

SUMMARY OF NITRO PLANT HAZARDOUS WASTE DATA
SUPPLIED TO THE ECKHARDT CONGRESSIONAL COMMITTEE

Three basic types of information were provided:

- A. General facility information
- B. Disposal site information for each site identified
- C. Hazier information

A. General Information

1. The plant opened in 1921.
2. Information on disposal based on employee knowledge dates back to 1966.
3. Information on disposal based on company records dates back to 1966.
4. Eight (8) disposal sites have been used by Nitro since 1950. (Seven off-site facilities and the plant on-site facility).
5. All disposal site locations used by the Nitro plant since 1950 are known.
6. In 1978, approximately 2,1000 tones of process* wastes were generated.
7. In 1978, 100% of the process wastes* generated were disposed of in a landfill. (Note, this is not totally true. 80% of the process wastes were incinerated in the boiler plant and MIA incinerator and 10% put in ponds.)

* For the purpose of the Eckhardt questionnaire, process waste was considered to be solid, liquid, or sludge wastes, other than aqueous wastes disposed of in accordance with RCRA regulations.

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B. DISPOSAL INFORMATION

A total of eight (8) disposal sites have been used by Nitro since 1950. An estimation of the quantity of wastes disposed at each site and an estimation of the generic composition of the wastes (known to be present, known not to be present, or don't know) was supplied to the sub-committee. The generic composition(s) used to describe the waste was chosen from a list of 30 components or characteristics given on the questionnaire. For Monsanto's internal use, information on lists 1 - 3 identify the specific wastes at the Nitro Plant that fall into the generic classes supplied to Eckhardt.

<u>SITE</u>	<u>WASTE DATED</u>	<u>COMPOSITION OF WASTES IDENTIFIED AS PRESENT</u>
<u>Landfill Disposal</u>		
1. Monsanto Nitro Plant	1921 - 1979	See List 1
2. Manila Creek	1956 - 1957 (est.)	Same as List 1 except no 2,4,5-T
3. Foca River (Nitro Creek)	1958 - 1959 (est.)	Same as List 1 except no 2,4,5-T
4. Georges Creek	1959 - 1960 (est.)	Same as List 1 except no 2,4,5-T
5. City of Charleston	1961 - 1964 (est.)	Same as List 1 except no 2,4,5-T
6. Chem-Trol - Nodal City	1975 - 1977	See List 2
<u>Incineration</u>		
7. Hollins - Deer Park, Texas	1979 - 1979	See List 3
8. Hollins - Bridgeport, New Jersey	1979 - 1979	See List 3

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LIST 1
COMPOSITION OF WASTES IDENTIFIED
AS PRESENT ON ECKHARDT QUESTIONNAIRE
For Sites 1 - 5

<u>Information Supplied to Eckhardt</u>	<u>Actual Composition For Monsanto Internal Use Only</u>
Organics	Rubber and Ag Chemical Wastes (1) (2) (3) (4)
Herbicides and Intermediates	Avalox, Vegalex, 2,4,5-T* (1)
Fungicides and Intermediates	Santoquin (1) (2)
Amides, amines, imides	TBA, aniline, cyclohexylamine, Santocure degradation products (1) (2) (4)
Inorganics	Thiourea wastes, fly ash (2)
Salts	Residue salts from COEC
Mercaptan	Raw Materials for MEA and FV7 (4)
Miscellaneous	Laboratory wastes, others (1) (2) (3) (4)
Asbestos	Insulation (3) (4)
Wastes with a flash point below 180°F	Solvents (4)

- (1) Contaminated trash (bags, drums, filters, etc.)
(2) Residue from process
(3) Off spec or contaminated product
(4) Trace contaminant

* 2,4,5-T not disposed of at sites 2 - 5

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LIST I
COMPOSITION OF WASTES IDENTIFIED
AS PRESENT ON ECKHARDT QUESTIONNAIRE

FOR Site 6

<u>Information Supplied to Eckhardt</u>	<u>Actual Composition For Monsanto Internal Use Only</u>
Organics	(1) (2) (3) (4) Polychloralkyl isopropyl xanthate, Monois, Mercosene, see others below
Halogenated Aliphatics	Dichloropropene, tetrachloropropene (2)
Ketones and aldehydes	Butyraldehyde (2)
Inorganics	Residue salts from CDEC (2)
Salts	Residue sales from CDEC (2)
Microptans	Don't know (probably an error on information supplied to Eckhardt)

(1) Contaminated trash (bags, drums, filters, etc.)

(2) Residue from process

(3) Off spec or contaminated product

(4) Trace contaminant

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LIST 2

COMPOSITION OF WASTES IDENTIFIED AS
PRESENT ON ECHARDT QUESTIONNAIRE

Five Sites 6 - 8

<u>Information Supplied to Echardt</u>	<u>Actual Composition Per Monsanto Internal Use Only</u>
Organics	PVI residues (2)
Amides, amines, imides	Thalimide (2) (4)
Other solvents nonpolar	Varvol (3)

- (1) Contaminated trash (bags, drums, filters, etc.)
- (2) Residue from process
- (3) Off spec or contaminated product
- (4) Trace contaminant

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TABLE 1DETAILED BREAKDOWN OF SITE INFORMATION
SUPPLIED TO ECKHARDT SUB-COMMITTEESite No. 1

1. Monsanto Company - Nitro Plant
2. Active site
3. Site first used in 1921
4. Site last used in 1979
5. 1,830 hundred tons disposed of at site
6. Site currently used for landfill, mono-industrial waste, and landfill drummed waste
7. Site has been used for landfill, mixed industrial waste; landfill municipal refuse; pits, ponds, and lagoons
8. The site has been used for both Monsanto Company and others
9. Components of Nitro process waste present at the facility included:

Organics
 Herbicides and intermediates
 Fungicides and intermediates
 Amides, oximes, imides
 Inorganics
 Salts
 Mercaptan
 Miscellaneous
 Asbestos
 Wastes with a flash point below 100°F

See List 1 for
 composition
 Monsanto internal
 use only

10. Components of Nitro process waste that may have been disposed at site, but "don't know"
 - Halogenated Aliphatics
 - Halogenated aromatics
 - Acrylates and latex emulsions
 - Plasticizers
 - Resins
 - Elastomers
 - Solvents polar (except water)
 - Carbon tetrachloride
 - Trichloroethylene
 - Other solvents nonpolar
 - Solvents halogenated aliphatic
 - Solvents halogenated aromatic
 - Oils and oil aldehydes
 - Esters and other
 - Alcohols
 - Ketones and aldehydes
 - Catalysts (eg. vanadium, platinum, palladium)
11. Other components listed on the Eckhardt questionnaire, but not listed in No. 9 and 10 above were indicated as not being present.

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Alcylamines
Asbestos
Wastes with flash point below 100°F

10. Components of filter process wastes that may have been disposed at site, but "don't know"

- Halogenated aliphatics
 - Halogenated aromatics
 - Acrylates and latex emulsions
 - Plasticizers
 - Basins
 - Elastomers
 - Solvents polar (except water)
 - Carbon tetrachloride^{1a}
 - Trichloroethylene
 - Other solvents nonpolar
 - Solvents halogenated aliphatic
 - Solvents halogenated aromatic
 - Oils and oil sludge^{1a}
 - Others and others
 - Alcohols
 - Ketones and aldehydes
 - Catalysts (eg. vanadium, platinum, palladium)
11. Other components listed on Eckardt questionnaire, but not listed in No. 9 and 10 above were indicated as not present.
- * Error on info supplied to Eckardt - also no longer active

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TABLE 2
DETAILED BREAKDOWN OF SITE INFORMATION
SUPPLIED TO RECORDS BY SUB-COMPANIES

Site No. 2

1. Mullis Creek, Aberrant, West Virginia
2. Closed site
3. Site first used by Nitro in 1956
4. Site last used by Nitro in 1957
5. 25 hundred tons disposed of at site
6. Site currently used for landfill - mixed industrial waste
7. Site has not been used for any other purpose
8. Don't know if other companies have used site
9. Components of Nitro process waste at the facility included:

Organics
Nitriles and Intermediates
Pesticides and Intermediates
Acids, salines, limes
Inorganic
Salt
Microtox

See List 1 for
composition
Nonsanto Internal
use only

TABLE 2

DETAILED BREAKDOWN OF SITE INFORMATION
SUPPLIED TO RECHARDT SUB-COMMITTEE

Site No. 2

1. Foca River Dump - West Virginia
2. Closed site
3. Site first used in 1958
4. Site last used in 1959
5. 25 hundred tons disposed of at site
6. Site currently used for landfill - mixed industrial waste *
7. Site has not been used for any other purpose
8. The site has been used for this company and others
9. Components of Nitro process waste at the facility included:

Organics
 Herbicides and intermediates
 Fungicides and intermediates
 Baits, amines, imides
 Inorganics
 Salts
 Mercaptans
 Miscellaneous
 Asbestos
 Wastes with flash point below 100°F

} See List 1 for
 composition
Monsanto internal
use only

10. Components of Nitro process wastes that may have been disposed at site, but "don't know"

Halogenated aliphatics
 Halogenated aromatics
 Acrylates and latex emulsions
 Plasticizers
 Resins
 Elastomers
 Solvents polar (except water)
 Carbon tetrachloride
 Trichloroethylene
 Other solvents nonpolar
 Solvents halogenated aliphatic
 Solvents halogenated aromatic
 Oils and oil sludges
 Esters and ethers
 Alcohols
 Ketones and aldehydes
 Catalysts (eg. vanadium, platinum, palladium)

11. Other components listed on the listed in No. 9 and 10 above were indicated as not being present.
 *Errors on info supplied to Rechardt. Site name River Creek dump and site no longer active. 7/24/79

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Company Name: Monsanto Co.

Facility Name: Niles Plant

Site Name: Chem-Ted

9. Components (or characteristics) of process waste from this facility disposed at site: (1-present in waste; 2-not present in waste; 3-don't know)

FILL IN EVERY BLOCK SPACE

Acid solutions, with pH < 3	.....	20
pickling liquor	.....	21
metal plating waste	.....	22
circuit etchings	.....	23
inorganic acid manufacture	.....	24
organic acid manufacture	.....	25
Base solutions, with pH > 10	.....	26
caustic soda manufacture	.....	27
nylon and similar polymer generation	.....	28
scrubber residual	.....	29
Heavy metals & trace metals (bonded organically & inorganically)	.....	30
arsenic, selenium, antimony	.....	31
mercury	.....	32
iron, manganese, magnesium	.....	33
zinc, cadmium, copper, chromium (trivalent)	.....	34
chromium (hexavalent)	.....	35
lead	.....	36
Radioactive residues, > 10 ⁵ pico curies/liter	.....	37
uranium residuals & residuals for U ₆ recycling	.....	38
lanthanide series elements and rare earth salts	.....	39
phosphate slag	.....	40
thorium	.....	41
radium	.....	42
other alpha, beta & gamma emitters	.....	43
Organics	.....	44
pesticides & intermediates	.....	45
herbicides & intermediates	.....	46
fungicides & intermediates	.....	47
rodenticides & intermediates	.....	48
halogenated aliphatics	.....	49
halogenated aromatics	.....	50
acrylates & latex emulsions	.....	51
PCM/PAM's	.....	52
amides, imides, isides	.....	53
plasticizers	.....	54
resins	.....	55
elastomers	.....	56
solvents polar (except water)	.....	57
carbon tetrachloride	.....	58
trichloroethylene	.....	59
other solvents nonpolar	.....	60
solvents halogenated aliphatic	.....	61
solvents halogenated aromatic	.....	62
oils and oil sludges	.....	63
esters and ethers	.....	64
alcohols	.....	65
ketones & aldehydes	.....	66
dioxins	.....	67
Inorganics	.....	68
salts	.....	69
mercaptans	.....	70
Misc.	.....	71
pharmaceutical wastes	.....	72
paints & pigments	.....	73
catalysts (eg. vanadium, platinum, palladium)	.....	74
asbestos	.....	75
shock sensitive wastes (eg. nitrated toluenes)	76
air water reactive wastes (eg. Pt, aluminum chloride)	77

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TABLE 4DETAILED BREAKDOWN OF SITE INFORMATION
SUPPLIED TO ECKHARDT SUB-COMMITTEESite No. 4

1. George's Creek - West Virginia
2. Closed site
3. Site first used in 1959
4. Site last used in 1960
5. 25 hundred tons disposed of at site
6. Site currently used for landfill - mixed industrial waste *
7. The site has not been used for any other purpose
8. The site has been used for this company and others
9. Components of Nitro process waste at the facility included:

Organics
 Herbicides and intermediates
 Fungicides and intermediates
 Amides, amines, imides
 Inorganics
 Salts
 Mercaptans
 Miscellaneous
 Asbestos
 Wastes with flash point below 100°F

See List 1 for
 composition
Monsanto internal
 use only

10. Components of Nitro process wastes that may have been disposed at site, but "don't know"

Halogenated Aliphatics
 Halogenated aromatics
 Acrylates and latex emulsions
 Plasticizers
 Resins
 Elastomers
 Solvents polar (except water)
 Carbon tetrachloride
 Trichloroethylene
 Other solvents nonpolar
 Solvents halogenated aliphatic
 Solvents halogenated aromatic
 Oils and oil sludges
 Esters and ethers
 Alcohols
 Ketones and aldehydes
 Catalysts (eg. vanadium, platinum, palladium)

11. Other components listed on the Eckhardt questionnaire, but not listed in No. 9 and 10 above were indicated as not being present.

*Error on info supplied to Eckhardt. Site no longer active.

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TABLE 3

DETAILED BREAKDOWN OF SITE INFORMATION
SUPPLIED TO ECKHARDT SUB-COMMITTEE

Site No. 3

1. City of South Charleston Dump (Spring Hill Section), South Charleston, West Virginia
2. Inactive site - Closed in 1964 *
3. Site first used in 1961
4. Site last used in 1964
5. 75 hundred tons disposed of at site
6. Site currently used for landfill - mixed industrial waste *
7. The site has been used for landfill - municipal refuse co-disposed.*
8. The site has been used for this company and others.
9. Components of Nitro process waste at the facility included:

Organics
 Herbicides and intermediates
 Fungicides and intermediates
 Inorganics
 Salts
 Mercaptans
 Miscellaneous
 Asbestos
 Wastes with flash point below 100°F

See List 1 for
 composition
Monsanto internal
 use only

10. Components of Nitro process wastes that may have been disposed at site, but "don't know"

Halogenated aliphatics
 Halogenated aromatics
 Acrylates and latex emulsions
 PCB/PBB's
 Amides, amines, imides
 Plasticizers
 Resins
 Elastomers
 Solvents polar (except water)
 Carbon tetrachloride
 Trichloroethylene
 Other solvents nonpolar
 Solvents halogenated aliphatic
 Solvents halogenated aromatic
 Oils and oil sludges
 Esters and ethers
 Alcohols
 Ketones and aldehydes

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FORM B: DISPOSAL SITE INFORMATION

(Do Not Use)

COMPLETE THIS FORM FOR EVERY SITE (INCLUDING THE LOCATION OF THIS FACILITY AS ONE SITE) USED FOR THE DISPOSAL OF PROCESS WASTES GENERATED BY THIS FACILITY SINCE 1950.

Company Name: Monsanto Co
 Facility Name: Alcoa Plant
 Name of Site: Sludge Pond
 Address of Site: _____
 no. street
Model City New York 14107
 city state zip code

Name of Owner (while used by facility): Chemtrol Pollution Services, Inc
 Address: P.O. Box 200
 no. street
Model City New York 14107
 city state zip code

Current Owner (if different from above): Same
 Address: _____
 no. street
 city state zip code

1. Location (1= the property on which facility is located; 2= off-site)..... (10)
2. Ownership at time of use (1= company ownership; 2=private but not company ownership) 3=public ownership) (11)
3. Current status (1= closed; 2= still in use; 9=don't know) (12)
 IF CLOSED, specify year closed 19 (13-14)
4. Year first used for process waste from this facility 19 (15-16)
5. Year last used for process waste from this facility (enter "79" if still in use) 19 (17-18)
6. Total amount of process waste from this facility disposed at site:
 thousand gallons (19-26)
 hundred tons (27-33)
 thousand cubic yards (34-41)
7. Specify type(s) of disposal method(s) used at site and whether method is still in use (1=currently in use; 2=no longer in use; 3=never used; 9=don't know)
 - landfill, non-industrial waste (42)
 - landfill, mixed industrial waste (43)
 - landfill, drums waste (44)
 - landfill, municipal refuse co-disposed ... (45)
 - pits/ponds/lagoons (46)
 - deep well injection (47)
 - land farming (48)
 - incineration (49)
 - treatment (eg. neutralizing)..... (50)
 - reprocessing/recycling (51)
 - other (specify) (52)
8. Users of this site (1=this facility; 2=this facility and other company facilities only; 3=this company and others; 9=don't know) (53)

LIST NAMES AND ADDRESSES OF OTHER KNOWN USERS BELOW

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Site No. 3 - Continued

10. Continued

Catalysts (eg. vanadium, platinum, palladium)

11. Other components listed on the Eckhardt questionnaire, but not listed in No. 9 and 10 above were indicated as not being present.

*Errors on info supplied to Eckhardt. Site currently active, being used for municipal waste disposal only. Site used in the past for both industrial and municipal disposal.

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TABLE 6DETAILED BREAKDOWN OF SITE INFORMATION
SUPPLIED TO ECKHARDT SUB-COMMITTEESite No. 6

1. Chem-trol, Model City, New York
2. Active site
3. Site first used in 1973
4. Site last used in 1977
5. 18 hundred tons disposed of at site
6. Site currently used for landfill - mixed industrial waste, landfill - drummed waste, and incineration.
7. Site has not been used for any other purpose.
8. The site has been used for this company and others
9. Components of Nitro process waste at the facility included:

<ul style="list-style-type: none"> Organics Halogenated aliphatics Ketones and aldehydes Inorganics Salts Mercaptans 	}	<p>See List 7 of composition <u>Monsanto internal use only</u></p>
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10. Components of Nitro process wastes that may have been disposed at site, but "don't know"

None
11. Other components listed on the Eckhardt questionnaire, but not listed in No. 9 and 10 above were indicated as not being present.

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TABLE 7
DETAILED BREAKDOWN OF SITE INFORMATION
SUPPLIED TO ECKHARDT SUB-COMMITTEE

Site No. 7

1. Rollins Environmental Services, Deer Park, Texas
2. Active site
3. Site first used in 1979
4. Site last used in 1979
5. 60 tons disposed of at site
6. Site currently used for incineration
7. The site has not been used for any other purpose
8. This site has been used for this facility and other company facilities only
9. Components of Nitro process waste at the facility included:

Organics	}	See List 3 for composition Monsanto internal use only
Amides, amines, imides		
Other solvents nonpolar		
10. Components of Nitro process wastes that may have been disposed at site, but "don't know"

None
11. Other components listed on the Eckhardt questionnaire, but not listed in No. 9 and 10 above were indicated as not being present.

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TABLE 8DETAILED BREAKDOWN OF SITE INFORMATION
SUPPLIED TO ECKHARDT SUB-COMMITTEESite No. 8

1. Rollins Environmental Services, Bridgeport, New Jersey
2. Active site
3. Site first used in 1979
4. Site last used in 1979
5. 30 tons disposed of at site
6. Site currently used for incineration
7. Site has not been used for any other purpose
8. The site has been used for Rollins and other company facilities only
9. Components of Nitro process waste at the facility included:

Organics	}	See List J for composition Monsanto internal use only
Amides, amines, imides		
Other solvents nonpolar		
10. Components of Nitro process wastes that may have been disposed site, but "don't know"

None
11. Other components listed on the Eckhardt questionnaire, but not listed in No. 9 and 10 above were indicated as not being present.

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C. MAILER INFORMATIONSupplied to Eckhardt sub-committee

<u>Name of Firm or Contractor</u>	<u>Address</u>	<u>Years Used</u>
Chemtrol	P. O. Box 300 Model City, WY 14107	2
Hollins Environmental Services	P. O. Box 609 Deer Park, TX 77536	1
Hollins Environmental Services	P. O. Box 221 Bridgeport, NJ 08014	1
Mocanto Company	Nitro, West Virginia	29

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