

January 20th, 2025

RE: Support Public Health Goal for N-Nitrosodimethylamine (NDMA) in Drinking Water

CleanEarth4Kids.org strongly supports the establishment of a Public Health Goal (PHG) for N-nitrosodimethylamine (NDMA), a nitrosamine, in drinking water. We must protect the public from NDMA in drinking water.

NDMA and Cancer

NDMA is a highly [toxic](#) and potent carcinogen that poses serious health risks, even at [low concentrations](#).^{1,2} NDMA has been listed as a [cancer causing agent](#) under Prop 65 and is classified as [probable human carcinogen](#) by both the [U.S. Environmental Protection Agency \(EPA\)](#) and the International Agency for Research on Cancer (IARC).^{3,4,5}

Exposure to [NDMA has been linked to](#) increased risks of gastric, liver, kidney and bladder and prostate cancer and even increased risk of leukemia and multiple myeloma.⁶ NDMA is [genotoxic](#) (damages DNA) which increases the risk of cancer development.⁷ The UK's [Health Protection Agency](#) has also recognized NDMA as a genotoxic carcinogen with no identifiable threshold for safe exposure.^{8,9}

In addition to its carcinogenic properties, NDMA is also associated with [liver damage](#), and [developmental effects](#) making it particularly dangerous for vulnerable populations such as children, pregnant women and those with compromised immune systems.^{10,11}

NDMA in Drinking Water

NDMA is commonly found in drinking water due to [industrial processes](#), as a byproduct of [chloramine disinfection](#) in water treatment plants, and from the chlorinated wastewater used to recharge aquifers.^{12,13} The contamination of drinking

¹ <https://www.atsdr.cdc.gov/toxprofiles/tp141-c1.pdf>

² <https://www.epa.gov/sites/default/files/2016-09/documents/n-nitrosodimethylamine.pdf>

³ <https://oehha.ca.gov/proposition-65/chemicals/n-nitrosodimethylamine>

⁴ <https://monographs.iarc.who.int/list-of-classifications>

⁵ <https://www.epa.gov/sites/default/files/2016-09/documents/n-nitrosodimethylamine.pdf>

⁶ <https://www.ncbi.nlm.nih.gov/books/NBK601157/>

⁷ <https://www.efsa.europa.eu/en/news/nitrosamines-food-raise-health-concern#>

⁸ <https://pmc.ncbi.nlm.nih.gov/articles/PMC8467924/>

⁹ <https://www.alsenvironmental.co.uk/media-uk/pdf/datasheets/drinking-water>

¹⁰ <https://pmc.ncbi.nlm.nih.gov/articles/PMC6325159/#>

¹¹ <https://www.atsdr.cdc.gov/toxprofiles/tp141-c1.pdf>

¹² <https://19january2021snapshot.epa.gov/sites/static/files/2017-10/documents/ndma>

¹³ https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/NDMA.html#

water by NDMA is particularly concerning because even extremely low concentrations can have serious health effects.

NDMA is difficult to [detect at low levels, and its high solubility](#) makes it challenging to remove from water, exacerbating the risks to public health.¹⁴ Given its persistence in the environment, and its potential to significantly increase cancer risk in the exposed populations, regulating NDMA in drinking water is essential

The importance of regulating NDMA in drinking water is underscored by the fact that the [EPA has already taken steps](#) to address its risks.¹⁵ The EPA calculated a screening level of 0.11 ng/L for NDMA in tap water, based on a 10⁻⁶ lifetime excess cancer risk, emphasizing the need for stringent regulatory action.

Additionally, NDMA was included on the [fourth Contaminant Candidate List \(CCL4\)](#), which identifies unregulated contaminants known or anticipated to occur in public water systems and that may require regulation under the Safe Drinking Water Act.¹⁶

Furthermore, the inclusion of NDMA on the [EPA's Unregulated Contaminant Monitoring Rule](#) (UCMR) 2 required many large water utilities to monitor for NDMA, signaling the federal recognition of its potential threat to public health.¹⁷

The Need For Public Health Goal

Establishing a Public Health Goal for NDMA would set a clear standard for water quality, offering both a science based benchmark and a vital public health safeguard.

By creating a measurable and enforceable target for NDMA levels in drinking water, regulators can provide a critical framework for monitoring and reducing exposure, ensuring that water systems protect the public from the harmful contaminants like NDMA.

Promoting Environmental Justice

The establishment of a Public Health Goal for NDMA would also promote [environmental justice](#) by ensuring that vulnerable communities, who are often disproportionately impacted by environmental contaminants, are protected.¹⁸

By setting a uniform standard, all communities, regardless of socioeconomic status or geographic location, would be safeguarded from this dangerous substance.

Protect Our Drinking Water

¹⁴ <https://www.alsenvironmental.co.uk/media-uk/pdf/datasheets/drinking-water>

¹⁵ https://19january2021snapshot.epa.gov/sites/static/files/2017-10/documents/ndma_fact

¹⁶ <https://www.epa.gov/ccl/ccl-4-chemical-contaminants>

¹⁷ <https://www.federalregister.gov/documents/2007/01/04/E6-22123/unregulated-contaminant>

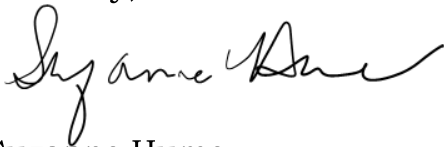
¹⁸ <https://www.pic.int/Portals/5/secEdoc/Environmental%20Health%20Criteria%20237.pdf>

CleanEarth4Kids.org supports the setting of a public health goal for NDMA in drinking water by OEHHA.

We urge California to take immediate action and set a clear and enforceable Public Health Goal for NDMA in drinking water. This action is essential to ensure that all individuals have access to safe drinking water, free from harmful contaminants and that public health is prioritized over industrial convenience.

The decisions we make today affect our children's health and future.

Sincerely,

A handwritten signature in black ink, appearing to read "Suzanne Hume", with a stylized, flowing script.

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