

ORIGINAL

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**DOES NOT CONTAIN CBI**

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**TSCA Section 8(e) Notification—Calcium Hydroxide (CAS 1305-62-0)—Lhoist North America and Carmeuse Lime, Inc.**

Dear Sir or Madam:

Lhoist North America (Lhoist) and Carmeuse Lime, Inc. (Carmeuse) jointly provide the following notification subject to TSCA Section 8(e). On October 14, 2010, Lhoist and Carmeuse obtained copies of two European studies of impacts on aquatic species from exposure to calcium hydroxide (hydrated lime), which is manufactured in the United States by Lhoist, Carmeuse, and others. Both studies were performed by ECT Oekotoxikologie GmbH (Florsheim/Main, Germany) and SGS Institute Fresenius GmbH (Tauunusstein, Germany).

Both of the studies indicate toxicity to aquatic species when calcium hydroxide is added to water. This general effect is well-known and well-documented because calcium hydroxide increases the pH of water. At sufficient addition levels, the increase in pH is harmful to aquatic species. Although Lhoist and Carmeuse do not believe that the results of the studies reflect new environmental hazards, as the effect of high pH is well understood, this notification is furnished because the studies relate to specific species.

**1. Rainbow Trout**

A short-term toxicity study was performed with the freshwater fish *Oncorhynchus mykiss* (rainbow trout), employing OECD testing guideline 203. The biological findings (LC50 = 50.6 mg/L) were closely related to the initial pH of the test solutions. The initial pH of the test environment (calculated at 10.9 for the LC50 level, at 15 degrees C) is considered the main reason for the effects of calcium hydroxide on the fish.

Methods	Results	Remarks
<i>Oncorhynchus mykiss</i> reconstituted water static OECD Guideline 203 (Fish, Acute Toxicity Test)	LC50 (96 h): 50.6 mg/L (nominal)	1 (reliable without restriction)  key study  experimental result  Test material: calcium hydroxide

**CONTAINS NO CBI**

## 2. *Daphnia magna*

A short-term toxicity test with *Daphnia magna* was carried out employing the OECD testing guideline 202. The biological findings for *Daphnia magna* (immobility) were closely related to the initial pH of the test solutions. The initial pH of the test environment (calculated at 10.9 for the EC50 level, at 20 degrees C) is considered the main reason for the effects of calcium hydroxide on *Daphnia magna*.

Methods	Results	Remarks
<i>Daphnia magna</i> Elendt Medium M4 static OECD Guideline 202 ( <i>Daphnia</i> sp. Acute Immobilization Test) EU Method C.2 (Acute Toxicity for <i>Daphnia</i> )	EC50 (from regression curve) (48 h): 49.1 mg/L act. ingr. (Ca(OH) <sub>2</sub> (estimated)  based on: mobility	1 (reliable without restriction)  key study  experimental result  Test material: calcium hydroxide

Please contact me if there are questions concerning this matter or if additional information is needed.

Respectfully submitted,



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