

While “buying local” is generally great advice, one locally produced product to avoid is neoprene. This material is commonly used to make koozies, wetsuits, and even fashion fabrics, and its manufacture results in the emission of chloroprene. The only neoprene facility in America is located in St. John the Baptist Parish at the Denka (formerly DuPont) plant. Residents of St. John, including members of the Concerned Citizens of St. John, have many first-hand stories of the issues chloroprene has caused within their community.<sup>1</sup>

The EPA has concluded that chloroprene is carcinogenic.<sup>2</sup> Chloroprene is a colorless gas with an unusual, somewhat sweet smell.<sup>3</sup> Short term (acute) exposure can cause headache, irritability, dizziness, insomnia, fatigue, respiratory irritation, heart palpitations, chest pains, nausea, gastrointestinal disorders, dermatitis, temporary hair loss, conjunctivitis, and corneal necrosis.<sup>4</sup> Long term (chronic) exposure can result in fatigue, chest pains, giddiness, irritability, dermatitis, hair loss, liver function abnormalities, disorders of the cardiovascular system, and depression of the immune system.<sup>5</sup> There is also evidence that exposure to chloroprene causes liver and lung cancers, and could impact the reproductive system.<sup>6</sup>

Through its extensive analysis, EPA has determined that the safe level in ambient air is 0.2 µg/m<sup>3</sup>. However, workers at the Denka plant are regularly exposed to much higher levels of chloroprene. An EPA inspection in 2022 found ambient chloroprene levels of 1,050 µg/m<sup>3</sup> near the facility, and concentrations of 243,000 µg/m<sup>3</sup> during a routine cleaning process.<sup>7</sup> Some workers were exposed to this chloroprene without any protective equipment.<sup>8</sup>

Denka claims that the 0.2 µg/m<sup>3</sup> level is much too low, and that they could emit many times more chloroprene without causing damage to human health.<sup>9</sup> In support of their claims, Denka points to research conducted by Gary Marsh. However, this researcher has taken more than \$800,000 from Denka, DuPont, and other synthetic rubber manufacturers over his career.<sup>10</sup> The study that Denka relies on in making their claims was funded by a trade group, the International Institute of Synthetic Rubber Producers.<sup>11</sup> When analyzing this study, EPA determined that it was flawed because, among other issues, it only looked at cancer deaths, not cancer cases.<sup>12</sup> The industry funded study also repeatedly cites other industry funded studies, raising doubt about the validity of the conclusions.

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<https://www.ccosj.com/single-post/2017/05/25/despite-laplace-chemical-plants-promise-to-reduce-emissions-some-residents-still-scared>

<sup>2</sup> [https://iris.epa.gov/ChemicalLanding/&substance\\_nmbr=1021](https://iris.epa.gov/ChemicalLanding/&substance_nmbr=1021)

<sup>3</sup> <https://www.epa.gov/sites/default/files/2016-10/documents/chloroprene.pdf>

<sup>4</sup> <https://www.epa.gov/sites/default/files/2016-10/documents/chloroprene.pdf>

<sup>5</sup> <https://www.epa.gov/sites/default/files/2016-10/documents/chloroprene.pdf>

<sup>6</sup> <https://www.epa.gov/sites/default/files/2016-10/documents/chloroprene.pdf>

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<https://www.epa.gov/system/files/documents/2022-10/May%205%202022%20RCRA%20Sampling%20Inspection.pdf>

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<https://www.epa.gov/system/files/documents/2022-10/May%205%202022%20RCRA%20Sampling%20Inspection.pdf>

<sup>9</sup> [https://www.epa.gov/system/files/documents/2021-07/chloroprene\\_rfc\\_letter-\\_071521.pdf](https://www.epa.gov/system/files/documents/2021-07/chloroprene_rfc_letter-_071521.pdf)

<sup>10</sup> <https://www.documentcloud.org/documents/21417639-gary-marsh-cv>

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[https://journals.lww.com/joem/Fulltext/2021/02000/Mortality\\_Patterns\\_Among\\_Industrial\\_Workers.7.aspx](https://journals.lww.com/joem/Fulltext/2021/02000/Mortality_Patterns_Among_Industrial_Workers.7.aspx)  
[Click “author information” to see the sponsorship.]

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<https://www.epa.gov/system/files/documents/2022-03/ord-22-000-2789-final-rfc-21005-response-03-01-2022-new.pdf>

When determining the safe levels of chemicals that can be emitted into our air and water, EPA relies on its own research, as well as high quality, independent studies. The level of 0.2 µg/m for chloroprene was determined through a public comment and peer review process. Scientists, members of the public, and chemical companies alike were given the opportunity to review the data and methods by which EPA determined the safe level of chloroprene.

However, Denka faces tens millions of dollars of expenses in installing the equipment to reduce chloroprene emissions to the safe level. It is much cheaper to fund a study that seems to agree with their position than to take additional measures to reduce the amount of chloroprene it emits. Denka has even sued the EPA in an attempt to force EPA to rely on industry funded science in setting safe levels of exposure.

When claims by large industries and government agencies are at odds, it's helpful to dig a little deeper. At The Community Scientists, we look at science from a wide variety of sources in bringing you the information you need about common chemicals. This includes studies from government agencies like EPA, CDC, and FDA, as well as independent science. We verify author affiliations and fundings in studies we review. Some publications are designed for easy reading by those not in the field, while others can be filled with jargon that is difficult to understand. The Community Scientists works to bring you information and advice, and we provide our sources so that you can read more. Don't say "I'm not a scientist"- science is for everyone, and the more knowledge you have, the better your opinions and decisions will be.

#### HOW TO REDUCE THE NEED FOR CHLOROPRENE

- Chloroprene is a byproduct of manufacturing neoprene. If you cut out neoprene, you cut out chloroprene.
- Alternatives for neoprene wetsuits are made from natural rubber, and some are even suitable for people with latex allergies. Yulex is a great choice.
- Instead of grabbing a neoprene lined koozie, invest in a reusable, insulated cup. These will keep your drinks cold for years to come.
- Avoid scuba fabric, since this is just another term for thin neoprene fabric.