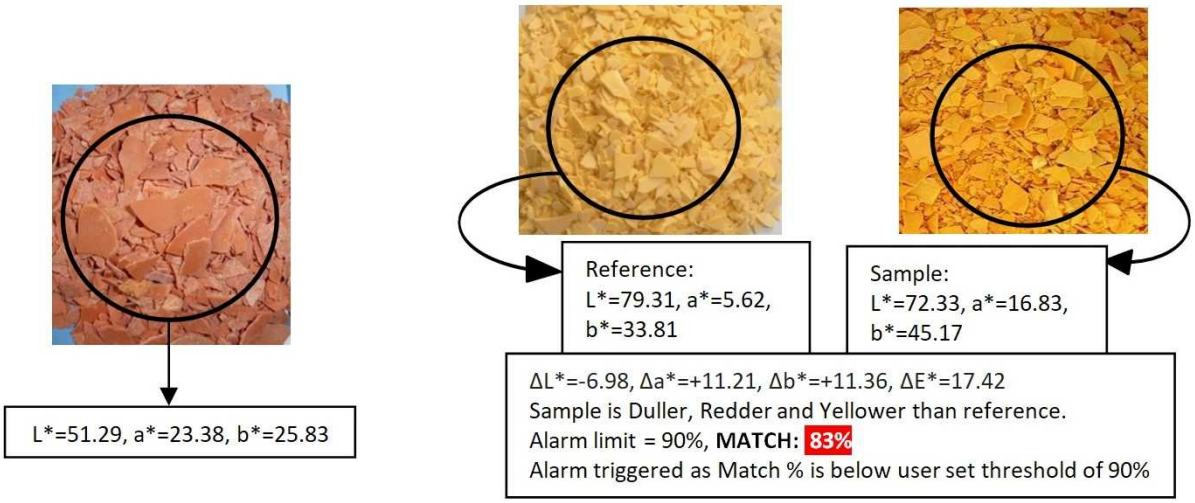
Color measurement and analysis in chemicals using Sensegood spectrophotometer

Chemical products are used in a variety of different industries including polymer and plastics, healthcare, textile, automotive, crude oil, transportation, agriculture and construction to name a few. The chemical industry itself is the largest single purchaser of chemical products. Common chemical sector products include plastics and polymers, drugs and medicines, pigments, synthetic rubber, resins, explosives, adhesives, salts, acids, fertilizers, pesticides, soaps, toothpastes, detergents, cosmetics and much more.

Photo: Color measurement of chemical compounds and products: powder, liquid and paste

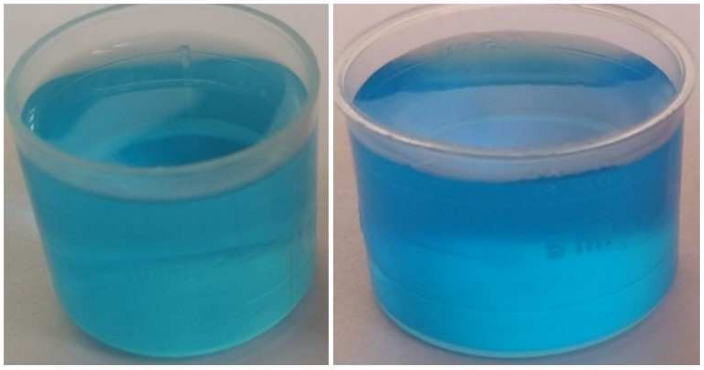
Sensegood spectrophotometer – Ensure right chemical formulation by establishing color tolerances:



Sensegood Spectrophotometer for color measurement and ingredient quality-quantity control in chemicals

Photo: To get desired outcome, it is necessary to control color quality at each stage from ingredients to the final product. Sensegood spectrophotometer is a tool that assists in determining color attributes and color differences. Its sensor has large viewing area and rotating platform. This enables averaging over large rotating area; allows accurate and repeatable measurements of non-uniform samples. Left: Sodium sulphide 150ppm (orange-red). Right: Sodium sulphide 30ppm (yellow).

If you are measuring the Blue of copper sulphate, Orange-red of Potassium dichromate, Green of Nickel chloride, White of Potassium carbonate or Yellow of Sodium sulphide; Sensegood spectrophotometer is the color measurement solution that is used by researchers and chemical industries just like you. Let chemical compound be in solid, liquid, powder or in paste form; Sensegood spectrophotometer is the versatile device that is engineered to work as handheld/portable, benchtop/table-top or in-process/online color measurement instrument. It has its own independent full spectrum LED light source which enables true object color measurement.



Sensegood Spectrophotometer for color quality and consistency control in liquid chemicals

Photo: Correct color means correct chemical formulation, tight process parameters and their control, and right proportion of ingredients. Above photo shows the color difference measured in liquid chemicals using Sensegood spectrophotometer.

- ✓ Benchtop/ Tabletop: (a) (b) (Rotating sample platform)
- ✓ Handheld/ Portable: (c) (d)
- ✓ Online/ In-process: (e)

- ✓ Solid: (a) (c) (d) (e)
- ✓ Liquid: (b) (e)
- ✓ Paste: (b) (e)
- ✓ Powder: (a) (b) (e)

- ✓ Contact measurement: (c) (d)
- ✓ Non-contact measurement: (a) (b) (e) (Adjustable height)

Works with:
- ✓ 5V adapter (cell phone charger)
- ✓ Power bank
- ✓ Computer/ Laptop (f)

- ✓ Averaging
- ✓ Auto repeat measurement mode
- ✓ Color match percentage
- ✓ Color indices (whiteness, yellowness, …)

- ✓ *SensegoodSmart* – computer interface software utility

Sensegood spectrophotometer compares color of sample with saved standard reference giving match value in percentage. If matching is poor; below set threshold, it provides audible alarm and display indication on LCD to alert operator. Hence operator can quickly react and take appropriate action. The information assists for the prompt corrective action which eventually leads to quick process parameters control, increase in the throughput and maximization of equipment usage. This surely results into low operational cost with improved product quality, consistency and market acceptability.

Sensegood spectrophotometer also incorporates continuous auto measurement mode. In this mode, it wakes up at user selectable intervals, takes measurement, compares the sample color with the saved reference,

displays percentage match, and alarms to the operator with beeping sound in case if the matching percentage is below preset threshold. It has provision for averaging option in normal mode as well as in auto repeat measurement mode.

Sensegood spectrophotometer provides wide varieties of indices like whiteness index and yellowness index. Measured CIE L*a*b* values indicate strength of color parameters like: bright or dull, red – green and yellow – blue respectively. Measured color is also represented as reflectance graph, peak wavelength and color temperature on color touch LCD. Sensegood spectrophotometer is non-messy non-contact type instrument which has benefit of measuring sample's color from a distance. Because of this, sensor remains scratch proof enabling long life in retaining calibration.

SensegoodSmart utility:

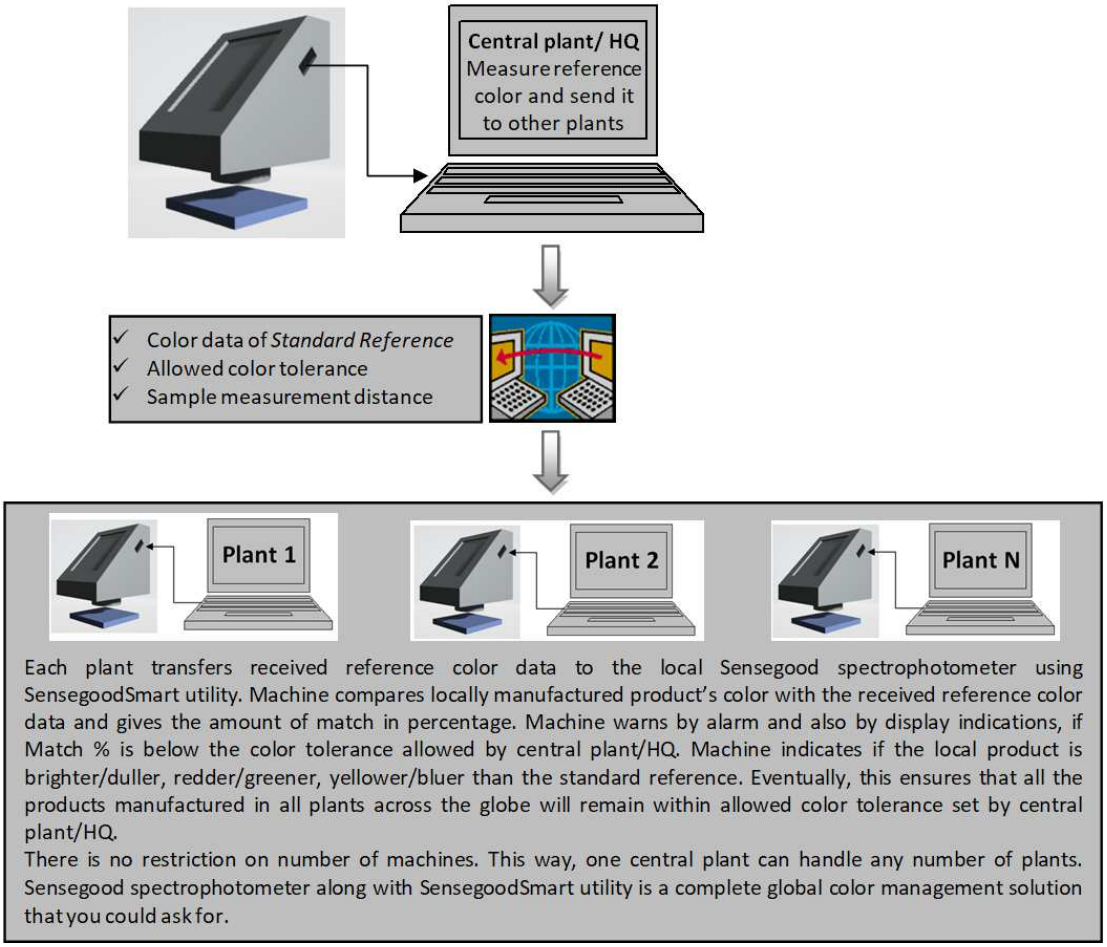


Photo: SensegoodSmart utility for color management across multiple production plants. Apart from this, SensegoodSmart utility enables user to store unlimited number of references to the computer. Any desired reference can be recalled and downloaded to Sensegood spectrophotometer whenever required. The utility provides all color related analytical information on single screen. This feature is even more desirable when using Sensegood spectrophotometer for in-process/online applications.

Sensegood spectrophotometer provides computer interface software *SensegoodSmart* which lets you to convey numeric color data across all production plants that may be located at multiple places across the globe. Each production plant uses Sensegood spectrophotometer to compare color attributes of the product manufactured in their plant with the numerical color information received from central plant or management. This enables them to reproduce each product consistently across all the plants.

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