#### according to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

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1 Identification
· Product identifier
<ul> <li>Trade name: <u>Starch Indicator Solution, 0.5% w/v</u></li> <li>Product code: ST5005-A</li> </ul>
<ul> <li>Recommended use and restriction on use</li> <li>Recommended use: Laboratory chemicals</li> <li>Restrictions on use: No relevant information available.</li> </ul>
<ul> <li>Details of the supplier of the Safety Data Sheet</li> <li>Manufacturer/Supplier: AquaPhoenix Scientific, Inc.</li> <li>860 Gitts Run Road Hanover, PA 17331 USA Tel +1 (717)632-1291 Toll-Free: (866)632-1291 info@aquaphoenixsci.com</li> <li>Distributor: AquaPhoenix Scientific</li> <li>860 Gitts Run Road, Hanover, PA 17331 (717) 632-1291</li> </ul>
<ul> <li>Emergency telephone number: ChemTel Inc.</li> <li>(800)255-3924 (North America)</li> <li>+1 (813)248-0585 (International)</li> </ul>

#### 2 Hazard(s) identification

#### <sup>•</sup> Classification of the substance or mixture

The substance is not classified as hazardous according to the Globally Harmonized System (GHS).

- <sup>•</sup> Label elements
- · GHS label elements Not regulated.
- · Hazard pictograms: Not regulated.
- · Signal word: None.
- · Hazard statements: None.
- · Precautionary statements: None.

• Other hazards There are no other hazards not otherwise classified that have been identified.

#### 3 Composition/information on ingredients

#### <sup>•</sup> Chemical characterization: Substances

#### · Components:

7732-18-5 Water 9005-25-8 Starch

Combustible Dust

#### Additional information:

For the listed ingredient(s), the identity and/or exact percentage(s) are being withheld as a trade secret. For the wording of the listed Hazard Statements, refer to section 16.

99.5%

0.5%

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# 4 First-aid measures

#### <sup>•</sup> Description of first aid measures

· General information: No special measures required.

- After inhalation: Supply fresh air; consult doctor in case of complaints.
- After skin contact:
- Immediately rinse with water.

If skin irritation is experienced, consult a doctor.

#### • After eye contact:

Protect unharmed eye.

Remove contact lenses if worn.

Rinse opened eye for several minutes under running water. Then consult a doctor.

After swallowing:

Rinse out mouth and then drink plenty of water.

Do not induce vomiting; immediately call for medical help.

- Most important symptoms and effects, both acute and delayed: No relevant information available.
- · Danger: No relevant information available.
- · Indication of any immediate medical attention and special treatment needed:

No relevant information available.

#### 5 Fire-fighting measures

Extinguishing media

• Suitable extinguishing agents: Use fire fighting measures that suit the environment.

- · For safety reasons unsuitable extinguishing agents: No relevant information available.
- · Special hazards arising from the substance or mixture
- Formation of toxic gases is possible during heating or in case of fire.
- Advice for firefighters
- · Protective equipment:

Wear self-contained respiratory protective device.

Wear fully protective suit.

#### 6 Accidental release measures

#### • Personal precautions, protective equipment and emergency procedures Ensure adequate ventilation.

#### • Environmental precautions

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

#### • Methods and material for containment and cleaning up

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose of the collected material according to regulations.

#### **Reference to other sections**

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

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#### 7 Handling and storage

#### · Handling

· Precautions for safe handling:

Avoid splashes or sprav in enclosed areas.

Prevent formation of aerosols.

Use only in well ventilated areas.

Information about protection against explosions and fires: No special measures required.

#### Conditions for safe storage, including any incompatibilities

• Requirements to be met by storerooms and receptacles: No special requirements.

· Information about storage in one common storage facility: Store away from foodstuffs.

#### • Further information about storage conditions:

Keep containers tightly sealed.

Store in cool, dry conditions in well sealed receptacles.

· Specific end use(s) No relevant information available.

#### 8 Exposure controls/personal protection

#### <sup>·</sup> Control parameters

#### · Components with limit values that require monitoring at the workplace:

The following constituent is the only constituent of the product which has a PEL, TLV or other recommended exposure limit.

#### 9005-25-8 Starch

PEL (USA)	Long-term value: 15* 5** mg/m³ *total dust **respirable fraction
REL (USA)	Long-term value: 10* 5** mg/m³ *total dust **respirable fraction
TLV (USA)	Long-term value: 10 mg/m³
EL (Canada)	Long-term value: 10* 3** mg/m³ *total dust;**respirable fraction
EV (Canada)	Long-term value: 10 mg/m³ total dust
LMPE (Mexico)	Long-term value: 10 mg/m³ A4

#### • Exposure controls

#### · General protective and hygienic measures:

The usual precautionary measures for handling chemicals should be followed.

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

· Engineering controls: Provide adequate ventilation.

- · Breathing equipment: Not required under normal conditions of use.
- · Protection of hands: Gloves not required under normal conditions of use.

· Material of gloves Latex, nitrile or neoprene gloves are recommended.

• Eye protection: Follow relevant national guidelines concerning the use of protective eyewear.

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· Body protection: Not required.

#### · Limitation and supervision of exposure into the environment

No relevant information available.

9 Physical and chemical properties		
<sup>·</sup> Information on basic physical and chemical properties		
· Appearance:		
Form:	Liquid	
Color:	Clear	
· Odor:	Not determined.	
· Odor threshold:	Not determined.	
· pH-value:	Not determined.	
· Melting point/Melting range:	Not determined.	
· Boiling point/Boiling range:	100-105 °C (212-157 °F)	
· Flash point:	The product is not flammable.	
· Flammability (solid, gaseous):	Not applicable.	
· Auto-ignition temperature:	Not determined.	
· Decomposition temperature:	Not determined.	
· Danger of explosion:	Product does not present an explosion hazard.	
· Explosion limits		
Lower:	Not determined.	
Upper:	Not determined.	
<ul> <li>Oxidizing properties:</li> </ul>	Not determined.	
· Vapor pressure:	Not determined.	
· Density at 20 °C (68 °F):	1.01 g/cm³ (8.43 lbs/gal)	
Relative density:	Not determined.	
· Vapor density:	Not determined.	
<ul> <li>Evaporation rate:</li> </ul>	Not determined.	
· Solubility in / Miscibility with		
Water:	Fully miscible.	
· Partition coefficient (n-octanol/water	<b>'):</b> Not determined.	
· Viscosity		
Dynamic:	Not determined.	
Kinematic:	Not determined.	
<sup>·</sup> Other information	No relevant information available.	

## 10 Stability and reactivity

• **Reactivity:** The product is non-reactive under normal conditions of use, storage and transport. • **Chemical stability:** Stable under normal temperatures and pressures.

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· Thermal decomposition / conditions to be avoided:	(Cont'd. of page 4
No decomposition if used and stored according to specifications.	
Possibility of hazardous reactions	
Toxic fumes may be released if heated above the decomposition point.	
Conditions to avoid Keep away from heat and direct sunlight.	
Incompatible materials No relevant information available.	
Hazardous decomposition products	
Under fire conditions only:	
Carbon monoxide and carbon dioxide	
1 Toxicological information	
· Information on toxicological effects	
· Acute toxicity:	
· LD/LC50 values that are relevant for classification: None.	
· Primary irritant effect:	
• On the skin: Based on available data, the classification criteria are not met.	
• On the eye: Based on available data, the classification criteria are not met.	
• Sensitization: Based on available data, the classification criteria are not met.	
· IARC (International Agency for Research on Cancer):	
None of the ingredients are listed.	
• NTP (National Toxicology Program):	
None of the ingredients are listed.	
· OSHA-Ca (Occupational Safety & Health Administration):	
None of the ingredients are listed.	
Probable route(s) of exposure:	
Ingestion. Inhalation.	
Eye contact.	
Skin contact.	
· Acute effects (acute toxicity, irritation and corrosivity): No relevant informat	ion available.
· Repeated dose toxicity: No relevant information available.	
Germ cell mutagenicity: Based on available data, the classification criteria are	not met.
Carcinogenicity: Based on available data, the classification criteria are not met	
· Reproductive toxicity: Based on available data, the classification criteria are no	
· STOT-single exposure: Based on available data, the classification criteria are r	
STOT-repeated exposure: Based on available data, the classification criteria and	
· Aspiration hazard: Based on available data, the classification criteria are not m	et.

· Aquatic toxicity No relevant information available.

· Persistence and degradability No relevant information available.

· Bioaccumulative potential: No relevant information available.

• Mobility in soil: No relevant information available.

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#### <sup>•</sup> Additional ecological information

· General notes: Generally not hazardous for water.

• Other adverse effects No relevant information available.

#### 13 Disposal considerations

#### <sup>•</sup> Waste treatment methods

· Recommendation: Smaller quantities can be disposed of with household waste.

#### <sup>·</sup> Uncleaned packagings

• **Recommendation:** Disposal must be made according to official regulations.

· UN-Number		
· DOT, ADR/RID/ADN, IMDG, IATA	Not regulated.	
<ul> <li>UN proper shipping name</li> <li>DOT, ADR/RID/ADN, IMDG, IATA</li> </ul>	Not regulated.	
<sup>·</sup> Transport hazard class(es)		
<sup>·</sup> DOT, ADR/RID/ADN, IMDG, IATA <sup>·</sup> Class	Not regulated.	
<sup>·</sup> Packing group <sup>·</sup> DOT, ADR/RID/ADN, IMDG, IATA	Not regulated.	
· Environmental hazards	Not applicable.	
Special precautions for user	Not applicable.	
Transport in bulk according to Annex	II of	-
MARPOL73/78 and the IBC Code	Not applicable.	

#### 15 Regulatory information

 Safety, health and environmental regulations/legislation specific for the substance or mixture

· United States (USA)

· SARA

· Section 302 (extremely hazardous substances):

None of the ingredients are listed.

### • Section 313 (Specific toxic chemical listings):

Substance / component not listed individually, but listed under family group as Zinc salts.

None of the ingredients are listed.

#### TSCA (Toxic Substances Control Act)

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All ingredients are listed or exempt.	
Proposition 65 (California)	
Chemicals known to cause cancer:	
None of the ingredients are listed.	
Chemicals known to cause developmental toxicity for females:	
None of the ingredients are listed.	
Chemicals known to cause developmental toxicity for males:	
None of the ingredients are listed.	
Chemicals known to cause developmental toxicity:	
None of the ingredients are listed.	
EPA (Environmental Protection Agency):	
None of the ingredients are listed.	
IARC (International Agency for Research on Cancer):	
None of the ingredients are listed.	
Canadian Domestic Substances List (DSL):	
All ingredients listed on DSL or NDSL.	

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

• Abbreviations and acronyms:

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

- IMDG: International Maritime Code for Dangerous Goods
- DOT: US Department of Transportation

IATA: International Air Transport Association

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

OSHA: Occupational Safety & Health Administration

#### Sources

Website, European Chemicals Agency (echa.europa.eu)

Website, US EPA Substance Registry Services (ofmpub.epa.gov/sor internet/registry/substreg/home/ overview/home.do)

Website, Chemical Abstracts Registry, American Chemical Society (www.cas.org)

Patty's Industrial Hygiene, 6th ed., Rose, Vernon, ed. ISBN: 978-0-470-07488-6

Casarett and Doull's Toxicology: The Basic Science of Poisons, 8th Ed., Klaasen, Curtis D., ed., ISBN: 978-0-07-176923-5.

Safety Data Sheets, Individual Manufacturers