

KLEAN UP

FLOWABLE CHARCOAL DEACTIVATOR

KLEAN UP is a flowable suspension of activated carbon manufactured specifically for agricultural applications. It is widely used in agriculture as a soil amendment to protect and enhance plant and turfgrass growth and vigor. *KLEAN UP* effectively ties up organic toxins such as herbicides from soils to provide a safe environment for new or existing root systems.

KLEAN UP is especially effective in protecting areas where herbicides have been spilled or over applied. *KLEAN UP*'s ability to decontaminate soil is also beneficial when replanting is desired in an area where pesticides or herbicides have been applied.

KLEAN UP can be used on hydraulic fluids, some petroleum products, organic pesticides, herbicides and insecticides, when over-seeding or early germination is required. *KLEAN UP* may be applied to turf areas treated by pre-emergent herbicides to ensure better and more even seed germination. Prepare the seed bed as usual, then apply *KLEAN UP* at the rate of 1-2 litres per 100m² to the soil; then proceed with the seeding operation.

DIRECTIONS FOR USE:

Spills:

Apply 1-2 litres per 100m² of contaminated area. If spill is severe, apply full strength and wash into soil and root zone area 10-15 cm. deep.

Deactivating Turf Herbicides:

Apply 1-2 litres of *KLEAN UP* in sufficient water for good distribution per square meter of turf area. Grass areas should be washed free of heavy charcoal deposits. Areas where herbicidal effect has been terminated may be seeded within 24 hours of application.

Sprayer Cleaning/Neutralizing:

After pesticide use, fill spray tank halfway with water, then add 1 litre of *KLEAN UP* per 100 litres of water. Fill the remainder of spray tank with water and circulate through the system for 10 minutes, and then the nozzles for another 10 minutes. Drain system and rinse with clean water until all signs of *KLEAN UP* are gone.

HOW DOES IT WORK?

The use of activated carbon or activated charcoal as it is commonly known is because of its ability to attract and hold a wide variety of organic molecules on its surface.

This process is known as *adsorption*. The ability to adsorb is directly related to the surface area and pore site distribution. The surface area of the carbon used in the manufacture of *KLEAN UP* is vastly increased over conventional charcoal by an additional process that honeycombs the charcoal further developing the pore structure. This process increases the surface area to such an extent that the contents of one liquid ounce of *KLEAN UP* would have more surface area than an entire football field. Because of the greatly increased surface area and pore size distribution, it is able to 'tie-up' a wide range of organic pesticides.

To accomplish this, the spray of *KLEAN UP* must come in contact with the herbicide before it can be adsorbed. This is the primary benefit to the use of the flowable form. The herbicide is swept into the pores of the carbon by the soil moisture, the herbicide adsorbed, and will then be held for an indefinite period of time. Tests show that activated carbons effectively reduce unwanted herbicidal activity from spills, over or misapplications and even normal applications. *KLEAN UP* will adsorb many toxins and most organic pesticides; however, it will not adsorb the most water soluble ones including Paraquat, Diquat, Amitrol, MSMA, and DSMA. Fortunately, it will not adsorb such solubles as fertilizers.

KLEAN UP will disperse well in a spray tank, so do not use any wetting agents with *KLEAN UP* as they will tend to be adsorbed by the carbon using up precious surface area. *KLEAN UP* may be used as an aid to transplanting by preparing a root dip, or by adding a small amount in with the transplant water. *KLEAN UP* may be used to decontaminate spray tanks, reducing soil contamination from oil spills, deactivating herbicides, protecting seeds, and enhancing seed germination.

Efficacy of *KLEAN UP* is subject to proper use as per instructions on the label.

FOR AGRICULTURAL USE

CAUTION: KEEP OUT OF REACH OF CHILDREN

WARNING: DO NOT TAKE INTERNALLY

Contact with eyes will cause irritation. If product comes in contact with eyes, flush thoroughly with lukewarm water. If irritation or burning sensation persists, consult a physician.