

**Ontario Toxics Reduction Act Public Report
A.G.S. Automotive Systems Oshawa Plant 2018**

Information to be made available to public

The National Pollutant Release Inventory (NPRI) identification number for the facility:

003120

The legal and trade names of the owner and the operator of the facility, the street address of the facility and, if the mailing address of the facility is different from the street address, the mailing address:

A. G. Simpson Automotive Inc. Oshawa Plant
901 Simcoe Street South
Oshawa, Ontario L1H 4L2

The number of full-time employee equivalents at the facility:

110

The two-and four-digit North American Industry Classification System (NAICS) codes and the six-digit NAICS Canada code for the facility:

NAICS 2 Code: 33 - Metal, Computer, Appliance, Transportation, Furniture, Misc Manufacturing

NAICS 4 Code: 3312 - Steel Product Manufacturing from Purchased Steel

NAICS 6-digit Code: Motor vehicle metal parts stamping (336370)

NAICS 6-digit Code: Coating, Engraving, Cold and Heat Treating and Allied Activities (332810)

If applicable, the name, position and telephone number of the person who is the contact at the facility for the public:

Mr. Maurice Pestowka

Position: MGR Corp. env. Affairs

Phone: (519) 572-7139

Fax: (519) 621-1177

mauricep@agsautomotive.com

The spatial coordinates of the facility expressed in Universal Transverse Mercator (UTM) within a North American Datum 83 (NAD83) datum:

UTM Zone 17, NAD 83, Central Meridian 81 degrees west, 6 degree projection.

In respect of each person who is the Canadian parent company of the facility, if applicable. The legal name of the person, the street and mailing address, if different from the address mentioned in paragraph 4, if applicable, the company's percentage of ownership of the person responsible for ensuring a toxic substance reduction plan is prepared:

A. G. Simpson Automotive Inc. (100%)

200 Yorkland Blvd., Suite 800

Toronto, ON M2J 5C1

A statement of whether there has been a change in the method or combination of methods used to track and quantify the substance during the previous calendar year and, if there has been a change, a description of the change, the reason for the change and how the change will impact tracking and quantification of the substances:

Releases to air from chromium electroplating tanks using point source control method of "NPRI reporting guidance for facilities using chromium electroplating, chromium anodizing and reverse etching".

1. Sulphuric Acid

The name and the Chemical Abstracts Service Registry number of the substance, if a number has been assigned:

Name: Sulphuric Acid

Chemical Abstracts Service Registry number: 7664-93-9

The name of all other toxic substances used or created at the facility for which plans are required to be prepared:

Copper (and its compounds) (NA-06)

Lead (and its compounds) (NA-08)

Nickel (and its compounds) (NA-11)

Hexavalent chromium (and its compounds) (NA-19)

On a facility-wide basis, the results of the determinations of the amount of the substance:

Sulphuric acid is added to anodic acid dip tank and cathodic acid dip tank to create an aqueous solution, and then the parts are processed with the metal surface of the parts being dissolved as well as cleaned. The cleaning action removes all residual traces of dirt and surface impurities on the parts. A small quantity of sulphuric acid is added to the chrome plating tank to adjust the pH of the chrome plating solution as well.

SB Nickel Additive CS-5 contains 60 percent of sulphuric acid and is added to nickel electroplating tank as a brightener. The chemical reaction of sulphuric acid and nickel products nickel sulfate. As the result, the amount of sulphuric acid added to nickel electroplating tank is destroyed.

In 2018, sulphuric acid was released on-site to air and transferred off-site for treatment prior to final disposal by third parties. It was processed in plant dedicated wastewater treatment system as a reactant, a physical or chemical processing aid and a pH adjuster.

Sulphuric Acid:

	2018 Reporting Year (kg)	2017 Reporting Year (kg)	Change (%)	Rationale For Change (>10%)
Use	100,000-1,000,000 kg*	100,000-1,000,000 kg*	-8%	No significant change
Creation	0	0	0	n/a
Contained in product	0	0	0	n/a
Onsite release to air	116	120.84	-4%	No significant change
Onsite release to water	0	0	0	n/a
Onsite release to land	0	0	0	n/a
Transformation	0	0	0	n/a
Offsite transfer for treatment/recycling	141,615.04	197,251.04	-39%	Change in production level
Destruction	394,341.55	383,758.45	3%	No significant change
Onsite/offsite disposal	0	0	0	n/a

*Information in the range specified by the MOE director.

** Quantification values shown in this table are annual values.

This report is certified by the highest ranking employee at the facility who has management responsibilities relating to the facility.

2. Copper and its compounds

The name and the Chemical Abstracts Service Registry number of the substance, if a number has been assigned:

Name: Copper (and its compounds)

Chemical Abstracts Service Registry number: NA-06

The name of all other toxic substances used or created at the facility for which plans are required to be prepared:

Sulphuric acid (7664-93-9)

Lead (and its compounds) (NA- 08)

Nickel (and its compounds) (NA- 11)

Hexavalent chromium (and its compounds) (NA- 19)

On a facility-wide basis, the results of the determinations of the amount of the substance:

The source of copper is anode and cathode rails (electrical circuit). The electrification in the plating bath is very low voltage and high amperage. Because copper has high conductivity, it is used to form anode and cathode rails on the tanks carrying current in the preparation stage and production stage. The copper is not part of the plating operation but a small amount of copper is corroded away and enters the baths. Finally, the chemical solution contains copper from the plating activity is transferred to the wastewater treatment process for treatment.

In 2018, Copper and its compounds were transferred off-site for recycling and treatment prior to final disposal by third parties. The “use” value is the amount of copper rails on the tanks. This value is relatively constant for years.

Copper (and its compounds):

	2018 Reporting Year (kg)	2017 Reporting Year (kg)	Change (%)	Rationale For Change (>10%)
Use	10,000-100,000 kg*	10,000-100,000 kg*	0%	No significant change
Creation	0	0	0	n/a
Contained in product	0	0	0	n/a
Onsite release to air	0	0	0	n/a
Onsite release to water	0	0	0	n/a
Onsite release to land	0	0	0	n/a

Transformation	0	0	0	n/a
Offsite transfer for treatment/recycling	181.33	160	12%	Change in production level
Destruction	0	0	0	n/a

*Information in the range specified by the MOE director.

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3. Lead and its compounds

The name and the Chemical Abstracts Service Registry number of the substance, if a number has been assigned:

Name: Lead (and its compounds)

Chemical Abstracts Service Registry number: NA-08

The name of all other toxic substances used or created at the facility for which plans are required to be prepared:

Sulphuric acid (7664-93-9)

Copper (and its compounds) (NA-06)

Nickel (and its compounds) (NA-11)

Hexavalent chromium (and its compounds) (NA-19)

On a facility-wide basis, the results of the determinations of the amount of the substance:

Lead is used as anode in the anodic and cathodic acid tanks and the chrome electroplating process. Loads of parts are transferred into the tank and immersed into an electrolyte solution. The lead anode dissolves slowly over time into the electrolyte in the form of lead ions. The lead ions are a contaminant and are removed either with the change out of the acid or in the case of chrome tank form insoluble lead chromate sludge that is removed periodically with tank cleaning.

In 2018, lead and its compounds were transferred off-site for recycling and treatment prior to final disposal by third parties. The “use” value is the amount of lead anodes in the tanks. This value is relatively constant for years.

Lead (and its compounds):

	2018 Reporting Year (kg)	2017 Reporting Year (kg)	Change (%)	Rationale For Change (>10%)
Use	1,000-10,000 kg*	1,000-10,000 kg*	0%	No significant change
Creation	0	0	0	n/a
Contained in product	0	0	0	n/a
Onsite release to air	0	0	0	n/a
Onsite release to water	0	0	0	n/a
Onsite release to land	0	0	0	n/a
Transformation	0	0	0	n/a
Offsite transfer for treatment/recycling	125.15	111	12%	Change in production level
Destruction	0	0	0	n/a
Onsite/offsite disposal	0	0	0	n/a

** Quantification values shown in this table are annual values.

This report is certified by the highest ranking employee at the facility who has management responsibilities relating to the facility.

4. Nickel and its compounds

The name and the Chemical Abstracts Service Registry number of the substance, if a number has been assigned:

Name: Nickel (and its compounds)

Chemical Abstracts Service Registry number: NA-11

The name of all other toxic substances used or created at the facility for which plans are required to be prepared:

Sulphuric acid (7664-93-9)

Copper (and its compounds) (NA-06)

Lead (and its compounds) (NA-08)

Hexavalent chromium (and its compounds) (NA-19)

On a facility-wide basis, the results of the determinations of the amount of the substance:

Nickel is used as anode in the nickel electroplating process. It's placed as nickel metal in anode baskets hung inside of the electroplating tank. Loads of parts are transferred into the tank and immersed into an electrolyte solution. The nickel anode dissolved into the electrolyte in the form of nickel ions. The ions electrolytically travel through the solution and deposit on the cathode surface (parts) through direct electric current flows between the anode and the cathode.

In 2018, nickel and its compounds were released on-site to air and transferred off-site for recycling and treatment prior to final disposal by third parties. They were processed as a formulation component and an article component.

Nickel (and its compounds):

	2018 Reporting Year (kg)	2017 Reporting Year (kg)	Change (%)	Rationale For Change (>10%)
Use	100,000-1,000,000 kg*	100,000-1,000,000 kg*	-50%	Change in production level
Creation	0	0	0	n/a
Contained in product	100,000-1,000,000 kg*	100,000-1,000,000 kg*	-11%	Change in production level
Onsite release to air	2.63	2.63	0%	No significant change
Onsite release to water	0	0	0	n/a
Onsite release to land	0	0	0	n/a
Transformation	0	0	0	n/a
Offsite transfer for treatment/recycling	20,518	16,284	21%	Change in production level
Destruction	0	0	0	n/a
Onsite/offsite disposal	36.64	25.23	31%	Change in production level

*Information in the range specified by the MOE director.

** Quantification values shown in this table are annual values.

This report is certified by the highest ranking employee at the facility who has management responsibilities relating to the facility.

5. Hexavalent chromium and its compounds

The name and the Chemical Abstracts Service Registry number of the substance, if a number has been assigned:

Name: Hexavalent chromium (and its compounds)

Chemical Abstracts Service Registry number: NA-19

The name of all other toxic substances used or created at the facility for which plans are required to be prepared:

Sulphuric acid (7664-93-9)

Copper (and its compounds) (NA-06)

Lead (and its compounds) (NA-08)

Nickel (and its compounds) (NA-11)

On a facility-wide basis, the results of the determinations of the amount of the substance:

Hexavalent chromium is originally present as chromic acid in the chrome plating process. Chromic acid is added to water to create an aqueous solution containing chromium ions through which direct electric current flows between an anode and a cathode. Parts are immersed into the aqueous solution. When the current is turned on, a layer of electrolytic chromium (metallic chromium) is plated over the nickel on the parts to improve the nickel's durability.

In 2018, hexavalent chromium and its compounds were released on-site to air, transformed and transferred off-site for recycling and treatment prior to final disposal by the third parties. They were processed as a formulation component.

Hexavalent chromium (and its compounds):

	2018 Reporting Year (kg)	2017 Reporting Year (kg)	Change (%)	Rationale For Change (>10%)
Use	1,000-10,000 kg*	1,000-10,000 kg*	29%	Change in production level
Creation	0	0	0	n/a
Contained in product	0	0	0	n/a
Onsite release to air	0.9	0.37	143%	Change in quantification methodology
Onsite release to water	0	0	0	n/a
Onsite release to land	0	0	0	n/a
Transformation	3,878.60	3,577.81	6%	No significant change
Offsite transfer for treatment/recycling	727.29	0	100%	Change in production level
Destruction	0	0	0	n/a
Onsite/offsite disposal	0	0	0	n/a

*Information in the range specified by the MOE director.

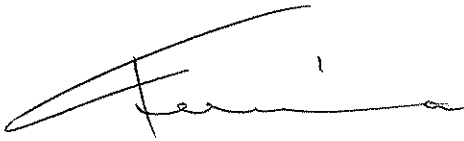
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Note: The toxic substances we use are for cleaning the parts and are customer specified materials having corrosion resistance, surface hardness and appearance properties that are required for the service. Toxic substances not released to air are treated in a dedicated waste water treatment plant to reduce toxicity or destroy toxic substances. We are looking at the amounts of waste we generate and will be targeting that area for possible reductions.

Certification certified by the Highest Ranking Employee

As of May 28 2019, I certify that I have read the reports on the toxic substance reduction plans for Suplehuric acid, Copper, Lead, Nickel and Hexavalent chromium 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 the Act.

A handwritten signature in black ink, appearing to read 'Patrick Ferreira', with a long horizontal stroke extending to the right.

Patrick Ferreira
Plant Manager
A.G.S. Automotive Systems Oshawa Plant