

# Safety Data Sheet

acc. to Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU

## Starch Indicator Solution 2%

Version number: 1.0

Date of compilation: 2023-09-18

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

#### 1.1 Product identifier

Trade name **Starch Indicator Solution 2%**  
Product code(s) ST5025S

#### 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

| Section | Hazard class  | Category | Hazard class and category | Hazard statement |
|---------|---|----------|---------------------------|------------------|
| 4.1C    | hazardous to the aquatic environment - chronic hazard | 3        | Aquatic Chronic 3         | H412             |

For full text of abbreviations: see SECTION 16.

The most important adverse physicochemical, human health and environmental effects

Spillage and fire water can cause pollution of watercourses.

#### 2.2 Label elements

Labelling

- Signal word not required

- Pictograms not required

- Hazard statements

H412 Harmful to aquatic life with long lasting effects.

- Precautionary statements

P273 Avoid release to the environment.

P501 Dispose of contents/container to industrial combustion plant.

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### 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 (EDC) 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  |
|-------------------|---------------------|-----|---|---|
| Zinc chloride     | CAS No<br>7646-85-7 | < 1 | Acute Tox. 4 / H302<br>Skin Corr. 1B / H314<br>STOT SE 3 / H335<br>Aquatic Acute 1 / H400<br>Aquatic Chronic 1 / H410 |  |

| Name of substance | Specific Conc. Limits         | M-Factors | ATE         | Exposure route |
|-------------------|-------------------------------|-----------|-------------|----------------|
| zinc chloride     | STOT SE 3; H335: C $\geq 5\%$ | -         | 1,100 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.

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.

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### 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

### 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. 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.

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### 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

#### 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   | colorless to light yellow |
| Odour  | odourless                 |
| Melting point/freezing point                             | not determined            |
| Boiling point or initial boiling point and boiling range | 100 – 105 °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)   | not determined            |
| 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 |
|---|-----------------------------------|

|                 |                      |
|-----------------|----------------------|
| Vapour pressure | < 23.7 mmHg at 25 °C |
|-----------------|----------------------|

#### Density and/or relative density

|                         |   |
|-------------------------|---|
| Density                 | 1.01 g/cm <sup>3</sup> at 20 °C               |
| Relative vapour density | information on this property is not available |

|                          |                       |
|--------------------------|-----------------------|
| Particle characteristics | not relevant (liquid) |
|--------------------------|-----------------------|

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### 9.2 Other information

|  |   |
|--|---|
| Information with regard to physical hazard classes | hazard classes acc. to GHS (physical hazards): not relevant |
|--|---|

Other safety characteristics

|                |                                 |
|----------------|---------------------------------|
| Miscibility    | Completely miscible with water. |
| Liquid content | 97.6 %                          |
| Solid content  | 2.4 %                           |

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

Concerning incompatibility: see below "Conditions to avoid" and "Incompatible materials".

### 10.2 Chemical stability

See below "Conditions to avoid".

### 10.3 Possibility of hazardous reactions

No known hazardous reactions.

### 10.4 Conditions to avoid

There are no specific conditions known which have to be avoided.

### 10.5 Incompatible materials

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

Acute toxicity

Shall not be classified as acutely toxic.

| Acute toxicity estimate (ATE) of components of the mixture |           |                |             |
|--|-----------|----------------|-------------|
| Name of substance  | CAS No    | Exposure route | ATE         |
| zinc chloride  | 7646-85-7 | oral           | 1,100 mg/kg |

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### 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 sensitiser.

### 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

Harmful to aquatic life with long lasting effects.

Aquatic toxicity (chronic) of components of the mixture

| Name of substance | CAS No    | Endpoint | Value       | Species               | Exposure time |
|-------------------|-----------|----------|-------------|-----------------------|---------------|
| zinc chloride     | 7646-85-7 | LC50     | 330 µg/l    | fish                  | 95 h          |
| zinc chloride     | 7646-85-7 | EC50     | 75 µg/l     | fish                  | 28 d          |
| zinc chloride     | 7646-85-7 | EbC50    | 6,813 µg/l  | aquatic invertebrates | 21 d          |
| zinc chloride     | 7646-85-7 | ErC50    | 39,240 µg/l | algae                 | 2 d           |

### 12.2 Persistence and degradability

Data are not available.

### 12.3 Bioaccumulative potential

Data are not available.

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### Bioaccumulative potential of components of the mixture

| Name of substance | CAS No    | BCF   | Log KOW | BOD5/COD |
|-------------------|-----------|-------|---------|----------|
| zinc chloride     | 7646-85-7 | 69.48 |         |          |

#### 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 (EDC) in a concentration of  $\geq 0,1\%$ .

#### 12.7 Other adverse effects

Data are not available.

### 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/packagings

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.                      |



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### 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.

#### 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          |
| 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

|            |   |
|------------|---|
| 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   |

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### Legend

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

### 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  |
| BCF             | Bioconcentration factor  |
| BOD             | Biochemical Oxygen Demand  |
| CAS             | Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)   |
| COD             | Chemical oxygen demand   |
| DGR             | Dangerous Goods Regulations (see IATA/DGR)   |
| EbC50           | ≡ EC50: in this method, that concentration of test substance which results in a 50 % reduction in either growth (EbC50) or growth rate (ErC50) relative to the control           |
| EC50            | Effective Concentration 50 %. The EC50 corresponds to the concentration of a tested substance causing 50 % changes in response (e.g. on growth) during a specified time interval |
| EINECS          | European Inventory of Existing Commercial Chemical Substances  |
| ELINCS          | European List of Notified Chemical Substances  |
| ErC50           | ≡ EC50: in this method, that concentration of test substance which results in a 50 % reduction in either growth (EbC50) or growth rate (ErC50) relative to the control           |
| 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  |
| LC50            | Lethal Concentration 50%: the LC50 corresponds to the concentration of a tested substance causing 50 % lethality during a specified time interval                                |
| log KOW         | n-Octanol/water  |
| NLP             | No-Longer Polymer  |
| PBT             | Persistent, Bioaccumulative and Toxic  |
| REACH           | Registration, Evaluation, Authorisation and Restriction of Chemicals   |

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| Abbr.       | Descriptions of used abbreviations                    |
|-------------|---|
| Skin Corr.  | Corrosive to skin                                     |
| Skin Irrit. | Irritant to skin                                      |
| STOT SE     | Specific target organ toxicity - single exposure      |
| 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  |
|------|---|
| H302 | Harmful if swallowed.                                 |
| H314 | Causes severe skin burns and eye damage.              |
| H335 | May cause respiratory irritation.                     |
| H400 | Very toxic to aquatic life.                           |
| H410 | Very toxic to aquatic life with long lasting effects. |
| 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.