

Operating Instructions

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Exciting News!

On July 15, 2019, SKC Inc. acquired Colormetric Laboratories, Inc. (CLI).

SKC is excited to add CLI surface and dermal assessment and control tools to our highly respected, long-standing sampling solutions that help you maintain the health and safety of workers. SKC looks forward to continuing to provide the same great CLI products with excellent customer and technical support. Learn more about SKC Inc. at https://www.skcinc.com/about.

PERMEA-TEC Sensor for Solvents Cat. No. 769-3050

The PERMEA-TEC Sensor colorimetric screening method determines the effectiveness of chemical-protective gloves and clothing under actual use conditions. CLI's microencapsulation detection indicator changes color (white to gray), indicating permeation for many common polar organic chemicals. Nonpolar solvents will not be indicated but can be analyzed by extraction of the charcoal pad. In addition, the indicator's highly absorptive activated charcoal traps the permeating solvent(s) for laboratory identification. Results enable professionals to select the gloves/clothing best suited for protection, acceptance, and cost-effectiveness.

Easy-to-use PERMEA-TEC sensors are adhered to a worker's skin at points of greatest contact and abrasion before gloving or covering, observed for color change at time intervals, and sent to an accredited laboratory for analysis if desired.

Instructions for Use

To determine a user-safe time period for the particular glove, double gloving is recommended.

- 1. Affix PERMEA-TEC sensors to the thumb, middle finger, and palm on the outside of the glove currently being worn. Place the glove to be evaluated over the first glove.
- 2. After one hour, remove the outside glove and the underlying PERMEA-TEC sensors.
- 3. Evaluate the sensors for breakthrough. A positive indication of breakthrough results in a color change of white to gray on the indicator. The sensitivity of the reaction varies with the solvent but is normally in the range of 0.5 to 5 mg.
- 4. If no breakthrough is indicated, apply fresh PERMEA-TEC sensors and continue to wear the outside glove for another hour. Follow Steps 2 and 3 to determine if breakthrough has occurred.
- 5. Repeat Steps 3 and 4 to determine a user-safe time period for gloves.

When using a solvent mixture, solvent desorption can be used to identify the permeating solvent. Remove the charcoal pad from the PERMEA-TEC sensors and place in an airtight vial for shipment to the laboratory and analysis via GC. For highly toxic solvents or solvents with a poor indicator response such as benzene or other nonpolar solvents, the charcoal pad should be relied on as the primary detection method.

Other PERMEA-TEC sensors are available for:

Aromatic Amines: MDA, aniline, o-toluidine, methylene-bis(2-chloroaniline) (MOCA)

Aromatic Isocyanates: TDI, MDI Aliphatic Isocyanates: HDI, HMDI

Aliphatic Amines: N,N-dimethylcyclohexylamine, triethanolamine, diethanolamine, and triethylenediamine

Acid/Base: HCl, HF, H₂SO₄, and NH₃

Phenols: Bisphenol A

SKC Limited Warranty and Return Policy

SKC products are subject to the SKC Limited Warranty and Return Policy, which provides SKC's sole liability and the buyer's exclusive remedy. To view the complete SKC Limited Warranty and Return Policy, go to http://www.skcinc.com/warranty.