Printing date 12/11/2015 Reviewed on 12/11/2015

1 Identification

· Product identifier

· Trade name: Bentonite, API Test

(Customer Supplied Product)

· Article number: OFI009CSP

· 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



GHS08 Health hazard

Carc. 1A H350 May cause cancer.

- · Label elements
- · GHS label elements The product is classified and labeled according to the Globally Harmonized System (GHS).
- · Hazard pictograms



GHS08

- · Signal word Danger
- · Hazard-determining components of labeling:

Sand

cristobalite

tridymite

· Hazard statements

May cause cancer.

· Precautionary statements

Wear protective gloves/protective clothing/eye protection/face protection.

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

IF exposed or concerned: Get medical advice/attention.

Store locked up.

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

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(Contd. of page 1)

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



Health = 0 Fire = 0Reactivity = 0

· HMIS-ratings (scale 0 - 4)



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

3 Composition/information on ingredients

- · Chemical characterization: Mixtures
- · Description: Mixture of the substances listed below with nonhazardous additions.

| | · Dangerous components: | | |
|---|-------------------------|--------------------------|-------|
| ſ | CAS: 14808-60-7 | Sand | 15.0% |
| ſ | CAS: 14464-46-1 | | 12.0% |
| Ī | CAS: 15468-32-3 | · | 1.9% |
| | CAS: 13397-24-5 | Gypsum (Calcium sulfate) | 1.0% |

4 First-aid measures

- · Description of first aid measures
- · After inhalation: Supply fresh air; consult doctor in case of complaints.
- · After skin contact: Generally the product does not irritate the skin.
- · After eye contact: Rinse opened eye for several minutes under running water.
- · 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:
- CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- · Special hazards arising from the substance or mixture No further relevant information available.

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- · 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: Pick up mechanically.
- · 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.

7 Handling and storage

- · Handling:
- Precautions for safe handling No special precautions are necessary if used correctly.
- · 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 i | that require | monitoring at t | the workplace: |
|-------------------|----------------|--------------|-----------------|----------------|
|-------------------|----------------|--------------|-----------------|----------------|

CAS: 14808-60-7 Sand

PEL see Quartz listing

REL Long-term value: 0.05* mg/m³

*respirable dust; See Pocket Guide App. A

TLV Long-term value: 0.025* mg/m³

*as respirable fraction

CAS: 14464-46-1 cristobalite

PEL ½ value from respirable dust formulae for Quartz

REL Long-term value: 0.05* mg/m³

*respirable dust; See Pocket Guide App. A

TLV Long-term value: 0.025* mg/m³

*as respirable fraction

CAS: 15468-32-3 tridymite

PEL ½ value from respirable dust formulae for Quartz

REL Long-term value: 0.05* mg/m³

*respirable dust; See Pocket Guide App. A

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Trade name: Bentonite, API Test

(Customer Supplied Product)

TLV | TLV withdrawn

CAS: 13397-24-5 Gypsum (Calcium sulfate)

REL | Long-term value: 10* 5** mg/m³
*Total dust; **Respirable fraction

TLV | Long-term value: 10* mg/m³
*as inhalable fraction

- · Additional information: The lists that were valid during the creation were used as basis.
- · Exposure controls
- · Personal protective equipment:
- · General protective and hygienic measures: Wash hands before breaks and at the end of work.
- · Breathing equipment: Not required.
- · Protection of hands:

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. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· 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.

| Physical and chemical proper | rties | |
|-------------------------------------|---|--|
| · Information on basic physical and | chemical properties | |
| · General Information | | |
| · Appearance: | | |
| Form: | Powder | |
| Color: | Tan | |
| · Odor: | Odorless | |
| · Odour threshold: | Not determined. | |
| · pH-value: | Not applicable. | |
| · Change in condition | | |
| Melting point/Melting range: | Undetermined. | |
| Boiling point/Boiling range: | Undetermined. | |
| · Flash point: | Not applicable. | |
| Flammability (solid, gaseous): | Not determined. | |
| Ignition temperature: | | |
| Decomposition temperature: | Not determined. | |
| · Auto igniting: | Product is not selfigniting. | |
| · Danger of explosion: | Product does not present an explosion hazard. | |

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(Customer Supplied Product)

| | | (Contd. of page |
|--------------------------------------|--|-----------------|
| · Explosion limits: | | |
| Lower: | Not determined. | |
| Upper: | Not determined. | |
| · Vapor pressure: | Not applicable. | |
| · Density at 20 °C (68 °F): | 2.6 g/cm³ (21.697 lbs/gal) | |
| · Relative density | Not determined. | |
| · Vapour density | Not applicable. | |
| · Evaporation rate | Not applicable. | |
| · Solubility in / Miscibility with | | |
| Water: | Soluble. | |
| · Partition coefficient (n-octanol/v | water): Not determined. | |
| · Viscosity: | | |
| Dynamic: | Not applicable. | |
| Kinematic: | Not applicable. | |
| · Solvent content: | | |
| Organic solvents: | 0.0 % | |
| Solids content: | 27.0 % | |
| · 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:
- · on the skin: No irritant effect.
- · on the eye: No irritating effect.
- · Sensitization: No sensitizing effects known.
- · Additional toxicological information:
- · Carcinogenic categories

| · IARC (Internatio | onal Agency for Research on Cancer) | |
|--------------------|-------------------------------------|--------|
| CAS: 14808-60-7 | ⁷ Sand | 1 |
| CAS: 14464-46-1 | cristobalite | 1 |
| CAS: 15468-32-3 | tridymite | 1 |
| | (Contd. on pa | ige 6) |

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| · NTP (National To | oxicology Program) | inta. or page 3) |
|--------------------|--|------------------|
| CAS: 14808-60-7 | Sand | K |
| CAS: 14464-46-1 | cristobalite | K |
| CAS: 15468-32-3 | tridymite | K |
| · OSHA-Ca (Occup | pational Safety & Health Administration) | |
| None of the ingre | lients is 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:

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

- · Uncleaned packagings:
- · **Recommendation:** Disposal must be made according to official regulations.
- · Recommended cleansing agent: Water, if necessary with cleansing agents.

| UN-Number | | |
|----------------------------|-----------------|--|
| DOT, IMDG, IATA | Not regulated | |
| UN proper shipping name | | |
| DOT, IMDG, IATA | Not regulated | |
| Transport hazard class(es) | | |
| DOT, IMDG, IATA | | |
| Class | Not regulated | |
| Packing group | | |
| DOT, IMDG, IATA | Not regulated | |
| Environmental hazards: | Not applicable. | |

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· Special precautions for user Not applicable.

· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code Not applicable.

· UN "Model Regulation": Not regulated

15 Regulatory information

- · Safety, health and environmental regulations/legislation specific for the substance or mixture
- · Sara
- · Section 355 (extremely hazardous substances):

None of the ingredients is listed.

· Section 313 (Specific toxic chemical listings):

None of the ingredients is listed.

· TSCA (Toxic Substances Control Act):

CAS: 14808-60-7 Sand

CAS: 14464-46-1 cristobalite

- · Proposition 65
- · Chemicals known to cause cancer:

CAS: 14808-60-7 Sand

CAS: 14464-46-1 cristobalite

· Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for males:

None of the ingredients is listed.

· Chemicals known to cause developmental toxicity:

None of the ingredients is listed.

- · Carcinogenic categories
- · EPA (Environmental Protection Agency)

None of the ingredients is listed.

· TLV (Threshold Limit Value established by ACGIH)

CAS: 14808-60-7 | Sand | A2 | CAS: 14464-46-1 | cristobalite | A2

· NIOSH-Ca (National Institute for Occupational Safety and Health)

CAS: 14808-60-7 Sand

CAS: 14464-46-1 cristobalite

CAS: 15468-32-3 tridymite

· GHS label elements The product is classified and labeled according to the Globally Harmonized System (GHS).

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Trade name: Bentonite, API Test

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· Hazard pictograms



- · Signal word Danger
- · Hazard-determining components of labeling:

Sand

cristobalite

tridymite

· Hazard statements

May cause cancer.

· Precautionary statements

Wear protective gloves/protective clothing/eye protection/face protection.

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

IF exposed or concerned: Get medical advice/attention.

Store locked up.

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.
- · Date of preparation / last revision

Revision 0.0, 12-11-2015 Creation date for SDS. STN

12/11/2015 / -

· 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

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified 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

Carc. 1A: Carcinogenicity, Hazard Category 1A

TIC