

Desiccant Usage and Handling Recommendations

To minimize the low risk of any desiccant migration, we recommend that desiccant bags be placed in an outer layer of packaging (i.e. polyliner).

Clariant Corporation recommends storing desiccant products in an ambient or controlled environmental condition with an average of 50% or less relative humidity and 20 degrees Celsius to ensure the minimum shelf life from the original date of manufacture.

When it is necessary to remove a portion of desiccants from the original container, it is important to protect both the removed desiccants and the remaining desiccants within the original container.

Clariant Corporation suggests that the number of removed desiccants be no more than needed for an eight-hour period. To protect the desiccants **MUST** be placed within an airtight protective container or bag to prevent water vapor contamination during movement, temporary storage, and final use. Desiccants begin to adsorb water vapor as soon as they are exposed to the air, so they must be protected at all times.

The rate of adsorption of the individual desiccant bag is dependent on the amount of exposure (exposed surface area and the layer) within a storage container or polyliner (4 mil or equivalent Moisture Vapor Transmission Rate). Desiccants should be considered to be suspect if the desiccant layer is exposed to the open atmosphere for more than:

- 3 hours for desiccants over 20 grams
- 2 hours for desiccants between 5 grams and 20 grams
- 1 hour for desiccants between 1 gram and 5 grams
- 30 minutes for desiccants less than 1 gram

Therefore, if an open container of desiccant has been exposed to the atmosphere, a complete layer of desiccant bags should be removed and discarded for every interval of exposure listed above, based on the size of the desiccant bag.

Due to the accelerated rate of gain of molecular sieve (TRI-SORB®) products, they are not recommended to be exposed for any period of time other than the prompt transfer from the original packaging container to the finished product application.

If over-exposed, the desiccant should not be used since its adsorption capacity may be substantially reduced. If exposed for periods exceeding the recommendation, the desiccant may not offer the same level of protection as a fresh, unexposed desiccant. Any removed portion of desiccants that has been exposed over the recommended time limit should be re-tested or quarantined and discarded.

The remaining desiccants within the original container must be immediately re-sealed. In addition, if the original desiccants were sealed within a polyliner, the excess air should be removed and the polyliner should be re-sealed in its original configuration (goose-necked and twist-tied or heat sealed).