

Monsanto

COMPANY CONFIDENTIAL

FROM
(NAME-LOCATION-PHONE) H. C. Godt - T1B - 2616

DATE : July 25, 1979

CC: J. P. Mieure - T3B

SUBJECT : "CHLORODIOXIN" PROBLEM - NITRO PLANT

REFERENCE :

TO : C. F. Callis - B2SA

As requested, attached is a list of all MIC processes at the Nitro plant with speculation of the probability of chlorodioxins being present in the specified process.

The philosophy behind the assigned priority is not the same as that used in a similar memo to C. W. Roos dated May 11, 1970. This is because I have gained additional knowledge about MIC processes over the past nine years, and our product mix has changed. Nevertheless, my current judgement is that we should have very little concern that any of the Nitro processes represent a chlorodioxin threat. In the attachment, those processes which have even the slightest chance of containing chlorodioxins have been assigned Priority 3 (of least concern); those where there appears to be no chance, Priority 0.

Regarding the most toxic dioxin (2,3,7,8-tetrachlorodibenzodioxin), I can not visualize any way that this specific material can be generated in any of the Nitro processes. However, we must remember that Dow has published information that suggests that chlorodioxins may be formed in any combustion process. In the vicinity of the Nitro plant is a large coal-fired utility installation which could produce chlorodioxin fall-out on our plant. Also, the boilers in the Nitro plant are coal-fired.

I hope this fulfills your need. If not, contact me when I get back from vacation on August 3.

H. C. Godt

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Attachment

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MIC Nitro Processes versus Potential Chlorodioxins

Process	Priority*	Comments
1. Calcium MHA	0	No chlorine or appropriate aromatic.
2. Caustic Soda (100%)	0	No chlorine or appropriate aromatic.
3. Flectol H	0	Chlorine only as hydrochloric acid with questionable appropriate aromatic.
4. M-530 (an aliphatic polyester copolymer)	0	No chlorine or appropriate aromatic.
5. Maul (Crude 2-mercaptobenzothiazole)	0	No chlorine.
6. MHA Acid	0	Chlorine only as hydrochloric acid and no appropriate aromatic.
7. Multiflow (50% Xylene solution of PC-1344)	0	No chlorine.
8. PC-1244 (60% kerosene solution of PC-1344)	0	No chlorine.
9. PC-1344 (Modaflow) (an aliphatic polyester copolymer)	0	Chlorine only as hydrochloric acid and no appropriate aromatic.
10. Santocure	3	Uses chlorine and questionable appropriate aromatic.
11. Santocure NS	3	Uses chlorine and questionable appropriate aromatic.
12. Santoflex AW (Santoquin)	3	Uses chlorine very early in reaction sequence with appropriate aromatic.
13. Santoflex DD	0	No chlorine.
14. Santogard PVI <i>uses Cl₂</i>	3	Uses chlorine and questionable appropriate aromatic.
15. Santonox R	3	Uses possible chlorinating agent and questionable appropriate aromatic.
16. Santovar A	0	No chlorine.
17. Santowhite Crystals	3	Uses possible chlorinating agent and questionable appropriate aromatic.
18. Santowhite Powder	0	Chlorine only as hydrochloric acid with questionable appropriate aromatic.
19. Sodium MBT	0	No chlorine.
20. Sulfasan R	3	Uses possible chlorinating agent with questionable appropriate aromatic as solvent.
21. Thiofide (Thimor) <i>uses Cl₂</i>	3	Uses chlorine and questionable appropriate aromatic.
22. Thiotax (Purified 2-mercaptobenzothiazole)	0	Chlorine only as hydrochloric acid and questionable appropriate aromatic.

*Priority 1 = of most concern
 2 = of less concern
 3 = of least concern
 0 = No concern

HCG
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