



CHEMTURA CANADA CO./CIE

Elmira, Ontario

Annual Toxic Reduction Public Report
Reporting Year 2015

June 1, 2016

INTRODUCTION

Chemtura Canada Co./Cie. Elmira manufactures specialty chemicals for the oil and plastics industry as well as agricultural chemicals. In the process of producing these chemicals, some substances used fall under the toxic reduction act, therefore reduction plans were generated to ensure efficient use of the substances with minimal environmental impact.

As per the Ontario's *Toxics Reduction Act and Regulation (O. Reg 455/09)*, reduction plans were generated for the following substances:

- Phase 1 - Methanol
 Hydrochloric Acid
 Sulphuric Acid
 Toluene
- Phase 2 - Acetone
 Ammonia
 Aniline
 Diphenyl Amine
 Isopropyl Alcohol
 Ethylene Glycol
 Phthalic Anhydride
 PM 10
 PM 2.5
 Styrene
 Toluene Diisocyanate

These toxics substance reduction plan summaries have been prepared to meet the regulatory requirements Section 27(1) of the Ontario Regulation 455/09.

As of June 1, 2016 I certify that I have read the report on the toxic substance reduction plans for the toxics listed above and am familiar with their contents and to my knowledge the information contained in the reports is factually accurate and complies with the Toxics Reduction Act 2009 and Ontario Regulation 455/09 (general) made under the Act.

A handwritten signature in dark ink, appearing to read 'Helder Botelho', is written over a horizontal line.

Helder Botelho
Hub Manufacturing Manager - Canada

COMPANY INFORMATION

Chemtura Canada Co./ Cie.
Elmira Facility
25 Erb Street
Elmira ON N3B 3A3

National Pollutant Release Inventory (NPRI) identification number: 0000002322

Ontario Regulation 127/01 identification number: 6801

Number of full-time employee equivalents: 166

North American Industry Classification System (NAICS) codes:

2 digit - 32

4 digit - 3259

6 digit - 325999

Spatial coordinates in Universal Transverse Mercator (UTM) within a North American Datum 83 (NAD83):
(NAD83) 17-536120-4827144

PUBLIC CONTACT

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METHANOL CAS # 67-56-1

	2011 (tonnes)	2012 (tonnes)	2013 (tonnes)	2014 (tonnes)	2015 (tonnes)	2015- 2011	2015- 2012	2015- 2013	2015- 2014
use	10-100	10-100	10-100	10-100	10-100	0.7	-1.0	33.8	-2.6
created	0	0	0	0	0				
product	0	0	0	0	0				
air	0-1	0-1	0-1	0-1	0-1	0.0	0.0	0.0	0
disposed	0	0	0	0	0				
recycle	0	0	0	0	0				

Reduction options: None identified

Summary of steps taken during the previous calendar year to implement the plan and a summary of the toxics reductions achieved as a result of the steps taken.

None.

Summary of additional actions taken during the previous calendar year that impacted the toxic, and a summary of the steps and toxics reductions achieved as a result of those actions.

None

Summary of differences between steps taken and those set out in the plan.

None

Description of amendments to the plan.

None

Hydrochloric Acid CAS # 7647-01-0

	2012 (tonnes)	2013 (tonnes)	2014 (tonnes)	2015 (tonnes)	% (2015- 2011)	% (2015- 2012)	% (2015- 2013)	% (2015- 2014)
Use:	10 – 100	10 – 100	10 – 100	10-100	-0.5	7.0	10.6	3.4
Created:	0	0	0	0				
In product:	0	0	0	0				
Release to air:	0 – 1	0 – 1	0 – 1	0 - 1	-11.5	-11.5	0	0
Disposed of offsite:	0	0	0	0				
Offsite for recycle:	0	0	0	0				

Reduction options: None identified

Summary of steps taken during the previous calendar year to implement the plan and a summary of the toxics reductions achieved as a result of the steps taken.

None.

Summary of additional actions taken during the previous calendar year that impacted the toxic, and a summary of the steps and toxics reductions achieved as a result of those actions.

None

Summary of differences between steps taken and those set out in the plan.

None

Description of amendments to the plan.

None

TOLUENE CAS # 108-88-3

	2011	2012	2013	2014	2015	2015-2011	2015-2012	2015-2013	2015-2014
use	100-1000	100-1000	100-1000	100-1000	100-1000	-25.7	11.7	-39.2	-52.0
created	0	0	0	0	0				
product	0	0-1	0-1	0-1	0-1	62.8	-11.5	-41.3	-0.4
air	10-100	10-100	10-100	10-100	10-100	42.9	1.1	-7.1	-19.2
disposed	100-1000	100-1000	100-1000	100-1000	100-1000	-30.6	13.8	-27.2	-53.9
recycle	0	0	0	0	0				

Summary of steps taken during the previous calendar year to implement the plan and a summary of the toxics reductions achieved as a result of the steps taken.

Installed new process control system. Additional modifications are ongoing.

Summary of additional actions taken during the previous calendar year that impacted the toxic, and a summary of the steps and toxics reductions achieved as a result of those actions.

None

Summary of differences between steps taken and those set out in the plan.

None

Description of amendments to the plan.

None

ACETONE CAS # 67-64-1

	2012 (tonnes)	2013 (tonnes)	2014 (tonnes)	2015 (tonnes)	% (2015-2012)	% (2015-2013)	% (2015-2014)
Use:	100-1000	100 – 1,000	100 – 1,000	100 – 1,000	10.2	-9.3	-15.3
Created:	0	0	0	0			
In product:	0	0	0	0			
Release to air:	0 - 1	0 – 1	0 – 1	0-1	-10.0	-10.0	0.0
Disposed of offsite:	1 -10	1 -10	1 -10	1-10	14.5	-9.2	-11.8
Offsite for recycle:	0	0	0	0			

Summary of steps taken during the previous calendar year to implement the plan and a summary of the toxics reductions achieved as a result of the steps taken.

Segregated some waste acetone for reused on site. Remainder of waste acetone cannot be segregated.

Summary of additional actions taken during the previous calendar year that impacted the toxic, and a summary of the steps and toxics reductions achieved as a result of those actions.

None

Summary of differences between steps taken and those set out in the plan.

None

Description of amendments to the plan.

None

AMMONIA CAS # NA-16

	2012 (tonnes)	2013 (tonnes)	2014 (tonnes)	2015 (tonnes)	% (2015- 2012)	% (2015- 2013)	% (2015- 2014)
Use:	100-1000	100 – 1,000	100 – 1,000	100 – 1,000	-5.7	-7.9	-15.8
Created:	0	0	0	0			
In product:	0	0	0	0			
Release to air:	0 - 1	0 – 1	0 – 1	0-1	12.5	11.3	-10.0
Disposed of offsite:	100-1000	100 – 1,000	100 – 1,000	100 – 1,000	-9.8	-3.6	-18.8
Offsite for recycle:	0	0	0	0			

Reduction options: None identified

Summary of steps taken during the previous calendar year to implement the plan and a summary of the toxics reductions achieved as a result of the steps taken.

None.

Summary of additional actions taken during the previous calendar year that impacted the toxic, and a summary of the steps and toxics reductions achieved as a result of those actions.

None

Summary of differences between steps taken and those set out in the plan.

None

Description of amendments to the plan.

None

ANILINE CAS # 62-53-3

	2012 (tonnes)	2013 (tonnes)	2014 (tonnes)	2015 (tonnes)	% (2015- 2012)	% (2015- 2013)	% (2015- 2014)
Use:	0 - 1	0 – 1	0 – 1	0-1	-8.7	-434.8	-282.0
Created:	10-100	10-100	10-100	10-100	-11.1	0.9	-19.9
In product:	0	0	0				
Release to air:	0 - 1	0 – 1	0 – 1	0-1	-333.3	33.3	-366.7
Disposed of offsite:	10-100	10-100	10-100	10-100	-11.2	-0.3	-19.2
Offsite for recycle:	0	0	0	0			

Reduction options: None identified

Summary of steps taken during the previous calendar year to implement the plan and a summary of the toxics reductions achieved as a result of the steps taken.

None.

Summary of additional actions taken during the previous calendar year that impacted the toxic, and a summary of the steps and toxics reductions achieved as a result of those actions.

None

Summary of differences between steps taken and those set out in the plan.

None

Description of amendments to the plan.

None

DIPHENYLAMINE CAS # 122-39-4

	2012 (tonnes)	2013 (tonnes)	2014 (tonnes)	2015 (tonnes)	% (2015-2012)	% (2015-2013)	% (2015-2014)
Use:	1,000 – 10,000	1,000 – 10,000	1,000 – 10,000	1,000 – 10,000	4.2	6.8	4.1
Created:	0	0	0	0			
In product:	100 – 1,000	100-1,000	100 – 1,000	100 – 1,000	-10.6	-0.8	-0.8
Release to air:	0 - 1	0 – 1	0 – 1	0 – 1	4.7	0.0	6.7
Disposed of offsite:	10 -100	10 -100	10 -100	10 -100	51.9	-56.9	-66.5
Offsite for recycle:	1 - 10	1 - 10	1 - 10	1 - 10	0.0	0.0	0.0

Reduction options: None identified

Summary of steps taken during the previous calendar year to implement the plan and a summary of the toxics reductions achieved as a result of the steps taken.

None.

Summary of additional actions taken during the previous calendar year that impacted the toxic, and a summary of the steps and toxics reductions achieved as a result of those actions.

None

Summary of differences between steps taken and those set out in the plan.

None

Description of amendments to the plan.

None

ETHYLENE GLYCOL CAS # 107-21-1

	2012 (tonnes)	2013 (tonnes)	2014 (tonnes)	2015 (tonnes)	% (2015-2012)	% (2015-2013)	% (2015-2014)
Use:	100 – 1,000	100 – 1,000	100 – 1,000	10-100	-56.1	-64.6	-130.5
Created:	0	0	0	0			
In product:	100 – 1,000	100-1,000	100 – 1,000	10-100	-53.7	-54.9	-130.5
Release to air:	0 - 1	0 – 1	0 – 1	0-1	-42.9	-42.9	-185.7
Disposed of offsite:	0	0	0	0			
Offsite for recycle:	0	0	0	0			

Reduction options: None identified

Summary of steps taken during the previous calendar year to implement the plan and a summary of the toxics reductions achieved as a result of the steps taken.

None.

Summary of additional actions taken during the previous calendar year that impacted the toxic, and a summary of the steps and toxics reductions achieved as a result of those actions.

None

Summary of differences between steps taken and those set out in the plan.

None

Description of amendments to the plan.

None

ISOPROPYL ALCOHOL CAS # 67-63-0

	2012 (tonnes)	2013 (tonnes)	2014 (tonnes)	2015 (tonnes)	% (2015- 2012)	% (2015- 2013)	% (2015- 2014)
Use:	10-100	100-1000	10-100	10-100	-6.7	-70.7	-28.0
Created:	0	0	0	0			
In product:	0	0	0	0			
Release to air:	1-10	1-10	1-10	1-10	0.0	-8.8	-14.7
Disposed of offsite:	10-100	10-100	10-100	10-100	-2.8	-36.1	-23.6
Offsite for recycle:	0	0	0	0			

Summary of steps taken during the previous calendar year to implement the plan and a summary of the toxics reductions achieved as a result of the steps taken.

Modifications are complete 2013, 2 tonnes in IPA use reduced.

Summary of additional actions taken during the previous calendar year that impacted the toxic, and a summary of the steps and toxics reductions achieved as a result of those actions.

None

Summary of differences between steps taken and those set out in the plan.

None

Description of amendments to the plan.

None

PM 10

	2012 (tonnes)	2013 (tonnes)	2014 (tonnes)	2015 (tonnes)	% (2015- 2012)	% (2015- 2013)	% (2015- 2014)
Use:	0	0	0	0			
Created:	10 – 100	10 – 100	10 – 100	10 – 100	37.5	24.8	-23.2
In product:	0	0	0	0			
Release to air:	1-10	1-10	1-10	1-10	2.3	0.2	0.19
Disposed of offsite:	0	0	0	0			
Offsite for recycle:	0	0	0	0			

Summary of steps taken during the previous calendar year to implement the plan and a summary of the toxics reductions achieved as a result of the steps taken.

Not Applicable

Summary of additional actions taken during the previous calendar year that impacted the toxic, and a summary of the steps and toxics reductions achieved as a result of those actions.

Not Applicable

Summary of differences between steps taken and those set out in the plan.

Not Applicable

Description of amendments to the plan.

Not Applicable

PM 2.5

	2012 (tonnes)	2013 (tonnes)	2014 (tonnes)	2015 (tonnes)	% (2015- 2012)	% (2015- 2013)	% (2015- 2014)
Use:	0	0	0	0			
Created:	10-100	10-100	10-100	10-100	90.9	90.9	-25.3
In product:	0	0	0	0			
Release to air:	1-10	1-10	0-1	0-1	-395.1	-395.1	1.11
Disposed of offsite:	0	0	0	0			
Offsite for recycle:	0	0	0	0			

Summary of steps taken during the previous calendar year to implement the plan and a summary of the toxics reductions achieved as a result of the steps taken.

Not Applicable

Summary of additional actions taken during the previous calendar year that impacted the toxic, and a summary of the steps and toxics reductions achieved as a result of those actions.

Not Applicable

Summary of differences between steps taken and those set out in the plan.

Not Applicable

Description of amendments to the plan.

Not Applicable

PHTHALIC ANHYDRIDE CAS # 85-44-9

	2012 (tonnes)	2013 (tonnes)	2014 (tonnes)	2015 (tonnes)	% (2015- 2012)	% (2015- 2013)	% (2015- 2014)
Use:	10-100	10-100	0	10-100	-138.5	-192.3	NA
Created:	0	0	0	0			
In product:	10-100	10-100	0	10-100	-138.5	-176.9	NA
Release to air:	0-1	0-1	0	0-1	-166.7	-166.7	NA
Disposed of offsite:	0	2.3	0	0			
Offsite for recycle:	0	0	0	0			

Reduction options: None identified

Summary of steps taken during the previous calendar year to implement the plan and a summary of the toxics reductions achieved as a result of the steps taken.

None.

Summary of additional actions taken during the previous calendar year that impacted the toxic, and a summary of the steps and toxics reductions achieved as a result of those actions.

None

Summary of differences between steps taken and those set out in the plan.

None

Description of amendments to the plan.

None

STYRENE CAS # 100-42-5

	2012 (tonnes)	2013 (tonnes)	2014 (tonnes)	2015 (tonnes)	% (2015- 2012)	% (2015- 2013)	% (2015- 2014)
Use:	10 – 100	10 – 100	10 – 100	0	-100.0	-100.0	-100
Created:	0	0	0	0			
In product:	0	0	0	0			
Release to air:	0 - 1	0 - 1	0 - 1	0	-100.0	-100.0	-100
Disposed of offsite:	0	0	0	0			
Offsite for recycle:	0	0	0	0			

Reduction options: The product line containing Styrene is no longer being made

Toluene Diisocyanate CAS # 584-84-9

	2012 (tonnes)	2013 (tonnes)	2014 (tonnes)	2015 (tonnes)	% (2015- 2012)	% (2015- 2013)	% (2015- 2014)
Use:	10-100	0	0	0	100	0	0
Created:	0	0	0	0			
In product:	10-100	0	0	0	100	0	0
Release to air:	0-1	0	0	0	100	0	0
Disposed of offsite:	0	0	0	0			
Offsite for recycle:	0	0	0	0			

Reduction options: Substance is no longer used on site