

TECHNICAL DATA SHEET (TDS) ASI-3283S

Chemical Class: Perfluoroalkane-based electronic fluorination liquid

Product Description:

ASI-3283S is a colorless, transparent, and non-flammable perfluorinated liquid designed for heat transfer and cooling applications. Due to its excellent thermal and chemical stability, it remains stable under a wide range of temperatures, making it highly effective in semiconductor manufacturing, power electronics, and data centers. Additionally, it can function as a reaction medium in chemical processes.

Key Features

- Safe & Non-Flammable: Ensures a high level of safety in various applications.
- Excellent Electrical Insulation: Ideal for sensitive electronic environments.
- High Thermal Stability: Withstands extreme temperatures without degradation.
- Low Surface Tension & High Density: Enhances cooling and cleaning effectiveness.
- Recyclable & Reusable: Can be distilled and reused, reducing operational costs.
- No Flash Point: Does not present fire hazards in standard conditions.



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Typical Physical Properties

Property	Value
Boiling Range	123-133°C
Appearance	Colorless, transparent liquid
Dielectric Strength	>40 kV
Surface Tension	14.6 mN/m
Density	1.780-1.860 g/ml
Global Warming Potential (GWP)	Low
Ozone Depletion Potential (ODP)	0
Specific Heat Capacity (25°C)	1100 J/kg·K
Pour Point	-65°C
Dynamic Viscosity (23°C)	0.75 mPa.s
Kinematic Viscosity (23°C)	1.4 mm²/s
Flash Point	None
Average Molecular Weight	521







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Applications:

- Semiconductor Industry: Cooling fluid for wafer etching, testing, and packaging.
- Power Electronics: Used in high-speed train transformers and electrical insulation.
- Thermal & Shock Testing: Suitable for cold and hot shock testing, aging tests, and insulation evaluations.
- Cleaning Agent: Effective for removing heat-resistant contaminants from electronics

Storage & Transportation:

- Store in a cool, dry, and well-ventilated area below 40°C.
- Avoid exposure to direct sunlight and excessive heat.
- Transported as a non-hazardous material.
- Prevent severe vibrations and overturning during shipping.

Safety & Handling Precautions:

- Follow local industrial hygiene regulations during handling.
- Avoid inhaling vapors from thermal decomposition.
- Prevent skin contact with hot surfaces.
- Do not consume food or beverages while handling.
- Avoid contact with strong oxidizers (e.g., chlorine, chromic acid).
- Refer to the Safety Data Sheet (SDS) for complete safety guidelines.

For additional technical details or purchasing inquiries, please contact ASI Technologies.