

TSCA HEALTH & SAFETY STUDY COVER SHEET

CONTAIN NO CBI

TSCA CBI STATUS: NONE

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<b>1.0 SUBMISSION TYPE</b> <input type="checkbox"/> 8(d) <input checked="" type="checkbox"/> 8(e) <input type="checkbox"/> FYI <input type="checkbox"/> 4 <input type="checkbox"/> OTHER: Specify _____ XX- Initial Submission    - Follow-up Submission <input type="checkbox"/> Final Report Submission Previous EPA Submission Number or Title if update or follow-up: _____    Docket Number, if any: # _____ <input type="checkbox"/> continuation sheet attached		
<b>2.1 SUMMARY/ABSTRACT ATTACHED</b> (may be required for 8(e): optional for §4, 8(d) & FYI) X- YES <input type="checkbox"/> NO	<b>2.2 SUBMITTER TRACKING NUMBER OR INTERNAL ID</b> 7004 2510 0002 4033 8520 05-2-21	<b>2.3 FOR EPA USE ONLY</b>
<b>3.0 CHEMICAL/TEST SUBSTANCE IDENTITY</b> CAS#: 75-44-5 <i>Reported Chemical Name (specify nomenclature if other than CAS name):</i> Carbonyl Chloride Purity ___% X- Single Ingredient <input type="checkbox"/> Commercial/Tech Grade <input type="checkbox"/> Mixture    Trade Name Phosgene    Common Name: Carbonyl Chloride CAS Number _____ NAME _____ % WEIGHT _____ Other chemical(s) present in tested mixture _____ <input type="checkbox"/> continuation sheet attached		
<b>4.0 REPORT/STUDY TITLE</b> Acute nose-only exposure of rats to phosphene. Part I: Concentration x time dependence of LC50s, non-lethal-threshold concentrations and analysis of breathing patterns. Study No.: MS05-950 <input type="checkbox"/> continuation sheet attached		
<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) STUDY TYPE: ATOX    SUBJECT ORGANISM (HE, EE): RATS    ROUTE OF EXPOSURE (HE only): _____ VEHICLE OF EXPOSURE (HE only): _____ Other: _____ Other: _____ Other: _____		
<b>6.0 REPORT/STUDY INFORMATION</b> <input type="checkbox"/> Study is GLP Laboratory <u>Bayer HealthCare, 42096 Wuppertal, Germany</u> Report/Study Date: 10/19/05 Source of Data/Study Sponsor (if different than submitter) <u>Bayer Toxicology</u> <input type="checkbox"/> continuation sheet attached		
<b>7.0 SUBMITTER INFORMATION</b> Janet M. Mostowy, Ph.D. Head of Product Safety & Regulatory Affairs    Phone: 412-777-3490 Bayer Material Science Corporation - 100 Bayer Road, Pittsburgh, PA. 15205 Technical Contact: <u>SAME AS ABOVE</u> Phone: ( ) _____ <input type="checkbox"/> continuation sheet attached		
<b>8.0 ADDITIONAL/OPTIONAL STUDY COMMENTS</b> This compound is an intermediate/reactant for isocyanate production. <input type="checkbox"/> continuation sheet attached		

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Submitter Signature: *[Handwritten Signature]*

Date: 11/16/05

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## 9.0 CONTINUATION SHEET

Submitter Tracking Number/Internal ID

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### Continuation of 2.1

Reporting was based on the following results:

This draft manuscript describes an inhalation toxicity study where groups of male and female Wistar rats were exposed to phosgene at a variety of exposure concentrations for each of the following durations: 10, 30, 60 and 240 minutes. The C x T products ranged from 1538 - 2854 mg/m<sup>3</sup>-min. The primary endpoint was mortality but respiratory function measurements, bronchoalveolar lavage and lung histopathology were also conducted. The median lethal concentrations (LC50) and the lethal threshold concentrations (LC01) for 10, 30, 60 and 240 minutes were 253.3 (105.3), 54.5 (29.2), 31.3 (21.1), and 8.6 (5.3) mg/m<sup>3</sup>, respectively.

The findings from this study are considered potentially reportable. Principally, the LC50 values for 10, 30, 60 and 240 minutes of exposure were slightly lower than those reported by Zwart et al (Determination of concentration-time-mortality relationships to replace LC50 values. Inhalation Toxicology 2: 105-117, 1990).