Ontario Regulation 455/09 – Public Information Report

TOXIC SUBSTANCES

1. Sulphuric Acid CAS # 7664-93-9

FACILITY INFORMATION

NPRI id: 0000005816

Evonik Canada Inc.
Maitland Site
P.O. Box 370
1380 Country Road #2
Maitland, Ontario K0E 1P0

No. of Employees = 26

2 Digit NAICS Code : 32
4 Digit NAICS Code : 3251
6 Digit NAICS Code : 325189

PUBLIC CONTACT INFORMATION

Rod Hartley
Plant Manager
Telephone: (613) 348-7720

UTM Spatial Co-ordinates (NAD83) : 18N 453430 4944781

SUBSTANCE ACCOUNTING

	2018	Change from Previous Year (kg)	Change from Previous Year (%)
Quantity Used:	>10,000 to 100,000 kg	-8285	-9.86
Quantity Created:	0 kg	0	0
Quantity Contained in Product:	0 kg	0	0
Quantity Released to Water:	>10,000 to 100,000 kg	-1,757	-7.57
Quantity Disposed of:	0 kg	0	0
Quantity Transferred:	0 kg	0	0

PERSON RESPONSIBLE FOR COORDINATING PREPARATION OF THE PLAN:

Nancy Hamilton
ESHQ Engineer
Telephone: (613) 340-6824

PERSON WHO PREPARED THE PLAN:

Gary Lunn (deceased)
Toxic Substances Reduction Planner

STATEMENT REGARDING CHANGE IN METHOD USED TO TRACK AND QUANTIFY THE TOXIC SUBSTANCE:

There has been no change in the methods used to track and quantify the toxic substance during the previous calendar year. If there had been a change, a description of the change, the reason for the change and how the change impacts tracking and quantification of the substance would be included.

STATEMENT REGARDING SIGNIFICANT PROCESS CHANGE:

The site has switched to a new technology for producing demineralized water that does not require the use of sulphuric acid. The site emptied its sulphuric acid storage tank in November.

REASONS FOR CHANGES FROM PREVIOUS YEARS:

Changes in Quantities Used and Released to Water are caused by the following:
1) Discontinuation of the use of sulphuric acid in November 2018.

Objectives

Evonik will strive to reduce the use of sulphuric acid in our demineralized water production unit and eliminate the presence of sulphuric acid in final product.

Target

Evonik intends to reduce sulphuric acid content of the final product by 100% over a two year period (end of 2014).

OPTIONS TO BE IMPLEMENTED :

Option 4: Replace product additive with one that does not contain sulphuric acid

Product additive that does not contain sulphuric acid can be used to replace the existing additive. This step was completed prior to 2014 as described in the plan. The timeline for this option was met.

Reductions of Sulphuric Acid by Implementation of Option 4

Type	Reductions Kg (%)
Use	0
Creation	0
Release to Air	0
Release to Water	0
Release to Land	0
Disposal off site	0
Disposal on site	0
Transfer off site -for recycling	0
Contained in Product	1673 kg (100%)

Option 8: Regenerate only the anion unit when a "double" regeneration is required

From time to time DM water production from an ion exchange train drops off. One of the standard techniques to re-establish normal throughput is to conduct a double regeneration. The step described in the plan was to discontinue doubling the sulphuric acid feed and only double the NaOH feed during double regenerations. This was done but resulted in premature breakthrough of the DM train and the potential for process contamination. This option will no longer be pursued.

Type	Reductions Kg (%)
Use	0
Creation	0
Release to Air	0
Release to Water	0
Release to Land	0
Disposal off site	0
Disposal on site	0
Transfer off site -for recycling	0
Contained in Product	0

Option 10: Minimize use of DM water for tasks where raw water is suitable

DM water could be saved and therefore sulphuric acid use reduced if raw water only is used for floor flushing, spill cleanup etc.
The step described in the plan was to train plant operating personnel on when DM water does not need to be used for flushing. This step was put into place as described in the plan.

It is not possible to put any meaningful estimate on the amount of DM water used for flushing tasks that do not require DM water and therefore any estimate of sulphuric acid use and

emission reductions would be a guess only. This option was implemented however no credit for sulphuric acid reductions was claimed. The timeline for this option was met.

COMPARISON OF STEPS TO BE TAKEN VS STEPS THAT WERE TAKEN :

Option 4: Replace product additive with one that does not contain sulphuric acid

The step described in the plan was to replace a sulphuric-acid containing additive with one that contains no sulphuric acid. This step was completed prior to 2014 as described in the plan.

Option 8: Regenerate only the anion unit when a "double" regeneration is required

The step described in the plan was to discontinue doubling the sulphuric acid feed and only double the NaOH feed during double regenerations. This was done prior to 2014 but resulted in premature breakthrough of the DM train and the potential for process contamination. This option will no longer be pursued.

Option 10: Minimize use of DM water for tasks where raw water is suitable

The step described in the plan was to train plant operating personnel on when DM water does not need to be used for flushing. This step was put into place as described in the plan.

ADDITIONAL STEPS TAKEN TO ACHIEVE PLAN OBJECTIVES :

The use of sulphuric acid in the process has been completely eliminated due to adoption of new technology for production of demineralized water.

AMENDMENTS MADE TO THE TOXIC SUBSTANCE REDUCTION PLAN DURING 2018:
None, however sulphuric acid use has been eliminated from the site.

* indicates a required field

Reporting Details

Reporting Dashboard (/)

Report Submission and Electronic Certification

- Electronic Statement of Certification

Specify the language of correspondence: *

English

Comments (optional)

I hereby certify that I have exercised due diligence to ensure that the submitted information is true and complete. The amounts and values for the facility(ies) identified below are accurate, based on reasonable estimates using available data. The data for the facility(ies) that I represent are hereby submitted to the programs identified below using the Single Window Reporting Application.

I also acknowledge that the data will be made public.

Note: Only the person identified as the Certifying Official or the authorized delegate should submit the report(s) identified below.

Company Name

Evonik Canada Inc.

Certifying Official

Paul Radczenko

Report Submitted by

Paul Radczenko

☑ I, the Certifying Official or authorized delegate, agree with the statements above and acknowledge that by pressing the "Submit Report(s)" button, I am electronically certifying and submitting the facility report(s) for the identified company to its affiliated programs. *

- ON MOE TRA - Electronic Certification Statement

Annual Report Certification Statement

As of 24/04/2017, I, Paul Radczenko, certify that I have read the reports on the toxic substance reduction plans for the toxic substances referred to below and am familiar with their contents, and to my knowledge the information contained in the reports is factually accurate and the reports comply with the Toxics Reduction Act, 2009 and Ontario Regulation 455/09 (General) made under that Act.

TRA Substance List

CAS RN	Substance Name
7664-93-9	Sulphuric acid

Company Name

Evonik Canada Inc.

Highest Ranking Employee

Paul Radczenko

Website address where the Annual Report is posted for the public

☑ I, the highest ranking employee, agree with the certification statement(s) above and acknowledge that by checking the box I am electronically signing the statement(s). I also acknowledge that by pressing the 'Submit Report(s)' button I am submitting the facility record (s)/report(s) for the identified facility to the Director under the Toxics Reduction Act, 2009. I also acknowledge that the Toxics Reduction Act, 2009 and Ontario Regulation 455/09 provide the authority to the Director under the Act to make certain information as specified in subsection 27(5) of Ontario Regulation 455/09 available to the public. *

- Reports included with Submission

List of Reports

Period	Facility	Prov	City

				Application Programs
2016	Maitland Site	Ontario	Maitland	NPRI,ON MOE TRA,NERM

Note: If there is a change in the contact information for the facility, a change in the owner or operator of the facility, if operations at the facility are terminated, or if information submitted for any previous year was mistaken or inaccurate, please update this information through SWIM or by contacting the National Pollutant Release Inventory directly.

Version: 3.11.3

Evonik Canada Inc 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, (COMPANY) and our (EXECUTIVE CONTACT) 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®.

Evonik Canada Inc - Maitland Site was successfully verified in 2015 by outside community and industry verifiers. To view the report, visit http://www.canadianchemistry.ca/responsible_care/index.php/en/responsible-care-verification-reports/year/2015. The company will be reverified again in 2018.

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 Evonik Canada Inc we will address this through upgrades to our process technology that will eliminate the requirement to store 93% sulphuric acid in bulk, thereby meeting the goal of the site's Toxic Reduction Plan.

Evonik Canada Inc has embraced the goals of the chemistry industry's Responsible Care initiative and applied them throughout our processes and facilities. 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.