

**Maple Leaf Foods Inc.  
97 Walker Drive  
Brampton, ON L6T 4Z3**

**Toxics Reduction Plan Summary  
for  
Sulphuric Acid (CAS # 7664-93-9)**

**May 30<sup>th</sup>, 2013**

## **Facility Information**

1. Substance: Sulphuric Acid (CAS # # 7664-93-9)
2. NPRI Identification no.: 7606
3. Legal Name and Address: Maple Leaf Foods Inc.  
97 Walker Drive  
Brampton, ON L6T 4Z3
4. Full Time Employees: 113
5. NAICS: 311990
6. Company Contact: Bruce Strong  
Plant Manager  
97 Walker Drive  
Brampton, ON L6T 4Z3  
(905) 791-9277 x2055
7. Technical Contact: Patrick Huynh  
Manager, Environmental Projects  
6985 Financial Drive  
Mississauga, ON L5N 0A1  
(905) 285-5721
8. Plan Coordinator: Patrick Huynh
9. Plan Preparation: Patrick Huynh
10. Highest Ranking Official: Bruce Strong
11. Plant Location (UTM): Zone 17  
Easting 606532  
Northing 4842380
12. Canadian Parent Company: Maple Leaf Foods Inc.  
30 St. Clair Avenue West  
Toronto, ON M4V 3A2

## **Statement of Intent**

Maple Leaf Foods Inc. (MLF) is committed to reducing the use, creation, or transfer of toxic substances in its process where technically and economically feasible.

## **Objective**

The objective of Toxics Reduction Plan is to

- Identify the toxic substances used, created, or transferred
- How they are used, created, or transferred
- Where they are used, created, or transferred
- How their use, creation, or transfer can be reduced or eliminated

## **Description of Substance Use or Creation**

MLF operates a meat preparation, cooking and packaging at 97 Walker Drive, Brampton (Ontario).

Sulphuric acid is used in the wastewater treatment plant for pH control. Stages and processes that involve sulphuric acid are illustrated in Figure 1 and described below:

- Sulphuric acid is received in the Receiving Process at the Receiving Stage in the form of liquid. It is pumped to a central storage tank, where it is stored until required. It is pumped to the pH balance tank at the Wastewater Treatment Stage.
- At the Wastewater Treatment Stage, sulphuric acid is added to adjust the pH prior to discharging to the municipal sanitary sewer.

## **Contents of Plan Summary Reflects Plan**

This Plan Summary for sulphuric acid accurately reflects the Toxics Reduction Plan dated May 30<sup>th</sup>, 2013.

## **Toxic Substance Reduction Options**

**Material or Feedstock Substitution:** Options identified. Given the potential environmental consequences and operating pH range process requirement, sulphuric acid is the standard.

**Option 1:** Hydrochloric acid

**Option 2:** Phosphoric acid

**Option 3:** Citric acid

**Option 4:** Carbon dioxide

**Product Design or Reformulation:** No option identified. Sulphuric acid cannot be redesigned or reformulated.

**Equipment or Process Modification:** No option identified. It is not economically feasible to modify equipment or process of wastewater treatment plant.

**Spill and Leak Prevention:** No option identified as sulphuric acid spillage and leakage is insignificant. The sulphuric acid piping delivery is protected by an extra piping sleeve. The storage tanks are monitored and protected from overfilling and are in a containment dyke.

**On-site Reuse or Recycling:** No option identified. Sulphuric acid is 100% consumed by neutralization process. Reuse and recycling does not apply to this process.

**Improved Inventory Management or Purchasing Techniques:** No option identified. Current inventory management and purchasing techniques are consistent with the process requirements and best practices. Sulphuric acid is purchased and delivered on an as-needed basis.

**Training or Improved Operating Practices:** No option identified. All wastewater operators are fully trained on procedures. Addition of sulphuric acid is fully automated.

## **Feasibility of Toxic Substance Reduction Options**

### **Material or Feedstock Substitution**

**Option 1:** Hydrochloric acid poses a potential sewer use bylaw violation where it has chlorides restriction. It is also very corrosive and would destroy the wastewater pipes and other equipment.

**Option 2:** Phosphoric acid poses a potential sewer use bylaw violation where it has total phosphorus restriction.

**Option 3:** Citric acid is a weak acid.

**Option 4:** Carbon dioxide is a weak acid.

**Certification by Highest Ranking Employee**

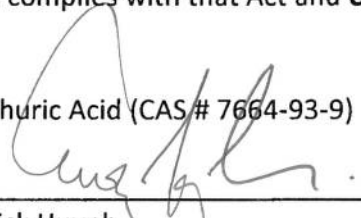
As of MAY 31, 2013, I, Bruce Strong, certify that I have read the toxic substance reduction plan for sulphuric acid and am familiar with its content, and to my knowledge the plan is factually accurate and complies with the **Toxic Reduction Act, 2009** and **Ontario Regulation 455/09 (General)** made under that Act.

  
\_\_\_\_\_  
Bruce Strong, Plant Manager  
Maple Leaf Foods Inc.

May 31, 2013  
\_\_\_\_\_  
Date

**Toxics Substance Reduction Planner**

As of May 31, 2013, I, Patrick Huynh, certify that I am familiar with the process at Maple Leaf Foods Inc.'s Brantford facility that use or create the toxic substances referred to below, that I agree with the estimates referred to paragraph 7 iii, iv and v of subsection 4(1) of the **Toxic Reduction Act, 2009** that are set out in the plan dated xxx and that plan complies with that Act and **Ontario Regulation 455/09 (General)** made under that Act.

Sulphuric Acid (CAS # 7664-93-9)  
  
\_\_\_\_\_  
Patrick Huynh,  
Manager, Environmental Projects  
Maple Leaf Foods Inc.

TSRP 0249  
\_\_\_\_\_  
License Number

May 30, 2013  
May 31, 2013  
\_\_\_\_\_  
Date