Toxic Reduction NPRI Annual Report 2016

Report Details

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2016
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NPRI,ON MOE TRA
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Company and Facility Details

Company Name:
Alltech Inc.
Business Number:
869680983
Mailing Address:
Delivery Mode: GeneralDelivery
Address Line 1: 181 Bishop Street
City, Province/Territory, Postal Code: Alexandria Ontario K0C1A0
Country: Canada
Facility Name:
Alexandria Bioscience Centre
NAICS Code:
311119
NPRI ID:
5945
Physical Address:
Address Line 1: 181 Bishop Street
City, Province/Territory, Postal Code: Alexandria Ontario K0C1A0
Country: Canada
Latitude: 45.31630
Longitude: -74.63630
UTM Zone: 18
UTM Easting: 528517
UTM Northing: 5018144

Contacts Details

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General Information
Number of employees:
28
Activities for Which the 20,000-Hour Employee Threshold Does Not Apply:
None of the above
Activities Relevant to Reporting Dioxins, Furans and Hexacholorobenzene:
None of the above
Activities Relevant to Reporting of Polycyclic Aromatic Hydrocarbons (PAHs):
Wood preservation using creosote: No
Is this the first time the facility is reporting to the NPRI (under current or past ownership):
No
Is the facility controlled by another Canadian company or companies:
No
Did the facility report under other environmental regulations or permits:
No
Is the facility required to report one or more NPRI Part 4 substances (Criteria Air Contaminants):
Yes
Was the facility shut down for more than one week during the year:
No
Operating Schedule - Days of the Week:
Mon, Tue, Wed, Thu, Fri, Sat, Sun
Usual Number of Operating Hours per day:
24
Usual Daily Start Time (24h) (hh:mm):
07:00

Substance List

CAS RN	Substance Name	Releases	Releases (Speciated VOCs)	Disposals	Recycling	Unit
NA - 05	Cobalt (and its compounds)	0.0140	N/A	N/A	2.0000	kg
NA - 06	Copper (and its compounds)	0.0200	N/A	N/A	3.4500	tonnes
NA - 09	Manganese (and its compounds)	0.0800	N/A	N/A	12.9230	tonnes
NA - M09	PM10 - Particulate Matter <= 10 Microns	2.1100	N/A	N/A	N/A	tonnes
NA - 12	Selenium (and its compounds)	0.3600	N/A	N/A	59.0000	kg

CAS RN	Substance Name	Releases	Releases (Speciated VOCs)	Disposals	Recycling	Unit
NA - 14	Zinc (and its compounds)	0.1410	N/A	N/A	22.4640	tonnes

Applicable Programs

CAS RN	Substance Name	NPRI	ON MOE TRA	ON MOE Reg 127/01	First report for this substance to the ON MOE TRA
NA - 05	Cobalt (and its compounds)	Yes	Yes		Yes
NA - 06	Copper (and its compounds)	Yes	Yes		No
NA - 09	Manganese (and its compounds)	Yes	Yes		No
NA - M09	PM10 - Particulate Matter <= 10 Microns	Yes	Yes		No
NA - 12	Selenium (and its compounds)	Yes	Yes		No
NA - 14	Zinc (and its compounds)	Yes	Yes		No

General Information about the Substance - Releases and Transfers of the Substance

CAS RN	Substance Name	Was the substance released on-site	The substance will be reported as the sum of releases to all media (total of 1 tonne or less)	1 tonne or more of a Part 5 Substance (Speciated VOC) was released to air
NA - 05	Cobalt (and its compounds)	Yes	No	No
NA - 06	Copper (and its compounds)	Yes	Yes	No
NA - 09	Manganese (and its compounds)	Yes	Yes	No
NA - 12	Selenium (and its compounds)	Yes	No	No
NA - 14	Zinc (and its compounds)	Yes	Yes	No

General Information about the Substance - Disposals and Off-site Transfers for Recycling

CAS RN	Substance Name	Was the substance disposed of (on-site or off-site), or transferred for treatment prior to final disposal	Is the facility required to report on disposals of tailings and waste rock for the selected reporting period	Was the substance transferred off-site for recycling

CAS RN	Substance Name	Was the substance disposed of (on-site or off-site), or transferred for treatment prior to final disposal	Is the facility required to report on disposals of tailings and waste rock for the selected reporting period	Was the substance transferred off-site for recycling
NA - 05	Cobalt (and its compounds)	Yes	No	No
NA - 06	Copper (and its compounds)	Yes	No	No
NA - 09	Manganese (and its compounds)	Yes	No	No
NA - 12	Selenium (and its compounds)	Yes	No	No
NA - 14	Zinc (and its compounds)	Yes	No	No

General Information about the Substance - Nature of Activities

CAS RN	Substance Name	Manufacture the Substance	Process the Substance	Otherwise Use of the Substance
NA - 05	Cobalt (and its compounds)		As a formulation component	
NA - 06	Copper (and its compounds)		As a formulation component	
NA - 09	Manganese (and its compounds)		As a formulation component	
NA - 12	Selenium (and its compounds)		As a formulation component	
NA - 14	Zinc (and its compounds)		As a formulation component	

TRA Quantifications

CAS RN	Substance Name	Use, Creation, Contained in Product	Quantity	Use ranges for public reporting
NA - 05	Cobalt (and its compounds)	Use	61 kg	Yes
NA - 05	Cobalt (and its compounds)	Creation	0 kg	Yes
NA - 05	Cobalt (and its compounds)	Contained in Product	59 kg	Yes

CAS RN	Substance Name	Use, Creation, Contained in Product	Quantity	Use ranges for public reporting
NA - 06	Copper (and its compounds)	Use	89.64 tonnes	Yes
NA - 06	Copper (and its compounds)	Creation	0 tonnes	Yes
NA - 06	Copper (and its compounds)	Contained in Product	86.17 tonnes	Yes
NA - 09	Manganese (and its compounds)	Use	322.82 tonnes	Yes
NA - 09	Manganese (and its compounds)	Creation	0 tonnes	Yes
NA - 09	Manganese (and its compounds)	Contained in Product	309.81 tonnes	Yes
NA - M09	PM10 - Particulate Matter <= 10 Microns	Use	8890.6 tonnes	Yes
NA - M09	PM10 - Particulate Matter <= 10 Microns	Creation	2.11 tonnes	Yes
NA - M09	PM10 - Particulate Matter <= 10 Microns	Contained in Product		
NA - 12	Selenium (and its compounds)	Use	1465 kg	Yes
NA - 12	Selenium (and its compounds)	Creation	0 kg	Yes
NA - 12	Selenium (and its compounds)	Contained in Product	1406 kg	Yes
NA - 14	Zinc (and its compounds)	Use	561.15 tonnes	Yes
NA - 14	Zinc (and its compounds)	Creation	0 tonnes	Yes
NA - 14	Zinc (and its compounds)	Contained in Product	538.54 tonnes	Yes

TRA Quantifications - Others

CAS RN	Substance Name	Change in Method of Quantification	Reasons for Change	Description of how the change impact tracking and quantification of the substance	Description of how an incident(s) affected quantifications	Significant Process Change
NA	Cobalt (and	no change	For the	new requirement		No

CAS RN	Substance Name	Change in Method of Quantification	Reasons for Change	Description of how the change impact tracking and quantification of the substance	Description of how an incident(s) affected quantifications	Significant Process Change
- 05	its compounds)		purposes of complying with a requirement under an Act, an Act of Canada, or a municipal by-law	for reporting		
NA - 06	Copper (and its compounds)	none	For the purposes of complying with a requirement under an Act, an Act of Canada, or a municipal by-law	na		No
NA - 09	Manganese (and its compounds)					No
NA - M09	PM10 - Particulate Matter <= 10 Microns					No
NA - 12	Selenium (and its compounds)	none	For the purposes of complying with a requirement under an Act, an Act of Canada, or a municipal by-law	na		No
NA - 14	Zinc (and its compounds)	no change	For the purposes of complying with a requirement	na		No

CAS RN	Substance Name	Change in Method of Quantification	Reasons for Change	Description of how the change impact tracking and quantification of the substance	Description of how an incident(s) affected quantifications	Significant Process Change
			under an Act, an Act of Canada, or a municipal by-law			

On-site Releases - Releases to air

CAS RN	Substance Name	Category	Basis of Estimate	Detail Code	Quantity
NA - 05	Cobalt (and its compounds)	Stack or Point Releases	M3 - Source Testing		0.014 kg
NA - M09	PM10 - Particulate Matter <= 10 Microns	Stack or Point Releases	M3 - Source Testing		2.11 tonnes
NA - 12	Selenium (and its compounds)	Stack or Point Releases	M3 - Source Testing		0.36 kg

On-site Releases - Releases to air - Total

CAS RN	Substance Name	Total - Releases to Air
NA - 05	Cobalt (and its compounds)	0.014 kg
NA - M09	PM10 - Particulate Matter <= 10 Microns	2.11 tonnes
NA - 12	Selenium (and its compounds)	0.36 kg

Total Quantity Released (All Media)

CAS RN	Substance Name	Category	Basis of Estimate	Detail Code	Quantity
NA - 06	Copper (and its compounds)	Total Quantity Released	M3 - Source Testing		0.020 tonnes
NA - 09	Manganese (and its compounds)	Total Quantity Released	M3 - Source Testing		0.080 tonnes
NA - 14	Zinc (and its compounds)	Total Quantity Released	M3 - Source Testing		0.141 tonnes

On-site Releases - Total

CAS RN	Substance Name	Total releases

CAS RN	Substance Name	Total releases
NA - 05	Cobalt (and its compounds)	0.014 kg
NA - 12	Selenium (and its compounds)	0.36 kg

On-site Releases - Quarterly Breakdown of Annual Releases

CAS RN	Substance Name	Quarter 1	Quarter 2	Quarter 3	Quarter 4
NA - 05	Cobalt (and its compounds)	25	25	25	25
NA - 06	Copper (and its compounds)	25	25	25	25
NA - 09	Manganese (and its compounds)	25	25	25	25
NA - 12	Selenium (and its compounds)	25	25	25	25
NA - 14	Zinc (and its compounds)	25	25	25	25

On-site Releases - Monthly Breakdown of Annual Releases

CAS RN	Substance Name	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
NA - M09	PM10 - Particulate Matter <= 10 Microns	8.33	8.33	8.34	8.33	8.33	8.34	8.33	8.33	8.34	8.33	8.33	8.34

On-site Releases - Reasons for Changes in Quantities Released from Previous Year

CAS RN	Substance Name	Reasons for Changes in Quantities from Previous Year	Comments
NA - 05	Cobalt (and its compounds)	Not applicable (first year reporting this substance)	
NA - 06	Copper (and its compounds)	Changes in production levels	
NA - 09	Manganese (and its compounds)	Changes in production levels	
NA - 12	Selenium (and its compounds)	Changes in production levels	
NA - 14	Zinc (and its compounds)	Changes in production levels	
NA - M09	PM10 - Particulate Matter <= 10 Microns	Changes in production levels	

Disposals - Off-site Disposal (excluding Tailings and Waste Rock)

CAS RN	Substance Name	Category	Basis of Estimate	Detail Code	Quantity
NA - 05	Cobalt (and its compounds)	Landfill	O - Engineering Estimates		2 kg
NA - 06	Copper (and its compounds)	Landfill	O - Engineering Estimates		3.45 tonnes

CAS RN	Substance Name	Category	Basis of Estimate	Detail Code	Quantity
NA - 09	Manganese (and its compounds)	Landfill	O - Engineering Estimates		12.923 tonnes
NA - 12	Selenium (and its compounds)	Landfill	O - Engineering Estimates		59 kg
NA - 14	Zinc (and its compounds)	Landfill	O - Engineering Estimates		22.464 tonnes

Disposals - Off-site Disposal (excluding Tailings and Waste Rock) - Total

CAS RN	Substance Name	Total - Off-site Disposals
NA - 05	Cobalt (and its compounds)	2 kg
NA - 06	Copper (and its compounds)	3.45 tonnes
NA - 09	Manganese (and its compounds)	12.923 tonnes
NA - 12	Selenium (and its compounds)	59 kg
NA - 14	Zinc (and its compounds)	22.464 tonnes

Disposals - Off-site Disposal (excluding Tailings and Waste Rock) - By Facilities

CAS RN	Substance Name	Category	Off-site Name	Off-site Address	Quantity
NA - 05	Cobalt (and its compounds)	Landfill	North Glengarry Landfill	Hwy. #34, Alexandria, ON, Canada	2 kg
NA - 06	Copper (and its compounds)	Landfill	North Glengarry Landfill	Hwy. #34, Alexandria, ON, Canada	3.45 tonnes
NA - 06	Copper (and its compounds)	Landfill	North Glengarry Landfill	Hwy. #34, Alexandria, ON, Canada	0 tonnes
NA - 09	Manganese (and its compounds)	Landfill	North Glengarry Landfill	Hwy. #34, Alexandria, ON, Canada	12.923 tonnes
NA - 12	Selenium (and its compounds)	Landfill	North Glengarry Landfill	Hwy. #34, Alexandria, ON, Canada	59 kg
NA - 14	Zinc (and its compounds)	Landfill	North Glengarry Landfill	Hwy. #34, Alexandria, ON, Canada	22.464 tonnes

Disposals - Total Quantity Disposed (All Media)

CAS RN	Substance Name	Total Quantity Disposed (All Media)
NA - 05	Cobalt (and its compounds)	2 kg
NA - 06	Copper (and its compounds)	3.45 tonnes
NA - 09	Manganese (and its compounds)	12.923 tonnes

CAS RN	Substance Name	Total Quantity Disposed (All Media)
NA - 12	Selenium (and its compounds)	59 kg
NA - 14	Zinc (and its compounds)	22.464 tonnes

Disposals - Reasons and Comments

CAS RN	Substance Name	Reasons Why Substance Was Disposed	Reasons for Changes in Quantities from Previous Year	Comments
NA - 05	Cobalt (and its compounds)	Production residues Off-specification products Pollution abatement residues	Not applicable (first year reporting this substance)	
NA - 06	Copper (and its compounds)	Production residues Off-specification products Pollution abatement residues	Changes in production levels	
NA - 09	Manganese (and its compounds)	Production residues Off-specification products Pollution abatement residues	Changes in production levels	
NA - 12	Selenium (and its compounds)	Production residues Off-specification products Pollution abatement residues	Changes in production levels	
NA - 14	Zinc (and its compounds)	Production residues Off-specification products Pollution abatement residues	Changes in production levels	

Recycling - Reasons and Comments

CAS RN	Substance Name	Reasons Why Substance Was Recycled	Reasons for Changes in Quantities Recycled from Previous Year	Comments
NA - 05	Cobalt (and its compounds)		Not applicable (first year reporting this substance)	
NA - 06	Copper (and its compounds)		Changes in production levels	none recycled
NA - 09	Manganese (and its compounds)		Changes in production levels	none recycled

CAS RN	Substance Name	Reasons Why Substance Was Recycled	Reasons for Changes in Quantities Recycled from Previous Year	Comments
NA - 12	Selenium (and its compounds)		Other (specify in recycling comments field)	None recycled
NA - 14	Zinc (and its compounds)		Changes in production levels	none recycled

Comparison Report - Enters, Creation, Contained in Product

CAS RN	Substance Name	Is Breakdown	Category	Quantity	Last Reported Quantity	Reporting Period of Last Reported Quantity	Change	% Change
NA - 06	Copper (and its compounds)	No	Enters the facility (Use)	89.64 tonnes	96.3 tonnes	2015	-6.66	-6.92
NA - 06	Copper (and its compounds)	No	Creation	0 tonnes	0 tonnes	2015	0	
NA - 06	Copper (and its compounds)	No	Contained in Product	86.17 tonnes	92.5 tonnes	2015	-6.33	-6.84
NA - 09	Manganese (and its compounds)	No	Enters the facility (Use)	322.82 tonnes	296.37 tonnes	2015	26.45	8.92
NA - 09	Manganese (and its compounds)	No	Creation	0 tonnes	0 tonnes	2015	0	
NA - 09	Manganese (and its compounds)	No	Contained in Product	309.81 tonnes	284.29 tonnes	2015	25.52	8.98
NA - M09	PM10 - Particulate Matter <= 10 Microns	No	Enters the facility (Use)	8890.6 tonnes	8788.5 tonnes	2015	102.1	1.16
NA - M09	PM10 - Particulate Matter <= 10 Microns	No	Creation	2.11 tonnes	2.17 tonnes	2015	-0.06	-2.76
NA - 12	Selenium (and its compounds)	No	Enters the facility (Use)	1465 kg	1239 kg	2015	226	18.24

CAS RN	Substance Name	Is Breakdown	Category	Quantity	Last Reported Quantity	Reporting Period of Last Reported Quantity	Change	% Change
NA - 12	Selenium (and its compounds)	No	Creation	0 kg	0 kg	2015	0	
NA - 12	Selenium (and its compounds)	No	Contained in Product	1406 kg	1189 kg	2015	217	18.25
NA - 14	Zinc (and its compounds)	No	Enters the facility (Use)	561.15 tonnes	571.96 tonnes	2015	-10.81	-1.89
NA - 14	Zinc (and its compounds)	No	Creation	0 tonnes	0 tonnes	2015	0	
NA - 14	Zinc (and its compounds)	No	Contained in Product	538.54 tonnes	548.66 tonnes	2015	-10.12	-1.84

Comparison Report - Enters, Creation, Contained in Product : Reason(s) for Change

CAS RN	Substance Name	Reason(s) for Change	Other Reason
NA - 06	Copper (and its compounds)	Increase in production levels Decrease in production levels Other	productions levels increased and decreased for several products with different %'s of ingredients
NA - 09	Manganese (and its compounds)	Increase in production levels Decrease in production levels	
NA - M09	PM10 - Particulate Matter <= 10 Microns	Decrease in production levels	
NA - 12	Selenium (and its compounds)	Increase in production levels Decrease in production levels Other	na
NA - 14	Zinc (and its compounds)	Increase in production levels Decrease in production levels	

Comparison Report - On-site Releases

CAS RN	Substance Name	Is Breakdown	Category	Quantity	Last Reported Quantity	Reporting Period of Last Reported Quantity	Change	% Change
NA - 06	Copper (and its compounds)	No	Total Releases to Air	0 tonnes				
NA - 06	Copper (and its compounds)	No	Total Releases to Water	0 tonnes				
NA - 06	Copper (and its compounds)	No	Total Releases to Land	0 tonnes				
NA - 06	Copper (and its compounds)	No	Total Releases to All Media	0.020 tonnes	0.024 tonnes	2015	-0.004	-16.67
NA - 09	Manganese (and its compounds)	No	Total Releases to Air	0 tonnes				
NA - 09	Manganese (and its compounds)	No	Total Releases to Water	0 tonnes				
NA - 09	Manganese (and its compounds)	No	Total Releases to Land	0 tonnes				
NA - 09	Manganese (and its compounds)	No	Total Releases to All Media	0.080 tonnes	0.076 tonnes	2015	0.004	5.26
NA - M09	PM10 - Particulate Matter <= 10 Microns	No	Total Releases to Air	2.11 tonnes	2.17 tonnes	2015	-0.06	-2.76
NA - M09	PM10 - Particulate Matter <= 10 Microns	No	Total Releases to Water	0 tonnes	0 tonnes	2015	0	
NA - M09	PM10 - Particulate Matter <= 10 Microns	No	Total Releases to Land	0 tonnes	0 tonnes	2015	0	

CAS RN	Substance Name	Is Breakdown	Category	Quantity	Last Reported Quantity	Reporting Period of Last Reported Quantity	Change	% Change
NA - M09	PM10 - Particulate Matter <= 10 Microns	No	Total Releases to All Media	0 tonnes				
NA - 12	Selenium (and its compounds)	No	Total Releases to Air	0.36 kg	0.32 kg	2015	0.04	12.50
NA - 12	Selenium (and its compounds)	No	Total Releases to Water	0 kg	0 kg	2015	0	
NA - 12	Selenium (and its compounds)	No	Total Releases to Land	0 kg	0 kg	2015	0	
NA - 12	Selenium (and its compounds)	No	Total Releases to All Media	0 kg				
NA - 14	Zinc (and its compounds)	No	Total Releases to Air	0 tonnes				
NA - 14	Zinc (and its compounds)	No	Total Releases to Water	0 tonnes				
NA - 14	Zinc (and its compounds)	No	Total Releases to Land	0 tonnes				
NA - 14	Zinc (and its compounds)	No	Total Releases to All Media	0.141 tonnes	0.147 tonnes	2015	-0.006	-4.08

Comparison Report - On-site Releases - Reason(s) for Change

CAS RN	Substance Name	Reason(s) for Change	Other Reason
NA - 06	Copper (and its compounds)	Increase in production levels Decrease in production levels Other	changes in production levels for products with various percentages of ingredient

CAS RN	Substance Name	Reason(s) for Change	Other Reason
NA - 09	Manganese (and its compounds)	Increase in production levels Decrease in production levels	
NA - M09	PM10 - Particulate Matter <= 10 Microns	Decrease in production levels	
NA - 12	Selenium (and its compounds)	Increase in production levels Decrease in production levels	
NA - 14	Zinc (and its compounds)	Increase in production levels Decrease in production levels	

Comparison Report - Disposals On-site, Off-site and Tailings and Waste Rock

CAS RN	Substance Name	Is Breakdown	Category	Quantity	Last Reported Quantity	Reporting Period of Last Reported Quantity	Change	% Change
NA - 06	Copper (and its compounds)	No	Total On-site Disposals	0 tonnes	0 tonnes	2015	0	
NA - 06	Copper (and its compounds)	No	Total Off-site Disposals	3.45 tonnes	3.77 tonnes	2015	-0.32	-8.49
NA - 06	Copper (and its compounds)	No	Total Off-site transfer for treatment Prior to Final Disposal	0 tonnes	0 tonnes	2015	0	
NA - 06	Copper (and its compounds)	No	Total On-site Disposal of Tailings and Waste Rock	0 tonnes	0 tonnes	2015	0	
NA - 06	Copper (and its compounds)	No	Total Off-site Disposal of Tailings and Waste Rock	0 tonnes	0 tonnes	2015	0	

CAS RN	Substance Name	Is Breakdown	Category	Quantity	Last Reported Quantity	Reporting Period of Last Reported Quantity	Change	% Change
NA - 09	Manganese (and its compounds)	No	Total On-site Disposals	0 tonnes	0 tonnes	2015	0	
NA - 09	Manganese (and its compounds)	No	Total Off-site Disposals	12.923 tonnes	12.002 tonnes	2015	0.921	7.67
NA - 09	Manganese (and its compounds)	No	Total Off-site transfer for treatment Prior to Final Disposal	0 tonnes	0 tonnes	2015	0	
NA - 09	Manganese (and its compounds)	No	Total On-site Disposal of Tailings and Waste Rock	0 tonnes	0 tonnes	2015	0	
NA - 09	Manganese (and its compounds)	No	Total Off-site Disposal of Tailings and Waste Rock	0 tonnes	0 tonnes	2015	0	
NA - 12	Selenium (and its compounds)	No	Total On-site Disposals	0 kg	0 kg	2015	0	
NA - 12	Selenium (and its compounds)	No	Total Off-site Disposals	59 kg	50 kg	2015	9	18.00
NA - 12	Selenium (and its compounds)	No	Total Off-site transfer for treatment Prior to Final Disposal	0 kg	0 kg	2015	0	
NA - 12	Selenium (and its compounds)	No	Total On-site Disposal of Tailings and Waste Rock	0 kg	0 kg	2015	0	
NA - 12	Selenium (and its compounds)	No	Total Off-site Disposal of Tailings	0 kg	0 kg	2015	0	

CAS RN	Substance Name	Is Breakdown	Category	Quantity	Last Reported Quantity	Reporting Period of Last Reported Quantity	Change	% Change
			and Waste Rock					
NA - 14	Zinc (and its compounds)	No	Total On-site Disposals	0 tonnes	0 tonnes	2015	0	
NA - 14	Zinc (and its compounds)	No	Total Off-site Disposals	22.464 tonnes	23.163 tonnes	2015	-0.699	-3.02
NA - 14	Zinc (and its compounds)	No	Total Off-site transfer for treatment Prior to Final Disposal	0 tonnes	0 tonnes	2015	0	
NA - 14	Zinc (and its compounds)	No	Total On-site Disposal of Tailings and Waste Rock	0 tonnes	0 tonnes	2015	0	
NA - 14	Zinc (and its compounds)	No	Total Off-site Disposal of Tailings and Waste Rock	0 tonnes	0 tonnes	2015	0	

Comparison Report - Disposals On-site, Off-site and Tailings and Waste Rock - Reason(s) for Change

CAS RN	Substance Name	Reason(s) for Change	Other Reason
NA - 06	Copper (and its compounds)	Increase in production levels Decrease in production levels Other	change in production levels of various products
NA - 09	Manganese (and its compounds)	Increase in production levels	
NA - 12	Selenium (and its compounds)	Increase in production levels Decrease in production levels	
NA -	Zinc (and its compounds)	Increase in production	

CAS RN	Substance Name	Reason(s) for Change	Other Reason
14		levels Decrease in production levels	

Pollution Prevention

Does the facility have a documented pollution prevention plan?

No

Did the facility complete any pollution prevention activities in the current NPRI reporting year

No

Progress on TRA Plan - Objectives

CAS RN	Substance Name	Objectives
NA - 06	Copper (and its compounds)	All employees at Alltech will be involved in toxic use reduction. Where technically and economically feasible, our goal is to reduce the loss of minerals copper manganese and zinc to the greatest extent possible. A review of the production process has identified potential efficiencies that may reduce losses through waste. However preliminary studies will be required beforehand to determine whether improvements are technically or economically possible. Three areas that will be investigated are: 1 Process variables, in particular dryer settings, effecting the generation of waste product tailing will be investigated to determine the potential to minimize the waste tailings produced during batch operations. 2 Methods to improve operator training will be reviewed to reduce operator error and off-spec products which cause additional waste to be sent to landfill. In addition, re-use and recycling possibilities may be revisited to determine if this could be feasible in the future. 3 The recording system for waste product will be improved to provide a more detailed and accurate accounting of material in order to aid evaluation of toxic reduction efforts.
NA - 09	Manganese (and its compounds)	All employees at Alltech will be involved in toxic use reduction. Where technically and economically feasible, our goal is to reduce the loss of minerals copper manganese and zinc to the greatest extent possible. A review of the production process has identified potential efficiencies that may reduce losses through waste. However preliminary studies will be required beforehand to determine whether improvements are technically or economically possible. Three areas that will be investigated are: 1 Process variables, in particular dryer settings, effecting the generation of waste product tailing will be investigated to determine the potential to minimize the waste tailings produced during batch operations. 2 Methods to improve operator training will be reviewed to reduce operator error and off-spec products which cause additional waste to be sent to landfill. In addition, re-use and recycling possibilities may be revisited to determine if this could be feasible in the future. 3 The recording system for waste product will be improved to provide a more detailed and accurate accounting of material in order to aid evaluation of toxic reduction efforts.

CAS RN	Substance Name	Objectives
NA - M09	PM10 - Particulate Matter <= 10 Microns	All employees at Alltech will be involved in toxic use reduction. Where technically and economically feasible, our goal is to reduce the loss of particulate matter (PM10) to the greatest extent possible. A review of the production process has identified potential efficiencies that may reduce losses through releases to air.
NA - 12	Selenium (and its compounds)	All employees at Alltech will be involved in toxic use reduction. Where technically and economically feasible, our goal is to reduce the loss of minerals copper manganese and zinc to the greatest extent possible. A review of the production process has identified potential efficiencies that may reduce losses through waste. However preliminary studies will be required beforehand to determine whether improvements are technically or economically possible. Three areas that will be investigated are: 1 Process variables, in particular dryer settings, effecting the generation of waste product tailing will be investigated to determine the potential to minimize the waste tailings produced during batch operations. 2 Methods to improve operator training will be reviewed to reduce operator error and off-spec products which cause additional waste to be sent to landfill. In addition, re-use and recycling possibilities may be revisited to determine if this could be feasible in the future. 3 The recording system for waste product will be improved to provide a more detailed and accurate accounting of material in order to aid evaluation of toxic reduction efforts.
NA - 14	Zinc (and its compounds)	All employees at Alltech will be involved in toxic use reduction. Where technically and economically feasible, our goal is to reduce the loss of minerals copper manganese and zinc to the greatest extent possible. A review of the production process has identified potential efficiencies that may reduce losses through waste. However preliminary studies will be required beforehand to determine whether improvements are technically or economically possible. Three areas that will be investigated are: 1 Process variables, in particular dryer settings, effecting the generation of waste product tailing will be investigated to determine the potential to minimize the waste tailings produced during batch operations. 2 Methods to improve operator training will be reviewed to reduce operator error and off-spec products which cause additional waste to be sent to landfill. In addition, re-use and recycling possibilities may be revisited to determine if this could be feasible in the future. 3 The recording system for waste product will be improved to provide a more detailed and accurate accounting of material in order to aid evaluation of toxic reduction efforts.

Progress on TRA Plan - Use Targets

CAS RN	Substance Name	Quantity	Years	Description of Target
NA - 06	Copper (and its compounds)	No quantity target	No timeline target	At this time no reductions are possible until studies to determine whether improvements that are technically or economically feasible have been completed. It is expected that these studies will be concluded by

CAS RN	Substance Name	Quantity	Years	Description of Target
				December 2014 at which time feasible toxic reductions will be implemented.
NA - 09	Manganese (and its compounds)	No quantity target	No timeline target	At this time no reductions are possible until studies to determine whether improvements that are technically or economically feasible have been completed. It is expected that these studies will be concluded by December 2014 at which time feasible toxic reductions will be implemented.
NA - M09	PM10 - Particulate Matter <= 10 Microns	No quantity target	No timeline target	
NA - 12	Selenium (and its compounds)	No quantity target	No timeline target	
NA - 14	Zinc (and its compounds)	No quantity target	No timeline target	At this time no reductions are possible until studies to determine whether improvements that are technically or economically feasible have been completed. It is expected that these studies will be concluded by December 2014 at which time feasible toxic reductions will be implemented.

Progress on TRA Plan - Creation Targets

CAS RN	Substance Name	Quantity	Years	Description of Target
NA - 06	Copper (and its compounds)	No quantity target	No timeline target	
NA - 09	Manganese (and its compounds)	No quantity target	No timeline target	
NA - M09	PM10 - Particulate Matter <= 10 Microns	No quantity target	No timeline target	Elimination of visible emissions of particulate (PM10) from ingredient loading, granulation process and packaging operations.
NA - 12	Selenium (and its compounds)	No quantity target	No timeline target	
NA - 14	Zinc (and its compounds)	No quantity target	No timeline target	

Progress on TRA Plan - Toxic Reduction Options Implemented

CAS RN	Substance Name	Activity	Steps that were taken in the reporting period to implement the toxic reduction option	Public summary of the description of the steps	Comparison of the steps that were described in the plan for implementation with the actual steps taken during the reporting period	Public summary of the comparison of the steps
NA - M09	PM10 - Particulate Matter <= 10 Microns	Modified equipment, layout or piping	na	na	na	na
NA - M09	PM10 - Particulate Matter <= 10 Microns	Changed product specifications	na	na	na	na

CAS RN	Substance Name	Activity	Will the timelines in the current version of the plan will be met	Comments:
NA - M09	PM10 - Particulate Matter <= 10 Microns	Modified equipment, layout or piping	No	
NA - M09	PM10 - Particulate Matter <= 10 Microns	Changed product specifications	No	Studies are ongoing

Progress on TRA Plan - Reductions due to Options Implemented - Equipment or process modifications

CAS RN	Substance Name	Activity	Reductions due to Options Implemented	Quantity
NA - M09	PM10 - Particulate Matter <= 10 Microns	Modified equipment, layout or piping	The amount of reduction in **use** of the substance at the facility during the reporting period that resulted due to the steps described:	No Amount
NA - M09	PM10 - Particulate Matter <= 10 Microns	Modified equipment, layout or piping	The amount of reduction in **creation** of the substance at the facility during the reporting period that resulted due to the steps described:	No Amount
NA - M09	PM10 - Particulate Matter <= 10 Microns	Modified equipment, layout or piping	The amount of reduction in the substance **contained in product** at the facility during the reporting period that resulted due to the steps described:	No Amount
NA - M09	PM10 - Particulate Matter <= 10	Modified equipment, layout or piping	The amount of reduction in **release to air** of the substance at the facility during the reporting period that resulted due to the steps described:	No Amount

CAS RN	Substance Name	Activity	Reductions due to Options Implemented	Quantity
	Microns			
NA - M09	PM10 - Particulate Matter <= 10 Microns	Modified equipment, layout or piping	The amount of reduction in **release to water** of the substance at the facility during the reporting period that resulted due to the steps described:	No Amount
NA - M09	PM10 - Particulate Matter <= 10 Microns	Modified equipment, layout or piping	The amount of reduction in **release to land** of the substance at the facility during the reporting period that resulted due to steps described:	No Amount
NA - M09	PM10 - Particulate Matter <= 10 Microns	Modified equipment, layout or piping	The amount of reduction in the substance **disposed on-site** (including tailings and waste rocks) at the facility during the reporting period that resulted due to the steps described:	No Amount
NA - M09	PM10 - Particulate Matter <= 10 Microns	Modified equipment, layout or piping	The amount of reduction in the substance **disposed off-site** (including tailings and waste rocks) at the facility during the reporting period that resulted due to the steps described:	No Amount
NA - M09	PM10 - Particulate Matter <= 10 Microns	Modified equipment, layout or piping	The amount of reduction in the substance **recycled off-site** at the facility during the reporting period that resulted due to the steps described:	No Amount

Progress on TRA Plan - Reductions due to Options Implemented - Product design or reformulation

CAS RN	Substance Name	Activity	Reductions due to Options Implemented	Quantity
NA - M09	PM10 - Particulate Matter <= 10 Microns	Changed product specifications	The amount of reduction in **use** of the substance at the facility during the reporting period that resulted due to the steps described:	No Amount
NA - M09	PM10 - Particulate Matter <= 10 Microns	Changed product specifications	The amount of reduction in **creation** of the substance at the facility during the reporting period that resulted due to the steps described:	No Amount
NA - M09	PM10 - Particulate Matter <= 10 Microns	Changed product specifications	The amount of reduction in the substance **contained in product** at the facility during the reporting period that resulted due to the steps described:	No Amount
NA - M09	PM10 - Particulate	Changed product	The amount of reduction in **release to air** of the substance at the facility during the reporting	No Amount

CAS RN	Substance Name	Activity	Reductions due to Options Implemented	Quantity
	Matter <= 10 Microns	specifications	period that resulted due to the steps described:	
NA - M09	PM10 - Particulate Matter <= 10 Microns	Changed product specifications	The amount of reduction in **release to water** of the substance at the facility during the reporting period that resulted due to the steps described:	No Amount
NA - M09	PM10 - Particulate Matter <= 10 Microns	Changed product specifications	The amount of reduction in **release to land** of the substance at the facility during the reporting period that resulted due to steps described:	No Amount
NA - M09	PM10 - Particulate Matter <= 10 Microns	Changed product specifications	The amount of reduction in the substance **disposed on-site** (including tailings and waste rocks) at the facility during the reporting period that resulted due to the steps described:	No Amount
NA - M09	PM10 - Particulate Matter <= 10 Microns	Changed product specifications	The amount of reduction in the substance **disposed off-site** (including tailings and waste rocks) at the facility during the reporting period that resulted due to the steps described:	No Amount
NA - M09	PM10 - Particulate Matter <= 10 Microns	Changed product specifications	The amount of reduction in the substance **recycled off-site** at the facility during the reporting period that resulted due to the steps described:	No Amount

Progress on TRA Plan - Additional Actions

CAS RN	Substance Name	Were there any additional actions outside the plan taken during the reporting period to reduce the use and/or creation of the substance?	Describe any additional actions that were taken during the reporting period to achieve the plan's objectives	Provide a public summary of the description of the additional action taken
NA - 06	Copper (and its compounds)	No		
NA - 09	Manganese (and its compounds)	No		
NA - M09	PM10 - Particulate Matter <= 10 Microns	No		
NA - 12	Selenium (and its compounds)	No		

CAS RN	Substance Name	Were there any additional actions outside the plan taken during the reporting period to reduce the use and/or creation of the substance?	Describe any additional actions that were taken during the reporting period to achieve the plan's objectives	Provide a public summary of the description of the additional action taken
NA - 14	Zinc (and its compounds)	No		

Progress on TRA Plan - Reductions due to additional actions taken

CAS RN	Substance Name	Reductions due to additional actions taken	Quantity
NA - 06	Copper (and its compounds)	The amount of reduction in **use** of the substance at the facility during the reporting period that resulted due to the additional actions.	
NA - 06	Copper (and its compounds)	The amount of reduction in **creation** of the substance at the facility during the reporting period that resulted due to the additional actions.	
NA - 06	Copper (and its compounds)	The amount of reduction in the substance **contained in product** at the facility during the reporting period that resulted due to the additional actions.	
NA - 06	Copper (and its compounds)	The amount of reduction in **release to air** of the substance at the facility during the reporting period that resulted due to the additional actions.	
NA - 06	Copper (and its compounds)	The amount of reduction in **release to water** of the substance at the facility during the reporting period that resulted due to the additional actions.	
NA - 06	Copper (and its compounds)	The amount of reduction in **release to land** of the substance at the facility during the reporting period that resulted due to additional actions.	
NA - 06	Copper (and its compounds)	The amount of reduction in the substance **disposed on-site** (including tailings and waste rocks) at the facility during the reporting period that resulted due to the additional actions.	
NA - 06	Copper (and its compounds)	The amount of reduction in the substance **disposed off-site** (including tailings and waste rocks) at the facility during the reporting period that resulted due to the additional actions.	
NA - 06	Copper (and its compounds)	The amount of reduction in the substance **recycled off-site** at the facility during the reporting period that resulted due to the additional actions.	
NA - 09	Manganese (and its compounds)	The amount of reduction in **use** of the substance at the facility during the reporting period that resulted due to the additional actions.	
NA -	Manganese (and its	The amount of reduction in **creation** of the substance at the	

CAS RN	Substance Name	Reductions due to additional actions taken	Quantity
09	compounds)	facility during the reporting period that resulted due to the additional actions.	
NA - 09	Manganese (and its compounds)	The amount of reduction in the substance **contained in product** at the facility during the reporting period that resulted due to the additional actions.	
NA - 09	Manganese (and its compounds)	The amount of reduction in **release to air** of the substance at the facility during the reporting period that resulted due to the additional actions.	
NA - 09	Manganese (and its compounds)	The amount of reduction in **release to water** of the substance at the facility during the reporting period that resulted due to the additional actions.	
NA - 09	Manganese (and its compounds)	The amount of reduction in **release to land** of the substance at the facility during the reporting period that resulted due to additional actions.	
NA - 09	Manganese (and its compounds)	The amount of reduction in the substance **disposed on-site** (including tailings and waste rocks) at the facility during the reporting period that resulted due to the additional actions.	
NA - 09	Manganese (and its compounds)	The amount of reduction in the substance **disposed off-site** (including tailings and waste rocks) at the facility during the reporting period that resulted due to the additional actions.	
NA - 09	Manganese (and its compounds)	The amount of reduction in the substance **recycled off-site** at the facility during the reporting period that resulted due to the additional actions.	
NA - M09	PM10 - Particulate Matter <= 10 Microns	The amount of reduction in **use** of the substance at the facility during the reporting period that resulted due to the additional actions.	
NA - M09	PM10 - Particulate Matter <= 10 Microns	The amount of reduction in **creation** of the substance at the facility during the reporting period that resulted due to the additional actions.	
NA - M09	PM10 - Particulate Matter <= 10 Microns	The amount of reduction in the substance **contained in product** at the facility during the reporting period that resulted due to the additional actions.	
NA - M09	PM10 - Particulate Matter <= 10 Microns	The amount of reduction in **release to air** of the substance at the facility during the reporting period that resulted due to the additional actions.	
NA - M09	PM10 - Particulate Matter <= 10 Microns	The amount of reduction in **release to water** of the substance at the facility during the reporting period that resulted due to the additional actions.	
NA - M09	PM10 - Particulate Matter <= 10 Microns	The amount of reduction in **release to land** of the substance at the facility during the reporting period that resulted due to additional actions.	

CAS RN	Substance Name	Reductions due to additional actions taken	Quantity
NA - M09	PM10 - Particulate Matter <= 10 Microns	The amount of reduction in the substance **disposed on-site** (including tailings and waste rocks) at the facility during the reporting period that resulted due to the additional actions.	
NA - M09	PM10 - Particulate Matter <= 10 Microns	The amount of reduction in the substance **disposed off-site** (including tailings and waste rocks) at the facility during the reporting period that resulted due to the additional actions.	
NA - M09	PM10 - Particulate Matter <= 10 Microns	The amount of reduction in the substance **recycled off-site** at the facility during the reporting period that resulted due to the additional actions.	
NA - 12	Selenium (and its compounds)	The amount of reduction in **use** of the substance at the facility during the reporting period that resulted due to the additional actions.	
NA - 12	Selenium (and its compounds)	The amount of reduction in **creation** of the substance at the facility during the reporting period that resulted due to the additional actions.	
NA - 12	Selenium (and its compounds)	The amount of reduction in the substance **contained in product** at the facility during the reporting period that resulted due to the additional actions.	
NA - 12	Selenium (and its compounds)	The amount of reduction in **release to air** of the substance at the facility during the reporting period that resulted due to the additional actions.	
NA - 12	Selenium (and its compounds)	The amount of reduction in **release to water** of the substance at the facility during the reporting period that resulted due to the additional actions.	
NA - 12	Selenium (and its compounds)	The amount of reduction in **release to land** of the substance at the facility during the reporting period that resulted due to additional actions.	
NA - 12	Selenium (and its compounds)	The amount of reduction in the substance **disposed on-site** (including tailings and waste rocks) at the facility during the reporting period that resulted due to the additional actions.	
NA - 12	Selenium (and its compounds)	The amount of reduction in the substance **disposed off-site** (including tailings and waste rocks) at the facility during the reporting period that resulted due to the additional actions.	
NA - 12	Selenium (and its compounds)	The amount of reduction in the substance **recycled off-site** at the facility during the reporting period that resulted due to the additional actions.	
NA - 14	Zinc (and its compounds)	The amount of reduction in **use** of the substance at the facility during the reporting period that resulted due to the additional actions.	
NA - 14	Zinc (and its compounds)	The amount of reduction in **creation** of the substance at the facility during the reporting period that resulted due to the	

CAS RN	Substance Name	Reductions due to additional actions taken	Quantity
		additional actions.	
NA - 14	Zinc (and its compounds)	The amount of reduction in the substance **contained in product** at the facility during the reporting period that resulted due to the additional actions.	
NA - 14	Zinc (and its compounds)	The amount of reduction in **release to air** of the substance at the facility during the reporting period that resulted due to the additional actions.	
NA - 14	Zinc (and its compounds)	The amount of reduction in **release to water** of the substance at the facility during the reporting period that resulted due to the additional actions.	
NA - 14	Zinc (and its compounds)	The amount of reduction in **release to land** of the substance at the facility during the reporting period that resulted due to additional actions.	
NA - 14	Zinc (and its compounds)	The amount of reduction in the substance **disposed on-site** (including tailings and waste rocks) at the facility during the reporting period that resulted due to the additional actions.	
NA - 14	Zinc (and its compounds)	The amount of reduction in the substance **disposed off-site** (including tailings and waste rocks) at the facility during the reporting period that resulted due to the additional actions.	
NA - 14	Zinc (and its compounds)	The amount of reduction in the substance **recycled off-site** at the facility during the reporting period that resulted due to the additional actions.	

Progress on TRA Plan - Amendments

CAS RN	Substance Name	Were any amendments made to the toxic substance reduction plan during the reporting period	Description any amendments that were made to the toxic substance reduction plan during the reporting period	Provide a public summary of the description of any amendments that were made to the toxic substance reduction plan during the reporting period
NA - 06	Copper (and its compounds)	Yes	Studies are ongoing	Studies are ongoing
NA - 09	Manganese (and its compounds)	Yes	Studies are ongoing	Studies are ongoing
NA - M09	PM10 - Particulate Matter <= 10 Microns	Yes	Studies are ongoing	Studies are ongoing
NA - 12	Selenium (and its compounds)	Yes	studies are still ongoing	studies are ongoing

CAS RN	Substance Name	Were any amendments made to the toxic substance reduction plan during the reporting period	Description any amendments that were made to the toxic substance reduction plan during the reporting period	Provide a public summary of the description of any amendments that were made to the toxic substance reduction plan during the reporting period
NA - 14	Zinc (and its compounds)	Yes	Studies are ongoing	Studies are ongoing

Report Submission and Electronic Certification

NPRI - Electronic Statement of Certification

I hereby certify that I have exercised due diligence to ensure that the submitted information is true and complete. The amounts and values for the facility(ies) identified below are accurate, based on reasonable estimates using available data. The data for the facility(ies) that I represent are hereby submitted to the programs identified below using the Single Window Reporting Application.
I also acknowledge that the data will be made public.
Note: Only the person identified as the Certifying Official or the authorized delegate should submit the report(s) identified below.
Company Name
Alltech Inc.
Certifying Official (or authorized delegate)
Jeannine Leroux
Report Submitted by
Jeannine Leroux
I, the Certifying Official or authorized delegate, agree with the statements above and acknowledge that by pressing the "Submit Report(s)" button, I am electronically certifying and submitting the facility report(s) for the identified company to its affiliated programs.

ON MOE TRA - Electronic Certification Statement
Annual Report Certification Statement

As of 26/05/2017, I, Jeannine Leroux, certify that I have read the reports on the toxic substance reduction plans for the toxic substances referred to below and am familiar with their contents, and to my knowledge the information contained in the reports is factually accurate and the reports comply with the Toxics Reduction Act, 2009 and Ontario Regulation 455/09 (General) made under that Act.
TRA Substance List
CAS RN
Substance Name
CAS RN
NA - 05
Substance Name
Cobalt (and its compounds)
CAS RN
NA - 06
Substance Name
Copper (and its compounds)
CAS RN
NA - 09
Substance Name
Manganese (and its compounds)
CAS RN
NA - M09

Substance Name
PM10 - Particulate Matter <= 10 Microns
CAS RN
NA - 12
Substance Name
Selenium (and its compounds)
CAS RN
NA - 14
Substance Name
Zinc (and its compounds)
Company Name
Alltech Inc.
Highest Ranking Employee
Jeannine Leroux
Report Submitted by
Jeannine Leroux
Website address

I, the highest ranking employee, agree with the certification statement(s) above and acknowledge that by checking the box I am electronically signing the statement(s). I also acknowledge that by pressing the 'Submit Report(s)' button I am submitting the facility record(s)/report(s) for the identified facility to the Director under the Toxics Reduction Act, 2009. I also acknowledge that the Toxics Reduction Act, 2009 and Ontario Regulation 455/09 provide the authority to the Director under the Act to make certain information as specified in subsection 27(5) of Ontario Regulation 455/09 available to the public.

Submitted Report
Period
2016
Submission Date
26/05/2017
Facility Name
Alexandria Bioscience Centre
Province
Ontario
City
Alexandria
Programs
NPRI,ON MOE TRA