

14K71413

TSCA HEALTH & SAFETY STUDY COVER SHEET - revised 6/25/96

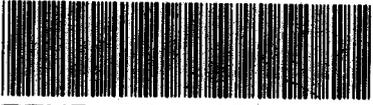
TSCA CBI STATUS:

CHECK IF THIS PAGE CONTAINS CONFIDENTIAL BUSINESS INFORMATION (CBI)

Clearly mark the confidential information with bracketing and check the box in the appropriate section (Contains CBI).
Submit a sanitized cover sheet with CBI deleted. Mark the sanitized copy, "Public Display Copy" in the heading.

Submission date: September 25, 1997
 8EHQ - 1097 - 14030
 Docket Number, if any: #

continuation sheet attached

| | | |
|--|---|--|
| 2.1 SUMMARY/ABSTRACT ATTACHED <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | 2.2 SUBMITTER TRACKING NUMBER OR INTERNAL ID 8E-97-4 | 2.3 FOR E  BEHQ-97-14030 |
|--|---|--|

3.0 CHEMICAL/TEST SUBSTANCE IDENTITY Contains CBI
Reported Chemical Name (specify nomenclature if other than CAS name):
 Cyclopropanecarboxylic acid, methyl ester

CAS #: 2868-37-3
 Purity: 99.9%
 Single Ingredient
 Commercial/Technical Grade
 Mixture

Trade Name: _____ Common Name: _____
 CAS Number: _____ Name: _____


88980000004

Other chemical(s) present in tested mixture

Contains No CBI

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4.0 REPORT/STUDY TITLE Contains CBI
 These results have been reported only orally from the laboratory. The full report will be submitted as soon as received.

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5.1 STUDY/TSCATS INDEXING TERMS [CHECK ONE]
 HEALTH EFFECTS (HE): X ENVIRONMENTAL EFFECTS (EE): ENVIRONMENTAL FATE (EF):

5.2 STUDY/TSCATS INDEXING TERMS (see instructions for 4-digit codes)

| | | | |
|----------------------------------|---|---|--|
| STUDY TYPE: STOX Other: _____ | SUBJECT ORGANISM (HE,EE only): RATS Other: _____ | ROUTE OF EXPOSURE (HE only): INHL Other: _____ | VEHICLE OF EXPOSURE (HE only): AIR Other: _____ |
|----------------------------------|---|---|--|

6.0 REPORT/STUDY INFORMATION Contains CBI Study is GLP

Laboratory: Health and Environment Laboratories, Eastman Kodak Company
1100 Ridgeway Avenue, Rochester, NY 14652

Report/Study Date: N/A
 Source of Data/Study Sponsor (if different than submitter): _____
 Number of Pages: N/A

continuation sheet attached

7.0 SUBMITTER INFORMATION Contains CBI

Submitter: Marc G. Schurger Title: Director, Product Safety and Regulatory Programs Phone: (423) 229-5921
 Company Name: Eastman Chemical Company Company Address: P. O. Box 1994, Kingsport TN 37664-5394
 Submitter Address (if different): _____
 Technical Contact: Karen R. Miller, Ph.D. Phone: (423) 229-1654

continuation sheet attached

8.0 ADDITIONAL/OPTIONAL STUDY COMMENTS Contains CBI

continuation sheet attached

RECEIVED
OPIPT NCIC
97 OCT -6 PM 12:12

RECEIVED
OPIPT NCIC
97 OCT 14 PM 3:37

Submitter Signature: Marc G. Schurger

Date: 9-26-97
9/26/97

9.0 CONTINUATION SHEET

TSCA CBI STATUS:

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Submitter Tracking Number/Internal ID

8E-97-4

Preliminary Results from a 4-Week Inhalation Toxicity Study of Methyl Cyclopropanecarboxylate (MCPC)

In this study, male and female Sprague-Dawley rats were exposed to nominal concentrations of 0, 0.1, 0.5, or 1.0 mg/l of MCPC for 6 hours per day, 5 days per week for 4 weeks (excluding holidays) and for 2 days of the fifth week. Animals were observed during and after exposure and daily on non-exposure days. Body weights and feed consumption were measured weekly. Minimal signs of toxicity such as reduced activity during exposure, reduced feces, and porphyrin discharge from the nose were observed in animals exposed to 1.0 mg/l. No unusual or remarkable effects were seen at lower concentrations. After 4-weeks of exposure, animals were fasted and sacrificed. Blood was collected and analyzed for clinical chemistry and hematology. There were no significant changes in clinical chemistry, and there were no changes in hematology. Mean relative (to body weight) heart weights for male rats exposed to 0.5 and 1.0 mg/l, and all treated female groups were significantly higher than for the control groups. Relative liver weights for the 1.0 mg/l male group, and absolute and relative liver weights for all treated female groups were significantly higher than for the control group. Absolute and relative kidney weights were also significantly higher for the treated female groups than for the control group. Evidence of concentration-related increases in organ weight were not always observed among groups of female rats. Histopathologic examinations were performed on sections of liver and heart (all animals), testes and epididymides (males) and sternal bone marrow (females). Lesions in the heart included myocarditis, muscle fiber vacuolation, and muscle fiber degeneration. These heart lesions were observed at all exposure levels for both male and female rats. Lesions in the liver included hepatocellular cytoplasmic vacuolation, which was observed at all exposure levels for both males and females. Spermatid degeneration was seen only in the 1.0 mg/l male group. There was a mild decrease in cellularity within the sternal bone marrow of three females in the 1.0 mg/l group and one female in the 0.5 mg/l group, as well as a minimal decrease in cellularity in the sternal marrow of one female in the 0.1 mg/l group.

The preliminary evaluation of these data suggests that the lesions observed in the heart should be considered adverse since lesions of this type are not commonly observed. The spermatid degeneration should be considered adverse although the finding is limited to the highest concentration of 1.0 mg/l. The hepatocellular cytoplasmic vacuolation may be an adaptive response to exposure to the test substance since there were no indications from clinical chemistry data of hepatocellular damage. A no-observed-effect-level was not determined in this study.