Petrolatum, Petroleum Jelly

Petrolatum, or petroleum jelly, derived from petroleum, is often used in personal care products as a moisturizing agent. When properly refined, petrolatum has no known health concerns.

However, petrolatum is often not fully refined in the US, which means it can be contaminated with toxic chemicals called polycyclic aromatic hydrocarbons (PAHs) (https://www.bcpp.org/resource/polycyclic-aromatic-hydrocarbons/).

WHAT IS PETROLATUM?

Petrolatum is a byproduct of petroleum refining.[1] With a melting point close to body temperature, petrolatum softens upon application and forms a water-repellant film around the applied area, creating an effective barrier against the evaporation of the skin's natural moisture and foreign particles or microorganisms that may cause infection.[2] Petrolatum is odorless and colorless, and it has an inherently long shelf life. These qualities make petrolatum a popular ingredient in skincare products and cosmetics.

When properly refined, petrolatum has no known health concerns. However, with an incomplete refining history, petrolatum could potentially be contaminated with polycyclic aromatic hydrocarbons, or PAHs. PAHs are byproducts of organic material combustion, commonly stored in fats upon exposure due to its lipophilic properties.[3] There is no way to confirm proper refinement unless a complete refining history is provided.

Found In

- Lotions
- Cosmetics

What to look for on the label

- Petrolatum
- Petroleum Jelly
- Paraffin Oil
- Mineral Oil
- White Petrolatum (refined and safe for use).

Health Concerns

Cancer. The primary concern with petrolatum is the potential contamination with PAHs. The National Toxicology Program (NTP) considers PAHs as a class to contain reasonably anticipated carcinogens;[4] the International Agency for Research on

Cancer (IARC) lists 14 PAHs as probable or possible carcinogens and one PAH as a known carcinogen.[5] A study on Long Island, NY, found that those women with high levels of PAH-DNA adducts had a 50 percent greater risk of breast cancer.[6] The formation of PAH-DNA adducts, an indicator of PAH exposure, is linked to cancer development. [7]

Vulnerable Populations

Babies & Children (https://www.safecosmetics.org/population/babies-children/), Men (https://www.safecosmetics.org/population/men/), Pregnant Women (https://www.safecosmetics.org/population/pregnant-women/), Teenagers (https://www.safecosmetics.org/population/teenagers/), Women of Color (https://www.safecosmetics.org/population/women-of-color/), Workers (https://www.safecosmetics.org/population/workers/)

Regulations

The EU mandates that for cosmetic use, the full refining history of the petrolatum must be known and proven to be non-carcinogenic. The US sets no requirements on refinement and the PAH content in the petrolatum used in personal care products.[8]

How to Avoid?

Avoid products with petrolatum, unless the company clearly indicates petrolatum is fully refined as white petrolatum (on the label or their company website).

Explore other Chemicals

Carbon Black (https://www.safecosmetics.org/chemicals/carbon-black/)

Hydroquinone (https://www.safecosmetics.org/chemicals/hydroquinone/)

Butylated Compounds (https://www.safecosmetics.org/chemicals/butylated-compounds/)

Nanomaterials (https://www.safecosmetics.org/chemicals/nanomaterials/)

Homosalate (https://www.safecosmetics.org/chemicals/homosalate/)

Resorcinol (https://www.safecosmetics.org/chemicals/resorcinol/)

View All Chemicals of Concern > (/chemicals/)

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Together, we can make beauty safer for all.

Take Action Today!

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References

[1] Japour, M. J. (1939). Petroleum Refining and Manufacturing Processes (pp. 84). Wetzel Publishing Company, Incorporated.

[2] Davis-Sivasothy, A. (2011). The science of black hair: A comprehensive guide to textured hair (pp. 83). SAJA Publishing Company.

[3] "Polycyclic Aromatic Hydrocarbons (PAHs)." (n.d.) BreastCancerPreventionPartners. 2019. Available online: https://www.bcpp.org/resource/polycyclic-aromatic-hydrocarbons/ (https://www.bcpp.org/resource/polycyclic-aromatic-hydrocarbons/). Accessed April 22, 2022.

[4] NTP (National Toxicology Program). 2014. Report on Carcinogens, Thirteenth Edition. Research Triangle Park, NC: U.S. Department of Health and Human Services, Public Health Service. Available online: http://ntp.niehs.nih.gov/pubhealth/roc/roc13/ (http://ntp.niehs.nih.gov/pubhealth/roc/roc13/). Accessed April 22, 2022.

[5] International Agency for Research on Cancer. (2014). Agents classified by the IARC monographs, volumes 1–112. Available online: http://monographs.iarc.fr/ENG/Classification/ (http://monographs.iarc.fr/ENG/Classification/). Accessed April 22, 2022.

[6] "Polycyclic Aromatic Hydrocarbons (PAHs)." (n.d.) BreastCancerPreventionPartners. 2019. Available online: https://www.bcpp.org/resource/polycyclic-aromatic-hydrocarbons/ (https://www.bcpp.org/resource/polycyclic-aromatic-hydrocarbons/). Accessed April 22, 2022.

[7] Pratt, M. M., John, K., MacLean, A. B., Afework, S., Phillips, D. H., & Poirier, M. C. (2011). Polycyclic Aromatic Hydrocarbon (PAH) Exposure and DNA Adduct Semi-Quantitation in Archived Human Tissues. International Journal of Environmental Research and Public Health, 8(7), 2675–2691. doi:10.3390/ijerph8072675.

[8] Substance: Petrolatum. (2015, August 9). Retrieved August 10, 2015.

Campaign for Safe Cosmetics (https://www.safecosmetics.org)

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