Walgreens acetone is not "made to be non-caustic" because acetone is not a caustic substance by nature. The Walgreens product is sold as 100% acetone, meaning it is pure acetone without additives that would make it more or less corrosive. The perception of acetone as caustic stems from its potent drying effects on the skin, not its chemical properties as an acid or base. [1, 2, 3, 4, 5, 6]

What makes acetone non-caustic

- **Caustic vs. irritant:** A caustic substance is a strong acid or alkali that can cause a chemical burn and severely damage living tissue. Acetone, however, is a simple organic solvent. While it is an irritant that can cause redness, drying, and cracking of the skin, it does not cause chemical burns like caustic agents do.
- **Not corrosive:** Acetone is not corrosive to common materials like carbon steel and aluminum alloys. Its primary industrial hazard is its high flammability, not its corrosiveness.
- **Neutral pH:** Acetone has a near-neutral pH, which is very different from the highly acidic or basic pH levels of truly caustic agents. [3, 4, 5, 7, 8, 9]

Why acetone is damaging to skin

The damage acetone does to skin is not from a caustic chemical reaction but from its powerful solvent properties.

- **Removes natural oils:** Acetone effectively dissolves and removes the skin's protective layer of natural oils.
- **Causes dryness:** When these moisturizing lipids are stripped away, the skin becomes dry, cracked, and irritated.
- **Prolonged exposure:** The level of skin irritation depends on the length of contact. Brief exposure followed by hand-washing is generally safe, but repeated or prolonged exposure can worsen the irritation. [6, 9, 11, 12, 13]

The difference between pure acetone and "non-acetone" remover

For people with sensitive skin, non-acetone removers are an alternative, but they are not necessarily "non-toxic".

- **Non-acetone removers:** These products use different solvents, such as ethyl acetate, which can be less harsh but also less effective than pure acetone. Many also contain added oils or moisturizers to counteract the drying effects of the solvents.
- **Pure acetone:** Walgreens' 100% acetone product is pure and lacks the added moisturizers found in other formulas. This makes it more efficient at dissolving polish but also more drying for the skin. [1, 14, 15, 16, 17]

AI responses may include mistakes.

[1] https://www.skinsafeproducts.com/walgreens-100-acetone-nail-polish-remover-maximum-strength-9-fl-oz-266-ml
[2] https://www.instacart.com/products/29652875-walgreens-100-acetone-nail-polish-remover-9-fl-oz
[3] https://www.verywellhealth.com/acetone-8699629

[4] https://www.medicalnewstoday.com/articles/what-is-acetone
[5] https://wiki.advancecoatings.com/index.php/Acetone
[6] https://www.quora.com/Is-Acetone-safe-to-touch
[7] https://brainly.com/question/49855011
[8] https://www.ccohs.ca/oshanswers/chemicals/chem_profiles/acetone.html
[9] https://www.ccohs.ca/oshanswers/chemicals/chem_profiles/acetone.html
[10] https://www.heraldtribune.com/story/lifestyle/columns/2017/01/11/good-wound-cleaner-doesnt-damage-skin/22742500007/
[11] https://www.biobeautyconcepts.com.au/blog/nails/bio-sculpture-gel-remover-vs.-acetone/
[12] https://safetyiq.com/insight/acetone-hazards-safe-handling-and-disposal-practices/
[13] https://purosolv.com/acetones-contribution-to-pharmaceutical-cleaning-and-sterilisation/
[14] https://organicbeautylover.com/skin/non-toxic-nail-polish-remover/
[15] https://dazzledry.com/blogs/journal/is-nail-polish-remover-harmful
[16] https://www.reddit.com/r/Nails/comments/14va3pk/does_nonacetone_polish_remover_work_for_anyone/
[17] https://www.doordash.com/products/walgreens-100-acetone-nail-polish-remover-9-oz/urpc_9803672a-c912-45fc-b35e-5700293d5f9c