



Annual Toxic Reduction Public Report

Reporting Year 2016

(For Chemtura Canada Co./ Cie – Elmira)

June 1, 2017

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, 2017 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.



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

Mr. Dwight Este
EHSS Area Manager, Canada
Phone: (519) 669-1671
Fax: (519) 669-3273
Email: dwight.este@chemtura.com

METHANOL CAS # 67-56-1

	2011 (tonnes)	2012 (tonnes)	2013 (tonnes)	2014 (tonnes)	2015 (tonnes)	2016 (tonnes)	% (2016- 2011)	% (2016- 2012)	% (2016- 2013)	% (2016- 2014)	% (2016- 2015)
use	10 – 100	10 – 100	10 – 100	10 – 100	10 – 100	10 – 100	0.0	-1.7	33.3	-3.4	-0.7
created	0	0	0	0	0	0					
product	0	0	0	0	0	0					
air	0 – 1	0 – 1	0 – 1	0 – 1	0 – 1	0 – 1	0	0	0	0	0
disposed	0	0	0	0	0	0					
recycle	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

Hydrochloric Acid CAS # 7647-01-0

	2011 (tonnes)	2012 (tonnes)	2013 (tonnes)	2014 (tonnes)	2015 (tonnes)	2016 (tonnes)	% (2016- 2011)	% (2016- 2012)	% (2016- 2013)	% (2016- 2014)	% (2016- 2015)
use	10 – 100	10 – 100	10 – 100	10 – 100	10 – 100	10 – 100	1.7	9.0	12.6	5.5	2.2
created	0.0	0	0	0	0						
product	0.0	0	0	0	0						
air	0 – 1	0 – 1	0 – 1	0 – 1	0 – 1	0 – 1	-11.5	-11.5	0.0	0.0	0.0
disposed	0.0	0	0	0	0						
recycle	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

TOLUENE CAS # 108-88-3

	2011 (tonnes)	2012 (tonnes)	2013 (tonnes)	2014 (tonnes)	2015 (tonnes)	2016 (tonnes)	% (2016- 2011)	% (2016- 2012)	% (2016- 2013)	% (2016- 2014)	% (2016- 2015)
use	100-1000	100-1000	100-1000	100-1000	100-1000	100-1000	21.4	44.8	13.0	4.9	37.5
created	0.0	0	0	0	0	0					
product	0-1	0-1	0-1	0-1	0-1	0-1	0.0	-200.0	-280.0	-170.0	-169
air	10-100	10-100	10-100	10-100	10-100	10-100	39.9	-4.1	-12.8	-25.5	-5.2
disposed	100-1000	100-1000	100-1000	100-1000	100-1000	100-1000	11.4	41.5	13.7	-4.4	32.2
recycle	0	0	0	0	0	1-10					

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)	2016 (tonnes)	% (2016- 2012)	% (2016- 2013)	% (2016- 2014)	% (2016- 2015)
use	100-1000	100-1000	100-1000	100-1000	100-1000	25.4	9.2	4.3	16.9
created	0	0	0	0	0				
product	0	0	0	0	0				
air	0-1	0-1	0-1	0-1	0-1	-25.4	-25.4	-14.0	-14.0
disposed	1-10	1-10	1-10	1-10	1-10	-7.3	-37.1	-40.4	-25.5
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.

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)	2016 (tonnes)	% (2016- 2012)	% (2016- 2013)	% (2016- 2014)	% (2016- 2015)
use	100-1000	100-1000	100-1000	100-1000	100-1000	-18.3	-20.8	-29.6	-12.0
created	0	0	0	0	0				
product	0	0	0	0	0				
air	0-1	0-1	0-1	0-1	0-1	12.5	11.3	-10.0	-6.7
disposed	100-1000	100-1000	100-1000	100-1000	100-1000	-9.8	-3.6	-18.8	-2.3
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)	2016 (tonnes)	% (2016- 2012)	% (2016- 2013)	% (2016- 2014)	% (2016- 2015)
use	0-1	0-1	0-1	0-1	0-1	-23.8	-509.4	-335.3	-13.9
created	10-100	10-100	10-100	10-100	10-100	-22.0	-8.8	-31.6	-9.8
product	0	0	0	0	0				
air	0-1	0-1	0-1	0-1	0-1	-333.3	33.3	-366.7	0.0
disposed	10-100	10-100	10-100	10-100	10-100	-22.4	-10.4	-31.2	-10.0
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

DIPHENYLAMINE CAS # 122-39-4

	2012 (tonnes)	2013 (tonnes)	2014 (tonnes)	2015 (tonnes)	2016 (tonnes)	% (2016- 2012)	% (2016- 2013)	% (2016- 2014)	% (2016- 2015)
use	1000- 10000	1000- 10000	1000- 10000	1000- 10000	1000- 10000	14.1	16.4	13.9	10.3
created	0	0	0	0	0				
product	100-1000	100-1000	100-1000	100-1000	100-1000	-3.0	6.1	6.1	6.1
air	0-1	0-1	0-1	0-1	0-1	15.9	11.8	17.6	11.8
disposed	10-100	10-100	10-100	10-100	10-100	57.2	-39.7	-48.3	11.3
recycle	1-10	1-10	1-10	1-10	1-10	9.7	9.7	9.7	6.5

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)	2016 (tonnes)	% (2016- 2012)	% (2016- 2013)	% (2016- 2014)	% (2016- 2015)
use	100-1000	100-1000	100-1000	10-100	10-100	-132.7	-145.5	-243.6	-49.1
created	0	0	0	0	0				
product	100-1000	100-1000	100-1000	10-100	10-100	-137.7	-139.6	-256.6	-54.7
air	0-1	0-1	0-1	0-1	0-1	-66.7	-66.7	-233.3	-16.7
disposed	1-10	0-1	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

ISOPROPYL ALCOHOL CAS # 67-63-0

	2012 (tonnes)	2013 (tonnes)	2014 (tonnes)	2015 (tonnes)	2016 (tonnes)	% (2016- 2012)	% (2016- 2013)	% (2016- 2014)	% (2016- 2015)
use	10-100	100-1000	10-100	10-100	100-1000	21.5	-25.7	5.7	26.4
created	0	0	0	0	0				
product	0	0	0	0	0				
air	1-10	1-10	1-10	1-10	1-10	17.9	10.6	5.8	17.9
disposed	10-100	10-100	10-100	10-100	10-100	21.2	-4.3	5.3	23.4
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.

Modifications are complete 2013.

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)	2016 (tonnes)	% (2016- 2012)	% (2016- 2013)	% (2016- 2014)	% (2016- 2015)
use	0	0	0	0	0				
created	10-100	10-100	10-100	10-100	10-100	44.9	33.7	-8.5	11.9
product	0	0	0	0	0				
air	1-10	1-10	1-10	1-10	1-10	2.5	0.4	0.4	0.19
disposed	0	0	0	0	0				
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.

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)	2016 (tonnes)	% (2016- 2012)	% (2016- 2013)	% (2016- 2014)	% (2016- 2015)
use	0	0	0	0	0.0				
created	1-10	1-10	10-100	10-100	10-100	92.1	92.1	-9.2	12.9
product	0	0	0	0	0				
air	1-10	1-10	0-1	0-1	0-1	-387.0	-387.0	2.7	1.6
disposed	0	0	0	0	0				
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.

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)	2016 (tonnes)	% (2016- 2012)	% (2016- 2013)	% (2016- 2014)	% (2016- 2015)
use	10-100	10-100	0	10-100	10-100	-72.2	-111.1	NA	27.8
created	0	0	0	0	0				
product	10-100	10-100	0	10-100	10-100	-72.7	-100.6	NA	27.6
air	0-1	0-1	0	0-1	0-1	-77.8	-77.8	NA	33.3
disposed	0	1-10	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

STYRENE CAS # 100-42-5

	2012 (tonnes)	2013 (tonnes)	2014 (tonnes)	2015 (tonnes)	2016 (tonnes)	% (2016- 2012)	% (2016- 2013)	% (2016- 2014)	% (2016- 2015)
use	10-100	10-100	10-100	0	0	-100.0	-100.0	-100	0
created	0	0	0	0	0				
product	0	0	0	0	0				
air	0-1	0-1	0-1	0	0	-100.0	-100.0	-100	0
disposed	0	0	0	0	0				
recycle	0	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)	2016 (tonnes)	% (2016- 2012)	% (2016- 2013)	% (2016- 2014)	% (2016- 2015)
use	81	0	0	0	0				
created	0	0	0	0	0				
product	19	0	0	0	0				
air	0.0035	0	0	0	0				
disposed	0	0	0	0	0				
recycle	0	0	0	0	0				

Reduction options: Substance is no longer used on site