TUSI HAYTHAM BIO LIMITED
Chemistry for a Greener Planet

Technical Data Sheet

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HYDRA™ Series – Hydrasol NIW 12

NONIONIC WETTING AGENT

Manufacturer: Tusi Haytham Bio Limited

Product Description:
Hydrasol NIW 12 is a nonionic wetting and penetrating agent based on modified fatty alcohol ethoxylates. It exhibits excellent wetting, emulsifying, and penetrating performance under acidic, neutral, and weakly alkaline conditions.
This product is suitable for use in textile pretreatment, dyeing, and finishing processes, as well as in other industrial applications requiring a nonionic wetting agent with good stability and compatibility.

Key Performance Properties:

- **Excellent wetting, emulsifying, and penetrating power.**
- **Nonionic nature ensures broad compatibility with anionic, cationic, and nonionic systems.**
- **Stable in acidic, alkaline, electrolyte, and hard water conditions.**
- **High temperature stability; effective under diverse process conditions.**
- **Biodegradable and environmentally friendly.**
- **Does not affect shade or dye uptake during textile processing.**

Typical Properties:

Property	Specification
Appearance	Colorless to light yellow clear liquid
pH (25 °C)	6 ± 1
Ionic Nature	Nonionic
Water Miscibility	Soluble in water at all ratios
Foam Character	Moderate foaming
Stability	Stable to acids, alkalis, and hard water

Application:

Hydrasol NIW 12 can be used in both exhaust and continuous processes.

- **Exhaust process: 0.5 – 1.5 g/L**
- **Continuous process: 2 – 5 g/L**

Adjust the dosage appropriately through laboratory trials depending on process requirements and substrate type.

Precautions:

- **Avoid direct mixing with strong acids or alkalis.**
- **If excessive foam forms, add a small quantity of suitable defoamer.**
- **Keep containers tightly closed to prevent contamination and moisture ingress.**

Packing Size:

Hydrasol NIW 12 is available in 60 kg and 120 kg closed-mouth HDPE drums.

Storage:

- **Maximum temperature during storage and transport: 40 °C.**
- **Store in a cool, dry, and ventilated area, away from direct sunlight and heat sources.**
- **Shelf life: 6 months in original, sealed packaging.**
- **The “Best use before end” date is indicated on the product label.**

Issued by:
Tusi Haytham Bio Limited – Technical Division
Product: HYDRA™ Series – Hydrasol NIW 12
Category: Nonionic Wetting Agent