Printing date 12/28/2017

Reviewed on 12/28/2017

1 Identification

- · Product identifier
- · Trade name: Starch, Soluble, Reagent ACS Powder
- Article number: S5222
- · CAS Number: 9005-84-9
- · EC number:
- 232-686-4
- · Details of the supplier of the safety data sheet · Manufacturer/Supplier: Aqua Solutions, Inc. 6913 Highway 225 DEER PARK, TX 77536 USA 800-256-2586
- · Information department: Technical Coordinator Sherman Nelson sherman@aquasolutions.org · Emergency telephone number:
- Chemtrec: 800-424-9300 Canutec: 613-996-6666

2 Hazard(s) identification

- · Classification of the substance or mixture The substance is not classified according to the Globally Harmonized System (GHS).
- · Label elements
- · GHS label elements Not Applicable
- · Hazard pictograms Not Applicable
- · Signal word Not Applicable
- · Hazard statements Not Applicable
- · Precautionary statements
- If swallowed: Call a poison center/doctor if you feel unwell.
- If on skin: Wash with plenty of water.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Dispose of contents/container in accordance with local/regional/national/international regulations.

- · Classification system:
- · NFPA ratings (scale 0 4)



Health = 0Fire = 0Reactivity = 0

· HMIS-ratings (scale 0 - 4)



· Other hazards

- · Results of PBT and vPvB assessment
- · PBT: Not applicable.

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• **vPvB:** Not applicable.

3 Composition/information on ingredients

- · Chemical characterization: Substances
- · CAS No. Description
- 9005-84-9 Starch
- Identification number(s)
- EC number: 232-686-4

4 First-aid measures

- · 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.
- · After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.
- After swallowing: If symptoms persist consult doctor.
- Information for doctor:
- · Most important symptoms and effects, both acute and delayed No further relevant information available.
- · Indication of any immediate medical attention and special treatment needed
- No further relevant information available.

5 *Fire-fighting measures*

- · Extinguishing media
- Suitable extinguishing agents: Use fire fighting measures that suit the environment.
- Special hazards arising from the substance or mixture No further relevant information available.
- · Advice for firefighters
- · Protective equipment: No special measures required.

6 Accidental release measures

- Personal precautions, protective equipment and emergency procedures Not required.
- · Environmental precautions: No special measures required.
- Methods and material for containment and cleaning up:
- Dispose contaminated material as waste according to item 13.

· 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.
- Protective Action Criteria for Chemicals
- **PAC-1:** 30 mg/m^3
- **PAC-2:** 330 mg/m³
- PAC-3: 2,000 mg/m³

7 Handling and storage

· Handling:

· Precautions for safe handling No special measures required.

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

· Conditions for safe storage, including any incompatibilities

· Storage:

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

- Information about storage in one common storage facility: Not required.
- · Further information about storage conditions: None.
- Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

- · Additional information about design of technical systems: No further data; see item 7.
- · Control parameters
- · Components with limit values that require monitoring at the workplace: Not required.
- Additional information: The lists that were valid during the creation were used as basis.
- · Exposure controls
- · Personal protective equipment:
- General protective and hygienic measures:
- The usual precautionary measures for handling chemicals should be followed.
- · Breathing equipment: Not required.
- · Protection of hands:



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation • Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

· Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

- Eye protection: Not required.
- · Body protection: Protective work clothing

9 Physical and chemical properties

- · Information on basic physical and chemical properties
- · General Information
- · Appearance:

| Form: | Powder | | |
|-------------------|-----------------|--|--|
| Color: | White | | |
| · Odor: | Characteristic | | |
| · Odor threshold: | Not determined. | | |
| · pH-value: | Not applicable. | | |
| | | | |

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| | | (Contd. of page | |
|--------------------------------------|---|-----------------|--|
| Change in condition | | | |
| Melting point/Melting range: | 256-258 °C (492.8-496.4 °F) | | |
| Boiling point/Boiling range: | Undetermined. | | |
| Flash point: | Not applicable. | | |
| Flammability (solid, gaseous): | Product is not flammable. | | |
| Ignition temperature: | | | |
| Decomposition temperature: | Not determined. | | |
| Auto igniting: | Not determined. | | |
| Danger of explosion: | Product does not present an explosion hazard. | | |
| Explosion limits: | | | |
| Lower: | Not determined. | | |
| Upper: | Not determined. | | |
| Vapor pressure: | Not applicable. | | |
| Density at 20 °C (68 °F): | 1.5 g/cm³ (12.5175 lbs/gal) | | |
| Relative density | Not determined. | | |
| Vapor density | Not applicable. | | |
| Evaporation rate | Not applicable. | | |
| Solubility in / Miscibility with | | | |
| Water: | Not determined. | | |
| Partition coefficient (n-octanol/wat | er): Not determined. | | |
| Viscosity: | | | |
| Dynamic: | Not applicable. | | |
| Kinematic: | Not applicable. | | |
| Other information | No further relevant information available. | | |

10 Stability and reactivity

• *Reactivity* No further relevant information available.

- · Chemical stability
- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- · Possibility of hazardous reactions No dangerous reactions known.
- · Conditions to avoid No further relevant information available.
- · Incompatible materials: No further relevant information available.
- · Hazardous decomposition products: No dangerous decomposition products known.

11 Toxicological information

- · Information on toxicological effects
- Acute toxicity:
- Primary irritant effect:
- \cdot on the skin: No irritant effect.
- \cdot on the eye: No irritating effect.
- Sensitization: No sensitizing effects known.

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 \cdot Additional toxicological information:

When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us. The substance is not subject to classification.

- · Carcinogenic categories
- · IARC (International Agency for Research on Cancer) Substance is not listed.
- · NTP (National Toxicology Program) Substance is not listed.
- · OSHA-Ca (Occupational Safety & Health Administration) Substance is not listed.

12 Ecological information

· Toxicity

- · Aquatic toxicity: No further relevant information available.
- Persistence and degradability No further relevant information available.
- · Behavior in environmental systems:
- · Bioaccumulative potential No further relevant information available.
- *Mobility in soil* No further relevant information available.
- · Additional ecological information:
- · General notes: Generally not hazardous for water
- · Results of PBT and vPvB assessment
- **PBT:** Not applicable.
- · **vPvB:** Not applicable.
- · Other adverse effects No further relevant information available.

13 Disposal considerations

- · Waste treatment methods
- Recommendation: Smaller quantities can be disposed of with household waste.
- · Uncleaned packagings:
- Recommendation: Disposal must be made according to official regulations.

14 Transport information · UN-Number · DOT, ADN, IMDG, IATA Not regulated · UN proper shipping name · DOT, ADN, IATA Not regulated · IMDG Not Regulated · Transport hazard class(es) · DOT, ADN, IMDG, IATA · Class Not regulated · Packing group · DOT, IMDG, IATA Not regulated · Environmental hazards: • Marine pollutant: No (Contd. on page 6)

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

| | (Contd. of page 5) |
|---|--------------------|
| • Special precautions for user Not ap | plicable. |
| • Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code Not ap | plicable. |
| • UN "Model Regulation": Not re | gulated |

15 Regulatory information

- \cdot Safety, health and environmental regulations/legislation specific for the substance or mixture \cdot Sara
- · Section 355 (extremely hazardous substances): Substance is not listed.
- Section 313 (Specific toxic chemical listings): Substance is not listed.
- · TSCA (Toxic Substances Control Act):

Starch

- TSCA new (21st Century Act) (Substances not listed)
- · Proposition 65
- · Chemicals known to cause cancer: Substance is not listed.
- · Chemicals known to cause reproductive toxicity for females: Substance is not listed.
- · Chemicals known to cause reproductive toxicity for males: Substance is not listed.
- · Chemicals known to cause developmental toxicity: Substance is not listed.
- · Carcinogenic categories
- · EPA (Environmental Protection Agency) Substance is not listed.
- TLV (Threshold Limit Value established by ACGIH) Substance is not listed.
- NIOSH-Ca (National Institute for Occupational Safety and Health) Substance is not listed.
- · GHS label elements Not Applicable
- · Hazard pictograms Not Applicable
- · Signal word Not Applicable
- · Hazard statements Not Applicable
- · Precautionary statements
- If swallowed: Call a poison center/doctor if you feel unwell.
- If on skin: Wash with plenty of water.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Dispose of contents/container in accordance with local/regional/national/international regulations.

· Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

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.

- · Department issuing SDS: Environment protection department.
- · Contact:
- Date of preparation / last revision 12-28-2017: review SDS for accuracy. STN Creation date for SDS 01-15-2015. STN 12/28/2017 / Abbreviations and acronyms:
 - ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road) IMDG: International Maritime Code for Dangerous Goods
 - DOT: US Department of Transportation

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Safety Data Sheet acc. to OSHA HCS

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Trade name: Starch, Soluble, Reagent ACS Powder

IATA: International Air Transport Association ACGIH: American Conference of Governmental Industrial Hygienists EINECS: European Inventory of Existing Commercial Chemical Substances CAS: Chemical Abstracts Service (division of the American Chemical Society) NFPA: National Fire Protection Association (USA) HMIS: Hazardous Materials Identification System (USA) PBT: Persistent, Bioaccumulative and Toxic vPvB: very Persistent and very Bioaccumulative NIOSH: National Institute for Occupational Safety OSHA: Occupational Safety & Health TLV: Threshold Limit Value PEL: Permissible Exposure Limit REL: Recommended Exposure Limit