631-95-0	PNEC	5,080 mg/kg	aquatic organisms	marine sediment	short-term (single instance)

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Relevant PNECs of components						
Name of substance	CAS No	Endpoint	Threshold level	Organism	Environmental compartment	Exposure time
Sodium molybdate dihydrate	7631-95-0	PNEC	21.2 mg/kg	terrestrial organisms	soil	short-term (single instance)
D-gluconic acid	526-95-4	PNEC	0.1 mg/l	aquatic organisms	freshwater	short-term (single instance)
D-gluconic acid	526-95-4	PNEC	0.01 mg/l	aquatic organisms	marine water	short-term (single instance)
D-gluconic acid	526-95-4	PNEC	6.498 mg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
D-gluconic acid	526-95-4	PNEC	0.36 mg/kg	aquatic organisms	freshwater sediment	short-term (single instance)
D-gluconic acid	526-95-4	PNEC	0.36 mg/kg	aquatic organisms	marine sediment	short-term (single instance)
D-gluconic acid	526-95-4	PNEC	0.013 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

Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended. 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.

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### SECTION 9: Physical and chemical properties

#### 9.1 Information on basic physical and chemical properties

Physical state	liquid
Colour	blue
Odour	odourless
Melting point/freezing point	< 0 °C
Boiling point or initial boiling point and boiling range	101 °C
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)	<9
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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Vapour pressure	< 23.7 mmHg at 25 °C
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#### Density and/or relative density

Density	not determined
Relative vapour density	information on this property is not available

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".

#### 10.2 Chemical stability

The material is stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

#### 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 GHS

This mixture does not meet the criteria for classification.

##### Acute toxicity

Shall not be classified as acutely toxic.

Acute toxicity estimate (ATE) of components			
Name of substance	CAS No	Exposure route	ATE
sodium hydroxide	1310-73-2	oral	325 mg/kg
sodium nitrite	7632-00-0	oral	100 mg/kg
benzotriazole	95-14-7	oral	500 mg/kg

##### 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 sensitisation

Shall not be classified as a respiratory or skin sensitizer.



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### Germ cell mutagenicity

Shall not be classified as germ cell mutagenic.

### Carcinogenicity

Shall not be classified as carcinogenic.

### 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  $\geq 0,1\%$ .

### 12.6 Endocrine disrupting properties

Does not contain an endocrine disruptor (ED) in a concentration of  $\geq 0,1\%$ .

### 12.7 Other adverse effects

Data are not available.

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### SECTION 13: Disposal considerations

#### 13.1 Waste treatment methods

Sewage disposal-relevant information

Do not empty into drains. Avoid release to the environment. Refer to special instructions/safety data sheets.

Waste treatment of containers/packages

Completely emptied packages can be recycled. Handle contaminated packages in the same way as the substance itself.

#### Remarks

Please consider the relevant national or regional provisions. Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities.

### SECTION 14: Transport information

14.1	UN number or ID 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	Special precautions for user	There is no additional information.
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 information - National regulations - Additional information (UN RTDG)

Not subject to transport regulations: UN RTDG

##### 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/legislation specific for the substance or mixture

There is no additional information.

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### National inventories

Country	Inventory	Status
AU	AIIC	not 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	not all ingredients are listed
PH	PICCS	not all ingredients are listed
TR	CICR	not all ingredients are listed
TW	TCSI	not all ingredients are listed
VN	NCI	not all ingredients are listed
US	TSCA	all ingredients are listed (ACTIVE)

#### 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.

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### SECTION 16: Other information

#### Indication of changes (revised safety data sheet)

Section	Former entry (text/value)	Actual entry (text/value)	Safety-relevant
3.2	Description of the mixture: This product does not meet the criteria for classification in any hazard class according to GHS.	Description of the mixture	yes
3.2		Description of the mixture: change in the listing (table)	yes
3.2		Description of the mixture: change in the listing (table)	yes
8.1		Relevant DNELs of components: change in the listing (table)	yes
8.1		Relevant PNECs of components: change in the listing (table)	yes
11.1		Acute toxicity estimate (ATE) of components: change in the listing (table)	yes

#### Abbreviations and acronyms

Abbr.	Descriptions of used abbreviations
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
CAS	Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)
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
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

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Abbr.	Descriptions of used abbreviations
NLP	No-Longer Polymer
Ox. Sol.	Oxidising solid
PBT	Persistent, Bioaccumulative and Toxic
PNEC	Predicted No-Effect Concentration
Skin Corr.	Corrosive to skin
Skin Irrit.	Irritant to skin
UN RTDG	UN Recommendations on the Transport of Dangerous Good
vPvB	Very Persistent and very Bioaccumulative

### Key literature references and sources for data

UN Recommendations on the Transport of Dangerous Good. 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
H272	May intensify fire; oxidiser.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H400	Very toxic to aquatic life.
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.