

INSTRUCTIONS FOR USE

SKC Surface/Dermal Test Kit for Aromatic Isocyanates

How to find aromatic isocyanates on work surfaces, tools and skin with SWYPE indicators, remove them with the DECONtamination solution and D-TAM Skin Cleanser, and find a safe wearing time for a glove with PERMEA-TEC pads. Kit 769-1002.

AMTC-IN-0065

About this document

The SKC Surface/Dermal Test Kit for Aromatic Isocyanates, 769-1002, finds aromatic isocyanates such as TDI and MDI where workers can touch them: on workbenches, tools and controls, on the skin, and behind a protective glove. Each test changes colour when isocyanates are present, and the kit holds what you need to remove them and check that they are gone.

Read Before use (p. 7) first. Then use the part of Procedure (p. 9) for the job in hand: surfaces and tools, Skin (p. 9) or Gloves (p. 10). After use and sample handling (p. 12) covers decontamination, cleaning the skin and reading the pads.

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

⚠ WARNING

A hazardous situation which, if not avoided, could result in death or serious injury.

⚠ 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 Aromatic Isocyanates — Instructions for use
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Applies to	SKC Surface/Dermal Test Kit for Aromatic Isocyanates 769-1002
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Manufacturer	SKC Inc.

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

Read the safety messages in this chapter before you use the kit.

Intended use

The SKC Surface/Dermal Test Kit for Aromatic Isocyanates, 769-1002, is for finding aromatic isocyanates such as TDI and MDI on workbenches, tools and controls, on the skin and behind a protective glove, and for removing them from surfaces, tools and skin. Skin contact matters: it can induce respiratory sensitisation to TDI and MDI (see Why test surfaces and skin (p. 7)). The DECONtamination solution is for surfaces and tools only. Clean skin with D-TAM Skin Cleanser.

Safety messages

The same messages also appear where they apply, before the step they concern.

⚠ WARNING

The kit solutions and the isocyanates you test for are chemicals. Contact can harm your skin, and skin contact with TDI or MDI can induce respiratory sensitisation. Keep them off your skin and wear gloves while you test and while you decontaminate.

⚠ CAUTION

Contains ammonia. The DECONtamination solution contains ammonia, which irritates the nose and the skin. Use it only in well-ventilated areas.

⚠ CAUTION

Keep the DECONtamination solution off the skin. The solution contains ammonia, which irritates the skin. Avoid all skin contact with it. It is for surfaces and tools only; clean the skin with D-TAM Skin Cleanser (see Skin (p. 9)).

⚠ CAUTION

The DECONtamination solution contains ammonia, which irritates the skin. It is for surfaces and tools only: never use it on skin.

NOTICE

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

⚠ CAUTION

Pads stored next to food can contaminate it, and eating contaminated food can harm you. Store the pads at ambient temperature, and never with food.

Protective equipment

Wear gloves while you test and while you decontaminate.

CHAPTER 2

Product and supplied items

The kit

Component	Quantity	Used for
Surface SWYPE indicators	75	Finding isocyanates on surfaces and tools, and the check after cleaning
Skin SWYPE indicators	25	Finding isocyanates on the skin, and the check after cleaning
PERMEA-TEC pads	20	Testing gloves for breakthrough
Developing solution	450 mL	Spraying surfaces before the Surface SWYPE; developing the Skin SWYPE
DECONtamination solution	650 mL	Cleaning surfaces and tools
D-TAM Skin Cleanser	90 mL	Cleaning the skin
Small cup	1	Developing the Skin SWYPE

Which test for which job

Where	Detect with	Clean with	See
Surfaces, tools	Developing solution, then a Surface SWYPE	DECONtamination solution	Procedure (p. 9)
Skin	Skin SWYPE, developed in the cup	D-TAM Skin Cleanser	Skin (p. 9)
Behind a glove	PERMEA-TEC pads under the glove	—	Gloves (p. 10)

PERMEA-TEC pads: 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

Isocyanates on a surface are not yet an exposure. They become one when a worker touches them with bare skin, or picks them up on a glove and carries them to a tool, a switch or a telephone that someone else then touches.

Why test surfaces and skin

The main health risk of working with isocyanates is respiratory sensitisation of the workforce. Animal studies have shown that skin contact on its own is enough to induce respiratory sensitisation to TDI and MDI. Aliphatic isocyanates such as HDI also sensitise the skin. For isocyanates with a low vapour pressure, which give off little vapour to breathe in, keeping them off the skin is therefore the first priority.

Good work practices and handling procedures keep skin contamination under control. A weekly round of testing and decontamination with this kit shows whether they work, and keeps the workplace clean.

Safety precautions

⚠ WARNING

The kit solutions and the isocyanates you test for are chemicals. Contact can harm your skin, and skin contact with TDI or MDI can induce respiratory sensitisation. Keep them off your skin and wear gloves while you test and while you decontaminate.

⚠ CAUTION

Contains ammonia. The DECONtamination solution contains ammonia, which irritates the nose and the skin. Use it only in well-ventilated areas.

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⚠ CAUTION

Pads stored next to food can contaminate it, and eating contaminated food can harm you. Store the pads at ambient temperature, and never with food.

Set up the gloves

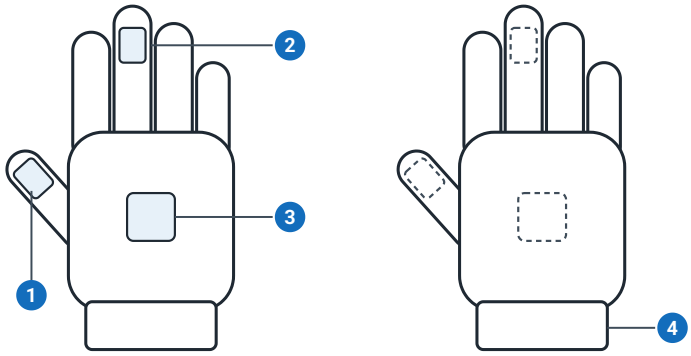


Figure 3-1. The set-up. PERMEA-TEC pads on the inner glove at (1) the thumb, (2) the middle finger and (3) the palm. (4) The glove under test, worn over the inner glove; the pads (dashed) sit underneath it.

CHAPTER 4

Procedure

This chapter describes three tests with the kit: on a surface or tool, on the skin and on a glove.

Test first, clean where the test finds isocyanates, then test again. The Surface SWYPE that finds the contamination also confirms that it is gone. Wear gloves throughout, work in a well-ventilated area and keep the DECONtamination solution off your skin (see Safety precautions (p. 7)).

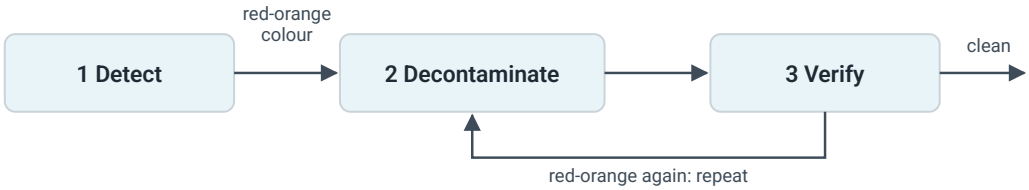


Figure 4-1. The workflow. A red-orange Surface SWYPE means isocyanates are present: decontaminate, then test again. Repeat the decontamination until the SWYPE no longer turns red-orange.

Detecting isocyanates on a surface

> **WARNING**
>
> The kit solutions and the isocyanates you test for are chemicals. Contact can harm your skin, and skin contact with TDI or MDI can induce respiratory sensitisation. Keep them off your skin and wear gloves while you test and while you decontaminate.

1. Put on gloves.
2. Spray the area or item you suspect, such as a workbench, a tool or a control knob, lightly with the developing solution.
3. Wait at least 30 seconds.
4. Wipe the sprayed surface with a Surface SWYPE.
5. Give the colour 3 minutes to develop.
6. Look at the SWYPE. A **red-orange** colour is specific for isocyanates.
7. If the SWYPE turns red-orange, decontaminate the area or the tool as below.

Skin

Wipe the skin with a Skin SWYPE and develop it in the cup. If it shows isocyanates, clean the skin with D-TAM Skin Cleanser straight away and test again.

Testing the skin

1. Wipe the skin with the cloth end of a Skin SWYPE.
2. Pour developing solution into the small cup from the kit, to a depth of about ¼ in.
3. Stand the Skin SWYPE in the cup with the cloth end down and the colour detection strip up.
4. Watch the strip. The solution rises through the cloth to the colour detection strip; the strip changes colour if the skin was contaminated.

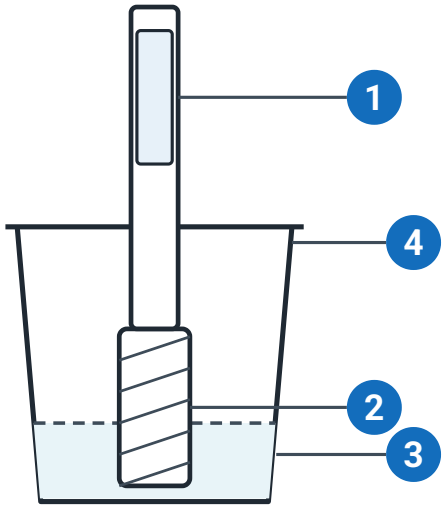


Figure 4-2. Developing a Skin SWYPE. (1) Colour detection strip, up. (2) Cloth end, down. (3) Developing solution, about ¼ in deep. (4) Small cup from the kit.

Gloves

PERMEA-TEC pads show whether isocyanates get through a protective glove, and after how long. You wear the pads under the glove you want to test, during normal work, and check them every hour. The wearing time over which they stay unchanged is the user-safe time for that glove.

The pads go on the thumb, the middle finger and the palm: these are the places where a glove is touched most often and wears fastest. They sit on an inner glove that you already wear, so your skin stays covered while you test the outer glove. SKC also calls the pads PERMEA-TEC sensors.

Run the test

1. Put on your usual glove.
2. Stick one PERMEA-TEC pad on the outside of it at the thumb, one at the middle finger and one on the palm.
3. Pull the glove you want to test over it.
4. Work as usual for 1 hour.
5. Take off the test glove.
6. Remove the pads underneath.
7. Check the pads. A red-orange colour means that aromatic isocyanates have broken through the test glove.
8. If no pad has changed colour, stick fresh pads on the inner glove in the same places.
9. Put the test glove back on.
10. Continue with step 4.
11. Carry on hour by hour until a pad shows breakthrough or you have covered the wearing time you need. The total time over which the pads stayed unchanged is the user-safe time for that glove.

CHAPTER 5

After use and sample handling

Decontaminating an area

1. Wet the area thoroughly with the DECONtamination solution.
2. If the solution does not get into the surface well, work it in with an abrasive pad.
3. Leave the solution to react for at least 5 minutes, then rinse with water.
4. Test the area again with a Surface SWYPE, as in Detecting isocyanates on a surface (p. 9).
5. If it still turns red-orange, repeat steps 1 to 3.

Decontaminating tools

1. Soak the tools in the DECONtamination solution for at least 5 minutes, then rinse them with water.
2. Test the tools again with a Surface SWYPE, as in Detecting isocyanates on a surface (p. 9).
3. If it still turns red-orange, repeat step 1.

Cleaning the skin with D-TAM

D-TAM Skin Cleanser is made from high-molecular-weight ingredients that do not penetrate the skin. Its formula leaves out cosmetic additives (aloe, lanolin, emollients, moisturisers) because they can help a chemical get into the skin, and harsh surfactants (limonene, alcohol) because they can remove the skin's natural barrier. It reduces absorption through the skin most when you use it promptly after the exposure.

Note
Do not wet the skin first. Put the cleanser straight onto the contaminated skin. Water comes only at the end, to rinse.

CAUTION

The DECONtamination solution contains ammonia, which irritates the skin. It is for surfaces and tools only: never use it on skin.

1. Apply D-TAM Skin Cleanser directly to the contaminated skin.
2. Rinse thoroughly with lukewarm water, then pat the skin dry gently.
3. Test the cleaned skin with a fresh Skin SWYPE, as in Testing the skin (p. 10).
4. If the SWYPE still shows contamination, repeat steps 1 to 3.

Reading the pads

Pads	What it means
Unchanged	No breakthrough in the last hour. The glove has held for the total time worn so far; carry on with fresh pads if you need a longer time.
Red-orange	Breakthrough during the last hour of wear. The user-safe time is the total time worn before this hour.

Disposal

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

CHAPTER 6

Specifications

Lowest detection limits

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

Chemical	LDL (µg)
2,4-Toluene diisocyanate	1.5
2,6-Toluene diisocyanate	4
4,4-Methylenebis(phenyl isocyanate)	2

CHAPTER 7

Ordering information

Order from Analyt-MTC with the order code.

Item	Order code
SKC Surface/Dermal Test Kit for Aromatic Isocyanates	769-1002

For refills and for kits for other chemical groups, contact Analyt-MTC.

CHAPTER 8

Service and contacts

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

Ordering and support

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www.analyt-mtc.com

Ordering and questions

Order the kit with its catalogue number, 769-1002, from Analyt-MTC. Ask Analyt-MTC about refills and about kits for other chemical groups. Warranty and returns follow the terms of Analyt-MTC.

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