

Appendix A TRA Plan Summary – Manganese

Basic Facility Information		
Name & CAS # of Substance	Manganese	7439-96-5
Substances for which other Plans have been prepared	Nickel	7440-02-0
	Copper	7440-50-8

Facility Identification and Site Address		
Company Name	Linamar Corporation	
Facility Name	Autocom Manufacturing	
Facility Address	Physical Address:	Mailing Address: (if different)
	375 Massey Road Guelph, Ontario N1K 1B2	
Spatial Coordination of Facility	555898 E 4820638 N; Zone 17	
Number of Employees	396	
NPRI ID	7119	
Ontario MOECC ID Number	7017	

Parent Company (PC) Information	
PC Name & Address	Linamar Corporation 287 Speedvale Avenue West Guelph, ON N1H 1C5
Percent Ownership for each PC	100 percent
Business Number for PC	160628087
Primary North American Industrial Classification System Code (NAICS)	
2 Digit NAICS Code	33 – Manufacturing
4 Digit NAICS Code	3363 – Motor Vehicle Parts Manufacturing
6 Digit NAICS Code	336390 – Other Motor Vehicle Parts Manufacturing

Company Contact Information		
Facility Public Contact	Paul Cluthe	Same address as facility
	General Manager	
	paul.cluthe@linamar.com	
	Phone: 519 882-9008	
	Fax: 519 763-4330	
Facility Technical Contact	Ku Wang	Same address as facility
	Environmental Coordinator/Document Tech	
	ku.wang@linamar.com	
	Phone: 519 882-9008	
	Fax: 519 763-4330	

Company Contact Information		
Company Coordinator Contact	Same as Technical Contact	Same address as facility
Person who Prepared the Plan: (if different from the Coordinator)	Robert Morgan, M.A.Sc., B.Eng.	GHD Limited 651 Colby Drive Waterloo, ON N2V 1C2
	Environmental Consultant robert.morgan@ghd.com	
	Phone: 519- 884-0510 ext. 2342	
Highest Ranking Employee	Same as Public Contact	Same as facility address

Planner Information:		
Planner Responsible for Making Recommendations	Erik Martinez, P.Eng.	GHD Limited 651 Colby Drive Waterloo, ON N2V 1C2
	Environmental Consultant	
	Planner License No. TSRP0005 erik.martinez@ghd.com	
	Phone: 519- 884-0510 ext. 2342	
Planner Responsible for Certification	(same as planner responsible for making recommendations)	

Toxic Reduction Policy Statement of Intent

Autocom Manufacturing (Autocom) does not intend to reduce the use of manganese. Autocom is committed to playing a leadership role in protecting the environment. Whenever feasible, we will reduce the use and releases of manganese in compliance with all Federal and Provincial Regulations.

Reduction Objectives

Autocom was unable to identify any reduction options; therefore, there is no reduction objective in this plan.

Description of Facility

Autocom produces automotive parts from steel forgings. Raw materials (steel parts) are brought to the facility where they are machined into automotive parts, then washed and packaged for shipment. These raw materials contain the compound manganese as a constituent material.

Toxic Substance Reduction Options

After looking into the seven categories of toxic substance reduction options, no options were identified. Explanations are provided in the table below to detail why an option could not be identified in each category.

Toxic Substance Reduction Category	Option: Identification and Description
1) Materials or feedstock substitution	No option identified: Autocom's clients are major automotive companies. The raw materials to be used by Martinrea are specified by the customer, and there are limited sources where the material can be purchased from. The material used and the composition of the material is not in Autocom's control.

Toxic Substance Reduction Category	Option: Identification and Description
2) Product design or reformulation	No option identified: The product design is completely specified by the customer and is not within Martinrea's control. While Autocom owns the Facility equipment, they cannot change the size of the part produced. The amount of scrap generated at the Manufacturing Stage is monitored and ways to reduce the amount generated are encouraged.
3) Equipment or Process Modification	No option identified: Autocom conducts regular preventative maintenance on all equipment to ensure it is operating efficiently. The equipment involved are optimized to a degree to ensure that a minimum amount of scrap is produced.
4) Spill and Leak prevention	No option identified: All manganese used in the raw materials at the Facility is contained in metals. Spill and leak prevention is not a concern and no possible reduction options were identified in this category that would result in a reduction in the use of manganese.
5) On-site reuse or recycling	No option identified: All metal scrap generated at the Facility is recycled. Autocom is paid for all scrap metal, and therefore the recovery of scrap metal has already been optimized. Autocom re-works off-spec parts into the processes where possible. Any parts that are unable to be re-worked are recycled.
6) Improve inventory management or purchasing techniques	No option identified: Autocom's inventory is controlled by customer demand. The Facility has limited inventory at any given time, which addresses any issues of stock rotation (additionally, metal does not have an expiry date).
7) Training or improved operating practices	No option identified: Employees are trained on each piece of machinery, and the requirements for every part that the Facility produces. Work instruction and quality control documents are posted at every work station. Employees are trained on any changes or updates to the production of parts. Autocom conducts continuous improvement meetings and production meetings to ensure issues are dealt with and communicated as soon as possible to ensure the quality of parts are in conformance with the customer demands.

Plan Summary Statement

This plan summary accurately reflects the content of the toxic substance reduction plan for the use of manganese.

Certification by Highest Ranking Employee

Attached.

Certification by Licensed Planner

Attached.



8. Planner Recommendations and Rationale

The Planner's recommendations and rationale are provided in Appendix B.

9. Plan Certifications

9.1 Certification by Highest Ranking Employee

As of September 15, 2016, I, Paul Cluthe, certify that I have read the toxic substance reduction plan for the toxic substance referred to below and am familiar with its contents, and to my knowledge the plan is factually accurate and complies with the *Toxics Reduction Act, 2009* and Ontario Regulation 455/09 (General) made under that Act.

[Manganese]



Paul Cluthe
General Manager



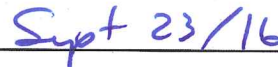
Date

As of September 15, 2016, I, Erik Martinez certify that I am familiar with the processes at Autocom that use or create the toxic substance referred to below, that I agree with the estimates referred to in subparagraphs 7 iii, iv and v of subsection 4 (1) of the *Toxics Reduction Act, 2009* that are set out in the plan dated September 15, 2016 and that the plan complies with that Act and Ontario Regulation 455/09 (General) made under that Act.

[Manganese]



Erik Martinez, P. Eng.
Toxic Substance Reduction Planner



Date

License No. TSRP0005