

TECHNICAL DATA SHEET

Identification:

a) Product name	: Neelicert FD & C Yellow 5 Al Lake
b) Available Form	: Powder
c) Synonyms	: Pigment Yellow 100 Lake / Tartrazine Lake / Acid Yellow 23 Lake
d) Chemical Name	: Aluminium, 4,5-dihydro-5-oxo-1-(4-sulfophenyl)-4-[(4-sulfophenyl)azo]-1H-pyrazole-3-carboxylic acid complex
e) Color Index No.	: 19140:1
f) Color Index Name	: Food Yellow 4:1 Lake
g) E No.	: E 102
h) CAS No.	: 12225-21-7
i) EINES No.	: 235-428-9
j) INCI Name	: CI 19140:1
k) Country of Origin	: India
l) Origin	: Synthetic
m) Wavelength of Max Absorbance	: @ 428 ± 4nm
n) Absorptivity g.cm / 100 ml	: 530
o) Chemical Structure	
p) Chemical Formula	: C48H33AlN12O27S6
q) Molecular Weight	: 1429.21 g/mole
r) Typical Hue	

Compositions:

Component	CAS Number	Dye Content- 12 - 18%	Dye Content- 20 - 28%	Dye Content- 37 - 44%
FD & C Yellow 5	1934-21-0	12 - 18% W/W	20 - 28 % W/W	37 - 44 % W/W
Aluminium Hydroxide	21645 -51-2	63 - 69% W/W	53 - 61 % W/W	37 - 44 % W/W
Water in the form of Moisture	7732-18-5	17.00 % W/W, maximum	17.00 % W/W, maximum	17.00 % W/W, maximum
Sodium Chloride & Sulphate (As Sodium Salt)	7647-14-5 & 7757-82-6	02.00 % W/W, maximum	02.00 % W/W, maximum	02.00 % W/W, maximum

Regulations:

This colorant meets specification of:

- CFR - Code of Federal Regulations Title 21, Part- 82.
- Indian Cosmetic standard IS 4707.
- European Food Directive (EU) No 231/2012 of 9 March 2012 for use in Food product & EC Cosmetic Directive (EC) No 1223/2009 of the council of 30 November 2009.
- Japanese regulations.
- Joint FAO/WHO Expert Committee on Food Additives (JECFA).
- Chinese Standards for Food Additive & Cosmetic Products.

Properties:

Physical Appearance	pH of 2% Slurry	Solution Tone	Bulk Density [G/CC]	Particle Size (Micron)
Fine Yellow Orange Powder	4 – 5.5	Not applicable	0.2 – 0.5	< 7

Solubility:

Water	Ethanol (100%)	Ethanol (25%)	Ethyl Acetate	Acetone	IPA (Isopropanol)	n- Butanol	N-Butyl Acetate	Glycerol	Propylene Glycol
Insoluble	Slightly Soluble	Slightly Soluble	Insoluble	<0.1%	Slightly Soluble	Insoluble	Insoluble	Disperse <0.1%	Disperse <0.1%

Vegetable Oil	Light Liquid Paraffin Oil (LLP)	3:1, Methanol : n-Butanol	Sorbitol	Iso Propyl Maristate (IPM)	Silicon Oil	Castor Oil
Slightly Soluble	Insoluble	Slightly Soluble	Disperse <0.1%	Insoluble	Insoluble	Disperse <0.1%

Stability :

a) pH	: 3.5 – 5.5
b) Heat	: Color is stable up to 150°C
c) Light Fastness	: 6

Note:- Stability to light fastness is measured on the scale of 1 to 8 by considering Excellent= 8 , Very Good=7, Good = 6, Moderate = 5, Very Fair = 4, Fair = 3, Poor = 2, Very poor = 1

Applications :

Mainly use in Food, Drugs & Cosmetic products.

Certified for use in by US FDA - Foods, drugs & cosmetics – in amounts consistent with current GMP.

Refer product brochure for more details.

Typical guideline for use :

FD & C Yellow 5 Al Lake is insoluble & in most organic solvents but soluble in Acid & Alkali medium.

It gives coloration through Dispersion. For coloration this product, first pre-disperse in any suitable medium (like propylene glycol, glycerol any convenient medium which is compatible to final product). This dispersion is then used for the coloration of final product.

Typical Impurity Profile:

Sr. No.	Test	Unit	Limit	Specification
1.	HCL INSOLUBLE MATTER	%W/W	MAXIMUM	00.50
2.	BLEEDING (2 % SLURRY IN DEIONIZED WATER)	%W/W	MAXIMUM	00.10
3.	ETHER EXTRACTABLE MATTER	%W/W	MAXIMUM	00.20
4.	SUBSIDIARY COLOURS	%W/W	MAXIMUM	01.00
5.	UNSULPHONATED AROMATIC AMINES	%W/W	MAXIMUM	00.01
6.	ORGANIC COMPOUNDS OTHER THAN COLOURING MATTERS	%W/W	MAXIMUM	00.50
7.	ARSENIC	MG/KG	MAXIMUM	01.00
8.	LEAD	MG/KG	MAXIMUM	02.00
9.	MERCURY	MG/KG	MAXIMUM	01.00
10.	CADMIUM	MG/KG	MAXIMUM	01.00
11.	ANTIMONY	MG/KG	MAXIMUM	10.00
12.	COPPER	MG/KG	MAXIMUM	25.00
13.	CHROMIUM	MG/KG	MAXIMUM	25.00
14.	ZINC	MG/KG	MAXIMUM	25.00
15.	BARIUM	MG/KG	MAXIMUM	25.00
16.	MICROBIOLOGICAL SPECIFICATION	--	--	--
a.	TOTAL VIABLE BACTERIAL COUNT	CFU/GM	MAXIMUM	500
b.	TOTAL FUNGI (YEAST& MOULDS) COUNT	CFU/GM	MAXIMUM	70
c.	TEST FOR PRESENCE OF <i>Staphylococcus aureus</i>	--	--	Absent / 1 gm
d.	TEST FOR PRESENCE OF <i>E.coli</i>	--	--	Absent / 1 gm
e.	TEST FOR PRESENCE OF <i>Salmonella</i>	--	--	Absent / 10 gm
f.	TEST FOR PRESENCE OF <i>Pseudomonas aeruginosa</i>	--	--	Absent / 1 gm

Typical Packing :

As a standard packaging we fill 12.5 Kg product in HDPE drum containing food grade LDPE bag as a primary packaging. The bag is seal with red colour one time use plastic bag locking seal. The drum is seal with red colour plastic drum seal.

Apart from that we can pack the product as per customer's requirement.

Storage & Handling:

Product "Store at an ambient Temperature & dry place" & Keep container tightly sealed & closed in condition after using. For more information refer Material Safety Data Sheet.

Shelf Life: 8 Years

Certifications:

FSSC 22000	ISO 9001	GMP	HALAL – MUI Indonesia	HALAL – JUHF India	Kosher (Star K)
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Declarations:

❖ GMO Free	❖ TSE/BSE Free	❖ Allergen Free	❖ Nitrosamines Free	❖ Suitable for Vegan & Vegetarian
❖ Pesticides Free	❖ Melamine Free	❖ Alcohol Free	❖ Irradiation Free	❖ No content of VOC (Volatile Organic Compounds)
❖ No Plant Tissue	❖ Paraben Free	❖ Genotoxic Free	❖ Aflatoxin Free	❖ No Preservatives
❖ No Animal Tissue	❖ No CMR	❖ Dioxin Free	❖ Gluten Free	❖ No Residual Solvent
❖ No Additives	❖ No Animal Testing (Cruelty Free)	❖ Latex Free		❖ No technology of Nano Particles

Guarantee :

Neelikon is committed to supply you best quality product, meeting legislative and statutory requirements by adopting good manufacturing practices consistently.

We hope you will be satisfied with our quality and services. We thank you for your valued support.



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Australian owned and operated since 1989

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Shades depicted are for reference only. Clients are advised to check samples for shade matching.

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