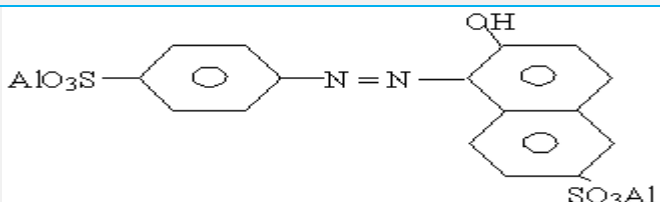



TECHNICAL DATA SHEET

Identification:

| | |
|---------------------------------|--|
| a) Product name | : Neelilake Sunset Yellow FCF Lake |
| b) Available Form | : Powder |
| c) Synonyms | : Pigment Yellow 104 Lake |
| d) Chemical Name | : Aluminium, 6-hydroxy-5-[(4-sulfophenyl)azo]-2-naphthalenesulfonic acid complex |
| e) Color Index No. | : 15985 : 1 |
| f) Color Index Name | : Food Yellow 3 : 1 |
| g) E No. | : E 110 |
| h) CAS No. | : 15790-07-5 |
| i) EINES No. | : 239-888-1 |
| j) INCI Name | : CI 15985 : 1 |
| k) Country of Origin | : India |
| l) Origin | : Synthetic |
| m) Wavelength of Max Absorbance | : @ 482 ±4 nm |
| n) Absorptivity g.cm / 100 ml | : 555 |
| o) Chemical Structure |  |
| p) Chemical Formula | : C16H9AlN2O7S2 |
| q) Molecular Weight | : 432.36 g/mole |
| r) Typical Hue |  |

Compositions:

| Component | CAS Number | Dye Content-09 - 14% | Dye Content-12 - 17% | Dye Content-20 - 28% | Dye Content-40 - 48% | Dye Content-44 - 52% |
|---|-----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| Sunset Yellow FCF | 2783-94-0 | 9 - 14% W/W | 12 - 17% W/W | 20 - 28% W/W | 40 - 48% W/W | 44 - 52% W/W |
| Aluminium Hydroxide | 21645 -51-2 | 67 - 72% W/W | 64 - 69% W/W | 53 - 61% W/W | 33 - 41% W/W | 29 - 37% 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 | 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 | 02.00% W/W, maximum | 02.00% W/W, maximum |

Regulations:

This colorant meets specification of:

- a) Indian Cosmetic standard IS 4707.
- b) 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.
- c) Joint FAO/WHO Expert Committee on Food Additives (JECFA).
- d) Chinese Standards for Food Additive & Cosmetic Products.

Properties:

| Physical Appearance | pH of 2% Slurry | Solution Tone | Bulk Density [G/CC] | Particle Size (Micron) |
|---------------------------|-----------------|----------------|---------------------|--------------------------|
| Fine Orange Yellow 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 | Insoluble | Slightly Soluble | Disperse <0.1% | <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 | Disperse <0.1% | 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.

Refer product brochure for more details.

Typical guideline for use :

Sunset Yellow FCF 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 | 04.00 |
| 5 | UNSULPHONATED AROMATIC AMINES | %W/W | MAXIMUM | 00.01 |
| 6 | ORGANIC COMPOUNDS OTHER THAN COLOURING MATTERS | %W/W | MAXIMUM | 00.50 |
| 7 | SUDAN I | PPB | MAXIMUM | 500 |
| 8 | ARSENIC | MG/KG | MAXIMUM | 01.00 |
| 9 | LEAD | MG/KG | MAXIMUM | 02.00 |
| 10 | MERCURY | MG/KG | MAXIMUM | 01.00 |
| 11 | CADMIUM | MG/KG | MAXIMUM | 01.00 |
| 12 | ANTIMONY | MG/KG | MAXIMUM | 10.00 |
| 13 | COPPER | MG/KG | MAXIMUM | 25.00 |
| 14 | CHROMIUM | MG/KG | MAXIMUM | 25.00 |
| 15 | ZINC | MG/KG | MAXIMUM | 25.00 |
| 16 | BARIUM | MG/KG | MAXIMUM | 25.00 |
| 17 | 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 Data Sheet.

Shelf Life: 8 Years

Certifications:

| | | | | | |
|------------|----------|-----|-------------------|---------------|--------|
| FSSC 22000 | ISO 9001 | GMP | HALAL – Indonesia | HALAL – India | Kosher |
|------------|----------|-----|-------------------|---------------|--------|

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.

all COLOUR Pty Ltd supplies

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