

## Rohm and Haas Canada LP, a wholly owned subsidiary of The Dow Chemical Company Toxics Reduction Act Public Annual Summary Report Reporting Year 2020

Issue Date: 29-July-2021

#### **Purpose**

Rohm and Haas Canada LP, a wholly owned subsidiary of The Dow Chemical Company is regulated under the Toxics Reduction Act, 2009 and Ontario Regulation 455/09. The act and regulation require that a summary of data submitted to the Ontario Ministry of the Environment under the Act is made public.

## Dow is a Responsible Care® Company

Responsible Care® is a voluntary initiative of the global chemical industry to safely handle our products from inception in the research laboratory, through manufacture and distribution, to ultimate reuse, recycle and disposal, and to involve the public in our decision-making processes. Initiated in Canada in 1984, Responsible Care® has quickly spread to more than 60 countries. In Canada, Dow was instrumental in developing Responsible Care® and continues to be a leader in Responsible Care® efforts. Our membership is maintained through Chemistry Industry Association of Canada (CIAC) for Canadian operations.

Issue Date: 29-July-2021

In 1988, Responsible Care® began in the U.S. through the ACC. In 2006, Dow signed the Responsible Care® global charter. Today, Responsible Care® Principles apply to Dow globally and are managed through the implementation and compliance with our internal Operating Discipline Management System (ODMS).

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. The Responsible Care® ethic is maintained through public annual re-commitments, performance reporting, mutual support and peer accountability at the CEO and technical level, and a robust verification and audit process. Dow Canada's President reviews the Responsible Care® performance of all of Dow Canada's business and manufacturing operations, including that of the West Hill plant, and annually signs Dow's re-commitment to the <a href="Ethic and Principles for Sustainability">Ethic and Principles for Sustainability</a>, and the Responsible Care® <a href="Codes of Practice">Codes of Practice</a>.

Dow Canada undergoes 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®. Dow Chemical Company underwent a successful Responsible Care Verification in 2020 by outside community and industry verifiers. To view the latest report, visit <a href="https://canadianchemistry.ca/blog/2021/03/03/2020-dow-rcms-audit-report/">https://canadianchemistry.ca/blog/2021/03/03/2020-dow-rcms-audit-report/</a>

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.

At Dow's West Hill site we address this through the key codes of practice for Responsible Care which include: Operations, Stewardship and Accountability. The West Hill Plant is a modern plant with leading edge technology for processing, safety and environmental protections. The company continues to invest in our site and to add new technology. There are approximately 75 employees at West Hill who all have a strong commitment to the health and safety of our environment and our community.

Page 2 of 15 1\_TRA Public Report 2020

Reporting Yea	ar 2020
---------------	---------

NPRI Identification Number	2065	
MOE O.Reg 127/01 Identification Number	n/a	
Legal Name and Facility Address of the Owner and Operator of the facility	Rohm and Haas Canada LP 2 Manse Road Toronto, ON M1E 3T9	
Mailing Address	Same as Facility Address	
Number of Full-Time Employees	75	
North American Industry Classification System (NAICS) 2, 4 and 6 digit code	<ul> <li>31-33 - Manufacturing</li> <li>3255 - Paint, Coating and Adhesive Manufacturing</li> <li>325510 - Paint and Coating Manufacturing</li> </ul>	
Public Contact	Jess MacDonald Public Affairs Specialist Phone: +1 7809988426 Email: jmacdonald1@dow.com	
<b>UTM Coordinates</b>	Easting: 647152 Northing: 4846708	Zone: 17T
Legal Canadian Parent Company	3229809 Nova Scotia Company 0.0 Calgary Corporate Head Office, Suite 215 – 2nd Street S.W., Calgary, Alberta, T2P 1M4	001% Ownership e 2400,
Name of all toxic substances for which plans are required to be prepared	Acrylic Acid (and its salts) Acrylonitrile Acrylamide Ammonia Butyl acrylate Ethyl acrylate	Methyl methacrylate Methylolacrylamide Octylphenol ethoxylates Styrene Sulfuric Acid Zinc (and its compounds)

Issue Date: 29-July-2021

Page 3 of 15 1\_TRA Public Report 2020

A			• 1
Acry	7110	Λ	M
AU	III	$\boldsymbol{\Lambda}$	ciu

<b>Substance Name</b>	Acrylic Acid (and its salts)
CAS Number	79-10-7

18-December-2013

Reduction **Objective and Target** 

A reduction of the use and creation of Acrylic Acid and its salts as well as a reduction of emissions, transfer and disposal is not targeted at this point.

**Description of** Steps and **Effectiveness** 

Not applicable.

Amendments

There have been no amendments to the plan in the reporting period.

**Substance** Accounting

	2020	2019	Year over Year change
On a facility basis:	Unit: [Tonnes]	Unit: [Tonnes]	Unit: [%]
Amount that entered the facility as the substance itself or as a constituent of another substance	100 – 1000	100 – 1000	7.51
Amount of the substance that was created	1-10	1-10	5.25
Amount contained in product	0-1	0-1	13.33
Total Quantity Released (All Media)	0.0037	0.0035	5.71
Off-site Transfer for Disposal	0.000	0.000	0
Off-site Transfer for Treatment	4.453	4.231	5.25
Off-site Transfer for Recycling	0.000	0.000	0

**Progress Review** 

Not applicable.

## Acrylonitrile

<b>Substance Name</b>	Acrylonitrile
CAS Number	107-13-1

**Date of Toxic Reduction Plan**  18-December-2013

Reduction Objective and **Target** 

A reduction of the use of Acrylonitrile, as well as a reduction of emissions, transfer and disposal is not targeted at this point.

**Description of** Steps and **Effectiveness** 

Not applicable.

**Amendments** 

There have been no amendments to the plan in the reporting period.

## **Substance** Accounting

	2020	2019	Year over Year change
On a facility basis:	Unit: [Tonnes]	Unit: [Tonnes]	Unit: [%]
Amount that entered the facility as the substance itself or as a constituent of another substance	1,000 – 10,000	1,000 – 10,000	-12.35
Amount of the substance that was created	0 - 1	0 - 1	0
Amount contained in product	0 - 1	0 - 1	-15.00
Total Quantity Released (All Media)	0.377	0.532	-29.13
Off-site Transfer for Disposal	0.000	0.000	0
Off-site Transfer for Treatment	0.088	0.162	-45.68
Off-site Transfer for Recycling	0.000	0.000	0

#### **Progress Review**

Not applicable.

## Acrylamide

<b>Substance Name</b>	Acrylamide
CAS Number	79-06-1

**Date of Toxic Reduction Plan** 

17-December-2012

Reduction Objective and **Target** 

A further reduction of Acrylamide emissions and disposals at this point is not technically feasible but we remain committed to evaluate new technologies as they become available.

**Description of** Steps and **Effectiveness** 

Not applicable.

Amendments

There have been no amendments to the plan in the reporting period.

**Substance** Accounting

	2020	2019	Year over Year change
On a facility basis:	Unit: [Tonnes]	Unit: [Tonnes]	Unit: [%]
Amount that entered the facility as the substance itself or as a constituent of another substance	10 – 100	10 – 100	73.57
Amount of the substance that was created	0 - 1	0 - 1	0
Amount contained in product	0 - 1	0 - 1	-72.72
Total Quantity Released (All Media)	0.00022	0.00014	57.14
Off-site Transfer for Disposal	0.00	0.10	-100
Off-site Transfer for Treatment	0.039	0.050	-22.00
Off-site Transfer for Recycling	0.000	0.000	0

**Progress Review** 

Not applicable.

#### Ammonia

Substance Name	Ammonia (total)
CAS Number	no single CAS RN applies to this substance

**Date of Toxic Reduction Plan** 

18-December-2013

Reduction Objective and **Target** 

A further reduction of Ammonia usage as well as a reduction of emissions and transfers at this point is not technically or economically feasible but we remain committed to evaluate new technologies as they become available.

**Description of** Steps and **Effectiveness** 

Not applicable.

Amendments

There have been no amendments to the plan in the reporting period.

**Substance** Accounting

	2020	2019	Year over Year change
On a facility basis:	Unit: [Tonnes]	Unit: [Tonnes]	Unit: [%]
Amount that entered the facility as the substance itself or as a constituent of another substance	100 – 1000	100 – 1000	0.47
Amount of the substance that was created	0 - 1	0 - 1	0
Amount contained in product	100 - 1000	100 - 1000	1.39
Total Quantity Released (All Media)	2.176	2.051	6.09
Off-site Transfer for Disposal	0.000	0.000	0
Off-site Transfer for Treatment	1.086	0.995	9.15
Off-site Transfer for Recycling	0.000	0.000	0

**Progress Review** 

Not applicable.

## **Butyl** acrylate

<b>Substance Name</b>	Butyl acrylate
CAS Number	141-32-2

**Date of Toxic Reduction Plan**  18-December-2013

Reduction Objective and **Target** 

A reduction of the use of Butyl acrylate, as well as a reduction of emissions, transfer and disposal is not targeted at this point.

**Description of** Steps and **Effectiveness** 

Not applicable.

Amendments

There have been no amendments to the plan in the reporting period.

**Substance** Accounting

	2020	2018	Year over Year change
On a facility basis:	Unit: [Tonnes]	Unit: [Tonnes]	Unit: [%]
Amount that entered the facility as the substance itself or as a constituent of another substance	10,000 – 100,000	10,000 – 100,000	5.12
Amount of the substance that was created	0 - 1	0 - 1	0
Amount contained in product	1 - 10	1 - 10	12.52
Total Quantity Released (All Media)	0.305	0.285	7.02
Off-site Transfer for Disposal	0.000	0.000	0
Off-site Transfer for Treatment	0.0136	0.0142	-4.22
Off-site Transfer for Recycling	0.000	0.000	0

**Progress Review** 

Not applicable.

## Ethyl acrylate

<b>Substance Name</b>	Ethyl acrylate
CAS Number	140-88-5

Date of Toxic Reduction Plan 18-December-2013

Reduction Objective and Target A reduction of the use of Ethyl acrylate, as well as a reduction of emissions, transfer and disposal is not targeted at this point.

Description of Steps and Effectiveness Not applicable.

**Amendments** 

There have been no amendments to the plan in the reporting period.

## **Substance Accounting**

	2020	2019	Year over Year change
On a facility basis:	Unit: [Tonnes]	Unit: [Tonnes]	Unit: [%]
Amount that entered the facility as the substance itself or as a constituent of another substance	1,000 – 10,000	1,000 – 10,000	22.54
Amount of the substance that was created	0 – 1	0 – 1	0
Amount contained in product	0 - 1	0 - 1	54.69
Total Quantity Released (All Media)	0.056	0.053	5.66
Off-site Transfer for Disposal	0.000	0.000	0
Off-site Transfer for Treatment	0.0048	0.0048	0
Off-site Transfer for Recycling	0.000	0.000	0

#### **Progress Review**

Not applicable.

Methyl
methacrylate

<b>Substance Name</b>	Methyl methacrylate
CAS Number	80-62-6

18-December-2013

Reduction Objective and Target A reduction of the use of Methyl methacrylate, as well as a reduction of emissions, transfer and disposal is not targeted at this point.

Description of Steps and Effectiveness Not applicable.

**Amendments** 

There have been no amendments to the plan in the reporting period.

**Substance Accounting** 

	2020	2019	Year over Year change
On a facility basis:	Unit: [Tonnes]	Unit: [Tonnes]	Unit: [%]
Amount that entered the facility as the substance itself or as a constituent of another substance	10,000 – 100,000	10,000 – 100,000	9.8
Amount of the substance that was created	0-1	0 - 1	0
Amount contained in product	0 - 1	0 - 1	1.61
Total Quantity Released (All Media)	0.119	0.156	-23.72
Off-site Transfer for Disposal	0.000	0.000	0
Off-site Transfer for Treatment	0.01	0.01	0
Off-site Transfer for Recycling	0.000	0.000	0

**Progress Review** 

Not applicable.

Methylol
acrylamide

Substance Name	N-Methylolacrylamide
CAS Number	924-42-5

18-December-2013

Reduction Objective and Target A reduction of the use of n-Methylolacrylamide, as well as a reduction of emissions, transfer and disposal is not targeted at this point.

Description of Steps and Effectiveness Not applicable.

**Amendments** 

There have been no amendments to the plan in the reporting period.

# **Substance Accounting**

	2020	2019	Year over Year change
On a facility basis:	Unit: [Tonnes]	Unit: [Tonnes]	Unit: [%]
Amount that entered the facility as the substance itself or as a constituent of another substance	10 – 100	10 – 100	70.75
Amount of the substance that was created	0 - 1	0 - 1	0
Amount contained in product	0 – 1	0 – 1	84.21
Total Quantity Released (All Media)	0.000	0.000	0
Off-site Transfer for Disposal	0.000	0.000	0
Off-site Transfer for Treatment	0.000	0.000	0
Off-site Transfer for Recycling	0.000	0.000	0

## **Progress Review**

Not applicable.

## Octylphenol and its ethoxylates

Substance Name	Octylphenol and its ethoxylates
CAS Number	no single CAS RN applies to this substance

**Date of Toxic Reduction Plan**  18-December-2013

Reduction Objective and **Target** 

A reduction of the use of Octylphenol and its ethoxylates, as well as a reduction of emissions, transfer and disposal is not targeted at this point.

**Description of** Steps and **Effectiveness** 

Not applicable.

**Amendments** 

There have been no amendments to the plan in the reporting period.

**Substance** Accounting

	2020	2019	Year over Year change
On a facility basis:	Unit: [Tonnes]	Unit: [Tonnes]	Unit: [%]
Amount that entered the facility as the substance itself or as a constituent of another substance	100 – 1,000	100 – 1,000	72.82
Amount of the substance that was created	0 - 1	0 - 1	0
Amount contained in product	100 - 1,000	100 - 1,000	75.02
Total Quantity Released (All Media)	0.000	0.000	0
Off-site Transfer for Disposal	0.000	0.000	0
Off-site Transfer for Treatment	0.0058	0.0021	176.19
Off-site Transfer for Recycling	0.000	0.000	0

**Progress Review** 

Not applicable.

## Styrene

<b>Substance Name</b>	Styrene
CAS Number	100-42-5

Date of Toxic Reduction Plan 18-December-2013

Reduction Objective and Target A reduction of the use of Styrene, as well as a reduction of emissions, transfer and disposal is not targeted at this point.

Description of Steps and Effectiveness Not applicable.

**Amendments** 

There have been no amendments to the plan in the reporting period.

## **Substance Accounting**

	2020	2019	Year over Year change
On a facility basis:	Unit: [Tonnes]	Unit: [Tonnes]	Unit: [%]
Amount that entered the facility as the substance itself or as a constituent of another substance	1,000 – 10,000	1,000 – 10,000	-9.33
Amount of the substance that was created	0 - 1	0-1	0
Amount contained in product	0 - 1	0 - 1	-8.85
Total Quantity Released (All Media)	1.611	1.932	-16.61
Off-site Transfer for Disposal	0.000	0.000	0
Off-site Transfer for Treatment	0.047	0.050	-6.00
Off-site Transfer for Recycling	0.000	0.000	0

**Progress Review** 

Not applicable.

#### Sulfuric acid

<b>Substance Name</b>	Sulfuric acid
CAS Number	7664-93-9

#### Date of Toxic Reduction Plan

#### 18-December-2012

## Reduction Objective and Target

Through our commitment to Responsible Care ®, Rohm and Haas Canada LP is committed to continuously improve our operations. We intent to reduce Sulfuric Acid usage by improving utility usage of our process.

We are targeting a reduction of 1,800 kg of Sulfuric Acid by reducing the amount of deionized water used in the manufacturing process

#### Description of Steps and Effectiveness

Activity: Reduce deionized water usage.

New backflow prevention requirements, mandating additional protection layers to maximize drinking water protection forced the proposed modification to be re-evaluated.

#### Amendments

The project was re-evaluated considering the increased protection layers required to meet the company back-flow prevention standard to maximize drinking water protection. The project is no longer economically feasible.

## **Substance Accounting**

	2020	2019	Year over Year change
On a facility basis:	Unit: [Tonnes]	Unit: [Tonnes]	Unit: [%]
Amount that entered the facility as the substance itself or as a constituent of another substance	10 – 100	10 – 100	2.27
Amount of the substance that was created	0 - 1	0 - 1	0
Amount contained in product	0 - 1	0 - 1	0
Total Quantity Released (All Media)	0.0004	0.0004	0
Off-site Transfer for Disposal	0.000	0.000	0
Off-site Transfer for Treatment	0.000	0.000	0
Off-site Transfer for Recycling	0.000	0.000	0

#### **Progress Review**

The plan targeted the engineering changes to be implemented in 2014. A re-evaluation in 2017, after new backflow prevention requirements to maximize drinking water protection were mandated in 2016, determined that this project is no longer economically feasible. This has no impact on the quantity of emissions of Sulfuric acid from the site.

Zinc	(and	its
comp	ound	ls)

Substance Name	Zinc (and its compounds)		
CAS Number	no single CAS RN applies		
	to this substance		

17-December-2012

Reduction **Objective and Target** 

A further reduction of Zinc emissions and disposals at this point is not feasible but we remain committed to evaluate new technologies as they become available.

Issue Date: 29-July-2021

Date

Form No. 066-00368-01-0721 DOW

**Description of** Steps and **Effectiveness** 

Not applicable.

Amendments

There have been no amendments to the plan in the reporting period.

**Substance** Accounting

	2020	2019	Year over Year change
On a facility basis:	Unit: [Tonnes]	Unit: [Tonnes]	Unit: [%]
Amount that entered the facility as the substance itself or as a constituent of another substance	100 – 1000	100 – 1000	-8.13
Amount of the substance that was created	0 - 1	0 - 1	0
Amount contained in product	100 - 1000	100 - 1000	-8.77
Total Quantity Released (All Media)	0.000	0.000	0
Off-site Transfer for Disposal	0.013	0.013	0
Off-site Transfer for Treatment	0.114	0.147	-22.52
Off-site Transfer for Recycling	0.000	0.000	0

#### **Progress Review**

Not applicable.

#### **Annual Report** Certification **Statement**

As of June 29, 2021, I certify that I have read the report on the toxic substance reduction plan for Acrylic Acid (and its salts); Acrylonitrile; Acrylamide; Ammonia (total); Butyl acrylate; Ethyl acrylate; Methyl methacrylate; Methylol acrylamide; Octylphenol ethoxylates; Styrene; Sulfuric Acid and Zinc (and its compounds) and am familiar with their contents and to my knowledge the information contained in the report is factually accurate and the report complies with the Toxic Reduction Act, 2009 and Ontario Regulation 455/09 (General) made under the Act.

Vanet Melnyk (original signiture on file) 29th-June-2021 Melnyk, Janet Site Leader, Rohm and Haas Canada LP

Page 15 of 15