



**Baker Petrolite**

## **RESTRICTED USE PESTICIDE**

**For retail sale to and use only by Certified Applicators or persons under their direct supervision and only for those uses covered by the Certified Applicator's certification.**

**FOR DISTRIBUTION AND USE ONLY WITHIN THE STATE OF WASHINGTON**

**MAGNACIDE® H HERBICIDE (Acrolein, Stabilized)**

EPA REG. NO. 10707-9

EPA SLN WA-040017

### **SUPPLEMENTAL LABELING**

Every irrigation district or irrigation water supplier who applies MAGNACIDE® H HERBICIDE to water in irrigation canals or ditches that flows to natural surface waters of the state, must apply for and obtain coverage under Irrigation System Aquatic Weed Control [National Pollutant Discharge Elimination System (NPDES)] Waste Discharge General Permit (NPDES Permit No. WAG-991000) issued by the Washington State Department of Ecology. This requirement does not apply to applications covered under an individual NPDES permit, or applications that are in compliance with Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) requirements and exempt under the provisions of the NPDES permit exemption for irrigation return flows.

**Application of acrolein under this SLN does not assure compliance under the NPDES. In order to apply acrolein under this SLN you must also comply with all requirements of the NPDES.**

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. This labeling must be in the possession of the user at the time of application.

### **DIRECTIONS FOR USE**

MAGNACIDE® H HERBICIDE is a water soluble material for the control of submersed and floating weeds and algae in irrigation canals. Refer to the federal label for method of application. Follow all applicable directions, restrictions, Worker Protection Standard requirements and precautions on the EPA registered label.

No application of acrolein can exceed a concentration of 8 ppm either by individual application or by stacking an acrolein application on top of a previous acrolein application made upstream.

The duration of each acrolein application must not exceed 8 hours.

Treated water in the irrigation system must be held for the minimum hours prescribed in the table below prior to release into natural waters. Any application can be held longer than the minimum holding times outlined in the table below but in no case can any application be held for less than 12 hours. If applications are stacked, the expected concentration of acrolein at the time of the last application must be added to the concentration of the new application to determine total concentration. In order to determine the expected concentration of acrolein prior to application of a stacked treatment, the following calculation must be conducted.



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$$A(t) = A_0 \cdot 2.718^{-0.0678 \cdot t}$$

Where: **A(t)** equals the expected ppm acrolein remaining from an application made previously upstream.  
**A<sub>0</sub>** equals the ppm acrolein originally applied upstream.  
**t** equals the time in hours that has elapsed from the original application to the time of application of the stacked treatment.

For example, if 8 ppm acrolein were applied upstream 12 hours prior to a stacked acrolein application, then the expected concentration of acrolein remaining at the point of application of the stacked treatment would be as follows:

$$A(t) = 8 \text{ ppm} \cdot 2.718^{-0.0678 \cdot 12} = 8 \text{ ppm} \cdot 2.718^{-0.8136} = 8 \text{ ppm} \cdot 0.4433 = 3.546 \text{ ppm}$$

Thus, 12 hours after an 8 ppm acrolein application, the expected concentration of acrolein is 3.546 ppm. Consequently, if one wants to apply 8 ppm acrolein at the point of application of the stacked treatment, the water must be treated with only 4.454 ppm acrolein (8.000 – 3.546 = 4.454) because 3.546 ppm acrolein still exists from the original 8 ppm acrolein application made upstream 12 hours earlier. This equation can be used for any situation in the field; just substitute the applicable acrolein concentration (≤ 8 ppm) and holding time (**must be in hours**) in order to determine the expected concentration of acrolein in ppm.

In order to determine the requisite, minimum holding time from the point of acrolein application to the confluence of the acrolein-treated Irrigation District water and any natural waterbody, consult the table below. Any application can be held longer than the minimum holding times outlined in the table below. First determine the appropriate Correction Factor that applies to the field situation at hand.

Application Rate	Correction Factor *										
Acrolein ppm	1	5	10	50	75	100	250	500	750	1000	≥ 1043
	Minimum Holding Time (hours)										
8.0	115	91	81	57	51	47	34	23	17	13	12
7.0	113	89	79	55	49	45	32	21	15	12	12
6.0	111	87	77	53	47	43	29	19	13	12	12
5.0	108	84	74	50	44	40	27	16	12	12	12
4.0	105	81	71	47	41	37	23	13	12	12	12
3.0	100	77	67	43	37	33	19	12	12	12	12
2.0	95	71	61	37	31	27	13	12	12	12	12
1.0	84	61	50	27	21	16	12	12	12	12	12

\* Correction Factor is defined as the cfs (cubic feet per second) of the natural waterbody divided by the cfs of Irrigation District water. The cfs of the natural waterbody is defined as the cfs of the natural waterbody immediately downstream from the confluence of the natural waterbody and Irrigation District water. The cfs of the Irrigation District water is defined as the cfs of treated Irrigation District water just prior to entering the natural waterbody. By definition there cannot be a Correction Factor less than 1. Using the intersection of the target field application rate of acrolein in ppm and the appropriate Correction Factor, the minimum holding time in hours can be found in the body of the table. For example, a 5.0 ppm acrolein application with a Correction Factor of 100 would have a minimum holding time of 40 hours.



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If the exact Correction Factor (CF) or acrolein application rate is not listed in the table above, the Minimum Holding Time (MHT) in hours can be calculated as follows:

$$\text{MHT} = [\ln (\text{CF} \cdot 0.0034 \div \text{ppm acrolein})] \div -0.0678$$

Where  $\ln$  equals the natural log

$\text{CF}$  equals the Correction Factor as defined in the paragraph above.

For example, to determine the minimum holding time of a 5.5 ppm acrolein application with a Correction Factor equal to 335 then:

$$\text{MHT} = [\ln (335 \cdot 0.0034 \div 5.5)] \div -0.0678 = [\ln 0.2071] \div -0.0678 = -1.5746 \div -0.0678 = 23.2 \text{ hours or 24 hours.}$$

**All correction factors must be rounded down to the nearest whole number.**

**All minimum holding times must be rounded up to the nearest whole number.**

Consequently, for a 5.5 ppm application of acrolein with a Correction Factor of 335, the minimum holding time is 24 hours.

A record of the following information must be kept for each acrolein application:

- The concentration (ppm) acrolein applied and the duration (hours) of the application.
- The length of time the treated water was held before being released into a natural water body
- The correction factor used
- The cfs of treated water just prior to entering the natural water body
- The cfs of the natural water body as described in the table

These records must be held a minimum of 7 years from the date of application and made available to the Washington State Department of Agriculture upon request.

## **RESTRICTIONS**

This pesticide is toxic to fish and wildlife. MAGNACIDE® H HERBICIDE should not be used under this SLN label where impact on listed threatened or endangered species is likely. You may refer to the WSDA Endangered Species Program web site at <http://agr.wa.gov/PestFert/EnvResources/EndangSpecies.htm>, or contact the Washington Department of Fish & Wildlife, National Marine Fisheries Service (NOAA Fisheries) or US Fish & Wildlife Service for information regarding aquatic species listed as threatened or endangered. Consult the federal label for additional restrictions and precautions to protect aquatic organisms.

**This label for MAGNACIDE® H HERBICIDE expires and must not be distributed or used in accordance with this SLN registration after December 31, 2007.**

**24(C) REGISTRANT:  
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