



PRODUCT DATA SHEET



NO-TOX[®] FOOD GRADE HEAT TRANSFER FLUID 32

No-Tox Food Grade Heat Transfer Fluid 32, commonly known as Bel-Ray No-Tox HT Transfer Fluid 32, is a heat transfer fluid that is designed to meet the highest oxidation requirements of circulating hot oil systems found in the "clean" industries such as food, beverage, pharmaceutical and personal care products.

Applications

- ◆ Open and closed heat transfer systems

Features and Benefits

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| ◆ NSF HT1 registered | Use where incidental food contact may occur. |
| ◆ Outstanding thermal stability | Resists cracking at elevated temperatures. |
| ◆ Low volatility | Safe to use in liquid phase heat transfer systems operating continuously at bulk temperatures up to 327°C (620°F). |
| ◆ Excellent thermal conductivity | Efficient heat transfer. |
| ◆ Good oxidation stability | Long, trouble-free life. |
| ◆ High Viscosity Index | Improved pumping. |

General Description

No-Tox Food Grade Heat Transfer Fluid 32 is formulated for use as an NSF HT1 registered hot oil medium for both open and closed heat transfer systems. It is a fully synthetic fluid that has naturally low carbon forming characteristics, low volatility, good heat capacity and effective high temperature thermal stability, which provides long life in heat transfer service.

No-Tox Food Grade Heat Transfer Fluid 32, formulated with the highest quality synthetic fluids and food grade additives, meets NSF HT1 and FDA requirements for materials that may have incidental contact with food as defined under Title 21 CFR, 178.3570. It is Kosher and Pareve approved, as well as Halal certified.

Product No. 62190

NO-TOX[®] FOOD GRADE HEAT TRANSFER FLUID 32

TYPICAL PROPERTIES

<u>Product No.</u>	<u>62190</u>
ISO Viscosity Grade	32
Viscosity, ASTM D445	
@ 40°C, cSt	31.8
@ 100°C, cSt	5.95
Viscosity Index, ASTM D2270	135
Pour Point, ASTM D97	
°C	-57
(°F)	(-71)
Oxidation Stability by RPVOT or RBOT	
ASTM D2272, min	1480
Flash Point, ASTM D92	
°C	241
(°F)	(465)
Fire Point, ASTM D92	
°C	275
(°F)	(527)
Auto-Ignition Temperature, ASTM E659	
°C	354
(°F)	(670)
Useful Temperature Range	
°C	-50 to 327
(°F)	(-58 to 620)
Color	Water-white

NO-TOX® FOOD GRADE HEAT TRANSFER FLUID 32

TYPICAL PROPERTIES

Coefficient of Expansion	2.33 x 10 ⁻⁴ /°F 4.2 x 10 ⁻⁴ /°C
Distillation Range, Gas Chromatograph	
5%, °C (°F)	391 (736)
50%, °C (°F)	476 (889)
Dry Point, °C (°F)	560 (1040)
Vapor Pressure	
@ 93°C (200°F), Pa (mmHg)	0.267 (0.002)
@ 149°C (300°F), Pa (mmHg)	18.7 (0.140)
@ 204°C (400°F), Pa (mmHg)	400 (3.00)
@ 260°C (500°F), Pa (mmHg)	3600 (27.0)
@ 316°C (600°F), Pa (mmHg)	18665 (140)
Thermal Conductivity, ASTM D2717	
@ 38°C (100°F), watt/m-K (BTU-Inch/Hour-Foot ² -°F)	0.148 (1.026)
@ 149°C (300°F), watt/m-K (BTU-Inch/Hour-Foot ² -°F)	0.142 (0.985)
@ 260°C (500°F), watt/m-K (BTU-Inch/Hour-Foot ² -°F)	0.122 (0.845)
Specific Heat, ASTM D2766	
@ 38°C (100°F), J/g-K (BTU/lb-°F)	1.675 (0.40)
@ 149°C (300°F), J/g-K (BTU/lb-°F)	2.261 (0.54)
@ 260°C (500°F), J/g-K (BTU/lb-°F)	2.680 (0.64)
Density, ASTM D1298	
@ 15°C (60°F), g/ml	0.825
@ 38°C (100°F), g/ml	0.811
@ 149°C (300°F), g/ml	0.741
@ 260°C (500°F), g/ml	0.671