



DOW CHEMICAL U.S.A.

REV
8(E)

Building B-101

TEXAS OPERATIONS
FREEPORT, TEXAS 77541

March 5, 1990

R&S 140298

J. H. Giles

EDA

A-3850

xc: D. Cragar
R. Fike, M. D.
Summary File

SAFETY DATA SHEET
Ethylene Dichloride
Produced Pursuant
to the
OSHA 1910.106
Case No. 100-1-100
Western District of New York

OCCUPATIONAL HEALTH SUMMARY REPORT

This is a voluntary participation program. The group population is 34. Seventeen individuals have current information and were not examined at this time. Seventeen individuals were examined between October 13, 1989 and November 8, 1989 for a 100% participation rate.

The Chemical and Physical Agent Inventory (CPAI) for the Ethyleneamines plant shows that the chemical of greatest concern is vinyl chloride. The Control C Operators are followed on the Vinyl Chloride Medical Surveillance Requirement, which conforms with the OSHA Vinyl Chloride Standard. The remaining job classifications are followed on the periodic core examination.

The 1988 Noise Survey is summarized in I. H. Report No. A38-3367N. The eight-hour time-weighted average exposures are less than 85 decibels on the A-scale. These job classifications do not need to be included in the Hearing Conservation Program.

The 1983-1986 Industrial Hygiene monitoring data for ethylene dichloride, vinyl chloride, ethylenediamine, diethylenetriamine, triethylenetetramine, and tetraethylenepentamine are summarized in I. H. Report No. A38-2901C. Employee eight-hour time-weighted average exposures were well below the Industrial Hygiene Guide (IHG) or were judged to be acceptable where an IHG did not exist.

There are six TSCA 8(d) chemicals present. They are diethylenetriamine, toluene, isopropyl alcohol, ethylene dichloride, pyridine, and nitrobenzene. Monitoring data is described above for diethylenetriamine and ethylene dichloride. Pyridine, toluene, isopropyl alcohol, and nitrobenzene are used as laboratory chemicals and are present in small amounts.

There were nine audiograms done as part of the routine periodic core examination. There were no standard threshold shifts as defined by the OSHA Noise Standard.



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Six individuals have medical limitation of respirator usage based on initial screening of the medical examination data. Please see the attached list for medical limitation of respirator usage. If these medical restrictions interfere with an employee's job requirements, further evaluation at the Occupational Health Department should be arranged to fully assess the need for medical limitation of respirator usage.

The liver is considered the main target organ for vinyl chloride. Two individuals of the fifteen tested had minimal elevations of one liver enzyme of the five liver enzymes we test in each individual. This is considered an expected pattern in a group of this size and does not suggest any special toxic effect influencing the results of this group.

There were thirteen core examinations done. Individuals with life-style factors amenable to medical or dietary intervention include the following: six smokers, seven individuals who are overweight, one individual with uncontrolled hypertension, and four individuals with elevated cholesterol levels. Please contact the Up-With-Life Program (X-4334) for assistance in modification of these life-style risk factors.

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Industrial Hygiene Services
238-5031

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238-5018

Approved:

3-6-90
Date

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Attachment

