Technical Data Sheet

Shell **Immersion Cooling Fluid *S5 X***

Shell Immersion Cooling Fluid S5 X is a stabilized hydrocarbon fluid based on Shell Gas-to-Liquid Technology (GTL)

DESIGNED TO MEET CHALLENGES

Performance, Features & Benefits

- Shell Immersion Cooling Fluid S5 X is a dielectric fluid with specially selected additives, which is virtually free from impurities. Shell Immersion Cooling Fluid S5 X has been designed for optimized data servers liquid cooling solutions demonstrating high cooling efficiency, excellent flow behavior and outstanding thermodynamics properties.
- The GTL base oil meets the purity requirements of the EU and US Pharmacopeia, does not irritate skin and eyes, is non-halogenated, food grade and free from allergens. The fluid also doesn't present ozone depletion potential and is inherently biodegradable.

Main Applications

- Liquid cooling of data servers.

Specifications, Approvals & Recommendations

Advice on applications not covered here may be obtained from your Shell representative.

Typical Physical Characteristics

Properties			Method	Shell Immersion Cooling Fluid S5 X
Colour (Saybolt)			ASTM D156	+30
Density	@15°C	kg/m^3	ISO 12185	806
Flash Point		°C	EN ISO 2592	200
Pour Point		°C	ISO 3016	-36
Kinematic Viscosity	@40°C	mm^2/s	ISO 3104	9.8
Total Sulphur Content		mg/kg	ASTM D5185	<1
Neutralisation Value		mg KOH/g	IEC 62021-1	<0.01
Breakdown Voltage		kV	IEC 60156	42
D.C. Resistivity	@60°C	T Ohm m	ASTM E 1269	9.9
Specific Heat	@40°C	J/kg*K	ASTM E 1269	2 274
Thermal Conductivity	@40°C	W/m*K	ASTM D 7896	0.142
Relative Permitivity			IEC 60247	2.02
Fire Point (COC)		°C	ASTM D92	220
Autoignition temperature		°C	ASTM D659	355

These characteristics are typical of the research product, variations in these characteristics may occur.

Health, Safety & Environment

- **Health and Safety**

Shell Immersion Cooling Fluid S5 X is unlikely to present any significant health or safety hazard when properly used in the recommended application and good standards of personal hygiene are maintained.

The GTL base oil meets the purity requirements of the EU and US Pharmacopeia, does not irritate skin and eyes, is non-halogenated, food grade and free from allergens. The fluid also doesn’t present ozone depletion potential and is inherently biodegradable.

Guidance on Health and Safety is available on the appropriate Safety Data Sheet, which can be obtained from your Shell representative.

- **Protect the Environment**

  Take used oil to an authorised collection point