

Herbicide Safety Precautions Information Notes

This document has been compiled from open-source information available on the internet. The intent of this document is to provide simple guidance on utilising herbicides such as Roundup. However, this document is not intended to provide a full and comprehensive safety guide. Consequently, anyone utilising herbicides of any type should ensure that they follow specific directions provided with the associated fact sheets for that chemical.

Spraying a broad-spectrum herbicide, like Roundup, is one way to control weeds. Like any herbicide, Roundup contains chemicals that warrant appropriate safety precautions before, during and after use.

What Is in Roundup?

The main ingredient in Roundup (glyphosate) kills plant life by disrupting the shikimic acid pathway, thus preventing the plants from making necessary proteins. Without these proteins, the plants die. Unlike some herbicidal chemicals, glyphosate attacks grass and broad-leaf plants, making it a popular product for general use and clearing large patches of plant life.

Is Glyphosate Dangerous?

According to the U.S. Environmental Protection Agency (EPA), glyphosate does not represent a major safety concern for humans in low doses. However, there is a risk that higher doses may be carcinogenic. Additionally, Roundup contains chemicals that act as carriers to help glyphosate stick to plant leaves and enter the plant cells easily. Even low doses of these carriers can irritate your skin, respiratory and digestive systems.

Roundup Safety Precautions

Always read the label of the specific Roundup or herbicidal product that you are going to use, and strictly follow all of the recommended precautions. Key precautions include:

- **Eye Protection.** Roundup has the potential to create eye irritation. Wear appropriate goggles and/or a face shield.

If you do get Roundup in your eye, hold your eye open under a gentle stream of running water for approximately 15 to 20 minutes. Take out contacts if you wear them, and call poison control or your doctor for further instructions.

- **Skin Irritation.** Roundup can also be a skin irritant, which can cause the types of rash shown to the right. Please note that glyphosate may enter the skin over time with repeated exposure. The National Center for Biotechnology Information also states that glyphosate on the skin can lead to severe irritation, photo-contact dermatitis, or even severe burns. Therefore, avoid getting Roundup on your skin by wearing the Personal Protective Equipment (PPE) listed below.



If you do get Roundup in on your skin, thoroughly wash the affected area with water or saline solution (and soap if available) as soon as possible after the exposure.

- **Respiratory Tract Irritation.** Breathing Roundup fumes can also be irritating to the lungs and throat. Therefore, at minimum, wear an appropriate particulate filtering face mask while spraying. Additionally, spray Roundup on a calm day (with little to no wind). When spraying, please take advantage of the wand to spray this herbicide close to its intended target while you remain standing upright. This approach will increase the distance between you and the spray, thus reducing the chances of breathing Roundup fumes.

Personal Protective Equipment

To minimise risks associated with exposure to herbicide chemicals, personnel should wear the following PPE:

- covering for exposed skin (for many herbicides, a full protective suit should be worn);
- eye protection in the form of goggles and/or a face shield;
- a suitable chemical mask;
- rubber gloves; and
- enclosed non-permeable footwear such as gumboots.



Environmental Precautions

Glyphosate binds to soil and is unlikely to enter the groundwater system, according to the EPA. However, the likelihood of glyphosate and other chemicals entering water runoff increases when it is applied 24 hours before rainfall or strong winds. Plan to use Roundup according to the forecast and take care not to pour or apply Roundup in an area where it can wash directly into storm drains or gutters.

The Roundup label also recommends keeping children and pets away from any sprayed area until the area has dried. This drying can take up to 12 hours.

What precautions should you take when using Roundup?

Protect yourself from Roundup exposure by taking the following steps:

1. Always carefully read, understand, and apply the safety precautions pertinent to the herbicide you are utilising before using the product.
2. Please avoid using the product when it is windy, as it can drift to nearby plants, and it increases your risk of exposure.
3. Wear the recommended PPE whilst mixing and spraying the herbicide.
4. If your sprayer is leaking, be sure to fix it!
5. Do not touch the product or plants wet with it.
6. Always wash up thoroughly after mixing or spraying glyphosate (e.g. arms, face, etc.).
7. Wash any re-wearable clothing that may have been exposed to the spray as soon as possible after finishing the job.

How long after spraying Roundup is it safe?

According to Scotts (the manufacturer of Roundup), it's safe to plant ornamental flowers, shrubs, and trees the next day; and you can plant grasses and edible plants and trees after three days. Additionally, according to the label, Roundup is safe for pets and children to walk on as soon as it has dried completely.