



Sodium Pyrithione

Product Stewardship Summary

August 2008

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| Chemical Name: | Sodium Pyrithione |
| Synonyms: | Sodium (2- Sodium 2- pyridenethio – 1 – oxide) |
| CAS Number: | 3811-73-2 |
| CAS Name: | 2-Pyridinethiol-1-oxide sodium salt |
| EINECS Number: | 223-296-5 |

- *General Description.* Sodium Pyrithione is an aqueous solution of sodium 2-pyridinethiol–1–oxide. It 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.* As a concentrate, this product is not sold to the individual consumer. It is formulated in the industrial workplace where exposures to humans and the environment are tightly controlled. Sodium Pyrithione is an effective antimicrobial agent that has been used for many years to protect water-based products and other applications. Examples include metalworking fluids, architectural paints, aqueous emulsion systems; textiles, plastics, flooring, wallboard and various construction products such as adhesives, caulks, components of insulation, flooring, etc.

- *Benefits.* Sodium Pyrithione is a non-VOC, broad spectrum, highly effective antimicrobial agent. It is used to control mold, mildew, fungi, yeasts, algae, and both gram (+) and gram (-) bacteria. Sodium Pyrithione also has excellent heat and pH stability.
- *General Precautions.* Concentrated Sodium Pyrithione may be harmful if ingested, inhaled, or in contact with the skin as absorption can occur; however, diluted at recommended use levels, it is considered non-toxic.

Sodium Pyrithione concentrate in contact with skin and eyes can cause reversible, mild irritation. However, users should avoid contact with the eyes and to avoid any adverse effects wash material out of the eyes immediately.

Sodium Pyrithione is not a skin sensitizer nor is it a photosensitizer.

In laboratory studies, repeated exposures to concentrated Sodium 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.

Sodium Pyrithione is non-mutagenic, and does not cause adverse reproductive or embryonic effects. It is not considered carcinogenic.

Concentrated Sodium Pyrithione is highly/very toxic to aquatic organisms; however, it is also highly sensitive to sunlight and will degrade in minutes. Sodium Pyrithione is very water soluble and adsorption to sediment will occur, however, sodium pyrithione is also rapidly degraded aerobically as well as anaerobically while bound to the sediment.

- *Likelihood of Exposure.* As a concentrate, this product is not sold directly to the individual consumer. It is diluted and formulated into products that are then sold to the general public. During the manufacture of Sodium Pyrithione and its subsequent formulation into various products, exposure to humans and the environment are controlled by engineering controls and personal protective equipment.
- *Risk Management.* Those who handle the concentrated product and products containing diluted Sodium 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.