

VC Latex

KNOWN VCM EMISSIONS FROM LATEX MANUFACTURE

Amount of VCM

<u>Points</u>	<u>Lbs. per wet Lb. of Latex Produced</u>	<u>Conc. ppm</u>	<u>Lbs./Hr.</u>	<u>Time Minutes</u>
1	0.6×10^{-6}	Pure VCM	6	5
2(1)	0	0	---	---
3(1)	0	0	---	---
4(1)	0	0	---	---
5(1)	0	0	---	---
6	2×10^{-8}	10	0.0007	35
7	0.6×10^{-8}	3	0.0002	35

(1) Procedural changes, vent to incinerator

Ambient Air Data

<u>Sample Points</u>	<u>1974, ppm</u>	<u>1976, ppm</u>
a. Fence Line	< 1	< 0.5
b. Monomer Unloading	4 - 400	< 1 - 10
c. Reactor Area	< 1 - 4	< 1
d. Filtration Area	< 1 - 1	< 0.5
e. Product Storage	< 1	< 0.5
f. Laboratory	< 1	< 1
g. Front of Office Building	< 1	< 0.5

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PRODUCTION

<u>Plant</u>	<u>Product</u>	<u>MM Pounds Gross</u>	
		<u>1974</u>	<u>1976</u>
Torrance, California	Milt 31 → TS 58%	4.0	12.0
	→ VC 35%		
Tucker, Georgia	UCAR-1000 → TS 52%	6.0	1.6
	→ VC 17%		
Somerset, New Jersey	UCAR-1000	3.0	1.4
Somerset, New Jersey	UCAR-508 → TS 53%	<u>2.0</u>	<u>3.5</u>
	→ VC 28%		
Totals		15.0	18.5
Plant Total Production		125.0	135.0

PRODUCT VINYL CHLORIDE MONOMER CONTENT

	<u>1974, ppm</u>		<u>1976, ppm</u>	
	<u>Ave. Value</u>	<u>Maximum</u>	<u>Ave. Value</u>	<u>Maximum</u>
Milt 31	600	No Limit	<1.0 - 5.0	10
UCAR-1000	300	No Limit	<1.0 - 4.0	10
UCAR-508	60	No Limit	<0.5 - 5.0	10

WASTE VINYL CHLORIDE MONOMER CONTENT

<u>Type</u>	<u>1974, ppm</u>	<u>1976, ppm</u>
Solid	1	<1.0
Liquid	400	<1.0
Rinses	<1	<0.1

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VINYL CHLORIDE MATERIAL BALANCE

<u>Input, Pounds</u>	<u>1974</u>	<u>1976</u>
Vinyl Chloride Monomer	100.00	100.00
 <u>Output, Pounds</u>		
Product, PVC (a)	94.00	95.0000
Product, PVC (b)	---	2.0000
Product, VCM (a & b)	0.30	0.0005
Heel Returned in Truck, VCM	1.50	1.5000
To Incinerator, VCM	---	1.4200
Loss, VCM	4.1	0.0295
Waste, PVC	0.05	0.0500
Total Accounted	99.95	100.0000

(a) In PVC Products

(b) In Non-PVC Products

TOTAL ACCOUNTED VCM POSSIBLE TO ATMOSPHERE

1974 = 0.044 lbs./lb. Product x 15.0 MMlb. = 660,000 lbs.

1976 = 0.0003 lbs./lb Product x 18.5 MMlb. = 5,550 lbs.

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COSTS (3 LOCATIONS) FOR OSHA COMPLIANCE

Investment Costs	\$180,000
Annual Operating Costs	38,550

Reduction of VCM to air:

660,000 lbs. /yr. - 5,550 lbs. /yr. = 654,450 lbs. /yr.

ESTIMATED COSTS (3 LOCATIONS) FOR EPA COMPLIANCE

Investment Costs	\$20,000
Annual Operating Costs	50,000

Anticipated reduction of VCM to air = NONE.