

PT. WARNA JAYA SENTOSA



Nano Liquid Disperse Dyes

Introduction

The Wash - free Nano Liquid Disperse Dyes Market is rapidly becoming one of the most innovative and disruptive categories in the chemicals and materials industry. With increasing need for environmentally friendly, cost-effective, and high-performance solutions across industries, innovative dyes are transforming everything from textile manufacturing to other chemical processes.

1. The Science Behind Nano Liquid Disperse Dyes

Nano liquid disperse dyes are a type of dye made from finely divided particles (nanoparticles) suspended in a liquid medium. These dyes are widely used for printing synthetic fabrics such as polyester as well as for applications. The nanoparticles in these dyes enable superior absorption rates, stronger colorfastness, and the ability to work at normal temperatures, which offers several advantages over traditional printing methods.

2. What differentiates nano liquid disperse dyes from conventional dyes is their size.

The particles of nano dyes are significantly smaller, allowing them to penetrate fabrics more effectively, resulting in more vibrant and longer-lasting colors.

3. How Nano Liquid Disperse Dyes Work

Nano liquid disperse dyes disperse uniformly and evenly onto fabrics or materials, ensuring the dye penetrates deeply without forming aggregates or clumps. These finely dispersed nanoparticles interact directly with the fibers, allowing for better adhesion and color retention over time. This results in smoother, more consistent color application with less risk.



What Are Nano Liquid Disperse Dyes?

1. Environmental Impact and Sustainability

The growing demand for environmentally sustainable products has led to the rise of nano liquid disperse dyes, which are seen as a greener alternative to traditional printing techniques. Conventional textile printing processes can be harmful to the environment, consuming vast amounts of water and energy, while also producing toxic waste.

2. Superior Performance and Cost-Efficiency

Nano liquid disperse dyes provide superior performance compared to their traditional counterparts. Their small particle size allows for faster absorption, higher printing efficiency, and more consistent results across different types of fabrics and materials. This leads to improved product quality with less effort required for maintenance and quality control. Moreover, the cost efficiency of nano liquid disperse dyes can be significant for manufacturers. The reduced need for water and energy, as well as fewer chemicals and additives, translates into lower operational



**The Importance of Nano
Liquid Disperse Dyes in
the Chemicals and
Materials Market**

Properties

Appearance	liquid form
Ionic character	Nonionic
Viscosity	30-50 mPa.s (Brookfield at 25°C)
pH	6-7
Dilutability	Dilutable in any proportion with water
Storage stability	6-12 months when stored in original container under appropriate conditions

Application

Guideline recipe for dispers printing

Stock paste :








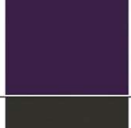
Soft water	:	x	grs
Thickener FS 60A	:	$\frac{40-60}{1000}$	$\frac{\text{grs}}{\text{grs}}$

Printing paste :

Liquid Dispers Dyes	:	y	grs
Stock paste	:	$\frac{z}{1000}$	$\frac{\text{grs}}{\text{grs}}$

Operating mode

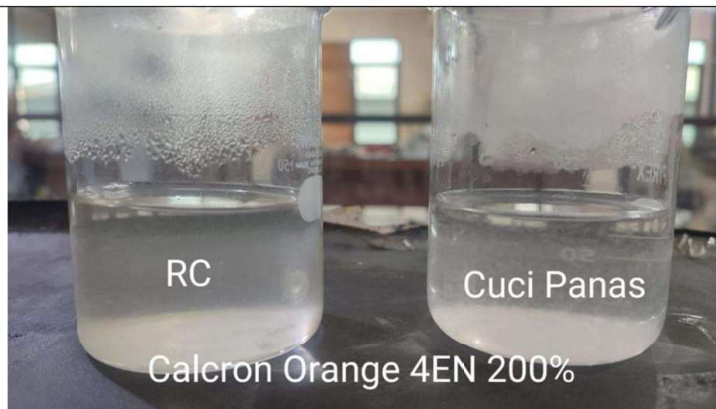
- Print
- Dry
- Steam with hot air during 8 min at 180°C.

	Product name	Printing concentration	Fastness to washing	Stability to hot air	Rubbing Fastness	
		(g/kg)	ISO 105-C06 E2S	180°C x 2 min.	Dry	Wet
	Calcron Yellow 2SE-N 200%	20	4-5	4-5	4-5	4
	Calcron Orange 4E-N 200%	20	4-5	4-5	4-5	4
	Calcron Red SB-N 200%	20	4-5	4-5	4-5	4-5
	Calcron Rubin SET-N 200%	20	4-5	4-5	4-5	4
	Calcron Red SD-N 200%	20	4-5	4-5	4-5	4-5
	Calcron Blue SEL-N 200%	20	4-5	4-5	4	3-4
	Calcron Blue GLR-N 200%	20	4	4	4	3-4
	Calcron Navy Blue S2GL-N 200%	20	4	4	4-5	4
	Calcron Violet SRL-N 200%	20	4-5	4-5	4-5	4
	Calcron Black SE-N 200%	40	4	4	4	3-4

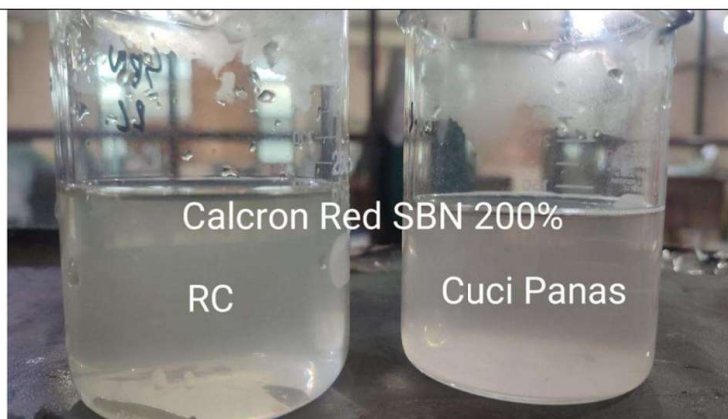
Calcron Yellow 2SE-N 200%



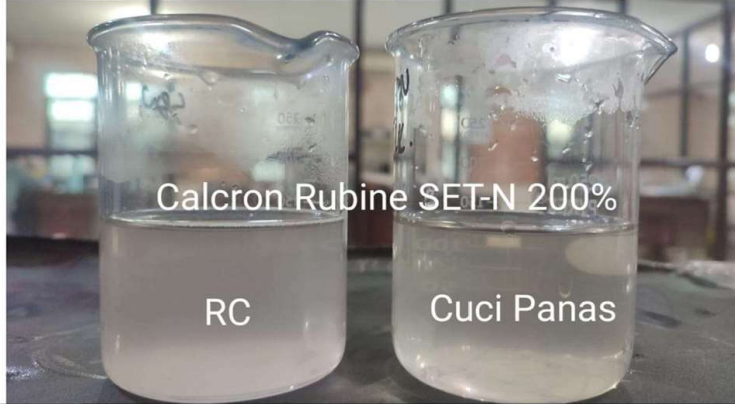
Calcron Orange 4E-N 200%



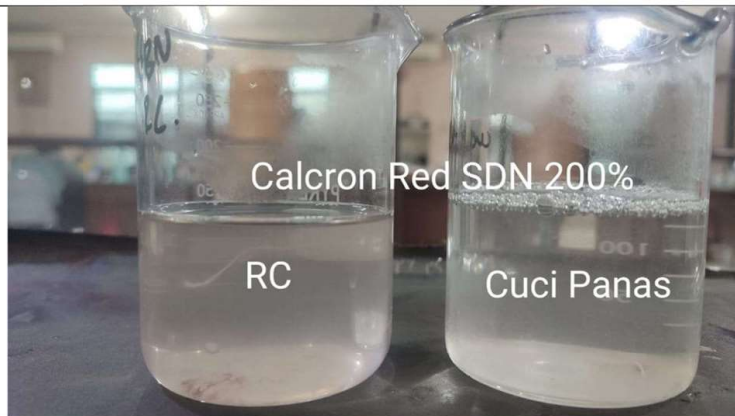
Calcron Red SB-N 200%



Calcron Rubine SET-N 200%



Calcron Red SD-N 200%



Calcron Blue SEL-N 200%



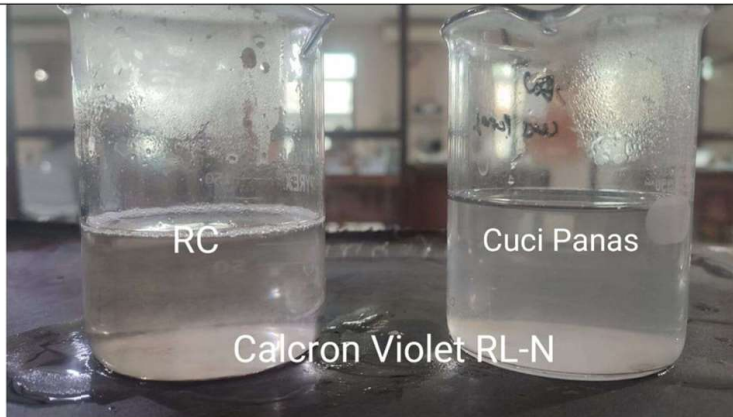
Calcron Blue GLR-N 200%



Calcron Navy Blue S2GL-N 200%



Calcron Violet SRL-N 200%



Calcron Black SE-N 200%



Storage

NANO LIQUID DISPERS DYES is stable to normal climate. It is recommended to store under the roof.

Packaging

NANO LIQUID DISPERS DYES is supplied in 25 kg and 50 kg plastic drum.



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