



— Innovating for
patient affordability

TOXIC REDUCTION ACT ANNUAL REPORT – 2018

150 SIGNET DRIVE

JUNE 2019

BACKGROUND:

Every June, Apotex Inc. must submit an annual summary report under the Ontario Toxic's Reduction Act (TRA) for the 150 Signet facility.

- This report compares the planned activities previously identified in the Toxics Reduction Plan with the actual activities undertaken over the past year. Apotex remains on target to achieve our 2018 activities.

1. GENERAL INFORMATION

Name and contact information for the owner and the operator of the Facility	Gord Fahner SVP, Global Finance, & GIS 150 Signet Drive 416-749-9300
Public Contact	Jordan Berman Global Director, Corporate Communications 4100 Weston Road 416-749-9300
NPRI ID#	111
MOE Regulation 127/01 ID#	6535
Legal/Trade Names of the owner and the operator of the facility, the street/ mailing address of the facility	Apotex Inc. 150 Signet Drive Toronto, ON M9L 1T9
# of Full Time Employees	1,385
NAICS Code	325410
Spatial Coordinates expressed in UTM	UTM Zone: 17 UTM Easting: 617453.5560685011 UTM Northing: 4846684.912193055 Latitude: 43.76390 Longitude: -79.54080
Canadian Parent Company of the Facility	Apotex Inc. 150 Signet Drive Toronto, ON M9L 1T9 100% owned
Substance Name and Chemical Abstracts Service (CAS) Registry Number	Methanol (CAS Number 67-56-1) Acetonitrile (CAS Number 75-05-8) Ethanol (CAS Number 64-17-5)

2. TOXIC SUBSTANCE ACCOUNTING

Substances Used, Created and Contained

CAS RN	Substance Name	Use, Creation, Contained	Quantity (tonnes)
75-05-8	Acetonitrile	Use	20.371
75-05-8	Acetonitrile	Creation	0
75-05-8	Acetonitrile	Contained	0
67-56-1	Methanol	Use	19.616
67-56-1	Methanol	Creation	0.037
67-56-1	Methanol	Contained	0
NA-M16	Volatile Organic Compounds	Use	75.372
NA-M16	Volatile Organic Compounds	Creation	0.477
NA-M16	Volatile Organic Compounds	Contained	0

Substance Released, Disposed and Transferred

CAS RN	Substance Name	Category	Quantity (tonnes)
75-05-8	Acetonitrile	Total Releases to Air	0.102
75-05-8	Acetonitrile	Total Off-site transfer for treatment prior to final disposal	20.269
64-17-5	Ethanol	Total Releases to Air	25.908
67-56-1	Methanol	Total Releases to Air	2.591
67-56-1	Methanol	Total Off-site transfer for treatment prior to final disposal	17.062

3. OBJECTIVES/TARGETS

Our goal is to identify, investigate, and if possible implement practical solutions that will increase efficiencies associated with the use of acetonitrile, methanol and ethanol.

4. FACILITY PROGRESS IN REDUCING TOXIC SUBSTANCE

Substance Use, Created and Contained Comparison

CAS RN	Substance	Category	2018 Data Year	2017 Data Year	Change	% Change	Reason for Change
75-08-8	Acetonitrile	Use	20.371	13.982	6.389	45.69	Increase in production
75-08-8	Acetonitrile	Creation	0	0	0		
75-08-8	Acetonitrile	Contained	0	0	0		
64-17-5	Ethanol (Breakdown)	Use	27.552	25.237	2.315	9.17	No reason—quantities approximately the same
67-56-1	Methanol	Use	19.616	28.124	-8.508	-30.25	Decrease in production
67-56-1	Methanol	Creation	0.037	0.034	0.003	8.82	No reason—quantities approximately the same
67-56-1	Methanol	Contained	0	0	0		
67-56-1	Methanol (Breakdown)	Use	19.616	28.124	-8.508	-30.25	Decrease in production
67-56-1	Methanol (Breakdown)	Creation	0.037	0.034	0.003	8.82	No reason—quantities approximately the same

Substance Disposal Off-Site Comparison

CAS RN	Substance	Category	2018 Data Year	2017 Data Year	Change	% Change	Reason for Change
75-05-8	Acetonitrile	Total Releases to Air	0.102	0.07	0.032	45.71	Increase in production levels
75-05-8	Acetonitrile	Total Off-site transfer for treatment prior to final disposal	20.269	13.912	6.357	45.69	Increase in production levels
64-17-5	Ethanol	Total Releases to Air	25.908	24.244	1.664	6.86	No reason—quantities approximately the same
67-56-1	Methanol	Total Releases to Air	2.591	14.094	-11.503	-81.62	Decrease in production levels
67-56-1	Methanol	Total Off-site transfer for treatment prior to final disposal	17.062	14.064	2.998	21.32	Increase in production levels

5. PROGRESS YOUR FACILITY HAS MADE TO IMPLEMENT A PLAN

Include estimates of reductions achieved, difference between steps taken and those set out in the plan, amendments to the plan.

Targets for TRA Plan


Substance	Quantity	Years
Acetonitrile	No quantity target	No timeline target
Ethanol	No quantity target	No timeline target
Methanol	No quantity target	No timeline target

Description and Comparison of Steps in TRA Plan

CAS RN	Substance Name	Activity	Description/Comparison of Steps
75-05-8	Acetonitrile	Other	The issue was investigated and completed in 2015, there were no additional steps taken in the past year.
75-05-8	Acetonitrile	Training related to toxic substance reduction	This presentation was delivered to chemists in 2014/2015 and added to new chemist training material. This reduction option is complete and there were no additional steps taken in the past year.
67-56-1	Methanol	Substituted Materials	Further investigation of these options determined these were not viable and no additional steps were taken in the past year.
67-56-1	Methanol	Other	Batch sizes have changed since this reduction option was identified. Further investigation is required to determine whether the new batch size can be optimized and what the impacts will be.
67-56-1	Methanol	Modified Design or Composition	During the investigation of this reduction option, additional processes were identified that could impact the economic feasibility. Further investigation is required prior to implementation. This investigation is targeted for the current fiscal year.
67-45-1	Methanol	Changed Product Specifications	This presentation was delivered to chemists in 2014/2015 and added to new chemist training material. This reduction option is complete and there were no additional steps taken in the past year.
67-56-1	Methanol	Other	This option was completed in 2015, thus no additional steps were taken in the past year.

6. CERTIFICATION

As of May 29th, 2019, I, Tom Mitten, certify that I have read the report on the toxic substance reduction plan for the toxic substance referred to below and am familiar with its contents, and to my knowledge the information contained in the report is factually accurate and the report complies with the Toxics Reduction Act, 2009 and Ontario Regulation 455/09 (General) made under that Act.



Tom Mitten
VP, Product Supply - Signet

5-29-19

Date