

ESTIMATE OF SITUATION - VCM IN AEROSOLS

1. VCM - use in aerosols - reasons

Functional - high solvency combined with good propellant characteristics uniquely suited to paints and lacquers.

Economy - lowest priced chlorinated solvent/propellant available as simple diluent.

2. Hazards

Flammability - imposes upper limit on percent VCM in mixes.

Toxicity - acute. Dizziness in humans at 0.8 - 1.2%.

Narcotic effect at 8% concentration; impairs cardiac function at this level - sniffing probably dangerous although lethal limit is said to be 30-40%.

Toxicity - chronic.

a. Vague liver function impairment at about 300 ppm
8 hr/day

b. Dow article claims increase in liver wt. @ 50 ppm,
recommended 100 ppm TLV and time weighted 50 ppm.

Irritation - not well documented but believed to be irritant to some subjects above about 500 ppm.

Tumorigenesis - Tumorigenic @ 30,000 PPM. Possibly tumorigenic in rats at 6000 and 10,000 ppm. Tumorigenicity suspected at lower doses.



3. History of Industrial TLV's

Before 1971 - 500 ppm

1971 No value - referred to notice of Int. Ch. to 200

Currently (1972) - 200 ppm

Predicted basis current work - 50 or less; possibly some use restrictions.

General Population exposures - generally permitted at 1% of TLV; seldom more than 10%.

4. ACC legal exposures

Common law duty to warn; (also strict liability?) - runs to customers and their customers.

OSHA - advise customers of potential hazards - only if asked.

DOT - covers fire hazard and acute toxicity only.

Consumer product safety act. Applies to our customers but not to us. However, we may have implied duty to warn our customers if we are presumed to be knowledgeable and they are presumed not to be.

Toxic substances control act (pending). Will probably have distribution controls and/or prohibited uses for all suspect carcinogens.

Note: Have made positive recommendations to use VCM mixtures in 1962 bulletin and by letter at later dates in response to specific inquiries.

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5. Reasonably possible developments not under ACC control.

Link of cancer scare with aerosol safety in general, citing Viola. Possible sources: Hueper et al, Nader groups, liberal journalists.

Failure of ongoing animal work to demonstrate no tumorigenic effect level in animals at less than about 1000 ppm

"Sniffing" deaths related to VCM containing formulations

Consumer safety regulations covering aerosol formulations

Consumer items containing VCM become prohibited uses under pending legislation.

or

In anticipation of any of the above, withdrawal of aerosol grade from market by Dow et al.

6. Options open to Allied Chemical

a. Discontinue marketing without explanation or with verbal explanation.

b. Discontinue marketing with written explanation.

(1) Alt. 1 - full disclosure

(2) Alt. 2 - emphasize declining trends in permissible industrial exposures; i.e., TLV's

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- c. Orderly withdrawal from market, without explanation
 - (1) Passive.
 - (2) Active.

- d. Issue warning but continue to supply if demanded.
(Has been done in some cases)

- e. Express general concern and offer alternate formulations
 - (1) Continue to supply VCM if demanded
 - (2) Discontinue VCM

- f. Do nothing affirmative but respond to future events.

WSF:md
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