INSTRUCTIONS FOR USE

SKC Surface/Dermal Test Kit for Aliphatic Isocyanates

How to find aliphatic isocyanates on surfaces, tools and skin, clean them off and confirm the result, and how to test a glove for breakthrough, with the SKC Surface/Dermal Test Kit for Aliphatic Isocyanates, Cat. No. 769-1003.

AMTC-IN-0063

Rev. 2 · October 2026

About this document

These instructions explain how to use the SKC Surface/Dermal Test Kit for Aliphatic Isocyanates, Cat. No. 769-1003. With the kit you find aliphatic isocyanates on work surfaces, tools and skin, clean them off and then confirm that the spot is clean. It also lets you find out how long a protective glove keeps isocyanates out.

Read Safety (p. 4) first. Product and supplied items (p. 5) explains why the tests matter and what each component does. Before use (p. 6) shows where the sensors go. Procedure (p. 7) follows, one part per task: surfaces and tools, Skin (p. 7) and Gloves (p. 8). After use and sample handling (p. 9) covers decontaminating surfaces and tools and cleaning the skin.

Keep these instructions for the lifetime of the product. The current revision is on the product page at analyt-mtc.com.

How these instructions mark information

⚠ CAUTION

A hazardous situation which, if not avoided, could result in minor or moderate injury.

NOTICE

Practices not related to personal injury — damage to the product, the process or the sample.

Note
Information that helps understanding; never a hazard.

Document information

Title	SKC Surface/Dermal Test Kit for Aliphatic Isocyanates — Instructions for use
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Revision history

Rev.	Date	Change
2	October 2026	Quality programme: new document type, number and identity pages.
1	October 2026	First issue.

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CHAPTER 1

Safety

You use the kit where isocyanates may be present, and two of its liquids act on the skin. Read these notices before you open a container.

⚠ CAUTION

The kit liquids and the isocyanates you test for are chemicals. Contact can harm your skin. Wear gloves whenever you test with the kit, and keep them on while you decontaminate surfaces and tools.

⚠ CAUTION

The DECONtamination Solution contains ammonia. It irritates the nose and the skin. Use it only where the ventilation is good, and do not let it touch your skin. It is for surfaces and tools only: clean skin with the D-TAM Skin Cleanser.

Note

Do not wet the skin before D-TAM. Put the D-TAM Skin Cleanser straight onto the contaminated skin; water comes only afterwards, to rinse. Clean the skin as soon as you can after the contact: the cleanser reduces absorption through the skin most when it is used promptly.

NOTICE

PERMEA-TEC Sensors have a limited shelf life. Do not use a pack past the expiry date printed on it. Past that date the sensors may not change colour reliably, so the result is then invalid.

⚠ CAUTION

PERMEA-TEC Sensors stored next to food can contaminate it, and eating contaminated food can harm you. Store the sensors at ambient temperature, and never with food.

CHAPTER 2

Product and supplied items

Why test surfaces, skin and gloves

The main health risk of working with isocyanates is sensitisation of the airways. Animal studies have shown that skin contact alone can induce respiratory sensitisation to TDI and MDI. Aliphatic isocyanates such as HDI also sensitise the skin. With isocyanates of low vapour pressure, keeping them off the skin should therefore come first.

A contaminated surface is not an exposure in itself. The exposure comes when a glove picks up isocyanate and passes it on to tools, machine controls or telephones, which someone then touches with bare hands. Safe work practices and handling procedures keep skin contamination under control; a weekly round of testing and decontamination keeps the workplace clean.

What is in the kit

The SKC Surface/Dermal Test Kit for Aliphatic Isocyanates, Cat. No. 769-1003, holds everything for the three tasks in these instructions.

Component	What it does	Used in
Developing Solution	Sprayed on a surface before the wipe, and poured into the cup to develop a Skin SWYPE.	Surfaces, skin
Surface SWYPE indicators	Test wipes for surfaces and tools. They turn red-orange when isocyanates are present.	Surfaces and tools
DECONtamination Solution	Removes isocyanates from surfaces and tools. Contains ammonia; never use it on skin.	Surfaces and tools
Skin SWYPE indicators	Test wipes for skin: a cloth end that you wipe with and a colour detection strip.	Skin
Small cup	Holds the Developing Solution in which a Skin SWYPE develops.	Skin
D-TAM Skin Cleanser	Removes contamination from the skin.	Skin
PERMEA-TEC Sensors	Breakthrough indicators worn under a protective glove. They change colour when isocyanate passes through the glove.	Gloves

Reading a result

A **red-orange** colour on a Surface SWYPE is specific for isocyanates. On a Skin SWYPE, any colour change on the detection strip means contamination. On a PERMEA-TEC Sensor, a colour change characteristic of the isocyanate you use means it has broken through the glove. If you are unsure how to read a colour, contact Analyt-MTC.

PERMEA-TEC Sensors: shelf life and storage

Shelf life	Limited. Check the expiry date on the packaging.
Storage	At ambient temperature. Do not store with food.
Stability	Stable at ambient conditions.
Known interferents	None.

CHAPTER 3

Before use

Before you start

NOTICE

PERMEA-TEC Sensors have a limited shelf life. Do not use a pack past the expiry date printed on it. Past that date the sensors may not change colour reliably, so the result is then invalid.

⚠ CAUTION

PERMEA-TEC Sensors stored next to food can contaminate it, and eating contaminated food can harm you. Store the sensors at ambient temperature, and never with food.

Where the sensors go

Place a sensor on the thumb, on the middle finger and on the palm: these areas touch things most often and wear the glove most. For the test you wear two gloves. The sensors sit on the outside of the glove you normally wear, and the glove you want to evaluate goes over them (Figure 3-1 (p. 6)).

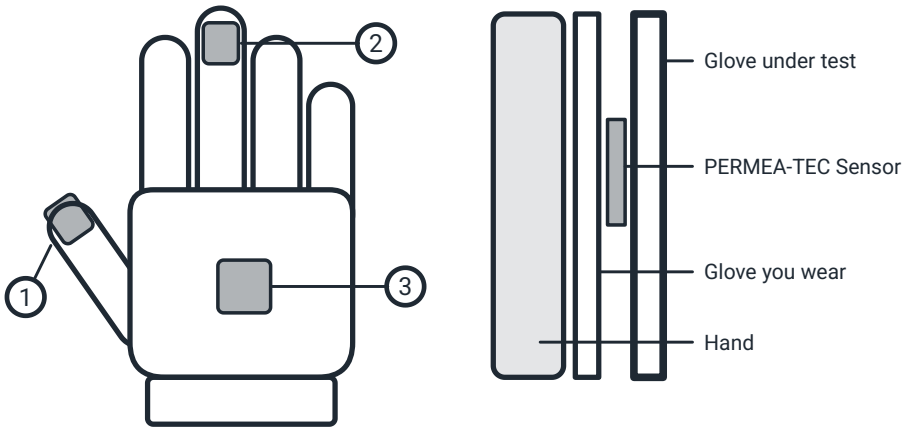


Figure 3-1. Left: sensor positions on the thumb (1), the middle finger (2) and the palm (3). Right: the layers from the hand outwards. The glove under test is the outer glove.

CHAPTER 4

Procedure

The work runs in a loop: test the surface, clean it if the test is positive, then test it again until the Surface SWYPE no longer turns red-orange (Figure 4-1 (p. 7)). Put on gloves before you start (see Safety (p. 4)).

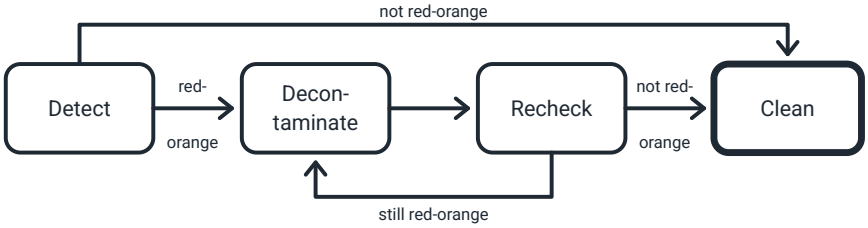


Figure 4-1. Working loop. A red-orange Surface SWYPE sends you to decontamination; recheck after each decontamination and repeat it until the SWYPE no longer turns red-orange.

Detect contamination

Test any suspect surface or item, such as a workbench, a tool or a control knob, and retest after each clean-up.

> **⚠ CAUTION**
>
> The kit liquids and the isocyanates you test for are chemicals. Contact can harm your skin. Wear gloves whenever you test with the kit, and keep them on while you decontaminate surfaces and tools.

1. Put on gloves.
2. Spray the area or item lightly with Developing Solution.
3. Wait at least 30 seconds.
4. Wipe the sprayed spot with a Surface SWYPE.
5. Wait 3 minutes for the colour to develop. Red-orange means isocyanates are present.
6. If the SWYPE turns red-orange, decontaminate the area or the item as below.

Skin

Test skin that may have touched isocyanates with a Skin SWYPE. If the test is positive, clean the skin with D-TAM Skin Cleanser straight away and test again.

Test the skin

1. Wipe the skin with the cloth end of a Skin SWYPE.
2. Pour Developing Solution into the small cup supplied with the kit, about ¼ in deep.
3. Stand the Skin SWYPE in the cup, cloth end down and colour detection strip up (Figure 4-2 (p. 8)).
4. Watch the strip as the solution soaks up from the cloth. If the skin was contaminated, the strip changes colour.

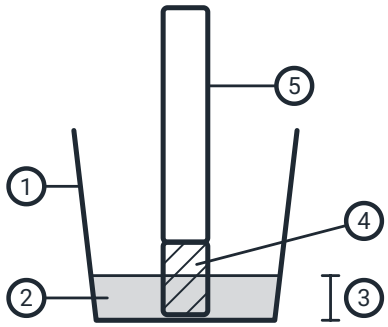


Figure 4-2. Developing a Skin SWYPE. (1) Small cup from the kit. (2) Developing Solution. (3) Depth about ¼ in. (4) Cloth end, down. (5) Colour detection strip, up.

Gloves

PERMEA-TEC Sensors show when an isocyanate breaks through a protective glove. Worn under the glove for one hour at a time, they tell you how long that glove can safely be worn with the isocyanate you use, under the same working conditions.

Find the safe wearing time

1. Fix PERMEA-TEC Sensors on the thumb, the middle finger and the palm, on the outside of the glove you are wearing.
2. Put the glove you want to evaluate on over it.
3. Work as usual for one hour.
4. Take off the outer glove.
5. Remove the sensors under it.
6. Check the sensors. A red-orange colour means that the isocyanate has broken through the outer glove.
7. If no sensor has changed colour, fix fresh sensors.
8. Put the outer glove back on.
9. Repeat steps 3 to 8 every hour. The longest wearing time without breakthrough is the safe wearing time for that glove with that isocyanate, under the same working conditions.

CHAPTER 5

After use and sample handling

Decontaminate surfaces and tools

CAUTION

The DECONtamination Solution contains ammonia, which irritates the nose and the skin. Work in a well-ventilated place and keep the solution off your skin.

Surfaces and areas

1. Wet the contaminated area thoroughly with DECONtamination Solution.
2. Where the solution needs help to penetrate, work it in with an abrasive pad.
3. Leave the solution to react for at least 5 minutes, then rinse the area with water.
4. Recheck the area with a Surface SWYPE, as in Detect contamination (p. 7), to confirm that the decontamination is complete.
5. If the SWYPE still turns red-orange, repeat steps 1 to 4.

Tools

1. Soak the tools in DECONtamination Solution for at least 5 minutes, then rinse them with water.
2. Recheck the tools with a Surface SWYPE, as in Detect contamination (p. 7), to confirm that the decontamination is complete.
3. If the SWYPE still turns red-orange, repeat steps 1 and 2.

Clean the skin with D-TAM

D-TAM Skin Cleanser is made from high-molecular-weight ingredients that do not penetrate the skin. It contains no cosmetic additives such as aloe, lanolin, emollients or moisturisers, which can increase the absorption of a chemical, and no harsh surfactants such as limonene or alcohol, which can strip the skin's natural barrier.

Note

Do not wet the skin first. Put the cleanser straight onto the dry, contaminated skin.

1. Apply D-TAM Skin Cleanser directly to the contaminated skin.
2. Rinse thoroughly with lukewarm water and pat the skin dry gently.
3. Test the skin again with a fresh Skin SWYPE, as in Test the skin (p. 8), to confirm that the decontamination is complete.
4. If the strip still changes colour, repeat steps 1 to 3.

Disposal

Dispose of used kit components and their packaging under local regulations.

CHAPTER 6

Specifications

Lowest detection limits

The PERMEA-TEC Sensor instructions give these lowest detection limits (LDL).

Chemical	LDL (µg)
Hexamethylene diisocyanate (HDI)	2
4,4-Diisocyanatomethylenedicyclohexane (HDMI)	3
Isophorone diisocyanate (IPDI)	3

CHAPTER 7

Ordering information

Order from Analyt-MTC with the order code.

Item	Order code
SKC Surface/Dermal Test Kit for Aliphatic Isocyanates	769-1003

For refills of single components, contact Analyt-MTC. Its contact details are in Service and contacts (p. 12) and on the back cover.

CHAPTER 8

Service and contacts

The SKC Surface/Dermal Test Kit for Aliphatic Isocyanates is made by SKC. Analyt-MTC is your contact for it.

Contact and support

ANALYT-MTC Messtechnik GmbH

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Orders and questions

Analyt-MTC supplies the kit and helps you read a result. Have the following at hand:

- the catalogue number of the kit, 769-1003;
- the isocyanate you work with, and the surface or glove concerned.

Warranty and returns follow the terms of Analyt-MTC.

ANALYT-MTC Messtechnik GmbH

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