



Glyphosate

Should I be concerned about potential exposure to glyphosate?



- Glyphosate is on the [Proposition 65](#) list because it has been identified as a carcinogen.
- Proposition 65 requires businesses to determine if they must provide a warning about significant exposure to [listed chemicals](#).

What is glyphosate?

- Glyphosate is a chemical used in herbicides to kill or suppress a variety of plants, including weeds and aquatic plants.
- Glyphosate-based herbicides have broad applications, from agricultural and commercial uses to home uses (including on lawns and gardens).
- Herbicides containing glyphosate or glyphosate salts are sold as liquids, gels, and solids.

How does exposure to glyphosate occur?

- Glyphosate-based herbicides can be applied to target plants directly or by using hand-held sprayers and wands or commercial ground and aerial sprayers.
- During their application, exposure can result from:
 - ▶ Skin contact.
 - ▶ Breathing in aerosol droplets.
- Glyphosate has been detected in a variety of foods, but available information on levels in food is limited. It is unclear if consumption of any specific food would pose a significant cancer risk from glyphosate exposure.
- During pregnancy, glyphosate can pass from mother to baby.

How can I reduce my exposure to glyphosate?

- ✓ Follow label directions in handling or use of glyphosate herbicides.
- ✗ Do not handle or use glyphosate herbicides without skin protection, such as gloves. Wash your hands after handling or using glyphosate herbicides.
- ✓ Limit your and your child's contact with surfaces that have been recently treated with glyphosate herbicides. Wash your hands and your child's hands after contact with these materials or surfaces.

For more information:**General Fact Sheets and Resources**

- World Health Organization (WHO)
International Agency for Research on Cancer (IARC)
 - ▶ Q&A on Glyphosate
https://www.iarc.fr/en/media-centre/iarcnews/pdf/Q&A_Glyphosate.pdf
 - ▶ IARC Monographs on the Evaluation of Carcinogenic Risks to Humans, vol. 112 (2017). “Glyphosate” in Some Organophosphate Insecticides and Herbicides, pages 321-412. <https://publications.iarc.fr/549>
- US Environmental Protection Agency (EPA)
 - ▶ EPA Releases Draft Risk Assessments for Glyphosate
<https://www.epa.gov/pesticides/epa-releases-draft-risk-assessments-glyphosate>
 - ▶ Revised Glyphosate Issue Paper: Evaluation of Carcinogenic Potential
https://cfpub.epa.gov/si/si_public_file_download.cfm?p_download_id=534487
 - ▶ Pesticide Product Ingredients Page: Glyphosate
<https://www.epa.gov/ingredients-used-pesticide-products/glyphosate>
- US Department of Health and Human Services (HHS)
US Food and Drug Administration (FDA)
 - ▶ Questions and Answers on Glyphosate
<https://www.fda.gov/food/pesticides/questions-and-answers-glyphosate>
- European Union (EU) - European Chemicals Agency (ECHA)
 - ▶ ECHA News Release (March 15, 2017)
<https://echa.europa.eu/-/glyphosate-not-classified-as-a-carcinogen-by-echa>
 - ▶ Committee for Risk Assessment: Opinion proposing harmonized classification and labelling at EU level of glyphosate (ISO); N-(phosphonomethyl)glycine
<https://echa.europa.eu/documents/10162/2f8b5c7f-030f-5d3a-e87e-0262fb392f38>
- Joint FAO/WHO Meeting on Pesticide Residues (JMPR)
 - ▶ Summary Report (Diazinon, glyphosate, and malathion)
<http://www.who.int/foodsafety/jmprsummary2016.pdf>
- National Pesticide Information Center (NPIC), Oregon State University (OSU)
 - ▶ Glyphosate General Fact Sheet
<http://npic.orst.edu/factsheets/glyphogen.html>

Proposition 65

- California Environmental Protection Agency (CalEPA)
Office of Environmental Health Hazard Assessment (OEHHA)
 - ▶ Proposition 65: Background
<https://www.p65warnings.ca.gov/faq>
 - ▶ Proposition 65: The List of Chemicals
<https://www.p65warnings.ca.gov/chemicals>
 - ▶ Proposition 65: Fact Sheets
<https://www.p65warnings.ca.gov/fact-sheets>