SKILLSIGNAL™
Construction Safety & Compliance

TOOLBOX TALK

The Corrosion Pictogram: The Burn Keeps Going After You Stop Touching It

TOPIC NO.	DURATION	AUDIENCE
HC-08	10 to 15 min	All Crew

OSHA REFERENCE 29 CFR 1910.1200 Appendix A & C · 29 CFR 1926.50(g) · ANSI/ISEA Z358.1

PROJECT / JOBSITE	DATE	PRESENTED BY

01 THE HOOK

START HERE

A mason is cleaning efflorescence off a block wall with muriatic acid. Splash hits his forearm. He wipes it on his pants and keeps going, because it stings but it is not that bad. An hour later the skin is white, then it blisters, then it is a second-degree chemical burn that takes a month. The other guy on the crew has been kneeling in wet concrete all morning, and his shins look fine until he takes his boots off at four o'clock. Corrosives do not hurt like fire. They dissolve tissue slowly, and the longer they sit, the deeper they go. The pictogram shows exactly that: a hand and a piece of metal, both being eaten.

02 WHAT THE SYMBOL COVERS

CORROSION

SKIN BURNS, EYE DAMAGE, AND CORROSIVE TO METALS

Under **1910.1200 Appendix C**, the corrosion pictogram goes on three hazard classes: **skin corrosion** Categories 1A, 1B, and 1C (“Causes severe skin burns and eye damage”), **serious eye damage** Category 1 (“Causes serious eye damage”), and **corrosive to metals** Category 1 (“May be corrosive to metals”). The first two are about you. The third is about the drum: a corrosive liquid stored in the wrong metal container eats through it. The signal word is almost always **DANGER**. Milder irritants get the exclamation mark instead, and the two never appear together for the same effect.

03 ACIDS AND BASES: BOTH SIDES OF THE SCALE BURN

pH	TYPE	WHAT IT IS ON A JOBSITE
0 to 2	**Strong acid**	**Muriatic (hydrochloric) acid** for masonry cleaning and concrete etching. Battery acid (sulfuric). Some rust removers and tile cleaners (phosphoric, hydrofluoric). Fast burn, fast pain, obvious damage.
2 to 5	**Weak acid**	Vinegar-strength cleaners, some brick cleaners, diluted etching products. Usually an irritant (exclamation mark), but concentration decides.
7	**Neutral**	Water. The thing you flush with.
9 to 12	**Alkaline**	Ammonia, many degreasers, some stripper and adhesive remover products. Slippery feeling on skin means it is dissolving the oils in your skin.
12 to 14	**Strong base**	**Wet concrete, mortar, and grout (pH 12 to 13).** Lye and sodium hydroxide drain cleaners. Caustic degreasers. **Bases burn slower and deeper than acids** and the pain shows up late. Cement burns are the most common corrosive injury in construction.

Bases are the trap. Acid hurts immediately, so you wash it off. A strong base like wet concrete or lye **numbs as it burns**, so the laborer kneeling in it all day feels nothing until the skin is gone. “Causes severe skin burns and eye damage” on a bag of cement is not lawyer language. It is a description of what happens inside your boot.

04 WHAT THE LABEL TELLS YOU TO DO

RULE 1

WEAR WHAT THE LABEL SAYS, NOT WHAT IS HANDY

“Wear protective gloves, protective clothing, eye protection, face protection.” For corrosives that means **chemical-resistant gloves** (the SDS Section 8 names the material: nitrile, neoprene, butyl), **goggles plus a face shield** for pouring or spraying, and sleeves and boots that keep the liquid off skin. Leather gloves soak it up and hold it against your hand.

RULE 2

DO NOT BREATHE THE MIST

Muriatic acid fumes, caustic spray, and the mist off a pressure washer loaded with cleaner burn the airway the same way they burn skin. “Do not breathe dust, fume, gas, mist, vapors, or spray.” Ventilate, work upwind, and if the SDS calls for a respirator, wear the one it names.

RULE 3

KNOW WHERE THE EYEWASH IS BEFORE YOU OPEN IT

29 CFR 1926.50(g): where eyes or body may be exposed to injurious corrosive materials, **suitable facilities for quick drenching or flushing of the eyes and body must be provided within the work area for immediate emergency use.** The ANSI Z358.1 benchmark is **10 seconds** travel time and a **15-minute** flush. A bottle of saline in the truck is not a 15-minute flush. If there is no eyewash, there is no corrosive work.

RULE 4

FLUSH FIRST, EVERYTHING ELSE SECOND

“IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. Immediately call a poison center or doctor.” For skin: take off the contaminated clothing and flush for 15 minutes. Do not wipe. Do not neutralize with a different chemical. **Water, a lot of it, right away.** Then the SDS Section 4 and then the phone.

RULE
5

WASH HANDS AND SKIN AFTER HANDLING, EVERY TIME

Residue on your hands goes to your eyes, your lunch, and your kids. “Wash hands and exposed skin thoroughly after handling” is on every corrosive label. Change out of concrete-soaked pants and boots before the drive home, not after.

⚠ **NEVER ADD WATER TO ACID. NEVER STORE ACID NEAR BASE OR METAL.**

Diluting muriatic acid: acid into water, slowly, never water into acid. Water poured into concentrated acid boils and spits acid in your face. In storage, acids and bases react violently with each other, and strong corrosives eat through metal cans and shelving (“May be corrosive to metals”). Keep them in their original plastic containers, lids tight, on a low shelf, away from each other and away from anything flammable. SDS Section 7 and Section 10 list the specifics.

05 WHY IT MATTERS

[JOBSITE]

FOR THE CREW

Cement burns and acid-wash injuries are among the most common recordable chemical injuries in construction, and the eyewash requirement in 1926.50(g) is one of the easiest things an inspector checks when he sees a jug of muriatic acid. Gloves, goggles, and a real eyewash station are the whole program.

[INDIVIDUAL]

FOR YOU

Corrosive injuries do not heal like cuts. Deep chemical burns graft. Eye damage from a splash of caustic is often permanent, and it happens in the two seconds before you get to the water. Goggles on before the cap comes off.

[HOME]

FOR LIFE OFF-SITE

Drain cleaner, oven cleaner, pool acid, concrete for the fence posts. Same pictogram, same burns. Keep them in the original bottle, up high, and know where your hose is before you open them.

06 TODAY’S DRILL

TODAY’S DRILL **TEN SECONDS TO WATER**

Find every corrosive product on this site: muriatic acid, caustic cleaners, and the cement or mortar you are working with today. Standing where you would use it, walk to the nearest eyewash or drenching water and count the seconds. More than ten, or no eyewash at all, is a stop. Then check the gloves on your hands against SDS Section 8 for that product. Leather is not on the list.

07 CREW DISCUSSION

Take 2 minutes. Pick one.

1. Who here has had a cement burn or an acid splash? When did you realize how bad it was?
2. Where is the eyewash on this site right now, and does it actually run for 15 minutes?
3. What gloves do you wear for acid wash or concrete work, and are they the gloves the SDS names?

08 ATTENDANCE & SIGN-OFF

All attendees confirm they participated in this Toolbox Talk and understand the content covered.

NAME (PRINT)	SIGNATURE

SUPERVISOR SIGNATURE

_____ Date: _____

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