TECHNICAL DATA SHEET

HOFNIL-89AC & 89AQ

(HFFR FOR CLEAR AND OPAQUE POLYCARBONATE ALLICATIONS)

HOFNIL-89AC & HOFNIL089AQ are Non-Halogen Flame Retardants are designed to impart flame retardancy to clear and opaque Polycarbonate applications. Both are Aryl sulfonates.
The complex is produced using a proprietary process which provides the maximum available Sulfonate content. HOFNIL-89AC, white powder organic compound is an excellent economic flame retardant for clear & colorless PC compounds on other hand HOFNIL-89AQ is for non-clear PC applications.

PRODUCT PROPERTIES
Product Name: HOFNIL-89AC & 89AQ
Product Code: 89AC & 89AQ

Physical and Chemical Properties of HOFNIL- 89AC :

TECHNICAL PARAMETERS		
S.NO	PARAMETERS	SPECICICATIONS
1	Appearance	White Crystals with Lumps
2	Titration with NaOH	99.2%
3	Purity (HPLC)	100%
4	Solubility (Turbidity)	Clear 0.1g in 10ml Water
5	Water	1.0%
6	Residue on ignition	0.0%
7	Infrared Spectrum	Conforms
8	Sulfate (SO4)	<100 mg/kg
9	Dosage	0.5-1% (UL94V_0@3.2mm)

Physical and Chemical Properties of HOFNIL- 89AQ :

TECHNICAL PARAMETERS		
S.NO	PARAMETERS	SPECIFICATION
1	Appearance	White Powder
2	Sodium Sulfate %	2 Max
3	APHA Color	25
4	pH	7.0±0.4
5	Water %	9.0 Max
6	Iron, ppm*	10 Max
7	Dosage	0.5-0.8% (UL94V_0@3.2mm)

Usage: Both FRs used for Polycarbonate applications.

Advantages of HOFNIL-89AC:

Improves Fire Resistance- It enhances the fire-retardant properties of polycarbonate by promoting the formation of a protective char layer, which reduces the spread of flames.

Increases Thermal Stability- It can increase the thermal stability of polycarbonate, allowing it to withstand higher temperatures without degradation, making the material more suitable for high-temperature applications.

Reduces Smoke Emission- When incorporated into polycarbonate, it contributes to reducing smoke emissions during combustion, which is particularly important for safety in fire situations.

Improved Durability- Its can enhance the overall durability of polycarbonate, ensuring that fire-resistant properties remain intact over time, even under harsh conditions.

Eco-Friendly Option- Compared to halogenated fire retardants, HOFNIL-89AC formulations are often considered more environmentally friendly, reducing the release of harmful gases like dioxins and furans during combustion.

Advantages of HOFNIL-89AQ:

Enhanced Fire-Retardant Properties- HOFNIL-89AQ significantly improves the fire resistance of polycarbonate by reducing flame propagation and contributing to the formation of a protective char layer when exposed to high temperatures.

Effective Flame Inhibition- It inhibits the spread of flames, enhancing the material's ability to resist ignition and reducing the potential for fire hazards in polycarbonate applications.

Improved Processing and Molding Efficiency- This compound facilitates the processing of polycarbonate during molding and extrusion, ensuring consistent material properties while enhancing the effectiveness of the fire-retardant system.

Synergistic Effect with Other Fire Retardants- This compound exhibits a synergistic effect when combined with other fire-retardant agents, resulting in improved overall flame-retardant performance and enhanced protection for polycarbonate materials.

Compatibility with Polycarbonate- HOFNIL-89AQ is highly compatible with polycarbonate, ensuring that it does not negatively impact the material's optical properties, mechanical strength, or aesthetic appearance, which is crucial for applications requiring both performance and visual clarity.

Compliance with Regulatory Standards- It helps polycarbonate meet rigorous fire safety standards and regulatory requirements, such as UL-94 and other international fire testing protocols, making it suitable for a wide range of industries, including electronics, automotive, and construction.

Handling & Packaging: Wear gloves, goggles, and protective clothing. Use respiratory protection if needed. Ensure proper ventilation, use fume hoods for concentrated forms. Contain spills with inert materials and dispose of according to local regulations. **Store** in corrosion-resistant containers (plastic or HDPE). Clearly label containers with hazard symbols and handling instructions.

Storage: Store in a cool, dry, well-ventilated area, away from heat and direct sunlight. Keep away from strong bases, oxidizers, and reducing agents. Store at ambient temperatures; ensure containers are tightly closed.

Packing Size: 25 Kgs

Please Note: We are manufacturing various technologies related to flame retardants and their tailor made blends for any specific application. We can provide technical assistance as well in order to make better HFFR for any kind of substrate or material.

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