Reading the Reversible Color Change Indicator & Safe Handling Information Information Sheet

General Information:

Clariant Colton Site manufactures a color-change relative humidity indicator, the range of colors on the indicator are shades of blue, lavender, and pink. The cards are packaged into a metal can with a double-friction plug for an airtight seal. The indicator cards are dried before packaging to remove as much residual moisture as possible and a desiccant packet is added to every can as a preservative. Although the cards are packaged in an airtight container, this is not necessary, as the basic premise is that the cards are fully reversible, that is, the cards are designed to continuously monitor the relative humidity in a package. The indicator spots can turn from blue to pink and from pink to blue as the relative humidity in the package changes, without any damage to the usefulness of the indicator.

To read the humidity on a single spot card:

The blue color means that the relative humidity is lower than what the spot is designed to indicate. Example: 40% relative humidity card will be pink if the RH is higher than 40%, Lavender if RH is 40% and blue if RH is below 40%.

To read the humidity on a multiple spot card:

The spot that is lavender in color is the current relative humidity. Example: a 20, 30, 40% RH card if the 30% spot is lavender, the relative humidity is 30%. The 20% spot will be pink and the 40% spot is blue. If all spots on a multiple spot card are blue, the RH is lower than the lowest percentage indicated on the card. If all the spots on the card are pink, the RH is greater than the percentage indicated on the card.

Safe Handling requirements:

Indicator cards are safe to handle. Gloves may be used but are not mandatory. Avoid placing the indicator spots against unpreserved metal as $CoCl_2$ is a salt and could over time cause some corrosion. Do not eat.

Miscellaneous:

Due to the chemical nature of a reversible indicator card, the concentration of the active ingredient is lower at the lower indicator spots. This leads to the lower indicating spots i.e. 10, 20% spots having a less dramatic color change than the higher indicating spots, like 40, 50, or 60%.

The correct way to ascertain the humidity level by use of the multiple spot indicator cards is from the front side (printed side). For humidity indicator cards the spots are calibrated to show the correct colors from the front.