TECHNICAL SUPPORT SECTION TOXICITY REVIEW - I

Disinfectants Branch

IN 12/03/84 OUT 01/14/85

Reviewed by James E. Wilson, Jr. Date 01/10/85

EPA Reg. No. or File Symbol 21164-L,A

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Date Division Received 11/29/84

Type Product(s): I,(D,) H, F, N, R, S

Data Accession No(s) 255801,255802

Product Mgr. No. 32 (Castillo)

Product Name(s) AKta Klor 80, AKta Klor 25

Company Name (s) Rio Linda Chemical Company, Inc.

Submission Purpose Resubmission - Tox. Data

Chemical & Formulation 80 - Powder/25 - liquid

Active Ingredient (s):	%
Sodium chlorite	80 and 25

1/3

BACKGROUND

Acute oral studies were required in a previous study since all of the test animals died at the 5.0 g/kg level where the 80% formulation was tested. Data on both the 25 and 80% formulations are submitted in this package.

RECOMMENDATION

Based on the data submitted the 80% formulations and the 25% should be placed in toxicity categories 2 and 3 respectively for oral toxicity.

LABELING

The statement "Harmful if swallowed" on the 80% label should be expanded to read "Harmful or fatal if swallowed". The changes recommended in the previous safety review still apply.

CRP STATUS

Special packaging is not required based on the area of intended use (industrial).

DATA REVIEW

Reports by Northview Pacific Laboratories, Inc., submitted to Rio Linda Chemical Company, Inc., Rio Linda, CA 95673. (Accession Nos. 255801, 255802)

Acute Oral (AKTA KLOR 80)

Report dated November 15, 1984.

Method - After range finding does of 50-750 mg/kg were administered to rats, doses of 315 and 355 mg/kg were administered to 5 male and 5 female rats in each group. Doses of 180 and 280 mg/kg were administered to to 6 and 8 male and female rats per group respectively. All animals were weighed on the day of dosing and weekly thereafter. After the 14 day observation period all animals were given a gross necropsy examination.

Results - The mortality produced appears in the chart below:

Dose (mg/kg)	Mortality (M:F)
180	1/6:1/6
280	6/8:6/8
315	3/5:3/5
355	5/5:4/5

The signs recorded were bleeding from the nose and mouth, lethargy, paleness, diarrhea and scruffy coat. Weight and appetite losses were noted. Animals that died had discolored lungs and intestines darken adrenals, kidneys and livers and stomachs filled with fluid; reddened lungs were found in survivors.

Conclusion - The calculated LD_{50}s are 225 and 270 mg/kg in male and female rats respectively.

Acute Oral (AKTA KLOR 25)

Report dated November 12, 1984.

Method - The method used in the previously was also used in this study. Males were administered doses of 750, 795, 890, 1000 and 1500 mg/kg; females received doses of 600, 650, 710, 795 and 890 mg/kg.

Results - The mortality is presented in the chart below:

Dose (mg/kg)	Mortality (M:F)
600	-:2/6
650	-:0/5
710	-:4/5
750	0/5:--
795	2/5:5/5
890	3/5:6/6
1000	5/6:-
1500	6/6:-

The signs and necropsy finding were essentially the same as those found in the preceding study.

Conclusion - The LD_{50}s are 820 and 640 mg/kg for male and female rats respectively.