

THIOGUARD® TST



Premier Technical Resources — Magnesia Specialty Chemicals

Odor, Corrosion, Fog, Biological, and Biosolids Treatment

Did you know?

MSDS sheets state that Anthraquinone should not be dumped into sewers, on the ground or into any body of water.

Anthraquinone is used in dye and paper making

Anthraquinone is used as an avian pest repellent

Among the best performing products for use in municipal corrosion and odor control, with added beneficial use in biological and biosolids waste treatment, Thioguard remains among the safest and most environmentally friendly products available on the commercial market.



THIOGUARD® TST is a non-hazardous application with no required reportable quantities (RQ = None)

Find us online at:
www.THIOGUARD.com
or contact your local

Premier Chemicals Representative

Why Is Anthraquinone Not Added To Thioguard® To Improve Its Performance?

The addition of anthraquinone is thought to enhance suppression of hydrogen sulfide in municipal wastewater by perturbing the mitochondrial electron transport chain in sulfate reducing bacteria, thus inhibiting oxidative phosphorylation (respiration).

For this reason, we are often asked why polyphenolic compounds such as anthraquinone are not added to Thioguard to enhance its performance?

Premier's engineers and scientists are very familiar with polyphenols and work with these compounds in the appropriate

(NTP), that **the chemical causes cancer**. The criteria used by OEHHA for the listing of chemicals under the "authoritative bodies" mechanism can be found in Title 22, Cal. Code of Regs., section 12306.

Moreover, it has been established that in an anaerobic wastewater treatment plant, "if anthraquinone enters with the feed, an aerobic post-treatment process will not lead to elimination of the xenobiotic substrate; on the contrary the already modified anthraquinone will reappear in the effluent."²

Chemical	CAS No.	Toxicological Endpoint	Listing Mechanism ¹
Anthraquinone	84-65-1	Cancer	AB

setting. However our company, and others, also believe that the addition of anthraquinone-containing compounds to municipal wastewater, at any concentration, presents the potential for unintended consequences and needless liability for our company and our customers.

For example, effective September 28, 2007, **Anthraquinone (CAS No. 84-65-1)** was listed as a chemical known to cause cancer in the State of California. The listing of this chemical is based on formal identification by an authoritative body (i.e., the National Toxicology Program

Ring fission, leading to complete mineralization of anthraquinone compounds has been shown not to occur under conditions commonly found in municipal wastewater treatment plants.

Agencies opting to use polyphenolics in water are cautioned to read and follow label directions carefully. These compounds have recently been identified as carcinogenic, and appropriate safety, insurance and bonding is recommended to help adequately protect the general public, as well as the agency opting to use this chemical.

¹Listing mechanism: AB – "authoritative bodies" mechanism (Title 22, Cal. Code of Regs. section 12306)

²Appl Microbiol Biotechnol (1996) 45:719–722

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