

Seriola AB

Premium alkylbenzene heat transfer fluid

APPLICATIONS

Heat transfer circuits from -30 to 300°C without air contact.

Seriola AB is suitable for heating and temperature control in all industries, and particularly for following manufacturing processes:

- steam production
- paper Industry
- timber Industry
- textile Industry
- oil & gas

Storage recommendation:

- Store at ambient temperature
- Minimize the periods of exposure to temperatures above 35 °C
- Shelf life: 5 years from date of manufacture (unopened)

SPECIFICATIONS

ISO 6743-12 L-QC-300

DIN 51522 – class Q

Seriola AB successfully passes the following thermal stability tests (720h, 300°C):

✓ GB/T 23800-2009

✓ DIN 51528

✓ ASTM D6743

ADVANTAGES

Seriola AB is very resistant to oxidation and helps to reduce deposits formation.

Indeed, at high temperature it presents 15% less degradation when compared to classic mineral fluids. Oil service life is significantly increased, leading to costs reduction.

Seriola AB maintains equipment clean thanks to its high solvency power.

This lubricant used as recommended and for the application for which it has been designed does not present any particular risk. A material safety data sheet conforming to the regulations in use in the E.C. can be obtained from your local commercial advisor or downloaded at ms-sds.totalenergies.com

TYPICAL CHARACTERISTICS

Properties	Units	Standards	Seriola AB
Appearance	-	Visual	Limpid
Density at 15°C	kg/m ³	ISO 12185	865
Viscosity at 40°C	mm ² /s	ISO 3104	20.0
Pour point	°C	ISO 3016	-40
Flash point open cup	°C	ISO 2592	200
Flash point closed cup	°C	ISO 2719	180
Fire point	°C	ISO 2592	227
Initial Boiling Point	°C	ASTM D 2887	342
Final Boiling Point	°C	ASTM D 2887	514
Auto-ignition temperature	°C	ASTM E 659	390
Conradson carbon residue	wt%	ISO 6615	Nil
Minimal operating temperature	°C	-	-30
Maximum bulk temperaure	°C	GB/T 23800	300
Maximum film temperature	°C	GB/T 23800	320

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SERIOLA AB – THERMODYNAMIC DATA

T (°C)	Density (kg/L)	Thermal Conductivity (W/m.°C)	Specific Heat (kJ/kg.°C)	Vapour pressure (mbar)	Kinematic Viscosity (mm ² /s or cSt)	Dynamic Viscosity (mPa.s)	Enthalpy of Vaporization (kJ/mol)
0	0,875	0,1358	1,811	0	166	145,32	
10	0,868	0,1350	1,848	0	85,8	74,52	
20	0,862	0,1343	1,884	0	48,9	42,13	
30	0,855	0,1336	1,920	0	30,3	25,89	
40	0,848	0,1328	1,957	0	20,0	16,95	
50	0,841	0,1321	1,993	0	14,0	11,77	
60	0,834	0,1314	2,030	0	10,2	8,50	
70	0,827	0,1306	2,066	0	7,75	6,41	
80	0,820	0,1299	2,102	0	6,06	4,97	
90	0,813	0,1292	2,139	0	4,87	3,96	
100	0,806	0,1284	2,175	0	4,00	3,22	
110	0,799	0,1277	2,212	0	3,35	2,68	
120	0,792	0,1270	2,248	0	2,85	2,26	
130	0,785	0,1262	2,284	0	2,46	1,93	
140	0,778	0,1255	2,321	0	2,15	1,67	
150	0,771	0,1248	2,357	1	1,90	1,46	
160	0,764	0,1240	2,394	1	1,70	1,30	
170	0,757	0,1233	2,430	2	1,53	1,16	
180	0,750	0,1226	2,467	3	1,39	1,04	
0.190	0,743	0,1218	2,503	4	1,27	0,94	72.67
200	0,736	0,1211	2,539	7	1,16	0,85	72.53
210	0,729	0,1204	2,576	10	1,08	0,79	72.40
220	0,722	0,1196	2,612	15	1,00	0,72	72.27
230	0,715	0,1189	2,649	21	0,94	0,67	72.15
240	0,708	0,1182	2,685	30	0,88	0,62	72.03
250	0,701	0,1174	2,721	43	0,83	0,58	71.89
260	0,694	0,1167	2,758	59	0,78	0,54	71.76
270	0,687	0,1160	2,794	80	0,74	0,51	71.63
280	0,680	0,1152	2,831	109	0,71	0,48	71.50
290	0,673	0,1145	2,867	145	0,68	0,46	71.38
300	0,666	0,1138	2,903	191	0,65	0,43	71.25
310	0,660	0,1130	2,940	250	0,62	0,40	71.12

Thermal expansion coefficient : $7,0 \cdot 10^{-4} / ^\circ\text{C}$

- **Thermal conductivity** : property of a material to conduct heat. *The higher thermal conductivity, the more efficient the heat transfer fluid will be.* Less heat will be required.
- **Vapor pressure** : pressure exerted by a vapor in thermodynamic equilibrium with its condensed phases (solid or liquid) at a given temperature in a closed system. For a heat transfer fluid, a low vapor pressure is recommended to operate safely.
- **Enthalpy of vaporization** : amount of energy (enthalpy) that must be added to the liquid substance, to transform a quantity of that substance into a gas.

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