

Product properties – Technical sheet

<h1>PROTECTOR PKS</h1>	Item no.: 00 15 47																																																																								
<h3>Areas of application</h3>	<p>Protector PKS is an organic refrigerant and heat carrier for the use in solar energy plants and in cooling systems for the food industry.</p> <p>Protector PKS is based on Propylenglycole and contains special anti-corrosive compounds to reduce the material attack on steel, stainless steel, aluminium and non-ferrous metal.</p> <p>Protector PKS is of particular use in the food industry because of its perfectly safe property.</p>																																																																								
<h3>Method of application</h3>	<p>The product is a concentrate and must be diluted according the following thinning list:</p> <table border="1" data-bbox="620 1151 1501 1545"> <thead> <tr> <th>Weight percent %</th> <th>Density g/cm³ (20°C)</th> <th>Brix % at 23°C</th> <th>Refractive index nD at 23°C</th> <th>Freezing Point F(C)</th> <th>Boiling Point F(C)</th> </tr> </thead> <tbody> <tr><td>0</td><td>1,000</td><td>0</td><td>1,3333</td><td>32 (0)</td><td>212 (100)</td></tr> <tr><td>10</td><td>1,006</td><td>7</td><td>1,3435</td><td>25 (-4)</td><td>212 (100)</td></tr> <tr><td>20</td><td>1,012</td><td>14</td><td>1,3548</td><td>20 (-7)</td><td>215 (102)</td></tr> <tr><td>30</td><td>1,018</td><td>21</td><td>1,3664</td><td>10 (-12)</td><td>215 (102)</td></tr> <tr><td>40</td><td>1,024</td><td>28</td><td>1,3767</td><td>-5 (-21)</td><td>220 (104)</td></tr> <tr><td>50</td><td>1,030</td><td>34</td><td>1,3883</td><td>-30 (-34)</td><td>220 (104)</td></tr> <tr><td>60</td><td>1,031</td><td>39</td><td>1,3986</td><td>-60 (-51)</td><td>225 (107)</td></tr> <tr><td>70</td><td>1,032</td><td>45</td><td>1,4095</td><td><-60 (<-51)</td><td>230 (110)</td></tr> <tr><td>80</td><td>1,033</td><td>49</td><td>1,4172</td><td><-60 (<-51)</td><td>245 (118)</td></tr> <tr><td>90</td><td>1,034</td><td>53</td><td>1,4255</td><td><-60 (<-51)</td><td>270 (132)</td></tr> <tr><td>100</td><td>1,035</td><td>56</td><td>1,4333</td><td><-60 (<-51)</td><td>370 (188)</td></tr> </tbody> </table> <p>Protector PKS can be mixed with water and other products from the WIGOL company which are based on Propylenglycole.</p>	Weight percent %	Density g/cm ³ (20°C)	Brix % at 23°C	Refractive index nD at 23°C	Freezing Point F(C)	Boiling Point F(C)	0	1,000	0	1,3333	32 (0)	212 (100)	10	1,006	7	1,3435	25 (-4)	212 (100)	20	1,012	14	1,3548	20 (-7)	215 (102)	30	1,018	21	1,3664	10 (-12)	215 (102)	40	1,024	28	1,3767	-5 (-21)	220 (104)	50	1,030	34	1,3883	-30 (-34)	220 (104)	60	1,031	39	1,3986	-60 (-51)	225 (107)	70	1,032	45	1,4095	<-60 (<-51)	230 (110)	80	1,033	49	1,4172	<-60 (<-51)	245 (118)	90	1,034	53	1,4255	<-60 (<-51)	270 (132)	100	1,035	56	1,4333	<-60 (<-51)	370 (188)
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<h3>Material compatibility</h3>	<p>Non material incompatibility known.</p> <p>In addition, further material incompatibilities cannot be excluded. Therefore, test the product on an unimportant spot before its definite use.</p>																																																																								

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Analysis of concentration	n/a		
Physical and chemical properties			
Aspect/colour	Clear	Colourless – Slightly Brownish	
Form	Liquid		
Odour	Odourless		
Foaming behaviour <small>(see under conditions of application)</small>	Not foaming		
Phosphates	n/a		
Density (20°C) g/cm³	1.025 – 1.045		
Concentration	1 % in H₂O dest.	3 % in H₂O dest.	5 % in H₂O dest.
pH value (1 %, 20°C)	8.0 – 10.0	n/a	n/a
Conductance (1 %, 20°C) mS/cm	n/a	n/a	n/a
Phenolphthalein alkalinity (ml)	n/a		
m-Value (ml)	n/a		
Storage stability	- 50°C to + 180°C		
Remarks regarding biocides	n/a		
Product contains	Propylenglycol		
Risk symbols	THE PRODUCT IS NOT CLASSIFIED ACCORDING TO THE CLP REGULATION AND REQUIRES NO LABELING!		
Special remarks	<p>Always close the container with the original closure, and store the items in a cool area without solar radiation. Product which was taken out of the container must never be poured back into the container.</p> <p>Read in any case our safety data sheet before using the product!</p>		
Disposal	Disposal acc. to official regulations, in case of doubt contact the manufacturer.		

Please refer to our safety data sheets and our operating instructions with regard to precautionary measures, first aid measures and storage. The information given in the Sheet corresponds to the present state of our technical knowledge and experience. They do not constitute any guarantee; they are to be considered as basic information only. In particular they do not guarantee particular properties or the suitability for a concrete purpose. Because of the multitude of possible influences during the application of our products, the user has to make in any case the relevant tests and take the corresponding precautions. Any existing intellectual property rights are to be observed.