TUSI HAYTHAM BIO LIMITED
Chemistry for a Greener Planet

Technical Data Sheet

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HYDROSHIELD™ Series – Hydroshield MPS

Peroxide Stabilizer & Metal Chelator

Manufacturer: Tusi Haytham Bio Limited

Product Description:
Hydroshield MPS is a dual-action peroxide stabilizer and metal chelating agent designed to enhance hydrogen peroxide stability while effectively binding metal ions that catalyze peroxide decomposition.
It improves bleaching performance, fabric protection, and reduces pinhole formation by controlling metal ion activity and peroxide breakdown.

Key Performance Properties:

- **Stabilizes hydrogen peroxide by controlling its decomposition rate.**
- **Chelates metal ions such as Fe^{3+}, Cu^{2+}, Mn^{2+}, which catalyze peroxide degradation.**
- **Reduces fabric damage and pinhole formation during bleaching.**
- **Enhances bleaching uniformity and brightness.**
- **Compatible with common bleaching auxiliaries and detergents.**

Typical Properties:

Property	Specification
Appearance	Clear to pale yellow liquid
pH (25 °C)	6.5 – 8.5
Ionic Nature	Anionic / Nonionic blend
Water Miscibility	Fully soluble
Stability	Stable at pH 5 – 10 and temperatures up to 90 °C

Application:

- **Add Hydroshield MPS to peroxide bleaching baths to stabilize peroxide and chelate metal ions.**
- **Typical dosage: 0.2 – 0.6 g/L depending on fabric type and metal contamination level.**
- **Optimize dosage based on lab trials for specific applications.**
- **Compatible with peroxide stabilizers, detergents, and other bleaching auxiliaries.**

Precautions:

- **Avoid mixing with strong acids or incompatible chemicals without dilution.**
- **Use personal protective equipment when handling.**
- **Store in tightly sealed containers to maintain product quality.**

Packing Size:

Available in 25 kg, 60 kg, and 120 kg plastic drums.

Storage:

- **Store in a cool, dry, ventilated place below 40 °C.**
- **Shelf life of 12 months in original unopened packaging.**
- **“Best use before end” date marked on the product label.**

Issued by:
Tusi Haytham Bio Limited – Technical Division
Product: HYDROSHIELD™ Series – Hydroshield MPS
Category: Peroxide Stabilizer & Metal Chelator