



SUNCOR ENERGY INC.

---

ST. CLAIR ETHANOL PLANT  
535 ROKEBY LINE  
MOORETOWN, ONTARIO  
N0N 1M0  
TEL (519) 481-0454

# 2018 TOXICS REDUCTION ACT

## Toxic Substance Reduction Plan Summaries

Suncor Energy Inc.  
St. Clair Ethanol Plant  
535 Rokeby Line  
Mooretown, Ontario  
N0N 1M0

June 1, 2019



## Version Control

Version	Date Issued	Modifications
Update	June 1, 2019	Original version made available to the public and employees December 31, 2013

# Table of Contents

<b>INTRODUCTION</b>	1
<b>FACILITY INFORMATION</b>	2
Facility Contact	2
Date of Summary	2
Phase 1 Toxic Substances Reported	2
Phase 2 Toxic Substances Reported	2
Copy of Certification	2
<b>SUBSTANCE REPORTING</b>	3-21
Acetaldehyde	3
Sulphuric Acid	4
Methanol (Methyl Alcohol, Wood Alcohol)	5
Naphthalene	6
Ethyl Benzene	7
Toluene	8
Xylenes (Mixed Isomers)	9
Ethyl Acetate	10
Propane	11
N-Hexane	12
1,2,4-Trimethylbenzene	13
Cyclohexane	14
Ethanol (Ethyl Alcohol)	15
PM	16
PM10	17
PM2.5	18
NOx	19
SO2	20
CO	21

## INTRODUCTION

Suncor Energy Inc. (Suncor) operates an ethanol production plant, designated as the St. Clair Ethanol Plant, to supply ethanol for blending with their gasoline products. Ethanol provides a cleaner burning fuel blend and displaces gasoline for transportation.

Protection of the environment is a fundamental Suncor value. It is our responsibility to determine and manage the impacts of our business through programs like the Toxics Reduction Act.

These toxics substance reduction plan summaries have been prepared to meet the regulatory obligations specified in Section 8 of the Act and has been prepared in accordance with the requirements of Section 24 of Ontario Regulation (O. Reg.) 455/09, as amended from time to time. It meets the relevant reporting requirements and will be updated, as required by the Act and O. Reg. 455/09.

For more information on the Toxics Reduction Act and O. Reg. 455/09 visit: <https://www.ontario.ca/page/ontario-toxics-reduction-program-guide-regulated-facilities>.

## Suncor Energy Inc. - St. Clair Ethanol Plant

### Toxics Reduction Public Summary Report

#### Facility Information

Company Name	Suncor Energy Inc.
Facility Name	St. Clair Ethanol Plant
Facility Physical Address	535 Rokeby Line, Mooretown, ON N0N 1M0
Facility Mailing Address	Same as physical address
Spatial Coordinates of Facility	42.92940, -82.43810
Number of Employees	79
NPRI ID	11444
2 Digit NAICS Code	32
4 Digit NAICS Code	3251
6 Digit NAICS Code	325190

#### Facility Contact

Public Contact	Rheece De Veyra
Position	Environmental Advisor
Address	535 Rokeby Line, Mooretown, ON N0N 1M0
email	rdeveyra@suncor.com
Phone	519-333-4041
Fax	519-862-4008

#### Date of Summary

Reporting Year	2018
Summary Date	June 1, 2019

#### Phase 1 Toxics Substances Reported

Acetaldehyde, Sulphuric Acid, Methanol, Naphthalene, Ethyl Benzene, Toluene, Xylene

#### Phase 2 Toxics Substances Reported

Ethyl Acetate, N-Hexane, Propane, 1,2,4-Trimethylbenzene, Cyclohexane, Ethanol, PM, PM10, PM2.5, Nitrogen Oxides, Sulphur Dioxide, Carbon Monoxide

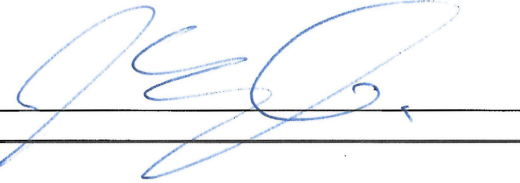
#### Copy of Certification:

As of June 1, 2019, I certify that I have read the report on the toxic substance reduction plan(s) for the toxics listed above and am familiar with their contents and to my knowledge the information contained in the report(s) is factually accurate and complies with the Toxics Reduction Act, 2009 and Ontario Regulation 455/09 (General) made under that Act.

The original version of this report is signed off by:

Highest Ranking Employee: John Ybema

Title: Director Operations



## Suncor Energy Inc. - St. Clair Ethanol Plant

### Toxics Reduction Public Summary Report

#### Substance Information and Plan Objective

Substance Name	Acetaldehyde
CAS #	75-07-0
Report Date:	June 1, 2019
Plan Date:	31-Dec-12
Plan Objectives and Targets	While the St. Clair Ethanol Plant does not intend to reduce the creation of acetaldehyde, the plan was developed with the following objectives - we will continue to operate in compliance with all applicable environmental regulations; and we will continue to manage releases of acetaldehyde through current and future pollution prevention and best management practices.

#### Toxics Substance Accounting and Comparison

Pathways	2017	2018	Delta	Delta %
Units reported	tonnes	tonnes		
U - Enters the Process (Raw Materials)	0	0	0	NA
C - Created	>10 to 100	>10 to 100	> -1 to -10	-1%
P - In a product that leaves the process	>10 to 100	>10 to 100	> -1 to -10	-3%
Summary of reasons for changes between current year and previous year.	No significant change in the amount of Acetaldehyde created at the facility			

On-site releases from the facility to air, water and land, as well as on and off-site disposal and off-site recycling can be viewed by searching for this facility at <http://www.ec.gc.ca/inrp-npri/default.asp?lang=en>

#### Progress in Implementing Plan

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

## Suncor Energy Inc. - St. Clair Ethanol Plant

### Toxics Reduction Public Summary Report

#### Substance Information and Plan Objective

Substance Name	Sulphuric Acid
CAS #	7664-93-6
Report Date:	June 1, 2019
Plan Date:	31-Dec-12
Plan Objectives and Targets	While the St. Clair Ethanol Plant does not intend to reduce the use of sulphuric acid, the plan was developed with the following objectives - we will continue to operate in compliance with all applicable environmental regulations; and we will continue to manage releases of sulphuric acid through current and future pollution prevention and best management practices.

#### Toxics Substance Accounting and Comparison

Pathways	2017	2018	Delta	Delta %
Units reported	tonnes	tonnes		
U - Enters the Process (Raw Materials)	>1000 to 10,000	>1000 to 10,000	> -100 to -1000	-11%
C - Created	0	0	0	NA
P - In a product that leaves the process	0	0	0	NA
Summary of reasons for changes between current year and previous year.	No significant change in the amount of Sulphuric Acid used at the facility			

On-site releases from the facility to air, water and land, as well as on and off-site disposal and off-site recycling can be viewed by searching for this facility at <http://www.ec.gc.ca/inrp-npri/default.asp?lang=en>

#### Progress in Implementing Plan

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

## Suncor Energy Inc. - St. Clair Ethanol Plant

### Toxics Reduction Public Summary Report

#### Substance Information and Plan Objective

Substance Name	Methanol (Methyl Alcohol, Wood Alcohol)
CAS #	67-56-1
Report Date:	June 1, 2019
Plan Date:	31-Dec-12
Plan Objectives and Targets	While the St. Clair Ethanol Plant does not intend to reduce the creation or use of methanol, the plan was developed with the following objectives - we will continue to operate in compliance with all applicable environmental regulations; and we will continue to manage releases of methanol through current and future pollution prevention and best management practices.

#### Toxics Substance Accounting and Comparison

Pathways	2017	2018	Delta	Delta %
Units reported	tonnes	tonnes		
U - Enters the Process (Raw Materials)	0	0	0	NA
C - Created	>1 to 10	>1 to 10	>0 to 1	5%
P - In a product that leaves the process	0	0	0	NA
Summary of reasons for changes between current year and previous year.	No significant change in the amount of Methanol (Methyl Alcohol, Wood Alcohol) created at the facility			

On-site releases from the facility to air, water and land, as well as on and off-site disposal and off-site recycling can be viewed by searching for this facility at <http://www.ec.gc.ca/inrp-npri/default.asp?lang=en>

#### Progress in Implementing Plan

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



## Suncor Energy Inc. - St. Clair Ethanol Plant

### Toxics Reduction Public Summary Report

#### Substance Information and Plan Objective

Substance Name	Naphthalene
CAS #	91-20-3
Report Date:	June 1, 2019
Plan Date:	31-Dec-12
Plan Objectives and Targets	While the St. Clair Ethanol Plant does not intend to reduce the use of naphthalene, the plan was developed with the following objectives - we will continue to operate in compliance with all applicable environmental regulations; and we will continue to manage releases of naphthalene through current and future pollution prevention and best management practices.

#### Toxics Substance Accounting and Comparison

Pathways	2017	2018	Delta	Delta %
Units reported	tonnes	tonnes		
U - Enters the Process (Raw Materials)	>10 to 100	>10 to 100	>0 to 1	1%
C - Created	0	0	0	NA
P - In a product that leaves the process	>10 to 100	>10 to 100	>0 to 1	1%
Summary of reasons for changes between current year and previous year.	No significant change in the amount of Naphthalene used at the facility			

On-site releases from the facility to air, water and land, as well as on and off-site disposal and off-site recycling can be viewed by searching for this facility at <http://www.ec.gc.ca/inrp-npri/default.asp?lang=en>

#### Progress in Implementing Plan

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

## Suncor Energy Inc. - St. Clair Ethanol Plant

### Toxics Reduction Public Summary Report

#### Substance Information and Plan Objective

Substance Name	Ethyl Benzene
CAS #	100-41-4
Report Date:	June 1, 2019
Plan Date:	31-Dec-12
Plan Objectives and Targets	While the St. Clair Ethanol Plant does not intend to reduce the use of ethyl benzene, the plan was developed with the following objectives - we will continue to operate in compliance with all applicable environmental regulations; and we will continue to manage releases of ethyl benzene through current and future pollution prevention and best management practices.

#### Toxics Substance Accounting and Comparison

Pathways	2017	2018	Delta	Delta %
Units reported	tonnes	tonnes		
U - Enters the Process (Raw Materials)	>100 to 1000	>100 to 1000	> -1 to -10	-3%
C - Created	0	0	0	NA
P - In a product that leaves the process	>100 to 1000	>100 to 1000	> -1 to -10	-3%
Summary of reasons for changes between current year and previous year.	No significant change in the amount of Ethyl Benzene used at the facility			

On-site releases from the facility to air, water and land, as well as on and off-site disposal and off-site recycling can be viewed by searching for this facility at <http://www.ec.gc.ca/inrp-npri/default.asp?lang=en>

#### Progress in Implementing Plan

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

## Suncor Energy Inc. - St. Clair Ethanol Plant

### Toxics Reduction Public Summary Report

#### Substance Information and Plan Objective

Substance Name	Toluene
CAS #	108-88-3
Report Date:	June 1, 2019
Plan Date:	31-Dec-12
Plan Objectives and Targets	While the St. Clair Ethanol Plant does not intend to reduce the use of toluene, the plan was developed with the following objectives - we will continue to operate in compliance with all applicable environmental regulations; and we will continue to manage releases of toluene through current and future pollution prevention and best management practices.

#### Toxics Substance Accounting and Comparison

Pathways	2017	2018	Delta	Delta %
Units reported	tonnes	tonnes		
U - Enters the Process (Raw Materials)	>100 to 1000	>100 to 1000	>1 to 10	1%
C - Created	0	0	0	NA
P - In a product that leaves the process	>100 to 1000	>100 to 1000	>1 to 10	1%
Summary of reasons for changes between current year and previous year.	No significant change in the amount of Toluene used at the facility			

On-site releases from the facility to air, water and land, as well as on and off-site disposal and off-site recycling can be viewed by searching for this facility at <http://www.ec.gc.ca/inrp-npri/default.asp?lang=en>

#### Progress in Implementing Plan

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

## Suncor Energy Inc. - St. Clair Ethanol Plant

### Toxics Reduction Public Summary Report

#### Substance Information and Plan Objective

Substance Name	Xylenes (Mixed Isomers)
CAS #	1330-20-7
Report Date:	June 1, 2019
Plan Date:	31-Dec-12
Plan Objectives and Targets	While the St. Clair Ethanol Plant does not intend to reduce the use of xylenes, the plan was developed with the following objectives - we will continue to operate in compliance with all applicable environmental regulations; and we will continue to manage releases of xylenes through current and future pollution prevention and best management practices.

#### Toxics Substance Accounting and Comparison

Pathways	2017	2018	Delta	Delta %
Units reported	tonnes	tonnes		
U - Enters the Process (Raw Materials)	>100 to 1000	>100 to 1000	>1 to 10	1%
C - Created	0	0	0	NA
P - In a product that leaves the process	>100 to 1000	>100 to 1000	>1 to 10	1%
Summary of reasons for changes between current year and previous year.	No significant change in the amount of Xylenes (Mixed Isomers) used at the facility			

On-site releases from the facility to air, water and land, as well as on and off-site disposal and off-site recycling can be viewed by searching for this facility at <http://www.ec.gc.ca/inrp-npri/default.asp?lang=en>

#### Progress in Implementing Plan

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

## Suncor Energy Inc. - St. Clair Ethanol Plant

### Toxics Reduction Public Summary Report

#### Substance Information and Plan Objective

Substance Name	Ethyl Acetate
CAS #	141-78-6
Report Date:	June 1, 2019
Plan Date:	18-Dec-13
Plan Objectives and Targets	While the St. Clair Ethanol Plant does not intend to reduce the creation of Ethyl Acetate, the plan was developed with the following objectives - we will continue to operate in compliance with all applicable environmental regulations; and we will continue to manage releases of Ethyl Acetate through current and future pollution prevention and best management practices.

#### Toxics Substance Accounting and Comparison

Pathways	2017	2018	Delta	Delta %
Units reported	tonnes	tonnes		
U - Enters the Process (Raw Materials)	0	0	0	NA
C - Created	>1 to 10	>1 to 10	>0 to 1	6%
P - In a product that leaves the process	0	0	0	NA
Summary of reasons for changes between current year and previous year.	No significant change in the amount of Ethyl Acetate created at the facility			

On-site releases from the facility to air, water and land, as well as on and off-site disposal and off-site recycling can be viewed by searching for this facility at <http://www.ec.gc.ca/inrp-npri/default.asp?lang=en>

#### Progress in Implementing Plan

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

## Suncor Energy Inc. - St. Clair Ethanol Plant

### Toxics Reduction Public Summary Report

#### Substance Information and Plan Objective

Substance Name	Propane
CAS #	74-98-6
Report Date:	June 1, 2019
Plan Date:	18-Dec-13
Plan Objectives and Targets	While the St. Clair Ethanol Plant does not intend to reduce the creation of Propane, the plan was developed with the following objectives - we will continue to operate in compliance with all applicable environmental regulations; and we will continue to manage releases of Propane through current and future pollution prevention and best management practices.

#### Toxics Substance Accounting and Comparison

Pathways	2017	2018	Delta	Delta %
Units reported	tonnes	tonnes		
U - Enters the Process (Raw Materials)	0	0	0	NA
C - Created	>1 to 10	>1 to 10	>0 to -1	-2%
P - In a product that leaves the process	0	0	0	NA
Summary of reasons for changes between current year and previous year.	No significant change in the amount of Propane created at the facility			

On-site releases from the facility to air, water and land, as well as on and off-site disposal and off-site recycling can be viewed by searching for this facility at <http://www.ec.gc.ca/inrp-npri/default.asp?lang=en>

#### Progress in Implementing Plan

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

## Suncor Energy Inc. - St. Clair Ethanol Plant

### Toxics Reduction Public Summary Report

#### Substance Information and Plan Objective

Substance Name	N-Hexane
CAS #	110-54-3
Report Date:	June 1, 2019
Plan Date:	18-Dec-13
Plan Objectives and Targets	While the St. Clair Ethanol Plant does not intend to reduce the creation of N-Hexane, the plan was developed with the following objectives - we will continue to operate in compliance with all applicable environmental regulations; and we will continue to manage releases of N-Hexane through current and future pollution prevention and best management practices.

#### Toxics Substance Accounting and Comparison

Pathways	2017	2018	Delta	Delta %
Units reported	tonnes	tonnes		
U - Enters the Process (Raw Materials)	>10 to 100	>10 to 100	>0 to 1	1%
C - Created	>1 to 10	>1 to 10	>0 to -1	-2%
P - In a product that leaves the process	>10 to 100	>10 to 100	>0 to 1	1%
Summary of reasons for changes between current year and previous year.	N-Hexane was identified as a component of the denaturant			

On-site releases from the facility to air, water and land, as well as on and off-site disposal and off-site recycling can be viewed by searching for this facility at <http://www.ec.gc.ca/inrp-npri/default.asp?lang=en>

#### Progress in Implementing Plan

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

## Suncor Energy Inc. - St. Clair Ethanol Plant

### Toxics Reduction Public Summary Report

#### Substance Information and Plan Objective

Substance Name	1,2,4-Trimethylbenzene
CAS #	95-63-6
Report Date:	June 1, 2019
Plan Date:	18-Dec-13
Plan Objectives and Targets	While the St. Clair Ethanol Plant does not intend to reduce the use of 1,2,4-Trimethylbenzene, the plan was developed with the following objectives - we will continue to operate in compliance with all applicable environmental regulations; and we will continue to manage releases of 1,2,4-Trimethylbenzene through current and future pollution prevention and best management practices.

#### Toxics Substance Accounting and Comparison

Pathways	2017	2018	Delta	Delta %
Units reported	tonnes	tonnes		
U - Enters the Process (Raw Materials)	>10 to 100	>10 to 100	>0 to 1	1%
C - Created	0	0	0	NA
P - In a product that leaves the process	>10 to 100	>10 to 100	>0 to 1	1%
Summary of reasons for changes between current year and previous year.	No significant change in the amount of 1,2,4-Trimethylbenzene used at the facility			

On-site releases from the facility to air, water and land, as well as on and off-site disposal and off-site recycling can be viewed by searching for this facility at <http://www.ec.gc.ca/inrp-npri/default.asp?lang=en>

#### Progress in Implementing Plan

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



## Suncor Energy Inc. - St. Clair Ethanol Plant

### Toxics Reduction Public Summary Report

#### Substance Information and Plan Objective

Substance Name	Cyclohexane
CAS #	110-82-7
Report Date:	June 1, 2019
Plan Date:	18-Dec-13
Plan Objectives and Targets	While the St. Clair Ethanol Plant does not intend to reduce the use of Cyclohexane, the plan was developed with the following objectives - we will continue to operate in compliance with all applicable environmental regulations; and we will continue to manage releases of Cyclohexane through current and future pollution prevention and best management practices.

#### Toxics Substance Accounting and Comparison

Pathways	2017	2018	Delta	Delta %
Units reported	tonnes	tonnes		
U - Enters the Process (Raw Materials)	>100 to 1000	>100 to 1000	>1 to 10	1%
C - Created	0	0	0	NA
P - In a product that leaves the process	>100 to 1000	>100 to 1000	>1 to 10	1%
Summary of reasons for changes between current year and previous year.	No significant change in the amount of Cyclohexane used at the facility			

On-site releases from the facility to air, water and land, as well as on and off-site disposal and off-site recycling can be viewed by searching for this facility at <http://www.ec.gc.ca/inrp-npri/default.asp?lang=en>

#### Progress in Implementing Plan

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

## Suncor Energy Inc. - St. Clair Ethanol Plant

### Toxics Reduction Public Summary Report

#### Substance Information and Plan Objective

Substance Name	Ethanol (Ethyl Alcohol)
CAS #	64-17-5
Report Date:	June 1, 2019
Plan Date:	18-Dec-13
Plan Objectives and Targets	While the St. Clair Ethanol Plant does not intend to reduce the creation of Ethanol (Ethyl Alcohol), the plan was developed with the following objectives - we will continue to operate in compliance with all applicable environmental regulations; and we will continue to manage releases of Ethanol (Ethyl Alcohol) through current and future pollution prevention and best management practices.

#### Toxics Substance Accounting and Comparison

Pathways	2017	2018	Delta	Delta %
Units reported	tonnes	tonnes		
U - Enters the Process (Raw Materials)	0	0	0	NA
C - Created	>10 to 100	>10 to 100	>1 to 10	4%
P - In a product that leaves the process	0	0	0	NA
Summary of reasons for changes between current year and previous year.	No significant change in the amount of Ethanol (Ethyl Alcohol) created at the facility			

On-site releases from the facility to air, water and land, as well as on and off-site disposal and off-site recycling can be viewed by searching for this facility at <http://www.ec.gc.ca/inrp-npri/default.asp?lang=en>

#### Progress in Implementing Plan

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

## Suncor Energy Inc. - St. Clair Ethanol Plant

### Toxics Reduction Public Summary Report

#### Substance Information and Plan Objective

Substance Name	PM
CAS #	N/A - M08
Report Date:	June 1, 2019
Plan Date:	18-Dec-13
Plan Objectives and Targets	While the St. Clair Ethanol Plant does not intend to reduce the creation of PM, the plan was developed with the following objectives - we will continue to operate in compliance with all applicable environmental regulations; and we will continue to manage releases of PM through current and future pollution prevention and best management practices.

#### Toxics Substance Accounting and Comparison

Pathways	2017	2018	Delta	Delta %
Units reported	tonnes	tonnes		
U - Enters the Process (Raw Materials)	0	0	0	NA
C - Created	>10 to 100	>10 to 100	>0 to 1	0%
P - In a product that leaves the process	0	0	0	NA
Summary of reasons for changes between current year and previous year.	No significant change in the amount of PM created at the facility			

On-site releases from the facility to air, water and land, as well as on and off-site disposal and off-site recycling can be viewed by searching for this facility at <http://www.ec.gc.ca/inrp-npri/default.asp?lang=en>

#### Progress in Implementing Plan

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

## Suncor Energy Inc. - St. Clair Ethanol Plant

### Toxics Reduction Public Summary Report

#### Substance Information and Plan Objective

Substance Name	PM10
CAS #	N/A - M09
Report Date:	June 1, 2019
Plan Date:	18-Dec-13
Plan Objectives and Targets	While the St. Clair Ethanol Plant does not intend to reduce the creation of PM10, the plan was developed with the following objectives - we will continue to operate in compliance with all applicable environmental regulations; and we will continue to manage releases of PM10 through current and future pollution prevention and best management practices.

#### Toxics Substance Accounting and Comparison

Pathways	2017	2018	Delta	Delta %
Units reported	tonnes	tonnes		
U - Enters the Process (Raw Materials)	0	0	0	NA
C - Created	>10 to 100	>10 to 100	>0 to -1	0%
P - In a product that leaves the process	0	0	0	NA
Summary of reasons for changes between current year and previous year.	No significant change in the amount of PM10 created at the facility			

On-site releases from the facility to air, water and land, as well as on and off-site disposal and off-site recycling can be viewed by searching for this facility at <http://www.ec.gc.ca/inrp-npri/default.asp?lang=en>

#### Progress in Implementing Plan

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

## Suncor Energy Inc. - St. Clair Ethanol Plant

### Toxics Reduction Public Summary Report

#### Substance Information and Plan Objective

Substance Name	PM2.5
CAS #	N/A - M10
Report Date:	June 1, 2019
Plan Date:	18-Dec-13
Plan Objectives and Targets	While the St. Clair Ethanol Plant does not intend to reduce the creation of PM2.5, the plan was developed with the following objectives - we will continue to operate in compliance with all applicable environmental regulations; and we will continue to manage releases of PM2.5 through current and future pollution prevention and best management practices.

#### Toxics Substance Accounting and Comparison

Pathways	2017	2018	Delta	Delta %
Units reported	tonnes	tonnes		
U - Enters the Process (Raw Materials)	0	0	0	NA
C - Created	>10 to 100	>10 to 100	>0 to -1	-1%
P - In a product that leaves the process	0	0	0	NA
Summary of reasons for changes between current year and previous year.	No significant change in the amount of PM2.5 created at the facility			

On-site releases from the facility to air, water and land, as well as on and off-site disposal and off-site recycling can be viewed by searching for this facility at <http://www.ec.gc.ca/inrp-npri/default.asp?lang=en>

#### Progress in Implementing Plan

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

## Suncor Energy Inc. - St. Clair Ethanol Plant

### Toxics Reduction Public Summary Report

#### Substance Information and Plan Objective

Substance Name	NOx
CAS #	10102-44-0
Report Date:	June 1, 2019
Plan Date:	18-Dec-13
Plan Objectives and Targets	While the St. Clair Ethanol Plant does not intend to reduce the creation of NOx, the plan was developed with the following objectives - we will continue to operate in compliance with all applicable environmental regulations; and we will continue to manage releases of NOx through current and future pollution prevention and best management practices.

#### Toxics Substance Accounting and Comparison

Pathways	2017	2018	Delta	Delta %
Units reported	tonnes	tonnes		
U - Enters the Process (Raw Materials)	0	0	0	NA
C - Created	>100 to 1000	>100 to 1000	>0 to -1	0%
P - In a product that leaves the process	0	0	0	NA
Summary of reasons for changes between current year and previous year.	No significant change in the amount of NOx created at the facility			

On-site releases from the facility to air, water and land, as well as on and off-site disposal and off-site recycling can be viewed by searching for this facility at <http://www.ec.gc.ca/inrp-npri/default.asp?lang=en>

#### Progress in Implementing Plan

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

## Suncor Energy Inc. - St. Clair Ethanol Plant

### Toxics Reduction Public Summary Report

#### Substance Information and Plan Objective

Substance Name	SO2
CAS #	7446-09-5
Report Date:	June 1, 2019
Plan Date:	18-Dec-13
Plan Objectives and Targets	While the St. Clair Ethanol Plant does not intend to reduce the creation of SO2, the plan was developed with the following objectives - we will continue to operate in compliance with all applicable environmental regulations; and we will continue to manage releases of SO2 through current and future pollution prevention and best management practices.

#### Toxics Substance Accounting and Comparison

Pathways	2017	2018	Delta	Delta %
Units reported	tonnes	tonnes		
U - Enters the Process (Raw Materials)	0	0	0	NA
C - Created	>10 to 100	>10 to 100	>0 to -1	0%
P - In a product that leaves the process	0	0	0	NA
Summary of reasons for changes between current year and previous year.	No significant change in the amount of SO2 created at the facility			

On-site releases from the facility to air, water and land, as well as on and off-site disposal and off-site recycling can be viewed by searching for this facility at <http://www.ec.gc.ca/inrp-npri/default.asp?lang=en>

#### Progress in Implementing Plan

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

## Suncor Energy Inc. - St. Clair Ethanol Plant

### Toxics Reduction Public Summary Report

#### Substance Information and Plan Objective

Substance Name	CO
CAS #	124-38-9
Report Date:	June 1, 2019
Plan Date:	18-Dec-13
Plan Objectives and Targets	While the St. Clair Ethanol Plant does not intend to reduce the creation of CO, the plan was developed with the following objectives - we will continue to operate in compliance with all applicable environmental regulations; and we will continue to manage releases of CO through current and future pollution prevention and best management practices.

#### Toxics Substance Accounting and Comparison

Pathways	2017	2018	Delta	Delta %
Units reported	tonnes	tonnes		
U - Enters the Process (Raw Materials)	0	0	0	NA
C - Created	>100 to 1000	>100 to 1000	>1 to 10	4%
P - In a product that leaves the process	0	0	0	NA
Summary of reasons for changes between current year and previous year.	No significant change in the amount of CO created at the facility			

On-site releases from the facility to air, water and land, as well as on and off-site disposal and off-site recycling can be viewed by searching for this facility at <http://www.ec.gc.ca/inrp-npri/default.asp?lang=en>

#### Progress in Implementing Plan

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