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## Technical Data Sheet

### Fluorescent invisible Infra red pigments

#### Description & Composition

Sodium yttrium fluoride, ytterbium and erbium doped (NaYF<sub>4</sub>: Yb<sup>3+</sup>/Er<sup>3+</sup>) is a rare earth doped NaYF<sub>4</sub>, which can be used for a variety of applications, which include color display, solar cells, photocatalysis, and bioimaging.

#### Properties

Name	IR infrared pigment
Appearance:	Off-white Powder
Aspect:	Invisible under day light
Aspect under IR980 (+/-5%):	Colored and luminous
Particle size (D90):	≤20µm
Particle size (D50):	1-5 µm

Emission color:	<b>Green</b> under 980nm IR laser light	Emission color:	<b>Blue</b> under 980nm IR laser light
Emission wavelength:	543±5nm	Emission wavelength	470±5nm,
Emission color:	<b>Red</b> under 980nm IR laser light	Emission color:	<b>Yellow</b> under 980nm IR laser light
Emission wavelength	610nm±5nm	Emission wavelength:	543±5nm, 660±5nm

#### Storage

Should be kept in a dry place under room temperature and do not expose to sunlight.

#### Application

Mainly used for various security inks, security fiber, security plastic, 3D Printing Materials for Research and Development, Alternative Energy, Ceramics, Ceramics by Element, Ceramics for 3D Printing.

#### Packing

Plastic bag 250, 500, 1000g

#### Safety information

Non dangerous product, for all modes of transport

Flash Point(F): Not applicable

Flash Point(C): Not applicable