## Toxic Reduction Act-Public Summary Report 2015 Reporting year- Georgetown Plant



#### A. Facility Information

The street address of the facility and	279 Guelph Street
the mailing address of the facility	Georgetown, Ontario
	L7G 4B3, Canada
NPRI and O. Reg. 127/01	NPRI ID: 4540
Identification Numbers	O.Reg. 127/01 ID: N/A
Primary Operations	Dairy Product Manufacturing
The two- and four-digit North	NAICS 2 Code: 31 - Manufacturing
American Industry Classification	NAICS 4 Code: 3115 - Dairy Product
System (NAICS) codes and the six-	Manufacturing
digit NAICS Canada code	·NAICS 6 Code: 311511 - Fluid Milk
	Manufacturing
<b>Facility Contact</b>	Victor Pavlovski
	Plant Manager
	279 Guelph Street
	Georgetown, Ontario
	L7G 4B3, Canada
	(905)873-1118
	Victor.pavlovski@saputo.com

#### **B.Toxic Substance Accounting**

The Facility has prepared Toxic Substance Reduction Plans for the following prescribed Toxic Substances:

Substances	CAS #
Nitric Acid	7697-37-2
Nitrate Ion	NA

Nitric Acid containing chemicals are commonly used in food processing equipment cleaning such as cleaned-in-place (CIP) and cleaned-out-of-place (COP) systems. At the Georgetown facility, the cleaning agent containing Nitric Acid is the Envirocid. These cleaning methods are an additional and mandatory mechanism of process control to enhance the ability to better clean and sanitize production equipment to a greater degree of food safety and quality assurance. Cleaning operations must be performed strictly according to a carefully worked

## Toxic Reduction Act-Public Summary Report 2015 Reporting year- Georgetown Plant



out procedure in order to attain the required degree of cleanliness. This means that the sequence must be exactly the same every time.

Nitrate Ion is then released from the neutralization of the Nitric Acid contained in the main cleaning chemical, Envirocid, used in the CIP systems at the facility. The amount released is calculated from the amount of Envirocid neutralized with the assumption that all of it is disassociated. This is also proportionate to the amount of CIP's and to the production volumes.

#### **C.Accounting Details**

Toxic Substance	CAS No.	Unit	Use	Creation	Contained in Product
Nitrate ion	NA-17	Tonnes		65.01	0
Nitric acid	7697- 37-2	Tonnes	66.06		0

#### D.Annual Report Certification Statement

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As of December 12<sup>th</sup>, 2016, I, Victor Pavlovski, certify that I have read the toxic substance reduction plans for the toxic substances referred to below and am familiar with their contents, and to my knowledge the plans are factually accurate and comply with the Toxics Reduction Act,2009 and Ontario Regulation 455/09 (General) made under that Act.

Victor Pavlovski, Plant Manager

# Toxic Reduction Act-Public Summary Report 2015 Reporting year- Ottawa Plant



#### A. Facility Information

The street address of the facility and the mailing address of the facility	861, Clyde Avenue Ottawa, Ontario
	K1Z 5A4, Canada
NPRI and O. Reg. 127/01	NPRI ID: 10913
Identification Numbers	O.Reg. 127/01 ID: N/A
Primary Operations	Dairy Product Manufacturing
The two- and four-digit North	·NAICS 2 Code: 31 - Manufacturing
American Industry Classification	NAICS 4 Code: 3115 - Dairy Product
System (NAICS) codes and the six-	Manufacturing
digit NAICS Canada code	·NAICS 6 Code: 311511 - Fluid Milk
	Manufacturing
<b>Facility Contact</b>	Annie Archambault
	Plant Manager
	861, Clyde Avenue
	Ottawa, Ontario
	K1Z 5A4, Canada
	(613)728-1751
	annie.archambault@saputo.com

#### **B.** Toxic Substance Accounting

The Facility has prepared Toxic Substance Reduction Plans for the following prescribed Toxic Substances:

Substances	CAS #
Nitric Acid	7697-37-2
Nitrate Ion	N/A
Sulphuric Acid	7664-93-9

Nitric Acid containing chemicals are commonly used in food processing equipment cleaning such as cleaned-in-place (CIP). These cleaning methods are an additional and mandatory mechanism of process control to enhance the ability to better clean and sanitize production equipment to a greater degree of food safety and quality assurance. Cleaning operations must be performed strictly according to a carefully worked out procedure in order to attain the

## Toxic Reduction Act-Public Summary Report 2015 Reporting year- Ottawa Plant



required degree of cleanliness. This means that the sequence must be exactly the same every time.

Nitrate Ion is then released from the neutralization of the Nitric Acid contained in the main cleaning chemical, Envirocid, used in the CIP systems at the facility. The amount released is calculated from the amount of Envirocid neutralized with the assumption that all of it is disassociated. This is also proportionate to the amount of CIP's and to the production volumes.

Sulfuric acid is used for waste water treatment. During most of the CIP process alkaline is used as a cleaning solution and before discharging cleaning solution to the sewer, Sulfuric acid is used for neutralizing alkaline cleaning solution.

C. Accounting Details

Toxic Substance	CAS No.	Unit	Use	Creation	Contained in Product
Nitrate ion	NA-17	Tonnes		14.35	0
Nitric acid	7697-37-2	Tonnes	14.58		0
Sulphuric acid	7664-93-9	Tonnes	30		0

#### D. Annual Report Certification Statement

As of November 21, 2016, I, Annie Archambault, certify that I have read the toxic substance reduction plans for the toxic substances referred to below and am familiar with their contents, and to my knowledge the plans are factually accurate and comply with the Toxics Reduction Act,2009 and Ontario Regulation 455/09 (General) made under that Act.

Annie Archambault, Plant Manager

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## Toxic Reduction Act-Public Summary Report 2015 Reporting year – Tavistock Plant



# A. Facility Information

The street address of the facility and	284 Hope Street RR#2
the mailing address of the facility	Tavistock, Ontario
	NOB 2R0, Canada
NPRI and O. Reg. 127/01	NPRI ID: 5579
Identification Numbers	O.Reg. 127/01 ID: N/A
<b>Primary Operations</b>	Dairy Product Manufacturing
The two- and four-digit North	·NAICS 2 Code: 31 - Manufacturing
American Industry Classification	·NAICS 4 Code: 3115 - Dairy Product
System (NAICS) codes and the six-	Manufacturing
digit NAICS Canada code	·NAICS 6 Code: 311515 - Butter,
	Cheese, and Dry and Condensed
	Dairy Product Manufacturing
Facility Contact	Campbell Appleton
	Plant Manager
	284 Hope Street RR#2
	Tavistock, Ontario
	NOB 2R0, Canada
	(519) 655-2337
	Campbell.appleton@saputo.com

## B. Toxic Substance Accounting

The Facility has prepared Toxic Substance Reduction Plans for the following prescribed Toxic Substances:

Substances	CAS #
Nitric Acid	7697-37-2
Nitrate Ion	NA-17
Sulphuric Acid	7664-93-9
PM10	NA-M09

## Toxic Reduction Act-Public Summary Report 2015 Reporting year-Tavistock Plant



Nitric Acid containing chemicals are commonly used in food processing equipment cleaning such as cleaned-in-place (CIP) and cleaned-out-of-place (COP) systems. These cleaning methods are an additional and mandatory mechanism of process control to enhance the ability to better clean and sanitize production equipment to a greater degree of food safety and quality assurance. It must be kept in mind that food manufacturers are always obliged to maintain high hygienic standards; this applies both to the equipment and, naturally, to the staff involved in production.

Addition of caustic or acid is based on the conductivity of the wash solution, which is constantly and automatically monitored. When the system requires chemical to bring up the conductivity to the set value, it calls for a peristaltic pump to pump chemical for a set amount of time. If the conductivity level is not reached in the allotted time, the system will alarm, warning of the failure.

Circulatory cleaning-in-place (CIP) systems adapted to the various parts of a processing plant have been developed to achieve good cleaning and sanitation results. Cleaning operations must be performed strictly according to a carefully worked out procedure in order to attain the required degree of cleanliness. This means that the sequence must be exactly the same every time. The cleaning cycle includes generally the following stages:

- $\cdot$  Recovery of product residues by scraping, drainage and expulsion with water or compressed air;
- · Pre rinsing with water to remove loose dirt;
- · Cleaning with detergent, containing Nitric Acid;
- · Rinsing with clean water;
- · Disinfection by heating or with chemical agents (optional); if this step is included, the cycle ends with a final rinse, if the water quality is good. Each stage requires a certain length of time to achieve an acceptable result.

Nitrate Ion is then released from the neutralization of the Nitric Acid contained in the main cleaning chemical, used in the CIP systems at the facility. The amount released is calculated from the amount of Nitric Acid neutralized with the assumption that all of it is disassociated. This is also proportionate to the amount of CIP's and to the production volumes.

## Toxic Reduction Act-Public Summary Report 2015 Reporting year-Tavistock Plant



Sulfuric acid is used for waste water treatment. During most of the CIP process alkaline is used as a cleaning solution and before discharging cleaning solution to the sewer, Sulfuric acid is used for neutralizing alkaline cleaning solution.

#### C. Accounting Details

Toxic Substance	CAS No.	Unit	Use	Creation	Contained in Product
Nitrate ion	NA-17	Tonnes		76.30	0
Nitric acid	7697-37-2	Tonnes	77.53		0
Sulphuric acid	7664-93-9	Tonnes	51		0
PM10 - Particulate			0	6.47	0
Matter <= 10	NA-M09	Tonnes			
Microns	,				

## D. Annual Report Certification Statement

As of November 21, 2016, I, Campbell Appleton, certify that I have read the toxic substance reduction plans for the toxic substances referred to below and am familiar with their contents, and to my knowledge the plans are factually accurate and comply with the Toxics Reduction Act,2009 and Ontario Regulation 455/09 (General) made under that Act.

Campbell Appleton, Plant Manager

## Toxic Reduction Act-Public Summary Report 2015 Reporting year- Trenton Plant



#### A. Facility Information

The street address of the facility and the mailing address of the facility	7, RIVERSIDE DR., P.O. BOX 627 TRENTON, ON, K8V 5R7
NPRI and O. Reg. 127/01 Identification Numbers	NPRI ID: 11853 O.Reg. 127/01 ID: N/A
Primary Operations	Dairy Product Manufacturing
The two- and four-digit North American Industry Classification System (NAICS) codes and the six- digit NAICS Canada code	•NAICS 2 Code: 31 - Manufacturing •NAICS 4 Code: 3115 - Dairy Product Manufacturing •NAICS 6 Code: 311515 - Butter, Cheese, and Dry and Condensed Dairy Product Manufacturing
Facility Contact	Trevor Braun Plant Manager 7, RIVERSIDE DR., P.O. BOX 627 TRENTON, ON, K8V 5R7 (613) 392-6792 Trevor.Braun@saputo.com

#### B. Toxic Substance Accounting

The Facility has prepared Toxic Substance Reduction Plans for the following prescribed Toxic Substances:

Substances	CAS #
Nitric Acid	7697-37-2
Nitrate Ion	NA-17
PM10	NA-M09

Nitric Acid containing chemicals are commonly used in food processing equipment cleaning such as cleaned-in-place (CIP). These cleaning methods are an additional and mandatory mechanism of process control to enhance the ability to better clean and sanitize production equipment to a greater degree of food safety and quality assurance. Cleaning operations must be performed strictly according to a carefully worked out procedure in order to attain the

## Toxic Reduction Act-Public Summary Report 2015 Reporting year- Trenton Plant



required degree of cleanliness. This means that the sequence must be exactly the same every time.

Nitrate Ion is then released from the neutralization of the Nitric Acid contained in the main cleaning chemical, Envirocid, used in the CIP systems at the facility. The amount released is calculated from the amount of Envirocid neutralized with the assumption that all of it is disassociated. This is also proportionate to the amount of CIP's and to the production volumes.

The grated and powdered cheeses produced at the Trenton facility are produced by removing the moisture. The PM10 are generated mainly during the cheese drying production. Particulate emissions from the dryer are controlled by a wet scrubber which collects the particulate matter prior to releasing it into the air. Due to the nature of the Toxic Substance, the substance can never be "used" in the Facility process.

For the purpose of the required TRA Quantification, Accounting and Reporting exercise for the Toxic Substance, the calculated "release" values have been assumed to be equal to the amount "created" for each emission source, despite the fact that some of these releases are controlled releases. S.12(6) of O. Reg. 455/09 provides considerations for determining the "Best Available Methods" for tracking and quantifying the Toxic Substance

#### C. Accounting Details

Toxic Substance	CAS No.	Unit	Use	Creation	Contained in Product
Nitrate ion	NA-17	Tonnes	- (	11.86	0
Nitric acid	7697-37-2	Tonnes	12.06	(1-/ <del>-//</del>	0
PM10	NA-M09	Tonnes		1.04	

#### D. Annual Report Certification Statement

As of November 21<sup>st</sup>, 2016, I, Trevor Braun, certify that I have read the toxic substance reduction plans for the toxic substances referred to below and am familiar with their contents, and to my knowledge the plans are factually accurate

## Toxic Reduction Act-Public Summary Report 2015 Reporting year- Trenton Plant



and comply with the Toxics Reduction Act, 2009 and Ontario Regulation 455/09 (General) made under that  $\rm Act.$ 

Trevor Braun, Plant Manager