Zinc Pyrithione

Product Stewardship Summary August 2008

Product Name	Zinc Pyrithione
Synonyms	Zinc 2- pyridinethiol- 1 –oxide
CAS Name	Bis(1-hydroxy-2(1H)-pyridinethionato-o,s)-T-4)zinc
CAS Number	13463-41-7
EINECS Number	236-671-3

- *General Description.* Zinc Pyrithione is an insoluble white solid that is sold either as a dry powder, or as an aqueous dispersion for industrial and personal care applications. Zinc Pyrithione is registered by the U.S. EPA under the Federal Insecticide, Fungicide, and Rodenticide Act and supported in Europe under the Biocidal Products Directive.

- *Manufacture.* During production, potential exposure to the concentrate by humans and the environment is tightly controlled and confined through strong industrial hygiene protocols and processes, engineering of the manufacturing equipment, and the use of personal protective equipment.

- *Applications.* Zinc Pyrithione is an antimicrobial and is used around the world in a variety of applications, including antifouling paints, building products, plastics, polyurethane products, textiles and antidandruff shampoos. It is also used as a preservative in personal care products, used in building products, plastics and polyurethane products, as well as biocide in textiles.

- *Benefits.* Zinc Pyrithione is a non-VOC, broad spectrum, highly effective antimicrobial agent. Zinc Pyrithione is used to control mold, mildew, yeasts, fungi, algae, and both gram (+) and gram (-) bacteria.

- *General Precautions.* The concentrated form of Zinc Pyrithione (100% active ingredient powder) is toxic by ingestion; however, Zinc Pyrithione is an emetic which means that accidental ingestion of the material should result in vomiting or purging the material out. Inhaling the concentrated dust or mist of Zinc Pyrithione is considered to be moderately toxic. Dermal exposure to Zinc Pyrithione is considered practically non-toxic.

  Zinc Pyrithione as a concentrate is corrosive to the eyes and can cause severe eye irritation and/or burns. Therefore, it must be washed out immediately to avoid serious injury.

  Zinc Pyrithione is neither a skin sensitizer, nor skin irritant.

  There are no known or expected effects from chronic exposure.

  Zinc Pyrithione is non-mutagenic, and not expected to cause adverse reproductive or embryonic effects. It is not considered carcinogenic.

  In laboratory studies, repeated exposures to concentrated Zinc Pyrithione has been shown to cause toxicity, including hind-limb muscle atrophy that appears to be unique to certain species. Such effects have not been observed in primates even when tested at levels 30 times greater than what was observed in laboratory studies.

  Zinc Pyrithione is considered highly/very toxic to aquatic organisms and aquatic plants; however, due to rapid degradation from sunlight, its presence in the environment is very short lived. Little to no toxicity was observed when terrestrial plants were exposed to large concentrations to Zinc Pyrithione.

- *Likelihood of Exposure:* This product in concentrated form is not sold to the individual consumer. Rather, it is sold to manufacturers who formulate it into products that may then be purchased by individual consumers. In such industrial settings, exposures to humans and the environment are tightly controlled.

- *Risk Management:* Those who handle the concentrated product or formulated products with diluted Zinc Pyrithione should read and follow all label directions carefully.

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This summary is intended to give general information about the chemical or categories of chemicals addressed. It is not intended to be, and should not be relied upon as, a substitute for the detailed health and safety information contained in the Material Safety Data Sheet (or any other required hazard communication material) for this product, which should be consulted before use of the chemical or treatment for exposure. As with any product, it is very important to read and carefully follow all label directions and warnings. This summary does not amend, modify, or replace required regulatory and/or legal communication documents.