Rohm and Haas Canada LP,
a wholly owned subsidiary of
The Dow Chemical Company
Toxic Substance Reduction Plan Summary
Ethylene glycol

Issue Date: 07-Dec-2015

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 the Toxic Substance Reduction Plan is submitted to the Ontario Ministry of the Environment and made public.
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
UTM Coordinates	Easting: 647152 Northing: 4846708 Zone: 17T
Number of Full-Time Employees	72
North American Industry Classification System (NAICS) 2, 4 and 6 digit code	31-33 - Manufacturing 3255 - Paint, Coating and Adhesive Manufacturing 325510 - Paint and Coating Manufacturing
Legal Canadian Parent Company	Rohm and Haas Canada Finance Company 100% Ownership 2 Manse Road Toronto, ON M1E 3T9
Public Contact	Shawna M. Bruce Public Affairs Manager Phone: 780.998.8445 mail: smbruce@dow.com
Toxic Substances for Which Facility Must Prepare Plan	Acryl amide CAS: 79-06-1 (covered by a different plan summary) Acrylic Acid (and its salts) CAS: 79-10-7 (covered by a different plan summary) Acrylonitrile CAS: 107-13-1 (covered by a different plan summary) Ammonia (Total) CAS: n/a (covered by a different plan summary) Butyl acrylate CAS: 141-32-2 (covered by a different plan summary) Ethanol CAS: 64-17-5 (covered by a different plan summary) Ethyl acrylate CAS: 140-88-5 (covered by a different plan summary)

Toxic Substances for Which Facility Must Prepare Plan Cont'ed

Ethylene glycol CAS: 107-21-1 (covered by this plan summary)
Methanol CAS: 67-56-1 (covered by a different plan summary)
Methyl methacrylate CAS: 80-62-6 (covered by a different plan summary)
Methylol acrylamide CAS: 924-42-5 (covered by a different plan summary)
Octylphenol ethoxylate CAS: n/a (covered by a different plan summary)
Styrene, CAS: 100-42-5 (covered by a different plan summary)
Sulphuric Acid, CAS: 7664-93-9 (covered by a different plan summary)
Zinc (and its compounds) CAS: n/a (covered by a different plan summary)

Facility Description

Rohm and Haas Canada LP is a wholly owned subsidiary of The Dow Chemical Company. At the West Hill site we manufacture Acrylic Latex emulsions for the paint and coatings industry. Our products are used in water-based paints and coatings, including new technologies such as low and no VOC acrylic latex paints. The following operations take place at the facility:

- Manufacturing of water based emulsions
- Unloading and storage of raw materials
- Storage and loading of finished products
- other ancillary and support processes e.g. quality control, plant maintenance, etc.

As part of The Dow Chemical Company our facility is Responsible Care® certified. 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. Our facility was a founding member when the initiative was born in Canada in 1987. The program has resulted in significant reductions in releases to air, land and water, major improvements in workplace and community safety, and expanded programs to research and test chemicals for potential health and environmental impacts.

We are committed to further reduce our environmental footprint by actively managing our fresh water and energy usage and perusing waste and emission reduction opportunities as new technologies become available. We strive to develop and employ inherently safer technology for chemical manufacturing.

Description of Substance

Ethylene glycol is used by Rohm and Haas Canada LP as an additive in the production of water-based acrylic polymer emulsions. Ethylene glycol remains in the finished product as a product ingredient and allows for customer required product properties.

Statement of Intent to Reduce	Ethylene glycol is used by Rohm and Haas Canada LP, a wholly owned subsidiary of The Dow Chemical Company in the production of acrylic emulsions as an additive. At this time, we do not intend to reduce the amount of Ethylene glycol used at the facility, as the facility does not have control over product development and raw material replacement. Through our commitment to Responsible Care® Rohm and Haas Canada LP is committed to minimize the emissions and disposals of Ethylene glycol and to use Ethylene glycol in a responsible and efficient way.
Reduction Objectives	A reduction of Ethylene glycol usage at this point is not technically or economically feasible.
Reduction Options to be Implemented	No technically and economically feasible use reduction options could be identified. Therefore none are scheduled for implementation. At this point, Ethylene glycol is an essential product ingredient needed to archive the desired properties of the acrylic polymer emulsion produced at the facility.
Plan Summary Statement	The plan summary accurately reflects the content of the toxic substance reduction plan for Ethylene glycol prepared by Rohm and Haas Canada LP, dated December 07, 2015.

PLAN CERTIFICATION

As of December 07, 2015, I, Greg Johnston, certify that I have read the toxic substance reduction plan for the toxic substance referred to be low and am familiar with its contents, and to my knowledge the plan is factually accurate and complies with the Toxics Reduction Act, 2009 and Ontario Regulation 455/09 (General) made under that Act.
[Ethylene glycol]

07-Dec-2015
Greg Johnston Date
Site Leader, Rohm and Haas Canada LP

As of December 07, 2015, I, Wolfram Esser, certify that I am familiar with the processes at Rohm and Haas Canada LP that use or create the toxic substance referred to below, that I agree with the estimates referred to in subparagraphs 7 iii, iv and v of subsection 4 (1) of the Toxics Reduction Act 2009 that are set out in the plan dated December 18, 2013 and that the plan complies with that Act and Ontario Regulation 455/09 (General) made under that Act.
[Ethylene glycol]

07-Dec-2015
Wolfram Esser Date
EH&S Specialist, Rohm and Haas Canada LP
Toxic Substance Reduction Planner, License #: TSRP0094

Rohm and Haas Canada LP,
a wholly owned subsidiary of
The Dow Chemical Company
Toxic Substance Reduction Plan Summary
Ethanol & Methanol

Issue Date: 10-Dec-2015

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 the Toxic Substance Reduction Plan is submitted to the Ontario Ministry of the Environment and made public.
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Public Contact	Shawna M. Bruce Public Affairs Manager Phone: 780.998.8445 Email: smbruce@dow.com
Toxic Substances for Which Facility Must Prepare Plan	Acryl amide CAS: 79-06-1 (covered by a different plan summary) Acrylic Acid (and its salts) CAS: 79-10-7 (covered by a different plan summary) Acrylonitrile CAS: 107-13-1 (covered by a different plan summary) Ammonia (Total) CAS: n/a (covered by a different plan summary) Butyl acrylate CAS: 141-32-2 (covered by a different plan summary) Ethanol CAS: 64-17-5 (covered by this plan summary)

Toxic Substances for Which Facility Must Prepare Plan

Cont'ed

Ethyl acrylate CAS: 140-88-5 (covered by a different plan summary)
Ethylene glycol CAS: 107-21-1 (covered by a different plan summary)
Methanol CAS: 67-56-1 (covered by this plan summary)
Methyl methacrylate CAS: 80-62-6 (covered by a different plan summary)
Methylol acrylamide CAS: 924-42-5 (covered by a different plan summary)
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- Manufacturing of water based emulsions
- Unloading and storage of raw materials
- Storage and loading of finished products
- other ancillary and support processes e.g. quality control, plant maintenance, etc.

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We are committed to further reduce our environmental footprint by actively managing our fresh water and energy usage and perusing waste and emission reduction opportunities as new technologies become available. We strive to develop and employ inherently safer technology for chemical manufacturing.

Description of Substance

Ethanol and Methanol are contained in raw materials used by Rohm and Haas Canada LP as an additive in the production of water-based acrylic polymer emulsions. Ethanol and Methanol remains in the finished product as a product ingredient and allows for customer required product properties.

Further, Ethanol and Methanol are created as by-products in the air pollution control equipment from the removal of Ethyl acrylate and Methyl methacrylate from process exhaust air.

Statement of Intent to Reduce	Ethanol and Methanol are contained in raw materials used by Rohm and Haas Canada LP, a wholly owned subsidiary of The Dow Chemical Company in the manufacture of acrylic emulsions as additives. In addition, Ethanol and Methanol are created as by-products in the air pollution control equipment from the removal of Ethyl acrylate and Methyl methacrylate from process exhaust air. We do not intend to reduce the amount of Ethanol and Methanol used at the facility, as the facility does not have control over product development and raw material replacements. Further, we do not intend to reduce the amount of Ethanol and Methanol created at the facility as its creation is a side effect of removing monomers from exhaust air prior to releasing the air into the environment. However, through our commitment to Responsible Care® Rohm and Haas Canada LP is committed to minimize the emissions, disposals and transfers of Ethanol and Methanol and to use and handle the substances in a responsible and efficient way.
Reduction Objectives	A reduction of the use and creation of Ethanol and Methanol, as well as a reduction of emissions, transfers and disposals at this point are not targeted.
Reduction Options to be Implemented	There are currently no options scheduled for implementation. Except for one, no technically or economically feasible options could be identified. One economically feasible option was identified and could result in marginal improvement of monomer usage and as such would reduce Ethanol and Methanol creation. The facility chooses not to implement the option at this time as further safety evaluations are required to determine whether this is a viable option but the site is committed to investigate this further.
Plan Summary Statement	The plan summary accurately reflects the content of the toxic substance reduction plan for Ethanol and Methanol prepared by Rohm and Haas Canada LP, dated December 10, 2015.

PLAN CERTIFICATION

As of December 10, 2015, I, Greg Johnston, certify that I have read the toxic substance reduction plan for the toxic substance referred to be low and am familiar with its contents, and to my knowledge the plan is factually accurate and complies with the Toxics Reduction Act, 2009 and Ontario Regulation 455/09 (General) made under that Act.
[Ethanol]
[Methanol]

Greg Johnston
Site Leader, Rohm and Haas Canada LP

10-Dec-2015
Date

As of December 10, 2015, I, Wolfram Esser, certify that I am familiar with the processes at Rohm and Haas Canada LP that use or create the toxic substance referred to below, that I agree with the estimates referred to in subparagraphs 7 iii, iv and v of subsection 4 (1) of the Toxics Reduction Act 2009 that are set out in the plan dated December 18, 2013 and that the plan complies with that Act and Ontario Regulation 455/09 (General) made under that Act.
[Ethanol]
[Methanol]

Wolfram Esser
EH&S Specialist, Rohm and Haas Canada LP
Toxic Substance Reduction Planner, License #: TSRP0094

10-Dec-2015
Date