

Chalk. Let's talk about chalk. I know you don't *really* need someone to remind you of all the f*cked up ways we pollute this planet, become closer to extinction every moment, and oh, hey, why aren't you vegan already? I'm not going to try to convince you to stop using chalk, and by no means am I saying our reduction in chalk usage will save the planet. But if we as climbers want to uphold our 'we care about the environment!' schpiel, we should probably know a thing or two about the stuff we lather ourselves in and occasionally spend an arm and a leg for. So here goes.

Climber's chalk is made from magnesium carbonate ($MgCO_3$). [Climbing.com](#) says the process is relatively simple— you start with a mineral called magnesite, strip it of its impurities through a series of baths, and pack it into blocks. From that point, the companies that sell you chalk can add their own flare. Supposedly, a majority of magnesite is mined in Liaoning Province, China. And you guessed it! Mining magnesite has caused some real life problems from large-scale plant death, soil degradation, and reduced microbial activity. Rather than rehashing the entire article, I highly encourage you to read the full version [here](#).

Okay, so if that's where chalk comes from, what about the impact over here on this side of the planet? We all good? Not exactly. According to [a study in 1987](#), there is a chance that climbing chalk + water can raise the solubility of carbonate minerals in rock, thus accelerating the natural weathering of the rock.

Another point to consider is the visual impact of chalk. Climbers are often drawn to large— and sacred— rock formations. Visitors and tourists fly in and are taken aback by the glorious view, littered with climbers dressed in a skittle-colored wardrobe, shiny bolts, neon slings, and chalk. In some cases, the chalk may be too far of a distance to truly notice. But in others, chalk can create a high contrast to a dark colored rock. The problem here is at least two-fold: this rock is not ours, there's no need to mark our territory, and no need for non-climbers to have visible proof of the mark we leave. And secondly, overuse of chalk on a route is like playing hide-and-seek with a three-year-old. You've given away your secrets and there's no challenge.

In the 1980s, climbers developed "earth tone" chalks as a way to reduce the visual impact. Places such as Arches National Park, for example, prohibit the use of white chalk and require the color of the chalk to match the rock. Despite this, according to [Access Fund's Climbing Management Plan](#), "adding dyes to chalk left longer lasting stains on the rock and introduced new chemicals (dye components) into the cliff environment."

And now put yourself here— you walk into the climbing gym, let's say 7pm, during a team-building excursion for a high school boys' lacrosse team. You look through the arch to see the sunset over the city, as a 15-year-old boy reaches for his rental chalk bag, claps his hands, and the sun radiates through hundreds of particles of that beautiful white powder. It's a beautiful image, yet as you breathe, your mind turns to immediate concern. This *can't* be good for me, you think to yourself. For a sport that's booming, and will likely continue to do so, there isn't a whole lot of research. In an article posted to Medium, writer Corey Keysey pulls together adjacent data from chalk usage in classrooms and studies in air pollution to come to this conclusion... it's not looking good. If you take a bite of your block of chalk, you'll be fine, but accumulation of chalk can have long term detriment. (Climbing gym employees, beware!) Due to lack of research + the low impact of day to day chalk use, there's no standard for gyms to be held to in terms of ventilation and air filters. Let it be known, however, that the unknown, but very likely, long term health effects of chalk should be enough to implement such standards to reduce future harm anyhow. Again, rather than rehashing Keysey's work, I encourage you to read his more in-depth evaluation [here](#)!

In closure, I'd like to leave you with a spin off of the famous Michael Pollan quote: "Use chalk, not too much, mostly liquid."