

**TOXIC SUBSTANCE REDUCTION PLAN SUMMARY (2012-2016 data)**

**1. OWNER AND OPERATOR OF FACILITY:**

GAY LEA FOODS COOPERATIVE LIMITED  
5200 ORBITOR DRIVE  
MISSISSAUGA, ONTARIO, L4W 5B4

**2. FACILITY:**

GAY LEA FOODS COOPERATIVE LIMITED:

CLAYSON FACILITY  
100 Clayson Road,  
Weston, Ontario, M9M 2G7

GUELPH FACILITY  
21 Speedvale Avenue, West  
Guelph, Ontario, N1H 1J5

LONGLIFE FACILITY  
180 Ormont Drive,  
Weston, Ontario, M9L 1N7

TEESWATER  
21 Clinton Street North  
Teeswater, Ontario, N0G2S0

**3. CONTACT INFORMATION:**

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[www.gayleafoods.com](http://www.gayleafoods.com)

**4. NPRI IDENTIFICATION NUMBER(S):**

- a. NPRI (Clayson facility): 11520
- b. NPRI (Guelph facility): 004423
- c. NPRI (Longlife facility): 007693
- d. NPRI (Teeswater facility): first report

**5. NUMBER OF FULL-TIME EMPLOYEE EQUIVALENTS:**

- a. Clayson facility: 106
- b. Guelph facility: 94
- c. Longlife facility: 149
- d. Teeswater facility: 60

**6. TWO, FOUR AND SIX DIGIT NAICS CODE:**

Canadian SIC: 10 - Food Industries

Canadian SIC: 1049 - Other Dairy Prods. Inds.

American SIC: 2026 - Fluid Milk

NAICS 2 Code: 31-33 – Manufacturing

NAICS 4 Code: 3115 - Dairy Product Mfg.

NAICS 6 Code: 311515 - Dairy Product

**7. SPATIAL COORDINATES:**




- a. Clayson facility:
  - i. Latitude: 43.72380
  - ii. Longitude: -79.52570
- b. Guelph facility:
  - i. Latitude: 43.55810
  - ii. Longitude: -80.27040
- c. Longlife facility:
  - i. Latitude: 43.76680
  - ii. Longitude: -79.53980
- d. Teeswater facility:
  - i. Latitude: 44.0010
  - ii. Longitude: -81.2860





**8. TOXIC SUBSTANCE:**





**NITRIC ACID**

CAS Number: 7697-37-2

## 9. SUMMARY OF TRACKING AND QUANTIFICATION

Year	Substance	Clayson Plant (Amount)	Change	Reason for change
2012	Nitric Acid	30 tonnes	 7% (or 2 tonnes decrease)	decrease in production
2013	Nitric Acid	28 tonnes		no change
2014	Nitric Acid	28 tonnes	 30% (or 12 tonnes increase)	increase in production
2015	Nitric Acid	40 tonnes		 2.5% (or 1 tonne decrease)
2016	Nitric Acid	39 tonnes		

Year	Substance	Longlife Plant (Amount)	Change	Reason for change
2012	Nitric Acid	58 tonnes	 14% (or 8 tonnes decrease)	decrease in production
2013	Nitric Acid	50 tonnes		 6% (or 3 tonnes decrease)
2014	Nitric Acid	47 tonnes	 10% (or 5 tonnes increase)	increase in production
2015	Nitric Acid	52 tonnes		 20% (or 13 tonnes increase)
2016	Nitric Acid	65 tonnes		

Year	Substance	Guelph Plant (Amount)	Change	Reason for change
2012	Nitric Acid	61 tonnes	 3% (or 2 tonnes increase)	increase in production
2013	Nitric Acid	63 tonnes		 2% (or 1 tonnes increase)
2014	Nitric Acid	64 tonnes	 6% (or 4 tonnes increase)	increase in production
2015	Nitric Acid	68 tonnes		 1% (or 1 tonne increase)
2016	Nitric Acid	69 tonnes		

Year	Substance	Teeswater Plant (Amount)	Change	Reason for change
2016	Nitric Acid	40 tonnes		

## **10. STATEMENT OF INTENT**

Gay Lea Foods is committed to the environmental protection programs and projects that aim to protect the environment, reduce pollution and safeguarding human health. Our management has made it a priority to participate in toxics reduction to protect our workers from exposure to harmful substances and to keep the environment clean for future generations. Therefore, it is our intent to reduce toxic substances used, created and released at all of our manufacturing facilities.

## **11. DESCRIPTION OF OPTIONS, ESTIMATED REDUCTIONS AND PROJECTIONS OF EFFECTIVENESS**

The primary objective was to reduce the amount of NITRIC ACID that is used in cleaning in process (CIP) operations at all Gay Lea Foods facilities. A secondary objective is to identify toxic reduction options that will reduce the excessive exposure of nitric acid to employees to protect their health by reducing the amount that is used annually.

Every stage of the manufacturing operation what can possible use, create, dispose, transform, destroy, release (to air, land, and water), dispose, or transfer offsite of nitric acid was assessed and identified. Each stage was then divided into one or more possible process. The amount of substance was tracked and quantified using process flow diagram and best available methods of quantification. All the options for nitric acid reduction was assessed and reviewed to identify areas for reduction.

No option(s) for toxic reduction is to be implemented, as option for nitric acid is not available at this particular time.

**12. EXPLANATION OF WHY NO OPTION IMPLEMENTATION** – Periodic cleaning inside equipment used in food manufacturing is extremely important to control food quality. Nitric acid is used as an acid detergent required to remove fat, soil, and solid materials inside the equipment that cannot be readily disassembled such as fillers used to process food. No option can be identified for each of the 7 toxic reduction categories for nitric acid reduction because nitric acid is the only food substance cleaning agent that is currently known to achieve effective cleaning. However, progression of emerging technologies or alternate material that can reduce the amount used, or and can be substituted for less or non-toxic effect other than nitric acid will be monitored.