

1. Trade name: **SODIUM WATER GLASS**

2. Chemical name: silicic acid, sodium salt; **MR > 1,6; solution**

3. General characteristics

Homogeneous, opalescent or clear liquid. Odorless.

4. Physical and chemical properties (analytical method according to d/PT/10):

Physical and chemical properties of the sodium water glasses offered by our company can be found in Table 1 (Annex No. 1 to this specification).

There is also the possibility of producing sodium water glasses according to individual customer requirements.

5. Applications

Production of the liquid and solid industry cleaning agents and detergent, dust binding agents, impregnation agents, flame retardants, refractory materials and ceramic materials, corrosion inhibitors and antiscaling agents.

Applied in adhesive bonding and bleaching of products in the paper industry or chipboards. Also used as a sealing additive in construction mortars. Preparing mould frames in foundries and steel industry and water treatment.

6. Indications for OHS and fire protection

Liquid substance of alkaline character. Non combustible substance and not sustaining burning.

Due to dependence of sodium water glass properties on the molar ratio, there is different effect of exposure, which is described in detail in the Safety Data Sheet of substances.

Do not get in eyes, on skin or on clothing. Wear personal protective means (gloves, protective clothing, eyes and face protection). In case of contact with the eyes rinse immediately with plenty of running water. Obtain medical attention

7. Packing and transport

Containers or IBC containers made of metal or plastic. Railway and car tanks.

A label is attached to each unit container.

Substance is not classified as hazardous material under the provisions of RID and ADR.

8. Storage

Store only in the original containers. Store in tightly sealed, closed containers.

Do not store near acids. Do not store in containers made of or coated with zinc or aluminum.

Do not allow the storage temperature to fall below 0°C (protect from freezing). The recommended storage temperature above +10°C. The density and viscosity of the mixture increases with decreasing temperature (the transfer and dispense of the product is hindered).

Shelf life: 12 months from the date of production

9. Ecological information – waste treatment

In case of accidental spilling the little amount of substance, mixed the waste with sand to obtain a thickened consistency and then neutralized with sulfuric acid solution. The neutralization process should be stopped after reaching a pH close to neutral.

The resulting mixture should be collected mechanically, using personal protective equipment. Collected waste placed in a labeled container and forwarded to specialized companies for recycling.

Table 1. Physicochemical properties for sodium water glasses produced by Zakłady Chemiczne "Rudniki" S. A.

Subjects	Unit	Type					
		R 132 – 3,4	R 133 – 3,2*	R 137	R 137 – 3,2	R 140	R 144 – 2,6*
Mole ratio (SiO ₂ / Na ₂ O)		3,4 – 3,5	3,2 – 3,5	3,2 – 3,4	3,2 – 3,4	2,9 – 3,1	2,6 – 2,8
Minimum content of oxides (SiO ₂ + Na ₂ O)	%	32,0	32,0	35,0	35,0	36,0	39,0
Density (20°C)	g/cm ³	1,32 – 1,34	1,33 – 1,36	1,37 – 1,40	1,37 – 1,40	1,40 – 1,43	1,44 – 1,47
Maximum content of CaO	%	0,1	0,1	0,1	0,1	0,1	0,1
Maximum content of Fe ₂ O ₃	%	0,01	0,01	0,01	0,01	0,01	0,01
Maximum content of water insoluble substance	%	0,1	0,1	0,1	0,1	0,1	0,1
Minimum viscosity	P	–	–	1	–	0,5	–

Subjects	Unit	Type					
		R 145	R 145 S*	R 149	R 150	R 150 S*	R 151 – 1,7
Mole ratio (SiO ₂ / Na ₂ O)		2,4 – 2,6	2,3 – 2,6	2,8 – 3,0	1,9 – 2,1	2,2 – 2,4	1,65 – 1,85
Minimum content of oxides (SiO ₂ + Na ₂ O)	%	39,0	42,0	42,5	40,0	42,0	42 – 44
Density (20°C)	g/cm ³	1,45 – 1,48	1,52 – 1,56	1,49 – 1,51	1,50 – 1,53	1,50 – 1,53	1,51 – 1,57
Maximum content of CaO	%	0,1	0,1	0,1	0,1	0,1	0,1
Maximum content of Fe ₂ O ₃	%	0,01	0,01	0,01	0,01	0,01	0,01
Maximum content of water insoluble substance	%	0,1	0,1	0,1	0,1	0,1	0,1
Minimum viscosity	P	1	5	7	1	1	–

* - availability for single orders over 20 tonnes

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