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Eastman Chemical Company
P. O. Box 431
Kingsport, Tennessee 37662

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February 19, 1999

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Attn: TSCA Section 8(e)
Room G99 East Tower
Office of Pollution Prevention and Toxics
U. S. Environmental Protection Agency
401 M Street, S.W.
Washington, DC 20460-0001

8EHQ-99-14390

4699 0000 109

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Ladies and Gentlemen:

Eastman Chemical Company submits two reports as required under TSCA §8(e) for your consideration.

1. (Preliminary) Eye Irritation Study of Cyclopropyl Methyl Ketone in the Rabbit
2. (Final) Cyclopropyl Methyl Ketone: Acute Dermal Irritation Study in the Rabbit

If you have questions, you may contact me by telephone at (423) 229-4274 or the technical contact, Karen R. Miller, Ph.D., at (423) 229-1654.

Very truly yours,

F. David Petke, Ph.D.
Senior Technical Associate
Product Safety and Stewardship

cc: 8(e) file

8(e)1999-1.doc

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

TSCA CBI STATUS:

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1.0 SUBMISSION TYPE <input type="checkbox"/> Contains CBI <input type="checkbox"/> 8(d) <input checked="" type="checkbox"/> 8(e) <input type="checkbox"/> FYI <input type="checkbox"/> 4 <input type="checkbox"/> Other: specify <input checked="" type="checkbox"/> Initial submission <input type="checkbox"/> Follow-up submission <input type="checkbox"/> Final report submission Previous EPA Submission or Title if Update or Follow-up: _____ Docket Number, if any: # _____ <input type="checkbox"/> continuation sheet attached		Submission date: February 19, 1999 RECEIVED DPPT CBI 99 MAR - 1 PM 3:34
2.1 SUMMARY/ABSTRACT ATTACHED <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	2.2 SUBMITTER TRACKING NUMBER OR INTERNAL ID 8(e)1999-2	2.3 FOR EPA USE ONLY
3.0 CHEMICAL/TEST SUBSTANCE IDENTITY <input type="checkbox"/> Contains CBI <i>Reported Chemical Name (specify nomenclature if other than CAS name)</i> CAS #: 765-43-5 Ethanone, 1-cyclopropyl Purity: 100 % <input checked="" type="checkbox"/> Single Ingredient Common Name: cyclopropyl methyl ketone <input type="checkbox"/> Commercial/Technical Grade <input type="checkbox"/> Mixture Trade Name: None		
Other chemical(s) present in tested mixture: None <input type="checkbox"/> continuation sheet attached	 8EHQ-99-14390	% WEIGHT  88990000109
4.0 REPORT/STUDY TITLE <input type="checkbox"/> Contains CBI Not received from the laboratory yet <input type="checkbox"/> continuation sheet attached		
5.1 STUDY/TSCATS INDEXING TERMS [CHECK ONE] HEALTH EFFECTS (HE): <input checked="" type="checkbox"/> ENVIRONMENTAL EFFECTS (EE): _____ ENVIRONMENTAL FATE (EF): _____		
5.2 STUDY/TSCATS INDEXING TERMS (see instructions for 4-digit codes) STUDY TYPE: EIRR Other: _____	SUBJECT ORGANISM (HE,EE only): RABB Other: _____	ROUTE OF EXPOSURE (HE only): Other Other: Direct into eye VEHICLE OF EXPOSURE (HE only): Other Other: 100% substance
6.0 REPORT/STUDY INFORMATION <input type="checkbox"/> Contains CBI <input checked="" type="checkbox"/> Study is GLP Laboratory: <u>Health and Environment Laboratories, Eastman Kodak Company</u> Report/Study Date: <u>Not available</u> <u>1100 Ridgeway Avenue, Rochester, NY 14652</u> Source of Data/Study Sponsor (if different than submitter) Number of Pages: <u>Not known</u> <input type="checkbox"/> continuation sheet attached		
7.0 SUBMITTER INFORMATION <input type="checkbox"/> Contains CBI Submitter: <u>Marc G. Schurger</u> Title: <u>Director, Product Safety and Stewardship</u> Phone: <u>(423) 229-5921</u> Company Name: <u>Eastman Chemical Company</u> Company Address: <u>P. O. Box 431, Kingsport TN 37662-5280</u> Submitter Address (if different): _____ Technical Contact: <u>Karen R. Miller, Ph.D.</u> Phone: <u>(423) 229-1654</u> <input type="checkbox"/> continuation sheet attached		
8.0 ADDITIONAL/OPTIONAL STUDY COMMENTS <input type="checkbox"/> Contains CBI It should also be noted that other in studies on this chemical no significant adverse effects were found. In a dermal toxicity study in rats, a single limit dose of 2000 mg/kg resulted in no irritative effects. In a skin sensitization study in guinea pigs, a 10% solution caused no signs of irritation. And finally, in an <i>in vitro</i> skin absorption test using human skin, no significant damage to the skin was seen after exposure to the test substance for 8 hours. <input type="checkbox"/> continuation sheet attached		

Submitter Signature: Marc G. Schurger Date: 2/18/99

9.0 CONTINUATION SHEET

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Submitter Tracking Number/Internal ID

8E-1999-2

Preliminary Results for Cyclopropyl Methyl Ketone Eye Irritation Study in the Rabbit

Preliminary results from an eye irritation study of cyclopropyl methyl ketone showed the potential for irreversible eye damage. A single dose of 0.1 mL of the test substance was administered into the conjunctival sac of one eye of each of two rabbits. Immediately after administration, the treated eye of one animal was washed with distilled water. The other treated eye was not irrigated.

The observations for the unwashed eye are as follows: After 24 hours, opacity (grade 2)¹ that extended over $\frac{3}{4}$ to the entire area of the cornea, severe redness (grade 3), moderate chemosis (grade 2), and moderate discharge (grade 1) were observed. Staining of the conjunctivae and cornea was apparent when fluorescein dye was applied at the 24 hour examination. After 48 hours, there was corneal opacity (grade 2) which extended over $\frac{3}{4}$ to the entire area, severe redness (grade 3), moderate chemosis (grade 2), profuse-purulent discharge, and injection of the iris (grade 1). At 72 hours, the signs of irritation were similar to that for 48 hours with the exception that chemosis increased to grade 3. At 96 hours, the same signs of irritation were observed as those at 72 hours. The study laboratory believed that the condition was permanent and terminated the study at this point.

The completed report will be submitted when received from the testing laboratory.

¹Graded according to OECD Guideline 405 (Annex V., Test B.5)