

State of Vermont
House Fish, Wildlife, and Water Resources Committee

Re: An act relating to prohibiting the manufacture or sale of personal care products and over-the-counter drugs that contain synthetic plastic microbeads.

Prefiled Testimony of Shaina Kasper

- 1) My name is Shaina Kasper.
- 2) I hold a Bachelor of Arts in Environmental Studies and Political Science from Macalester College.
- 3) I am currently the Vermont Community Organizer with Toxics Action Center, a New England-wide nonprofit that works side-by-side residents to clean up and prevent toxic pollution.
- 4) I urge you to pass House Bill 4 to ban microbeads in personal care products in Vermont.
- 5) Microbeads are microplastic particle abrasives, synthetic balls in personal care products used as abrasives to scrub skin, hair, or teeth. Last year, 1,147 personal care products contained microbeads¹.
- 6) Microbeads are designed to be washed down the drain but municipal wastewater treatment plants do not effectively filter microbeads from water discharged into rivers and lakes.² Additionally, heavy rains or snowmelt can cause sewage overflow -- including microbeads -- to go directly into our waterways, and sewage sludge is used as fertilizer where the microbeads seep into the soil, rivers, and aquifers. The New York Department of health found elevated levels of these pollutants in Lake Champlain.
- 7) Vermont is moving towards a goal of zero waste, with a stepping stone of getting all compostables and recyclables out of landfills by 2020. I am on the Agency of Natural Resources' Beyond Waste Advisory Committee where we are finding ways to reduce, reuse, and recycle products beyond which is currently recyclable or compostable in Vermont so they are not landfilled. Microbeads are made of plastic which does not break down in the natural environment when they are strewn as litter. There is currently no good way to dispose of microbeads. Contaminating our waters with the litter of microbeads is out-of-line with Vermont's plan to reduce waste across the state.
- 8) Microbeads have an environmental impact far beyond litter. The surface of microbeads has been proven to attract and absorb persistent organic pollutants such as PCBs and DDT from the marine environment, leading to high concentrations.³ These contaminant-

¹ 5 Gyres Infographic http://5gyres.org/how_to_get_involved/campaigns-microbead/

² L.S. Fendall, M.A. Sewell, 'Contributing to marine pollution by washing your face: microplastics in facial cleansers', in: Marine Pollution Bulletin, 58 (8) (2009), pp. 1225-1228.

³ Y. Mato et al., 'Plastic Resin Pellets as a Transport Medium of Toxic Chemicals in the Marine Environment', in: Environmental Science & Technology, 2001, 35(2), pp.318-324.

adsorbed beads are then ingested by fish where the chemicals transfer and bioaccumulate.⁴

- 9) Polychlorinated biphenyl (PCBs) and dioxins absorbed by the plastic microbeads and accumulated in wildlife are endocrine-disruptors. Exposure to these pollutants can lead to birth defects, cancer, and developmental deficits in children.⁵ The elevated concentrations of persistent pollutants in Lake Champlain resulted in consumption advisories particularly to children and pregnant women.⁶
- 10) Microbeads are a toxic, synthetic alternative to natural, non-toxic materials that have been used as personal care scrubs for years -- ground walnuts, oatmeal, sugar, and pumice are common natural and biodegradable scrubs. I just use a washcloth!
- 11) Thankfully, there is an easy way to stop microbeads from polluting our precious waterways and detoxifying our bodies. House Bill 4 is commonsense legislation that will stop the flow of plastic from ill-designed beauty products into our vital waterways. As an organizer in the toxics movement, I urge you to pass House Bill 4 to prohibit the unnecessary and dangerous addition of synthetic plastic microbeads from personal care products.

⁴ Rochman, C. M., Hoh, E., Kurobe, T., Teh, S. J. Ingested plastic transfers hazardous chemicals to fish and induces hepatic stress. *Scientific Reports* 3, 3263 (2013).

P. Farrel en K. Nelson, 'Trophic level transfer of microplastic: *Mytilus edulis* (L.) to *Carcinus maenas* (L.)', in: *Environmental Pollution* 177 (2013), pp. 1-3.

⁵ Health Effects of PCBs (EPA) <http://www.epa.gov/epawaste/hazard/tsd/pcbs/pubs/effects.htm>

⁶ VT Lakes & Ponds Section - Mercury & Other Persistent Pollutants (VT Lakes & Ponds Section - Mercury & Other Persistent Pollutants) http://www.watershedmanagement.vt.gov/lakes/htm/lp_mercury.htm