TOOLBOX TALK AWARENESS PACKAGES

HAZ-HFA · Hydrofluoric Acid Awareness

Product Overview

Audience: Workers and supervisors who use glass etching products, some rust removers, wheel or stone cleaners, or work in laboratories, metal treatment or electronics · Duration: 20–30 minutes

Version 1.0 · 22 November 2026

For anyone who uses glass etching products, some rust removers and wheel cleaners, or works in a laboratory: why hydrofluoric acid burns are deep and delayed, the controls, first aid, and never working alone.

Hydrofluoric acid is unlike other acids. At work it is found in glass etching and frosting products, some rust removers, wheel and aluminium cleaners, brick and stone cleaners, laboratories, metal treatment and electronics manufacturing. It passes through the skin and causes deep burns that can get worse for hours. With weaker products the pain may not start straight away, so people may not know they have been splashed. It can also affect the whole body, so even a small burn is a medical emergency.

This talk covers where hydrofluoric acid is found, why it is so dangerous, the controls from swapping to a product without it to fume cupboards and the gloves and face protection the SDS names, never working alone with it, and first aid: flushing with plenty of water, calcium gluconate as your site's first aid procedure and the SDS require, calling the emergency number and saying it is hydrofluoric acid. It is awareness, not first aid or laboratory training.

Learning outcomes

By the end of the session participants will be able to:

- Name where hydrofluoric acid is found at work, from glass etching and some rust removers to laboratories and metal treatment
- Explain why hydrofluoric acid is different: it passes through the skin and causes deep burns that may not hurt at first
- Explain why any contact is a medical emergency, even a small splash that does not hurt
- Explain the controls, starting with products that do not contain hydrofluoric acid
- Prepare before work: first aid ready, the right gloves and face protection, and never working alone
- Respond to a splash: flush with plenty of water, follow your site's first aid procedure and the SDS, call the emergency number and say it is hydrofluoric acid

What it covers

Module	Covers
Why it matters	Where hydrofluoric acid is found; Deep and delayed burns; Why small burns matter
Controls that work	Swap it out first; Fume cupboards and the right PPE; First aid ready, never alone
Your part	Respond to a splash; Follow the first aid procedure; Report it

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Activities

- Where is the hydrofluoric acid: workers find the risk in four jobs, from cleaning aluminium wheels to etching glass, and decide on a safer way
- What would you do: workers decide what to do in four situations, from a splash that does not hurt to a workmate who wants to use a rust remover alone after hours

What is in the package

Item	File
Editable PowerPoint presentation with speaker notes, plus PDF	02_TRAINING_PRESENTATION/Training Presentation.pptx and .pdf
Facilitator guide with a running sheet, discussion prompts and model answers	03_FACILITATOR_GUIDE/Facilitator Guide.docx and .pdf
Participant handout with the key points to take away	04_PARTICIPANT_HANDOUT/Participant Handout.docx and .pdf
Attendance record form, to capture who attended, when, and who facilitated	06_RECORDS/Attendance Record.docx and .pdf
Excel attendance register	06_RECORDS/Attendance Register.xlsx
Multiple-choice theory assessment, to record understanding if your business wants to	05_ASSESSMENT/Theory Assessment.docx and .pdf
Answer key for the assessment	05_ASSESSMENT/Assessment Answer Key.docx and .pdf
Certificate template	06_RECORDS/Certificate Template.docx
Start here: Read Me First, Product Overview, Permitted Use Terms, Version Information	01_START_HERE/ (four PDFs)

What you need to deliver it

- A facilitator such as a supervisor, leading hand or WHS adviser who has read the facilitator guide and knows your site's arrangements for the topic
- A screen or projector, or printed slides or handouts: it works in a crib room, site office or on a video call
- Your own site procedures for the topic, to point to during the session

Questions

Does it teach hydrofluoric acid first aid? Only what every worker should know: any contact is an emergency, flush with plenty of water, remove contaminated clothing, follow the site's first aid procedure and the SDS, including calcium gluconate as they require, call the emergency number and say it is hydrofluoric acid. First aiders need their own training under the site's procedure. The talk quotes no concentrations, doses or times: check them in the SDS and your first aid procedure.

Can we add our own site procedures and photos? Yes. The slides, handout and guide are editable, and the facilitator guide marks the places to add your own procedures, contacts and photos of your workplace.

Do we have to use the assessment? No. It is there if your business wants a record that each worker understood the key points. The attendance record on its own shows who attended and when.

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TOOLBOX TALK

Hydrofluoric Acid Awareness

Deep, delayed and dangerous: where hydrofluoric acid is found, and how to stay safe

20–30 minutes · Workers and supervisors who use glass etching products, some rust removers, wheel or stone cleaners, or work in laboratories, metal treatment or electronics

[Company name] · [Date] · [Facilitator name]

HFA

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What this talk is, and is not

This talk covers

- ✓ Where hydrofluoric acid is found
- ✓ Why its burns are deep and delayed
- ✓ The controls, and never working alone
- ✓ What to do after a splash

This talk is not

- ✕ First aid training
- ✕ Laboratory or handling training
- ✕ Spill response training
- ✕ Our procedure: **[Our hydrofluoric acid procedure]**

Awareness only. First aiders need their own training under the site's hydrofluoric acid first aid procedure.

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Where hydrofluoric acid is found

It is in some everyday cleaning and etching products, not only laboratories.

- Glass etching and frosting products
- Some rust removers and wheel cleaners
- Some brick, stone and aluminium cleaners
- Laboratories and electronics manufacturing
- Metal pickling and surface treatment

A composite example

- A detailer cleans alloy wheels with a strong wheel cleaner. A glove has a small hole. Nothing hurts.
- That night his fingertip is throbbing with pain. He does not think of the cleaner.

Check the label and SDS. Some products do not make it obvious.

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Duties under health and safety laws

The business must

- Identify products with hydrofluoric acid
- Substitute safer products where possible
- Provide the right PPE and first aid
- Plan for emergencies

You must

- Follow the procedure
- Wear the PPE the SDS names
- Never work alone with it
- Report every splash and near miss

Most health and safety laws give these duties. Check the law where you work (in Australia, WHS or OHS laws).

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The order of controls for hydrofluoric acid

1. **Elimination** A method that needs no acid at all
2. **Substitution** A product without hydrofluoric acid
3. **Isolation** Locked storage; a set area for use; others kept away
4. **Engineering** Fume cupboards, extraction, showers and eyewash
5. **Administrative** Procedure, never alone, first aid ready, training
6. **PPE** The gloves, face shield and apron the SDS names

HIGHER ORDER

Higher order controls remove or control the hazard at the source, or put a barrier between people and the hazard.

LOWER ORDER

Lower order controls rely on people to do a thing or wear a thing, every time, tired, distracted or rushed.

Behaviours are not on the hierarchy, but behaviours and culture decide whether every control on it actually works.

The best control is a product without hydrofluoric acid.

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Hydrofluoric Acid Awareness

Participant handout · keep this

Hydrofluoric acid burns deep, and it may not hurt at first. Any contact is an emergency. Keep this page.

The order of controls

1. A method that needs no acid
2. A product without hydrofluoric acid
3. Locked storage; a set area for use
4. Fume cupboards, extraction, showers, eyewash
5. Procedure, never alone, first aid ready
6. The gloves, face shield and apron the SDS names

The signs

- Deep, throbbing pain, often hours later
- Redness or whitening; sometimes nothing at first

Never

- Work alone with it
- Ignore a splash because it does not hurt

Before you start

- ☐ Does this product contain hydrofluoric acid? Check the label and SDS
- ☐ Could a product without it do the job?
- ☐ Am I wearing the gloves and face protection the SDS names?
- ☐ Is first aid, including calcium gluconate if required, ready here?
- ☐ Is someone else here with me?

If it splashes

- Flush with plenty of water; remove clothing
- First aid procedure and SDS; call your local emergency number (000 in Australia)

Who and where

- **[Our hydrofluoric acid procedure]**
- **[Hydrofluoric acid first aid arrangements]**
- **[Who to report to here]**

Any contact with hydrofluoric acid is an emergency, even if it does not hurt. Never work alone with it.

This is awareness training. It is not a licence, a ticket, a permit or a competency. It is not first aid, laboratory or spill response training.

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