

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

TSCA CBI STATUS:

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<b>1.0 SUBMISSION TYPE</b> <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 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: _____ <input type="checkbox"/> continuation sheet attached		Submission date: January 15, 1998  Docket Number, if any: # <div style="font-size: 1.5em; font-weight: bold;">8EHQ-0198-14112</div>						
<b>2.1 SUMMARY/ABSTRACT ATTACHED</b>  <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<b>2.2 SUBMITTER TRACKING NUMBER OR INTERNAL ID</b>  8E-98-1	<b>2.3 FOR EPA USE ONLY</b>						
<b>3.0 CHEMICAL/TEST SUBSTANCE IDENTITY</b> <input type="checkbox"/> Contains CBI <u>Reported Chemical Name (specify nomenclature if other than CAS name):</u> furan, tetrahydro-, 3-carboxaldehyde CAS #: 79710-86-4 Purity: 99% <input checked="" type="checkbox"/> Single Ingredient <input type="checkbox"/> Commercial/Technical Grade <input type="checkbox"/> Mixture    Trade Name: None    Common Name: 3-formyltetrahydrofuran								
Other chemical(s) present in tested mixture <input type="checkbox"/> continuation sheet attached		<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 30%;">CAS Number</th> <th style="width: 40%;">Name</th> <th style="width: 30%;">% WEIGHT</th> </tr> </thead> <tbody> <tr> <td></td> <td style="text-align: center;">not known</td> <td></td> </tr> </tbody> </table> <div style="font-size: 2em; font-weight: bold; text-align: center;">Contains No CBI</div>	CAS Number	Name	% WEIGHT		not known	
CAS Number	Name	% WEIGHT						
	not known							
<b>4.0 REPORT/STUDY TITLE</b> <input type="checkbox"/> Contains CBI Eye Irritation Study of 3-Formyltetrahydrofuran in the Rabbit <input type="checkbox"/> continuation sheet attached		 BEHQ-98-14112						
<b>5.1 STUDY/TSCATS INDEXING TERMS</b> [CHECK ONE] HEALTH EFFECTS (HE): <input checked="" type="checkbox"/> ENVIRONMENTAL EFFECTS (EE): _____    ENVIRONMENTAL FATE (EF): _____								
<b>5.2 STUDY/TSCATS INDEXING TERMS</b> (see instructions for 4-digit codes) <table style="width:100%;"> <tr> <td style="width: 25%;">STUDY TYPE: ATOX Other: _____</td> <td style="width: 25%;">SUBJECT ORGANISM (HE,EE only): RABB Other: _____</td> <td style="width: 25%;">ROUTE OF EXPOSURE (HE only): Other: Direct to eye</td> <td style="width: 25%;">VEHICLE OF EXPOSURE (HE only): Other: None</td> </tr> </table>			STUDY TYPE: ATOX Other: _____	SUBJECT ORGANISM (HE,EE only): RABB Other: _____	ROUTE OF EXPOSURE (HE only): Other: Direct to eye	VEHICLE OF EXPOSURE (HE only): Other: None		
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<b>6.0 REPORT/STUDY INFORMATION</b> <input type="checkbox"/> Contains CBI <input type="checkbox"/> Study is GLP Laboratory: <u>Health and Environment Laboratories, Eastman Kodak Company</u> <u>1100 Ridgeway Avenue, Rochester, NY 14652</u> Source of Data/Study Sponsor (if different than submitter): _____ <input type="checkbox"/> continuation sheet attached								
<b>7.0 SUBMITTER INFORMATION</b> <input type="checkbox"/> Contains CBI Submitter: <u>Marc G. Schurger</u> Title: <u>Director, Product Safety and Regulatory Programs</u> Phone: (423) 229-5921 Company Name: <u>Eastman Chemical Company</u> Company Address: <u>P. O. Box 1994, Kingsport TN 37664-5394</u> Submitter Address (if different): _____ Technical Contact: <u>Karen R. Miller, Ph.D.</u> Phone: (423) 229-1654 <input type="checkbox"/> continuation sheet attached		RECEIVED OPT NOIC 90 FEB - 14 AM 8:14						
<b>8.0 ADDITIONAL/OPTIONAL STUDY COMMENTS</b> <input type="checkbox"/> Contains CBI  <input type="checkbox"/> continuation sheet attached								

Submitter Signature: Marc G. Schurger

Date: 1/16/98



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## 9.0 CONTINUATION SHEET

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Submitter Tracking Number/Internal ID

8E-98-1

## Preliminary results for 3-Formyltetrahydrofuran Eye Irritation

Preliminary results from an eye irritation study of 3-formyltetrahydrofuran showed the potential for irreversible eye damage. A single dose of 0.1 milliliter of the test substance was administered into the conjunctival sac of one rabbit. After 24 hours, scattered or diffuse areas of opacity extended over three-quarters of the eye (grade 1)\*; iris effects (grade 1), severe redness (grade 3), swelling of lids half-closed (chemosis, grade 3), and moderate discharge were also observed. After 48 hours, the degree of corneal opacity increased such that the iris was slightly obscured (grade 2); all other effects remained the same. By day 7, the corneal opacity increased such that no details of the iris were visible (grade 3); all other effects remained the same. On day 14, redness and chemosis was reduced to grade 2, but grade 3 corneal opacity was still present and moderate pannus was observed. On day 21, moderate pannus was still present, the corneal opacity and redness were reduced to grade 2, the swelling was reduced to grade 1, and moderate discharge was still evident. The study laboratory believed that the condition was permanent and terminated the study at this point.

A single dose of 0.1 milliliter of the test substance was administered into the conjunctival sac of a second rabbit, which was then immediately irrigated with water. Corneal opacity of grade 1 that extended over three-quarters of the eye was observed from the 24-hour through the 96-hour evaluations but was no longer evident by day 7. Severe redness and swelling (grade 3) was still evident through day 7, but the only effect noted on day 21 was minor redness (grade 1). Therefore, immediate washing of the eye with water reduce the observed effects substantially.

\*Graded as described in OECD Guideline 405 (Annex V., Test b.5)(Grading for Ocular Lesions)