

DANTOCHLOR®

Powder

Dantoclor® powder is a halogenated dialkylhydantoin derivative in powder form which functions as a microbiocide through the release of active chlorine. This material is used for reformulating and repackaging purposes according to its EPA label for use as a disinfectant, algaecide, fungicide, bactericide and slimicide in different formulations. Areas of use for this material include pulp and paper mill water systems, Industrial algaecides, cooling water systems, cooling towers, condenser water systems, heat exchanger water systems, photo processing wash water, sewage settling ponds, septic tanks, bathrooms and toilet bowls, pools, hot tubs, spas, ornamental fountains, and eating establishment equipment and utensils.

Chemical Composition

1, 3-dichloro-5, 5-dimethylhydantoin	81.1%
1, 3-dichloro-5-ethyl-5-methylhydantoin	16.1%
Inert ingredients	2.8%

Typical Properties

Total Available Chlorine, %	68
CHCL ₃ Insolubles, %	0.5
Volatiles, %	1 Max.
Melting Range, powder, (°C)	106 – 130
pH, (1% Slurry at 25°C)	3.4
Solubility in Water (g/100g at 25°C)	0.43
Decomposition Temperature (°C)	180
Color	Off White

CAS NUMBERS	118-52-5	89415-87-2
EPA Registration Number	Powder version	6836-114

Toxicology

Acute Oral LD ₅₀ - Rats	946 mg/kg (males), 618 mg/kg (females)
Primary Eye Irritation – Rabbits	Within 24 hours, both washed and unwashed eyes were destroyed.
Primary Dermal Irritation – Rabbits	Corrosive; tissue destruction down to musculature. Edema in surrounding tissue.

See the Material Safety Data Sheet (MSDS) for a complete description.

The seller makes no warranty, expressed or implied, concerning the accuracy of any results to be obtained from the use of this information and no warranty is expressed or implied concerning the use of these products other than indicated within. The buyer assumes all risks of use and/or handling. No statement is intended or should be construed as a recommendation to infringe any patent. Printed in the USA 8-29-07 1007591, 1007592

Environmental Fate – Biodegradability

Dantochlor ultimately hydrolyzes to dimethylhydantoin (DMH) and ethylmethyl hydantoin (MEH). Performance results from an actual operating sewage waste treatment plant demonstrate that both DMH and MEH are biodegradable compounds.

Biodegradation of DMH and MEH in an Operating Sewage Treatment Plant

<u>Time</u>	<u>Total Flow thru Plant (MM Gals.)</u>	<u>Analysis (ppm)*</u>			
		<u>Primary Settler Effluent</u>		<u>Final Discharge Before Chlorination</u>	
		<u>DMH</u>	<u>MEH</u>	<u>DMH</u>	<u>MEH</u>
2 P.M.	2.48	15	<1	<1	<1
5 P.M.	2.16	36	3	<1	<1
8 P.M.	1.87	45	4	<1	<1

*The detection limit for DMH and MEH is 1 ppm

In addition, DMH is classified as “ultimately biodegradable” according to the Modified SCAS Method adopted by US-TSCA guidelines and OECD’s Expert Group on Degradation/Accumulation.

Compatibility

Dantochlor is an active chlorine compound that remains stable when stored in a cool dry area. Similar to other halogen donors, Dantochlor will decompose if mixed with reactable, oxidizable substances. Avoid mixing Dantochlor with lubricating oils, strong acids, strong alkalis and reducing agents.

Safety and Health Information – First Aid

Eyes: Flush eyes with large amounts of running water for at least 15 minutes. Hold eyelids apart to ensure rinsing of the entire surface of the eye and lids with water. If physician not available, flush for additional 15 minutes. Get immediate medical attention.

Skin: Immediately wipe away excess material with a dry cloth while removing contaminated clothing and shoes. Under a safety shower, wash affected areas thoroughly with large amounts of water, and soap if available, for at least 15 minutes. Get immediate medical attention. Discard or decontaminate clothing and shoes.

Ingestion: Immediately give several glasses of water, DO NOT induce vomiting. If vomiting occurs, give fluids again. Have physician determine if patient’s condition allows induction of vomiting or evacuation of stomach. Do not give anything by mouth to an unconscious or convulsing person. Get immediate medical attention.

Inhalation: Remove from area to fresh air. If not breathing, clear airway and start artificial respiration. Get immediate medical attention. If the victim is having trouble breathing, transport to medical care and, if available, give supplemental oxygen.

Note to Physician: Probable mucosal damage may contraindicate the use of gastric lavage.

Containers and Labeling

Dantochor is available in 225lb. fiber drums and bulk bags. As required by the U.S. Department of Transportation, each container bears a yellow "Oxidizer" and "Corrosive" label.