


# Quad-Cure<sup>®</sup> Water Glass

## 1. PRODUCT AND COMPANY IDENTIFICATION

<b>Product Name</b>	• Quad-Cure <sup>®</sup> Water Glass Part A
<b>Trade Name</b>	• Quad-Cure <sup>®</sup> WG
<b>Company</b>	• Quadex LLC, 564 W. 9320 S., Sandy, UT 84070
<b>Company Contact</b>	• Matthew Peterson
<b>Company Phone</b>	• 844-782-4832
<b>Emergency</b>	• Domestic Shipments and to Canada: 1-800-633-8253 • International Shipments: 1-801-629-0667

## 2. HAZARDS IDENTIFICATION

<b>Classification of the substance or mixture</b>	
<i>GHS Classification</i>	
	<i>Skin Irrit.</i> • 2
	<i>Eye Dam.</i> • 1
<i>Hazards Summary</i>	
	<i>Alkaline.</i>
	<i>Risk of serious damage to eyes.</i>
	<i>Irritating to skin.</i>
<i>Label Elements</i>	
	
	<i>Pictogram</i>
<i>Signal word(s)</i>	<i>Danger</i>
<b>Hazard statement(s)</b>	
	<i>H315</i> • Causes skin irritation.
	<i>H318</i> • Causes serious eye damage.
<b>Precautionary statement(s)</b>	
	<i>P262</i> • Do not get in eyes, on skin, or on clothing.
	<i>P280</i> • Wear protective gloves/protective clothing/eye protection/face protection.

## 2. HAZARDS IDENTIFICATION (CONTINUED)

<b>Precautionary statement(s) (continued)</b>	
	<p><i>P303+P361+P353</i></p> <ul style="list-style-type: none"> <li>• IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.</li> </ul>
	<p><i>P305+P351+P338</i></p> <ul style="list-style-type: none"> <li>• IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</li> </ul>
<b>Other hazards</b>	Dries to form glass film, which can easily cut skin. Spilled material is very slippery. Can etch glass if not promptly removed.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

### Regulation (EC) No. 1272/2008 (CLP)

Ingredient(s)	%W/W	CAS No.	EINECS No. / REACH Registration.	Hazard symbol(s) and hazard statement(s)
<i>Silicic acid, sodium salt (1.6&lt;MR&lt;=2.6)</i>	46.0	1344-09-8	215-687-4 01-2119448725-31	<i>H315</i> : Skin Irrit. 2 <i>H318</i> : Eye Dam. 2 <i>H335</i> : STOT SE 3
<i>Water</i>	54.0	7732-18-5	231-791-2	

## 4. FIRST AID MEASURE

<b>Description of first aid measures</b>	
<i>Eye contact</i>	<ul style="list-style-type: none"> <li>• Irrigate with eyewash solution or clean water, holding the eyelids apart, for at least 15 minutes. Obtain immediate medical attention.</li> </ul>
<i>Skin contact</i>	<ul style="list-style-type: none"> <li>• Wash affected skin with plenty of water. If symptoms develop, obtain medical attention.</li> </ul>
<i>Inhalation</i>	<ul style="list-style-type: none"> <li>• Remove patient from exposure, keep warm and at rest. Obtain medical attention.</li> </ul>
<i>Ingestion</i>	<ul style="list-style-type: none"> <li>• Do not induce vomiting. Wash out mouth with water and give 200-300 ml (half a pint) of water to drink. Obtain medical attention.</li> </ul>
<b>Most important symptoms and effects, both acute and delayed</b>	<ul style="list-style-type: none"> <li>• Alkaline.</li> <li>• Risk of serious damage to eyes.</li> <li>• Irritating to skin.</li> <li>• The toxicity of sodium silicate is dependent on the silica to alkali ratio and on the pH.</li> </ul>
<b>Indication of any immediate medical attention and special treatment needed</b>	<ul style="list-style-type: none"> <li>• Obtain immediate medical attention</li> </ul>

## 5. FIRE FIGHTING MEASURES

<b>Extinguishing media</b>	
<i>Suitable extinguishing media</i>	<ul style="list-style-type: none"> <li>Compatible with all standard fire fighting techniques.</li> </ul>
<i>Unsuitable extinguishing media</i>	<ul style="list-style-type: none"> <li>None known.</li> </ul>
<b>Special hazards arising from the substance or mixture</b>	<ul style="list-style-type: none"> <li>Not applicable. Aqueous solution. Non-combustible.</li> </ul>
<b>Advice for firefighter</b>	<ul style="list-style-type: none"> <li>None.</li> </ul>

## 6. ACCIDENTAL RELEASE MEASURES

<b>Personal precautions, protective equipment and emergency procedures</b>	<ul style="list-style-type: none"> <li>Wear suitable protective clothing.</li> <li>Wear eye/face protection.</li> <li>See Section: <i>Exposure controls</i>.</li> </ul>
<b>Environmental precautions</b>	<ul style="list-style-type: none"> <li>Do not allow to enter drains, sewers or watercourses.</li> <li>Advise Authorities if spillage has entered water course or sewer or has contaminated soil or vegetation.</li> </ul>
<b>Methods and material for containment and cleaning up</b>	<ul style="list-style-type: none"> <li>Caution - spillages may be slippery.</li> <li>Contain spillages with sand, earth or any suitable adsorbent material. Transfer to a container for disposal or recovery.</li> </ul>
<b>Reference to other sections</b>	<ul style="list-style-type: none"> <li>See Also Section: <i>Exposure controls/Personal protection</i>.</li> </ul>

## 7. HANDLING AND STORAGE

<b>Precautions for safe handling</b>	<ul style="list-style-type: none"> <li>Avoid contact with eyes, skin and clothing.</li> <li>Avoid generation of mist.</li> <li>Provide adequate ventilation.</li> <li>Emergency shower and eye wash facilities should be readily available.</li> <li>See Also Section: <i>Exposure controls/Personal protection</i>.</li> </ul>
<b>Conditions for safe storage, including any incompatibilities</b>	<ul style="list-style-type: none"> <li>Storage temperature 0-95° C. Loading temperature 45-95° C.</li> <li>Do not allow material to freeze.</li> <li>Provide an adequate bund wall.</li> <li>Unsuitable containers: Aluminium</li> <li>See Also Section: <i>Stability and reactivity</i>.</li> </ul>

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

<b>Control parameters</b>	
<i>Substance: Silicic acid, sodium salt</i>	<ul style="list-style-type: none"> <li>No Occupational Exposure Limit assigned.</li> <li>An exposure limit of 2 mg/m<sup>3</sup> (15 min TWA) is recommended by analogy with sodium hydroxide (UK EH40).</li> </ul>
<b>Exposure controls</b>	<ul style="list-style-type: none"> <li>Wear protective equipment to comply with good occupational hygiene practice. Do not eat, drink or smoke at the work place.</li> </ul>
<b>Appropriate engineering controls</b>	<ul style="list-style-type: none"> <li>Engineering methods to prevent or control exposure are preferred. Methods include process or personnel enclosure, mechanical ventilation (dilution and local exhaust), and control of process conditions.</li> </ul>
<b>Personal protection</b>	
<i>Respiratory protection</i>	<ul style="list-style-type: none"> <li>Respiratory protection not normally required. Advice on respiratory protective equipment is given in the HSE (Health and Safety Executive) publication HS(G)53.</li> </ul>
<i>Eye/face protection</i>	<ul style="list-style-type: none"> <li>Chemical goggles (EN 166).</li> </ul>
<i>Skin protection</i>	<ul style="list-style-type: none"> <li>Wear suitable protective clothing and gloves. Plastic or rubber gloves. For example EN374-3, level 6 breakthrough time (&gt;480min). Wear suitable overalls. For example EN ISO 13982 (dust), EN 14605 (liquid splashes).</li> </ul>
<b>Environmental exposure controls</b>	<ul style="list-style-type: none"> <li>The primary hazard of sodium silicate is the alkalinity. Avoid release to the environment</li> </ul>

## 9. PHYSICAL & CHEMICAL PROPERTIES

<i>Appearance</i>	<ul style="list-style-type: none"> <li>Liquid. Almost colorless. White or translucent.</li> </ul>
<i>Odor</i>	<ul style="list-style-type: none"> <li>Odorless. (musty)</li> </ul>
<i>Odor threshold (ppm)</i>	<ul style="list-style-type: none"> <li>Not applicable.</li> </ul>
<i>pH (Value)</i>	<ul style="list-style-type: none"> <li>Strongly alkaline. 11-13</li> </ul>
<i>Freezing Point (°C)</i>	<ul style="list-style-type: none"> <li>Not applicable.</li> </ul>
<i>Melting Point (°C)</i>	<ul style="list-style-type: none"> <li>Not applicable.</li> </ul>
<i>Boiling Point (°C)</i>	<ul style="list-style-type: none"> <li>100</li> </ul>
<i>Flash Point (°C) [Closed cup]</i>	<ul style="list-style-type: none"> <li>Not applicable.</li> </ul>
<i>Evaporation rate</i>	<ul style="list-style-type: none"> <li>Not applicable.</li> </ul>
<i>Flammability (solid, gas)</i>	<ul style="list-style-type: none"> <li>Not applicable.</li> </ul>
<i>Explosive limit ranges</i>	<ul style="list-style-type: none"> <li>Not applicable.</li> </ul>
<i>Vapor pressure (mm Hg)</i>	<ul style="list-style-type: none"> <li>Not applicable.</li> </ul>
<i>Vapor density (Air=1)</i>	<ul style="list-style-type: none"> <li>No data.</li> </ul>
<i>Density (g/ml)</i>	<ul style="list-style-type: none"> <li>No data.</li> </ul>
<i>Solubility (Water)</i>	<ul style="list-style-type: none"> <li>Soluble.</li> </ul>
<i>Solubility (Other)</i>	<ul style="list-style-type: none"> <li>No data.</li> </ul>
<i>Partition coefficient</i>	<ul style="list-style-type: none"> <li>No data.</li> </ul>
<i>Auto ignition point (°C)</i>	<ul style="list-style-type: none"> <li>Not applicable.</li> </ul>
<i>Decomposition temperature (°C)</i>	<ul style="list-style-type: none"> <li>Not applicable.</li> </ul>
<i>Viscosity (mPa. s)</i>	<ul style="list-style-type: none"> <li>Not applicable.</li> </ul>
<i>Explosive properties</i>	<ul style="list-style-type: none"> <li>Not applicable.</li> </ul>
<i>Oxidizing properties</i>	<ul style="list-style-type: none"> <li>Not applicable.</li> </ul>
<b>Other information</b>	<ul style="list-style-type: none"> <li>No data.</li> </ul>

## 10. CHEMICAL STABILITY & REACTIVITY INFORMATION

<i>Reactivity</i>	<ul style="list-style-type: none"> <li>See Section: <i>Possibility of hazardous reactions.</i></li> </ul>
<i>Chemical stability</i>	<ul style="list-style-type: none"> <li>Stable.</li> </ul>
<i>Possibility of hazardous reactions</i>	<ul style="list-style-type: none"> <li>When arc welding vessels containing aqueous solutions of this material, take care to control any explosion risk from hydrogen evolved by electrolysis. Aqueous solutions will react with aluminium, zinc, tin and their alloys evolving hydrogen gas which can form an explosive mixture with air. Can react violently if in contact with acids. Can react with sugar residues to form carbon monoxide.</li> </ul>
<i>Conditions to avoid</i>	<ul style="list-style-type: none"> <li>See Section: <i>Possibility of hazardous reactions.</i></li> </ul>
<i>Incompatible materials</i>	<ul style="list-style-type: none"> <li>See Section: <i>Possibility of hazardous reactions.</i></li> </ul>
<i>Hazardous decomposition product(s)</i>	<ul style="list-style-type: none"> <li>None known</li> </ul>

## 11. TOXICOLOGICAL INFORMATION

<b>Information on toxicological effects acute toxicity</b>	
<i>Ingestion</i>	<ul style="list-style-type: none"> <li>All symptoms of acute toxicity are due to high alkalinity. Material will cause irritation. Oral LD50 (rat) 3400 mg/kg bw.</li> </ul>
<i>Inhalation</i>	<ul style="list-style-type: none"> <li>Mist is irritant to the respiratory tract. All symptoms of acute toxicity are due to high alkalinity. Inhalation LC50 (rat) &gt;2.06 g/m<sup>3</sup>.</li> </ul>
<i>Skin contact</i>	<ul style="list-style-type: none"> <li>Material will cause irritation. Dermal LD50 (rat) &gt;5000 mg/kg bw</li> </ul>
<i>Eye contact</i>	<ul style="list-style-type: none"> <li>Material will cause severe irritation. Risk of serious damage to eyes.</li> </ul>
<i>Reference substance</i>	<ul style="list-style-type: none"> <li>Silicic acid, potassium salt (Molar ratio K<sub>2</sub>O : SiO<sub>2</sub> = 1 : 3.9-4.0; 28-30%)</li> <li>Species: rat</li> <li>LD<sub>50</sub>: &gt; 2000 mg/kg</li> <li>Source: data of supplier</li> </ul>
<i>Skin corrosion/irritation</i>	<ul style="list-style-type: none"> <li>Irritating to skin.</li> </ul>
<i>Serious eye damage/irritation</i>	<ul style="list-style-type: none"> <li>Irritating to eyes. Risk of serious damage to eyes.</li> </ul>
<i>Sensitisation</i>	<ul style="list-style-type: none"> <li>Not sensitising</li> </ul>
<i>Mutagenicity</i>	<ul style="list-style-type: none"> <li>No evidence of genotoxicity. In vitro/in vivo negative.</li> </ul>
<i>Carcinogenicity</i>	<ul style="list-style-type: none"> <li>No structural alerts. IARC, NTP, OSHA, ACGIH do not list this product as known or suspected carcinogen.</li> </ul>
<i>Reproductive toxicity</i>	<ul style="list-style-type: none"> <li>No evidence of reproductive toxicity or developmental toxicity.</li> </ul>
<i>STOT - single exposure</i>	<ul style="list-style-type: none"> <li>Not classified.</li> </ul>
<i>STOT - repeated exposure</i>	<ul style="list-style-type: none"> <li>Not classified. NOAEL oral (rat) &gt;159 mg/kg bw/d.</li> </ul>
<i>Aspiration hazard</i>	<ul style="list-style-type: none"> <li>Not classified</li> </ul>
<b>Other information</b>	

## 12. ECOLOGICAL INFORMATION

<i>Toxicity</i>	<ul style="list-style-type: none"> <li>Fish (Brachydanio rerio) LC50 (96 hour) 1108 mg/l Aquatic invertebrates: (Daphnia magna) EC50 (48 hour) 1700 mg/l</li> </ul>
<i>Persistence and degradability</i>	<ul style="list-style-type: none"> <li>Inorganic. Soluble silicates, upon dilution, rapidly depolymerise into molecular species indistinguishable from natural dissolved silica.</li> </ul>
<i>Bioaccumulative potential</i>	<ul style="list-style-type: none"> <li>Inorganic. The substance has no potential for bioaccumulation</li> </ul>
<i>Mobility in soil</i>	<ul style="list-style-type: none"> <li>Not applicable.</li> </ul>
<i>Results of PBT and vPvB assessment</i>	<ul style="list-style-type: none"> <li>Not classified as PBT or vPvB.</li> </ul>
<i>Other adverse effects</i>	<ul style="list-style-type: none"> <li>The alkalinity of this material will have a local effect on ecosystems sensitive to changes in pH.</li> </ul>

## 13. DISPOSAL CONSIDERATIONS

<i>Waste treatment methods</i>	<ul style="list-style-type: none"> <li>Disposal should be in accordance with local, state or national legislation. Waste material is classified as a RCRA Hazardous waste if it exhibits the corrosive characteristic (pH greater than or equal to 12.5) Dispose of this material and its container to hazardous or special waste collection point.</li> <li>Discharge of this product to sewage treatment works is dependent on local regulations with regard to pH controls.</li> </ul>
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## 14. TRANSPORT INFORMATION

<i>UN number</i>	<ul style="list-style-type: none"> <li>Not applicable.</li> </ul>
<i>Proper shipping name</i>	<ul style="list-style-type: none"> <li>Not applicable.</li> </ul>
<i>Transport hazard class(es)</i>	<ul style="list-style-type: none"> <li>Not applicable.</li> </ul>
<i>Packing group</i>	<ul style="list-style-type: none"> <li>Not applicable.</li> </ul>
<i>Environmental hazards</i>	<ul style="list-style-type: none"> <li>Not classified as a Marine Pollutant.</li> </ul>
<i>Special precautions for user</i>	<ul style="list-style-type: none"> <li>Unsuitable containers: Aluminium.</li> </ul>
<i>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</i>	<ul style="list-style-type: none"> <li>Not applicable.</li> </ul>

## 15. REGULATORY INFORMATION


<i>Safety, health and environmental regulations/legislation specific for the substance or mixture</i>	<ul style="list-style-type: none"> <li>TSCA Inventory Status: Reported/Included.</li> <li>AICS Inventory Status: Reported/Included.</li> <li>DSL/NDSL Inventory Status: Reported/Included.</li> <li>SARA TITLE III: This material is not a listed Toxic Chemical subject to the reporting requirements of SARA Title III §313 and 40 C.F.R. Part 372.</li> <li>Hazard Categories under SARA Title III §§311/312: Acute.</li> <li>German Water Hazard Classification VwVwS: Product ID number 1314, WGK class 1 (low hazard to water). 2,0,0</li> </ul>
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## 16. OTHER INFORMATION

Data referenced in this eSDS is from company-owned information and from data legitimately accessed by PQ Corporation through membership of Industry Consortia or other agreements. This includes data relating to toxicology, ecotoxicology, DNELs, PNECs and other information in this eSDS and its annex.

This SDS was last reviewed: 03/2023

The following sections contain revisions or new statements: No significant changes required upon last review.

<i>GHS Classification</i>	<ul style="list-style-type: none"> <li>• Skin Irrit. 2</li> <li>• Eye Dam. 1</li> </ul>
<i>Signal word(s)</i>	<ul style="list-style-type: none"> <li>• Danger</li> </ul>
<i>Hazard pictogram(s)</i>	
<i>Hazard statement(s)</i>	<ul style="list-style-type: none"> <li>• H315: Causes skin irritation.</li> <li>• H318: Causes serious eye damage.</li> </ul>
<i>Precautionary statement(s)</i>	<ul style="list-style-type: none"> <li>• P262: Do not get in eyes, on skin, or on clothing.</li> <li>• P280: Wear protective gloves/protective clothing/eye protection/face protection.</li> <li>• P303+P361+P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.</li> <li>• P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</li> </ul>
<b>Glossary</b>	
<i>H315</i>	<ul style="list-style-type: none"> <li>• Causes skin irritation</li> </ul>
<i>H318</i>	<ul style="list-style-type: none"> <li>• Causes serious eye damage</li> </ul>
<i>H335</i>	<ul style="list-style-type: none"> <li>• May cause respiratory irritation</li> </ul>
<i>STOT SE 3</i>	<ul style="list-style-type: none"> <li>• Specific target organ toxicity — single exposure Category 3</li> </ul>
<i>R41</i>	<ul style="list-style-type: none"> <li>• Risk of serious damage to eyes</li> </ul>
<i>R38</i>	<ul style="list-style-type: none"> <li>• Irritating to skin</li> </ul>
<i>R37/38</i>	<ul style="list-style-type: none"> <li>• Irritating to respiratory system and skin.</li> </ul>
<i>DNEL</i>	<ul style="list-style-type: none"> <li>• Derived No Effect Level</li> </ul>
<i>PNEC</i>	<ul style="list-style-type: none"> <li>• Predicted No Effect Concentration</li> </ul>
<i>PBT</i>	<ul style="list-style-type: none"> <li>• Persistent, Bioaccumulative and Toxic</li> </ul>
<i>EC Classification</i>	<ul style="list-style-type: none"> <li>• According to Directive 67/548/EEC &amp; Directive 1999/45/EC</li> </ul>
<b>Disclaimer</b>	<ul style="list-style-type: none"> <li>• The information provided in this Safety Data Sheet is correct to the best of our knowledge information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification, The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.</li> </ul>
<b>Issue Date</b>	<ul style="list-style-type: none"> <li>• Not available.</li> </ul>
<b>This Data Sheet Contains</b>	<ul style="list-style-type: none"> <li>• Product and Company Identification: Synonyms changes from the previous Physical &amp; Chemical Properties: Multiple Properties version in section(s): Transport Information: Material Transportation Information Regulatory Information.</li> </ul>