Product Safety Assessment

**MCPA**


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**Names**
- MCPA
- MCPA: 2-Methyl-4-Chlorophenoxyacetic Acid (CAS No. 94-74-6)
- MCPA 2-EHE: 2-Methyl-4-Chlorophenoxyacetic Acid 2-Ethylhexyl Ester (CAS No. 29450-45-1)
- Curtail® M

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**Product Overview**

- MCPA is an active ingredient registered to Dow AgroSciences LLC, a wholly owned subsidiary of The Dow Chemical Company, and other companies. For further details, see [Product Description](#).
- MCPA 2-EHE is a yellowish liquid with an “ester-like” odor. For further details, see [Product Description](#).
- MCPA products are registered for use on a global basis. Countries with registrations include Australia, Canada, Italy, New Zealand, and the United States.
- MCPA is registered for use on wheat, barley, oats, rye, flax, peas, clover, alfalfa, lespedeza, trefoil, vetch, pasture, rangeland, grasslands, non-crop, rights-of-way, fencerows, turf and roadsides.
- For further details, see the country-specific [Product Label](#), [Product Uses](#) or [Contact Us](#).
- Those working in manufacturing, packaging, or distribution operations could be exposed to MCPA. Applicators may be exposed to MCPA during preparation, application and clean-up procedures. Workers using MCPA based products must wear proper protective equipment and follow label instructions carefully. For further details, see the country-specific [Product Label](#), [Product Uses](#) or [Contact Us](#).
- Consumers could be exposed to MCPA by consumption of trace residues in food and/or drinking water, use on home gardens, residues on transplanted turf from sod farms, or golfing on treated golf courses. The U.S. Environmental Protection Agency has determined that acute, short-term, and chronic (non-cancer) aggregate risk is negligible or not of risk concern (aggregate risk refers to the combined risk from food, drinking water, and residential exposures). See [Health Information](#) or the [Safety Data Sheet](#).
Product Safety Assessment:

- MCPA has low toxicity by ingestion, in contact with skin and by inhalation. Repeated skin contact may cause an allergic skin reaction. For further details, see Health Information or the Safety Data Sheet.
- MCPA is highly toxic to aquatic organisms on an acute basis. MCPA is practically nontoxic to birds on an acute or dietary basis. For further details, see Environmental Information or Product Label.
- MCPA is stable under recommended storage conditions. Exposure to elevated temperatures can cause product to decompose. Consult the Product Label for specific use and storage information. For further details, see Physical Hazard Information.

Manufacture of Product

- **Capacity** – Dow AgroSciences, a wholly owned subsidiary of The Dow Chemical Company, manufactures and formulates MCPA at facilities located in countries such as Canada and the United States.
- **Process** – MCPA is a compound produced using proprietary processes and materials. The chemical structure is shown below:

  ![Chemical Structure]

  **Chemical Structure**

  MCPA

  MCPA 2-EHE

Product Description

MCPA is an herbicide in the phenoxy or phenoxyacetic acid family used for post-emergence selective control of broadleaf weeds. This synthetic auxin herbicide is usually formulated by Dow.
AgroSciences LLC, a subsidiary of The Dow Chemical Company and applied in combination with other herbicides such as 2,4-D, fluroxypyr and/or clopyralid.

- MCPA 2-EHE is a yellowish liquid with an “ester-like” odor. DAS has MCPA registered for use on wheat, barley, oats, rye, flax, peas, clover, alfalfa, lespedeza, trefoil, vetch, pasture, rangeland, grasslands, non-crop, rights-of-way, fencerows, turf and roadsides.

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**Product Uses and Regulatory Information**

MCPS products are registered for use on a global basis. Examples of countries with registrations include Australia, Canada, Italy, New Zealand, and the United States.

MCPS has been comprehensively evaluated under regulatory frameworks used for registration and approval of crop protection products in the United States. These legal frameworks require both laboratory and field testing as per established EPA guidelines to determine the potential for use to result in human health or environmental impacts.

For further details, consult the country-specific Product Label, Safety Data Sheet, or Contact Us.

Regulations exist that govern the manufacture, sale, transportation, use, and/or disposal of MCPS. In addition to federal regulation, additional regulations may apply which vary by state or locality. Information may be found by consulting the relevant Product Label, Safety Data Sheet, or Contact Us.

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**Exposure Potential**

Based on the uses for MCPA, the public could be exposed through:

- **Workplace exposure** — Exposure can occur in a MCPA manufacturing or formulating facility. Workers could be exposed during maintenance, sampling, testing, or other procedures. Each manufacturing and formulating facility should have a thorough training program for employees and appropriate work processes and safety equipment in place to limit unnecessary exposure. Applicators may be exposed to MCPA in the preparation, application and clean up procedures. Wearing proper protective equipment and following label instructions will reduce risk of exposure. See Health Information and Product Label.

- **Consumer exposure to products containing MCPA** — For appropriate language, see publically available risk assessment section from a regulatory agency that has approved MCPA. See Health Information and Product Label.

- **Environmental releases** — For spills, please consult the country-specific Safety Data Sheet or Product Label for more information about protective equipment and procedures. See Environmental, Health, and Physical Hazard Information.

- **In case of fire** — Consult the country-specific Product Label and Safety Data Sheet for specific firefighting measures. Follow emergency procedures carefully. See Environmental, Health, and Physical Hazard Information.

**Emergency response information** — In the case of an emergency such as poisoning, product spillage, or fire associated with a Dow AgroSciences product please use the phone number listed on the Safety Data Sheet for the appropriate country.

In some countries, the Emergency Response number is also provided on the label on the package.
Health Information

**Laboratory testing** – MCPA has been evaluated under comprehensive regulatory guidelines, and is registered for sale and use in the USA and many other countries. These guidelines require laboratory testing for potential short-term (acute) and long-term (chronic) health effects. These tests help scientists determine how chemicals might affect humans, domestic animals, or wildlife in cases of overexposure. Pesticide products used according to label directions are unlikely to cause toxic effects. The amount of pesticide that people and pets may be exposed to is low compared to that used in laboratory testing.

Health information for formulated MCPA products is summarized on country-specific Safety Data Sheets. Such Sheets are a preferred source for specific health information as product formulations may contain components or additives with additional potential risks. For further details, also consult country-specific Product Label.

**Eye contact** – Ocular exposure to MCPA 2-EHE may cause slight temporary eye irritation, but corneal injury is unlikely.

**Skin contact** – Prolonged dermal exposure to MCPA 2-EHE is unlikely to result in absorption of harmful amounts, but prolonged contact may cause slight skin irritation with local redness.

**Skin sensitization** - MCPA 2-EHE did not cause allergic skin reactions when tested in guinea pigs.

**Inhalation** – Prolonged excessive exposure to the mist of MCPA 2-EHE may cause adverse effects, and may cause irritation of upper respiratory tract (nose and throat) and lungs.

**Ingestion** – MCPA 2-EHE has a low toxicity if swallowed. Swallowing small amounts of MCPA 2-EHE incidentally as a result of normal handling operations is not likely to cause injury. However, swallowing larger amounts may cause injury.

**Repeated exposure** – MCPA did not cause cancer in laboratory animals.

**Developmental and/or Reproductive Effects:** MCPA has caused birth defects in laboratory animals only at doses toxic to the mother, and has been toxic to the fetus in laboratory animals at doses toxic to the mother. In animal studies, it did not interfere with reproduction. Both in vitro and animal genetic toxicity studies were negative.
Physical Hazard Information

MCPA 2-EHE is stable under recommended storage conditions. However, exposure to elevated temperatures can cause MCPA 2-EHE to decompose. Decomposition products depend upon temperature, air supply and the presence of other materials. Decomposition products can include and are not limited to: Carbon monoxide. Carbon dioxide. Hydrogen chloride.

Consult the Product Label for specific use and storage information. Some products may be combustible because of the solvents used.

For more information, see the Product Label or Safety Data Sheet.

Additional Information- includes links to the SDS, Contact Us, Labels, EPA Fact Sheet, etc.

- Safety Data Sheets and Product Labels (http://www.dowagro.com/products/label/index.htm)
- Contact Us (http://www.dowagro.com/company/contact/index.htm)

For more business information about MCPA, visit the Dow AgroSciences website at http://www.dowagro.com.

NOTICES:

As part of its 2015 Sustainability Goals, Dow has committed to make publicly available safety assessments for its products globally. This product safety assessment is intended to give general information about the chemical (or categories of chemicals) addressed. It is not intended to provide an in-depth discussion of health and safety information. Additional information is available through the relevant Safety Data Sheet, which should be consulted before use of the chemical. This product safety assessment does not replace required communication documents such as the Safety Data Sheet.

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