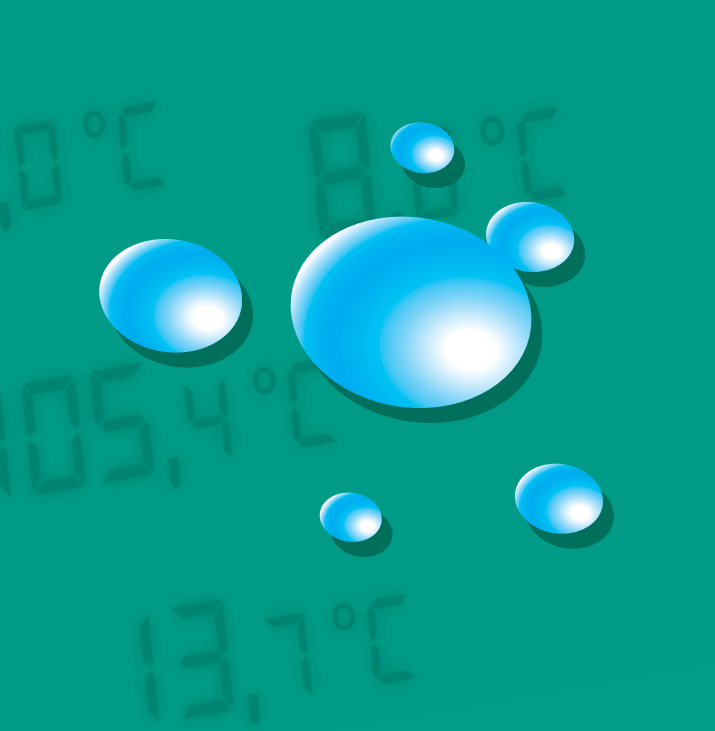




# GLYKOSOL N

Heat transfer fluid  
on basis of monoethylene glycol  
for Technical Applications



pro KÜH SOLE GmbH



**GLYKOSOL N** can be mixed with most of the common anti-freezing agents on basis of ethylene glycol. Do not hesitate to contact us, if necessary.

### Material compatibility

A new generation of anti-corrosive additives allows the use of any materials commonly used in plant engineering. Please refer to the respective table at this page for the wear data of the individual metals.

Sealing materials usually used in heating systems and facilities will be not affected. Please check the glycol resistance when selecting seals (e.g. in pumps).

Polyurethane elastomeres, soft PVC and phenol-formaldehyde resin are not resistant.

The suitability of the sealing materials and synthetic parts needs to be verified with the manufacturer. In particular, the thermal application limits must be observed.

**GLYKOSOL N** is approved and suitable for the use in press fitting systems from Geberit-Mapress and Viega.

### Ecology and Toxicology

**GLYKOSOL N** is easily biodegradable.

**GLYKOSOL N** must be labeled harmful according to GHS

with , signal word „Warning“

German Water Hazard Class: 1, slightly hazardous for water (according to VwVwS; Administrative Regulation on the Classification of Substances Hazardous to Waters into Hazard Classes).

In handling **GLYKOSOL N** the usual safety measures must be observed.

Please refer to the current EU Safety Data Sheets for further advices and regulations.

### Shipping, Storage and Disposal

**GLYKOSOL N** is shipped in the adjacent packaging units.

All packaging units are reusable. Please return completely empty. Do not fill with other products!

**GLYKOSOL N** and all dilutions are storage-stabile. Store dry. Avoid direct sunlight. **GLYKOSOL N** dilutions do not unmix, even after a long storage period.

Follow the respective and valid regulation for disposal. Please contact your local disposal company for duly disposal.

### Calculation Software

You may use the product data calculator on our website [www.prokuehlsole.de](http://www.prokuehlsole.de) for the calculation of the thermodynamic parameters.

You may download all product brochures, data sheets, safety data sheets, general and product-related reports and documentations as well as prepared texts for invitation of tender from our website [www.prokuehlsole.de](http://www.prokuehlsole.de) Do not hesitate to contact us by telephone at **+49 24 21 / 5 91 96-0**.

## Packaging units GLYKOSOL N

Package	Filling Weight <sup>*1</sup>
30-liter-Canister	35 kg
60-liter-Canister	70 kg
220-liter-Drum	240 kg
1000-liter-IBC	1125 kg
Tank truck	upon request

<sup>\*1</sup> weights are for GLYKOSOL N concentrate  
The weights of the respective dilutions differ due to the different densities.

## General Corrosion and Wear Data

Materials	GLYKOSOL N <sup>*1</sup> 35 Vol. %	Values in g/m <sup>2</sup>
		Glycol-Water 35 Vol. % without inhibitors
Copper	-0.04	-2.8
Silver solder	-0.11	not measured
Brass	-0.06	-7.6
Red brass	-0.04	not measured
Stainless steel	-0.04	not measured
Steel	-0.10	-152
Grey cast iron	-0.04	-273
Aluminum	-0.25	not measured

<sup>\*1</sup> measured of ILK - Institut für Luft- und Kältetechnik gGmbH, Dresden

## Service

### Free laboratory service

Please send us a sample of 500 ml about 6 weeks after filling of the system and then once a year. We will provide you an analysis certificate with advices and recommendations free of charge.

### Filling pump rental

We provide our customers a pump package incl. hoses and connection armatures. A refundable security deposit is required.

### Disposal of used brine

Old liquids should be properly disposed of in accordance with legal requirements. In the process of refilling the system, we will help you utilise the used brine. Here, we provide empty containers to hold sole and help you select the right disposal company.

### Personal consultation

We are pleased to arrange a personal meeting at your company or directly at the construction site to discuss the system-specific application of our products.

### Measuring kit

We prepared a measuring kit with all necessary materials to test our heat carriers. This kit enables you and your staff to measure the required standard values directly at the facility.

Frost-proof in °C	Concentration Vol. %	Temperature °C	Density g/cm <sup>3</sup>	Heat Conductivity W/m <sup>2</sup> K	Specific Heat kJ/kg K	dynam. Viscosity mPa <sup>2</sup> s	kinemat. Viscosity mm <sup>2</sup> /s	Prandtl number	relative Pressure Loss	rel. heat transfer coefficient
-8	20	-5.0	1.038	0.511	3.88	4.31	4.15	33	1.39	0.460
		0.0	1.036	0.513	3.88	3.47	3.35	26	1.31	0.510
		10.0	1.032	0.518	3.90	2.38	2.31	18	1.19	0.610
		20.0	1.028	0.523	3.91	1.74	1.69	13	1.10	0.710
		40.0	1.018	0.533	3.94	1.06	1.04	8	0.96	0.900
-10	23	-10.0	1.045	0.497	3.81	6.02	5.76	46	1.52	0.380
		0.0	1.041	0.501	3.82	3.82	3.67	29	1.35	0.480
		20.0	1.033	0.509	3.85	1.91	1.85	14	1.13	0.670
		40.0	1.023	0.518	3.88	1.16	1.14	9	0.99	0.840
-15	29	-15.0	1.058	0.475	3.68	9.56	9.04	74	1.72	0.300
		-10.0	1.056	0.476	3.68	7.33	6.94	57	1.61	0.340
		0.0	1.051	0.478	3.70	4.61	4.38	36	1.43	0.420
		10.0	1.047	0.481	3.72	3.13	2.99	24	1.29	0.510
		20.0	1.042	0.483	3.74	2.28	2.18	18	1.19	0.590
-20	34	40.0	1.032	0.489	3.78	1.39	1.35	11	1.04	0.750
		-20.0	1.068	0.459	3.56	15.24	14.27	118	1.95	0.240
		-10.0	1.064	0.460	3.58	8.64	8.12	67	1.68	0.310
		0.0	1.060	0.461	3.60	5.38	5.07	42	1.49	0.380
		20.0	1.050	0.464	3.64	2.62	2.50	21	1.24	0.540
-25	39	40.0	1.040	0.466	3.69	1.60	1.54	13	1.08	0.680
		-25.0	1.079	0.446	3.44	25.39	23.53	196	2.23	0.180
		-20.0	1.077	0.446	3.45	18.23	16.93	141	2.05	0.210
		-10.0	1.073	0.446	3.48	10.19	9.50	79	1.76	0.280
		0.0	1.068	0.445	3.50	6.27	5.87	49	1.56	0.350
-30	44	20.0	1.058	0.445	3.55	3.02	2.85	24	1.29	0.490
		40.0	1.047	0.446	3.60	1.83	1.75	15	1.13	0.620
		-30.0	1.090	0.436	3.32	44.47	40.80	339	2.58	0.140
		-20.0	1.086	0.434	3.34	21.89	20.16	169	2.16	0.190
		-10.0	1.081	0.433	3.37	12.05	11.14	94	1.85	0.250
-40	52	0.0	1.076	0.431	3.40	7.32	6.80	58	1.63	0.320
		20.0	1.066	0.429	3.45	3.46	3.25	28	1.34	0.450
		40.0	1.054	0.427	3.51	2.08	1.98	17	1.17	0.560
		-40.0	1.109	0.426	3.11	148.10	133.59	1081	3.53	0.080
		-30.0	1.104	0.423	3.14	62.09	56.23	462	2.83	0.110
		-20.0	1.099	0.419	3.17	29.60	26.93	224	2.35	0.160
-50	58	-10.0	1.094	0.415	3.21	15.85	14.48	122	2.00	0.210
		0.0	1.089	0.412	3.24	9.41	8.64	74	1.75	0.270
		20.0	1.078	0.405	3.30	4.29	3.98	35	1.43	0.390
		40.0	1.066	0.399	3.37	2.54	2.38	21	1.24	0.490
		-50.0	1.124	0.426	2.94	562.86	500.91	3890	4.98	0.040
		-40.0	1.119	0.420	2.98	198.31	177.20	1404	3.83	0.060
		-30.0	1.114	0.415	3.01	80.73	72.44	585	3.05	0.100
-50	58	-20.0	1.109	0.410	3.05	37.49	33.80	278	2.51	0.140
		-10.0	1.104	0.405	3.08	19.61	17.76	149	2.12	0.190
		0.0	1.099	0.400	3.12	11.41	10.39	89	1.85	0.240
		20.0	1.087	0.390	3.19	5.05	4.64	41	1.49	0.350
		40.0	1.074	0.381	3.26	2.93	2.73	25	1.29	0.440

These data are derived from the pro KÜHLSOLE GmbH calculation program. Minor differences to values from other tables or diagrams of this data sheet may be the result of minor rounding deviations of the implemented.

## Development and Production of liquid Heat Carriers and Coolants



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