CASSIDA FLUID DC 32

Synthetic direct contact fluid for food processing applications in the food manufacturing industry

Performance Features

- **Registered for direct food contact**
- **Low volatility resulting in reduced carryover into edible oil product when used as absorber oil**
- **High viscosity index results in minimum variation of viscosity with change in temperature. This facilitates pump selection.**
- **Wide temperature range for application**
- **High temperature and oxidation stability**
- **Neutral odour and taste**


Heat transfer


High temperature


Direct food contact

Partner Programme

NSF registered

Certifications and Specifications

- **NSF 3H, H1, HT1**
- **NSF ISO 21469**
- **Kosher**
- **Halal**

Description

CASSIDA FLUID DC 32 is a multipurpose fluiddesigned for a number of special applications in the food manufacturing industry, including absorber oil for edible oil solvent recovery systems, can-forming and closed circuit/pressure less heat transfer systems. The fluid has been specially developed to meet the stringent requirements of the food industry. It is based on a careful blend of synthetic fluids chosen for their ability to meet the stringent requirements of the food industry. Certified by NSF for ISO 21469 and registered by NSF for use in both

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direct contact applications (Class 3H) and where there is potential for incidental food contact (Classes H1 and HT1). Produced according to FLT Quality Standards, in facilities where HACCP audit and Good Manufacturing Practice have been implemented and form part of the quality and hygiene management systems ISO 9001 and ISO 21469.

Applications

• Absorber oil for edible oil extraction plant solvent recovery systems
• Release agent used on grills, loaf pans, cutters, boning benches, chopping blocks or other hard surfaces to help prevent food from adhering during processing
• Forming oil for the manufacture of both two and three piece cans for food and beverages
• Heat transfer systems in the food industry with a bulk oil temperature range of approximately -30 °C to +280 °C where the surface temperature of the heating elements (oil film temperature) should not exceed +320 °C

General Instructions

When used as a heat transfer fluid, care should be taken to ensure sufficient flow rate to avoid even a temporary overheating of the heat transfer fluid. Reynolds-Number should be >10,000 (ten thousand). This is most important during start up and shut down of the heating system. The surface temperature of the heating elements (film temperature) should not exceed +320 °C. The physical parameters of the oil necessary for the calculation of the heat transfer coefficient in the system, such as density, specific heat and coefficient of thermal conductivity are indicated in the table below.

Seal and Paint Compatibility

Compatible with the elastomers, gaskets, seals and paints normally used in food machinery lubrication systems.

Handling and Storage

All food grade lubricants should be stored separately from other lubricants, chemical substances and foodstuffs and out of direct sunlight or other heat sources. Store between 0 °C and +40 °C. Provided that the product has been stored under these conditions we recommend to use the product within 5 years from the date of manufacture. Upon opening a pack, the product must be used within 2 years (or within 5 years of date of manufacture, whichever is the sooner).

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Technical Data: CASSIDA FLUID DC 32

Characteristics	Value	Unit	Test Method
NSF Reg. No.	144688		
Colour	Colourless		
Density [+15 °C]	827	kg/m³	ISO 12185
Flashpoint	230	° C	ISO 2590
Pourpoint	-60	° C	ISO 3016
Max. oil film temperature*	320	° C	
Max. bulk oil temperature	280	° C	
Kin. Visc. [+40 °C]	32	mm²/s	ISO 3104
Noack volatility	7	%	CEC-L-40-93b

* Oil fi lm temperature is the surface temperature of the heating elements.

LLS = LUBRITECH Laboratory Specification
Typical for current production. Variations in these characteristics may occur.

PARAMETERS FOR THE CALCULATION OF THE SYSTEM

Temperature t °C	Density ρ kg/m³	Specific heat c kJ/(kg.K)	Thermal conductivity λ W/(m.K)	Kinematic viscosity mm²/s
0	835	2,07	0,150	218
20	824	2,12	0,148	70
60	799	2,29	0,146	15
100	774	2,42	0,144	6,0
150	742	2,55	0,141	-
200	713	2,79	0,139	-
250	683	2,92	0,137	-
300	652	3,16	0,135	-

$$Re = \frac{v \cdot d}{kin.Visc.}$$

Re = Reynolds-Number
v = Speed of heat transfer fluid in the pipe (m/s)
d = pipe diameter (m)
kin. Visc. = kinem. viscosity (m²/s) [at temp. of systems]

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We are specialized in developing products for extreme tribological problems in cooperation with end users.
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