(TIBP) DEFOAMER

ANTIFOAM / DEFOAMER FOR CONCRETE ADMIXTURES

SHVA POLYMER
BY SHVA GROUP

Description: TRIISOBUTYL PHOSPHATE (TIBP) is a high-performance, non-silicone antifoam specifically designed for liquid concrete admixtures, including PCE-based water-reducing agents. It prevents and eliminates foam formation, ensuring consistent viscosity, admixture stability, and high-quality concrete performance during production, storage, and transportation.

Technical Properties:

Chemical Content	Tris(iso-butyl) phosphate
CAS Number	126-73-8
Appearance	Liquid
Color	Clear, colorless to pale yellow
Active Content	≥ 99 %
pH	4 - 6
Density (20 °C)	0.97 – 1.00 g/cm³
Flash Point	> 120 °C
Solubility	Insoluble in water; dispersible in admixture formulations
Operating pH	Compatible with pH 3 – 12 admixtures
Water Solubility	Completely soluble
Freezing	-10 °C

Advantage:

- Rapidly eliminates foam and air bubbles in liquid concrete admixtures.
- Effective in wide pH (3–12) .
- Maintains viscosity and water-reducing performance of PCE-based admixtures.
- Reduces defects such as surface pinholes, foam streaks, and voids.
- Supports consistent performance during transport, storage, and hot-weather conditions.
- High-efficiency defoaming at low dosage.
- Non-silicone, compatible with superplasticizers.
- Stable across temperature and pH variations.
- Minimizes phase separation and surface defects.
- Easy to handle, dose, and blend into admixture formulations.
- Ensures smooth, high-quality concrete surface finish.

Area of Use:

- PCE-based water-reducing admixtures.
- SNF / SMF superplasticizer formulations.
- Set-retarding admixtures prone to foaming.
- Slump retention admixtures.
- Precast concrete admixtures.
- High-shear mixing systems where foam formation is a challenge.
- Liquid admixtures with long-term storage or transport.

Method of Application:

- Add TRIISOBUTYL PHOSPHATE directly into the admixture formulation under continuous mechanical stirring.
- Typical dosage: 0.05 – 0.3 % by weight of the final admixture.
- Laboratory trials are recommended to determine optimal dosage.
- Avoid direct addition to concrete.

Packing:

- 25 kg plastic drum
- 200 kg drum
- 1000 kg container Bulk

Precautions in Application:

- Avoid contamination with foreign chemicals or oils.
- Ensure uniform mixing to prevent localized overdosing.
- Use personal protective equipment: gloves, goggles, protective clothing.
- Laboratory and field trials are recommended prior to large-scale production.
- Do not expose product to high temperatures for extended periods.
- Keep out of reach of children.

Compatibility:

TRIISOBUTYL PHOSPHATE is compatible with:

- PCE, SNF, and SMF superplasticizers
- Set retarders and slump retention agents

Do not use simultaneously with strong oxidizers or highly alkaline accelerators without validation.

Precautions in Application:

- Avoid contamination with foreign materials.
- Protect from freezing. If frozen, thaw at room temperature and mix thoroughly before use.
- Avoid prolonged exposure to high temperatures.
- Use corrosion-resistant tanks and transfer lines.
- Do not mix with strong oxidizing agents.
- Ensure proper mixing to prevent phase separation during dilution.
- Improper formulation or incorrect dosage may negatively affect setting time and performance of final concrete admixture.

Cleaning: TRIISOBUTYL PHOSPHATE admixture can be washed with fresh cold water and should not be allowed enter sewers or open bodies of water. Avoid strong acids or oxidizers for cleaning.

Storage and Shelf Life:

Must be stored at temperatures between +5°C and +35°C. Under proper storing conditions, the product's shelf life is 12 months from production date if kept in original packaging unopened and undamaged. Packaged products must be shaken before use.

Security Information:

Use protective clothes, gloves, glasses and mask compatible with Health and Safety regulations during the application. It should not contact skin and eyes. In case it contacts to skin and eyes, rinse it with water and if swallowed ask for medical help. Food and beverage should not be allowed in the application area. It should be stored at the reach out of the children. The Material Safety Data Sheet (MSDS) should be read for detailed information.

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