



Annual Toxic Reduction Public Report

Reporting Year 2017

(For LANXESS Canada Co./ Cie – Elmira)

June 1, 2018

INTRODUCTION

LANXESS 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.

LANXESS Canada Co./Cie. is a member of the Chemistry Industry Association of Canada (<http://www.canadianchemistry.ca/>) and as such follows the association's [Responsible Care](#)[®] initiative. Responsible Care was developed in Canada in 1988 as a program to collectively improve the environmental, health and safety performance of member companies. Responsible Care has been very successful in this regard and has expanded into a global movement, now practiced in more than 60 countries around the world, and overseen by the International Council of Chemical Associations (<https://www.icca-chem.org>).

Responsible Care[®] is the chemistry industry's commitment to sustainability – the betterment of society, the environment, and the economy. Through Responsible Care[®], CIAC member-companies strive to “do the right thing and be seen to do the right thing.”

Responsible Care[®] covers all aspects of our company's business, over the entire life cycle of our products. In addition, LANXESS Canada Co./Cie. must annually reaffirm their commitment to the [Ethic and Principles for Sustainability](#), and the [Codes of Practice](#), and undergo a regular third-party verification process that allows independent experts and members of the public to verify that they're living up to the standards set by Responsible Care[®].

A key component of Responsible Care is to innovate for safer products and processes that conserve resources, reduce risk and enhance value. This is accomplished through a regular review of products and processes.

LANXESS Canada Co./Cie. has embraced the goals of the chemistry industry's Responsible Care initiative and applied them throughout our processes and facility. We dedicate ourselves, our technology and our business practices to sustainability - the betterment of society, the environment and the economy.

The principles of Responsible Care[®] are key to our business success, and compel us to continually innovate for safer and greener products and processes, and work to continuously improve our environmental, health and safety performance.

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
 Diphenylamine
 Isopropyl Alcohol
 Ethylene Glycol
 Phthalic Anhydride
 PM 10
 PM 2.5

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, 2018 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

LANXESS Canada Co./ Cie.
Elmira Facility
5 Erb Street
Elmira ON N3B 2J3

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

Methanol													
	2011 (tonnes)	2012 (tonnes)	2013 (tonnes)	2014 (tonnes)	2015 (tonnes)	2016 (tonnes)	2017 (tonnes)	% (2017- 2011)	% (2017- 2012)	% (2017- 2013)	% (2017- 2014)	% (2017- 2015)	% (2017- 2016)
use	10 – 100	10 – 100	10 – 100	10 – 100	10 – 100	10 – 100	10 – 100	-1.8	-3.5	32.1	-5.2	-2.5	-1.8
created	0	0	0	0	0	0	0						
product	0	0	0	0	0	0	0						
air	0 – 1	0 – 1	0 – 1	0 – 1	0 – 1	0 – 1	0 – 1	0	0	0	0	0	0
disposed	0	0	0	0	0	0	0						
recycle	0	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

Hydrochloric Acid													
	2011 (tonnes)	2012 (tonnes)	2013 (tonnes)	2014 (tonnes)	2015 (tonnes)	2016 (tonnes)	2017 (tonnes)	% (2017- 2011)	% (2017- 2012)	% (2017- 2013)	% (2017- 2014)	% (2017- 2015)	% (2017- 2016)
use	10 – 100	10 – 100	10 – 100	10 – 100	10 – 100	10 – 100	10 – 100	-20.3	-11.3	-7.0	-15.7	-19.7	-22.4
created	0	0	0	0	0	0	0						
product	0	0	0	0	0	0	0						
air	0 – 1	0 – 1	0 – 1	0 – 1	0 – 1	0 – 1	0 – 1	-9.8	-9.8	1.5	1.5	1.5	1.5
disposed	0	0	0	0	0	0	0						
recycle	0	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)	2017 (tonnes)	% (2017- 2011)	% (2017- 2012)	% (2017- 2013)	% (2017- 2014)	% (2017- 2015)	% (2017- 2016)
use	100- 1000	100- 1000	100- 1000	100- 1000	100- 1000	100- 1000	100- 1000	3.1	31.9	-7.3	-17.2	22.9	-23.3
created	0	0	0	0	0	0	0						
product	0-1	0-1	0-1	0-1	0-1	0-1	0-1	66.7	0.0	-26.7	10.0	10.3	66.7
air	10-100	10-100	10-100	10-100	10-100	10-100	10- 100	41.7	-0.9	-9.3	-21.6	-2.0	3.0
disposed	100- 1000	100- 1000	100- 1000	100- 1000	100- 1000	100- 1000	100- 1000	-3.9	31.4	-1.2	-22.4	20.4	-17.3
recycle	0	0	0	0	0	1-10	10- 100						90.4

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)	2017 (tonnes)	% (2017- 2012)	% (2017- 2013)	% (2017- 2014)	% (2017- 2015)	% (2017- 2016)
use	100- 1000	100- 1000	100- 1000	100- 1000	100- 1000	10 – 100	-12.0	-36.3	-43.7	-24.7	-50.1
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	-11.7	-11.7	-1.5	-1.5	10.9
disposed	1-10	1-10	1-10	1-10	1-10	10 – 100	65.6	56.1	55.0	59.8	68.0
recycle	0	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)	2017 (tonnes)	% (2017- 2012)	% (2017- 2013)	% (2017- 2014)	% (2017- 2015)	% (2017- 2016)
use	100- 1000	100- 1000	100- 1000	100- 1000	100- 1000	100- 1000	-15.4	-17.8	-26.4	-9.1	2.5
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	7.8	6.5	-15.9	-5.4	1.2
disposed	100- 1000	100- 1000	100- 1000	100- 1000	100- 1000	10-100	-23.0	-16.1	-33.1	-12.0	-9.6
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

ANILINE CAS # 62-53-3

	2012 (tonnes)	2013 (tonnes)	2014 (tonnes)	2015 (tonnes)	2016 (tonnes)	2017 (tonnes)	% (2017- 2012)	% (2017- 2013)	% (2017- 2014)	% (2017- 2015)	% (2017- 2016)
use	0-1	0-1	0-1	0-1	0-1	0-1	-9.7	-440.1	-285.8	-1.0	11.4
created	10-100	10-100	10-100	10-100	10-100	10-100	-46.9	-31.0	-58.5	-32.2	-20.4
product	0	0	0	0	0	0					
air	0-1	0-1	0-1	0-1	0-1	0-1	-296.3	39.0	-326.8	8.5	8.5
disposed	10-100	10-100	10-100	10-100	10-100	10-100	-45.3	-31.0	-55.7	-30.6	-30.6
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

DIPHENYLAMINE CAS # 122-39-4

	2012 (tonnes)	2013 (tonnes)	2014 (tonnes)	2015 (tonnes)	2016 (tonnes)	2017 (tonnes)	% (2017- 2012)	% (2017- 2013)	% (2017- 2014)	% (2017- 2015)	% (2017- 2016)
use	1000- 10000	1000- 10000	1000- 10000	1000- 10000	1000- 10000	1000- 10000	11.6	14.0	11.5	7.7	-2.8
created	0	0	0	0	0	0					
product	100- 1000	100- 1000	100- 1000	100- 1000	100- 1000	100- 1000	1.8	10.5	10.5	10.5	4.7
air	0-1	0-1	0-1	0-1	0-1	0-1	15.0	10.9	16.8	10.9	-1.0
disposed	10-100	10-100	10-100	10-100	10-100	10-100	69.6	0.8	-5.3	37.0	29.0
recycle	1-10	1-10	1-10	1-10	1-10	1-10	2.2	2.2	2.2	-1.3	-8.3

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)	2017 (tonnes)	% (2017- 2012)	% (2017- 2013)	% (2017- 2014)	% (2017- 2015)	% (2017- 2016)
use	100- 1000	100- 1000	100- 1000	10-100	10-100	10-100	-180.7	-196.1	-314.5	-79.8	-20.6
created	0	0	0	0	0	0					
product	100- 1000	100- 1000	100- 1000	10-100	10-100	10-100	-179.4	-181.6	-319.1	-81.8	-17.5
air	0-1	0-1	0-1	0-1	0-1	0-1	-100.0	-100.0	-300.0	-40.0	-20.0
disposed	1-10	0-1	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

ISOPROPYL ALCOHOL CAS # 67-63-0

	2012 (tonnes)	2013 (tonnes)	2014 (tonnes)	2015 (tonnes)	2016 (tonnes)	2017 (tonnes)	% (2017- 2012)	% (2017- 2013)	% (2017- 2014)	% (2017- 2015)	% (2017- 2016)
use	10-100	100- 1000	10-100	10-100	100- 1000	100- 1000	52.4	23.9	42.9	55.4	39.5
created	0	0	0	0	0	0					
product	0	0	0	0	0	0					
air	1-10	1-10	1-10	1-10	1-10	1-10	41.5	36.3	32.9	41.5	28.8
disposed	10-100	10-100	10-100	10-100	10-100	100- 1000	54.0	39.1	44.7	55.3	41.6
recycle	0	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)	2017 (tonnes)	% (2017- 2012)	% (2017- 2013)	% (2017- 2014)	% (2017- 2015)	% (2017- 2016)
use	0	0	0	0	0	0					
created	10-100	10-100	10-100	10-100	10-100	10-100	59.1	50.7	19.4	34.5	25.7
product	0	0	0	0	0	0					
air	1-10	1-10	1-10	1-10	1-10	1-10	4.3	2.2	2.2	2.0	1.8
disposed	0	0	0	0	0	0					
recycle	0	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)	2017 (tonnes)	% (2017- 2012)	% (2017- 2013)	% (2017- 2014)	% (2017- 2015)	% (2017- 2016)
use	0	0	0	0	0	0					
created	1-10	1-10	10-100	10-100	10-100	10-100	94.2	94.2	20.5	36.5	27.2
product	0	0	0	0	0	0					
air	1-10	1-10	0-1	0-1	0-1	1-10	-338.4	-338.4	12.4	11.4	10.0
disposed	0	0	0	0	0	0					
recycle	0	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

HTHALIC ANHYDRIDE CAS # 85-44-9

	2012 (tonnes)	2013 (tonnes)	2014 (tonnes)	2015 (tonnes)	2016 (tonnes)	2017 (tonnes)	% (2017- 2012)	% (2017- 2013)	% (2017- 2014)	% (2017- 2015)	% (2017- 2016)
use	10-100	10-100	0	10-100	10-100	10-100	-98.2	-143.0	NA	16.9	-15.1
created	0	0	0	0	0	0					
product	10-100	10-100	0	10-100	10-100	10-100	-103.2	-135.9	NA	14.8	-17.6
air	0-1	0-1	0	0-1	0-1	0-1	-107.3	-107.3	NA	22.3	-16.6
disposed	0	1-10	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