

Chemical Factsheet

Florasulam

General Information

- Product Names:

Axial TBC Herbicide (Syngenta Crop Protection, LLC)
BARTON® herbicide (Dow Agrosciences LLC)
BENCHMARK® A herbicide (Dow Agrosciences LLC)
BOXER® herbicide (Dow Agrosciences LLC)
CONCLUDE® herbicide (Dow Agrosciences LLC)
DERBY® herbicide (Dow Agrosciences LLC)
Defendor® (Dow Agrosciences LLC)
Ef-1343 (Dow Agrosciences LLC)
Ef-1383 (Dow Agrosciences LLC)
Ef-1440 Manufacturing Concentrate (Dow Agrosciences LLC)
Firststep Herbicide Tank Mix (Dow Agrosciences LLC)
Florasulam Wet Cake Technical (Dow Agrosciences LLC)
FRONTLINE® herbicide (Dow Agrosciences LLC)
Gf-1727 (Dow Agrosciences LLC)
Gf-184 (Dow Agrosciences LLC)
Goldsky Herbicide (Dow Agrosciences LLC)
HIKER® herbicide (Dow Agrosciences LLC)
HUNTER® herbicide (Dow Agrosciences LLC)
KANTOR® herbicide (Dow Agrosciences LLC)
MUSTANG® herbicide (Dow Agrosciences LLC)
N-(2,6-difluorophenyl)-8-fluoro-5-methoxy(1,2,4)triazolo(1,5c)pyrimidine-2-sulfonamide (Dow Agrosciences LLC)
Orion Herbicide (Syngenta Crop Protection, LLC)
PRIMUS® herbicide (Dow Agrosciences LLC)
Quelex (Dow Agrosciences LLC)
SPECTRUM® A herbicide (Dow Agrosciences LLC)
STARANE® XL herbicide (Dow Agrosciences LLC)
Starane Flex (Dow Agrosciences LLC)



- Chemical Class: Triazolopyrimidine Sulfonanilide

- Uses: A post-emergent herbicide used on cereal grains (including non-underseeded winter wheat, spring barley, oats, rye, and triticale) to control broad-leaved weeds: chickweed, wild buckwheat, white clover, common dandelion, broad-leaved plantain, and cleavers in spring wheat (including durum).
- Alternatives: [Organic agriculture](#), [Organic Lawn care](#)
- Beyond Pesticides rating: [Toxic](#)

Health and Environmental Effects

See citations at end of document.

- Cancer: Not documented
- Endocrine Disruption: Possible (1, 2)
- Reproductive Effects: Not documented
- Neurotoxicity: Not documented
- Kidney/Liver Damage: Likely (1, 2)
- Sensitizer/ Irritant: Yes (1, 3, 4)
- Birth/Developmental: Not documented
- Detected in Groundwater: Likely (1, 5, 6)
- Potential Leacher: Yes (1, 4)
- Toxic to Birds: Possible (4)
- Toxic to Fish/Aquatic Organisms: Yes (1, 4)
- Toxic to Bees: Possible (7, 4)

Residential Uses as Found in the ManageSafe™ Database

- [Chickweed](#)
- [Clover](#)
- [Dandelions](#)
- [Plantains](#)

Additional Information

- Regulatory Status:
 - [Florasulam; tolerances for residues.](#) (09/28/2007; Amended 07/25/2018)
 - [Pesticide Fact Sheet: Florasulam; Conditional Registration](#) (09/2007)
- Supporting information:
 - [Pesticide Database: Florasulam](#) (Pesticide Action Network)
 - [Pesticide Properties Database \(PPDB\): florasulam-Ref: DE 570](#) (International Union of Pure and Applied Chemistry)
- Studies:
 - [Conclusion on the peer review of the pesticide risk assessment of the active substance florasulam.](#) European Food Safety Authority, 2015. *EFSA Journal*, 13(1), p.3984.
 - [Emerging contaminants in groundwater.](#) Stuart, M.E., Manamsa, K., Talbot, J.C. and Crane, E.J., 2011.
 - [Pesticides in agricultural headwater streams in southwestern Germany and effects on macroinvertebrate populations.](#) Weber, G., Christmann, N., Thiery, A.C., Martens, D. and Kubiniok, J., 2018. *Science of the Total Environment*, 619, pp.638-648.
 - [Proximity to agricultural fields as proxy for environmental exposure to pesticides among children: The PIAMA birth cohort](#) Bukalasa, J.S., Brunekreef, B., Brouwer, M., Vermeulen, R., de Jongste, J.C., van Rossem, L., Vonk, J.M., Wijga, A., Huss, A. and Gehring, U., 2017. *Science of the Total Environment*, 595, pp.515-520.

- [Spatial and temporal patterns of pesticide concentrations in streamflow, drainage and runoff in a small Swedish agricultural catchment](#). Sandin, M., Piikki, K., Jarvis, N., Larsbo, M., Bishop, K. and Kreuger, J., 2018. *Science of the Total Environment*, 610, pp.623-634.

Gateway Health and Environmental Effects Citations

1. US EPA, Office of Prevention, Pesticides and Toxic Substances, Reregistration Eligibility Decisions (REDs), Interim REDs (iREDs) and RED Factsheets.
<https://archive.epa.gov/pesticides/reregistration/web/html/status.html>.
2. Ran, D., Wu, X., Zheng, J., Yang, J., Zhou, H., Zhang, M. and Tang, Y., 2007. Study on the interaction between florasulam and bovine serum albumin. *Journal of fluorescence*, 17(6), pp.721-726.
<https://doi.org/10.1007/s10895-007-0226-9>
3. US EPA, Office of Prevention, Pesticides and Toxic Substances, Science Data Evaluation.
<https://iaspub.epa.gov/apex/pesticides/florasulam>
4. The International Union of Pure and Applied Chemistry (IUPAC), Pesticide Properties Database (PPDB), florasulam (Ref: DE 570). <https://sitem.herts.ac.uk/aeru/iupac/Reports/322.htm>
5. The Dow Chemical Company, Product Safety Assessment, Florasulam.
http://msdssearch.dow.com/PublishedLiteratureDOWCOM/dh_07cf/0901b803807cfdd2.pdf?filepath=productsafety/pdfs/noreg/233-00436.pdf&fromPage=GetDoc
6. Hernández-Borges, J., García-Montelongo, F.J., Cifuentes, A. and Rodríguez-Delgado, M.Á., 2005. Determination of herbicides in mineral and stagnant waters at ng/L levels using capillary electrophoresis and UV detection combined with solid-phase extraction and sample stacking. *Journal of Chromatography A*, 1070(1-2), pp.171-177. <https://doi.org/10.1016/j.chroma.2005.02.053>
7. Pesticide Action Network Pesticide Database. http://www.pesticideinfo.org/Search_Chemicals.jsp.

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