



Summary Letter as required under Toxics Reduction Act and Ontario Regulation 455/09

Nemak of Canada – Windsor Aluminum Plant

NPRI ID: 4416

4600 G.N. Booth Drive
Windsor, ON N9C 4G8 Canada

Number of employees: 311

Contact Information

Brad Boutros

Position: Plant Manager

Phone: (519) 250-2681

brad.boutros@nemak.com

Geographical Coordinates

Latitude: 42.27610

Longitude: -83.08510

Datum: 1983

Standard Industrial Classifications

- **NAICS 2 Code:** 31-33 - Manufacturing
- **NAICS 4 Code:** 3315 - Foundries
- **NAICS 6 Code:** 331529 – Non-Ferrous Foundries (except Die-Casting)



2018 Substance Information (tonnes)

Substance Name	CAS Number	Amount Entering Process	Amount Created	Amount Released to Air	Amount Disposed	Amount Recycled	Amount Contained in Product
Phenol	108-95-2	10 to 100	0	0.71	0.16	0	0
Aluminum (Fume or Dust)	7429-90-5	0	10 to 100	0.089	68.80	0	0
Copper	7440-50-8	100 to 1,000	0	0.0880	0.2292	23.45	100 to 1000
Lead (in kg)	7439-92-1	10,000 to 100,000	0	2.35	7.80	841	100 to 1,000
Methylenebis (phenol isocyanate) (MDI)	101-68-8	100 to 1,000	0	0.039	0.072	0	0
Polymeric diphenylmethane diisocyanate (PMDI)	9016-87-9	100 to 1,000	0	0.0027	0.072	0	0
Sulphuric Acid	7664-93-9	1 to 10	N/A	N/A	N/A	N/A	N/A
Ammonia	NA-16	N/A	1 to 10	N/A	4.22	N/A	N/A
Oxides of Nitrogen	11104-93-1	N/A	10 to 100	24.31	N/A	N/A	N/A
PM	NA-M08	N/A	10 to 100	22.103	N/A	N/A	N/A
PM ₁₀	NA-M09	N/A	10 to 100	22.033	N/A	N/A	N/A
PM _{2.5}	NA-M10	N/A	10 to 100	21.98	N/A	N/A	N/A
VOCs	NA-M16	100 to 1,000	N/A	17.27	N/A	N/A	N/A
Heavy Alkylate Naphtha	64741-65-7	1 to 10	N/A	2.258	N/A	N/A	N/A



Substance Name	CAS Number	Amount Entering Process	Amount Created	Amount Released to Air	Amount Disposed	Amount Recycled	Amount Contained in Product
Heavy Aromatic Solvent Naphtha	64742-94-5	100 to 1,000	N/A	11.09	N/A	N/A	N/A
Carbon Monoxide	630-08-0	N/A	10 to 100	20.37	N/A	N/A	N/A

For comparison purposes, the following table provides a summary of the 2017 and 2018 TRA Accounting values.



Comparison of 2017 to 2018 Reportable TRA Substances (tonnes)

Substance Name	Year	Amount Entering Process	Amount Created	Amount Released to Air	Amount Off-Site Disposal	Amount Off-Site Recycling	Amount Contained in Product
Phenol 108-95-2	2017	10 to 100	0	0.693	0.116	0	0
	2018	10 to 100	0	0.710	0.162	0	0
	Change in % and Tonnes	Increase of 2.5% or 0.35 tonnes	N/A	Increase of 2.5% or 0.017 tonnes	Increase of 40.1% or 0.046 tonnes	N/A	N/A
	Rationale	Change not significant	N/A	Change not significant	Increased amount transferred off site	N/A	N/A
	Reduction option to reduce phenol on specific operations has not been implemented as those operations have all been off line since the creation of the reduction plan.						
Aluminum (Fume or Dust) 7429-90-5	2017	0	10 to 100	0.096	37.04	0	0
	2018	0	10 to 100	0.089	68.80	0	0
	Change in % and Tonnes	N/A	Increase of 85.5% or 31.75 tonnes	Decrease of 7.5% or 0.007 tonnes	Increase of 85.7% or 31.76 tonnes	N/A	N/A
	Rationale	N/A	Increase in baghouse fines generated	Change not significant	Increase in baghouse fines generated	N/A	N/A
	Continued to maintain the reduced in-house aluminum inventory from 35 days to 13.8 days. Decreased production resulted in a decrease in the quantity created.						
Copper 7440-50-8	2017	100 to 1,000	0	0.094	0.106	44.40	100 to 1000
	2018	100 to 1,000	0	0.088	0.219	23.45	100 to 1000
	Change in % and Tonnes	Increase of 4.0% or 11.61 tonnes	N/A	Decrease of 5.9% or 0.005 tonnes	Decrease of 107.2% or 0.11 tonnes	Increase of 47.2% or 20.95 tonnes	Increase of 13.1% or 32.46 tonnes
	Rationale	Change not significant	N/A	Change not significant	Increase in baghouse fines generated	Increase in baghouse fines generated	Increase in aluminum usage



Substance Name	Year	Amount Entering Process	Amount Created	Amount Released to Air	Amount Off-Site Disposal	Amount Off-Site Recycling	Amount Contained in Product
Reduced the content of copper to 2.8% in the incoming raw material (target is 2.8%). Additionally, continued to maintain the increased the in-house re-use of the material (rather than shipping for recycling), and reduced in-house aluminum inventory from 35 days to 13.8 days.							
Lead (and its compounds) NA-08 (kg)	2017	10,000 to 100,000	0	2.47	3.80	1,583	100 to 1,000
	2018	10,000 to 100,000	0	2.35	7.80	841	100 to 1,000
	Change in % and Tonnes	Increase of 4% or 415 kg	N/A	Decrease of 4.9% or 0.1 kg	Increase of 105.3% or 4.0 kg	Decrease of 46.9% or 742 kg	Increase of 13.0% or 1.15 kg
	Rationale	Change not significant	N/A	Change not significant	Increase in baghouse fines	Increased amount transferred off site	Increase in aluminum usage
	Continued to maintain the increased the in-house re-use of the material (rather than shipping for recycling) and reduced in-house aluminum inventory from 35 days to 13.8 days.						
Sulphuric Acid 7664-93-9	2017	10 to 100	0	0	0	0	0
	2018	1 to 10	0	0	0	0	0
	Change in % and Tonnes	Decrease of 53.15% or 10.38 tonnes	N/A	N/A	N/A	N/A	N/A
	Rationale	Decrease in product inventory	N/A	N/A	N/A	N/A	N/A
	No plans to reduce the use of Sulphuric Acid.						
Ammonia NA-16	2017	0	1 to 10	0	4.09	0	0
	2018	0	1 to 10	0	4.22	0	0



Substance Name	Year	Amount Entering Process	Amount Created	Amount Released to Air	Amount Off-Site Disposal	Amount Off-Site Recycling	Amount Contained in Product
	Change in % and Tonnes	N/A	Increase of 3.2% or 0.13 tonnes	N/A	Increase of 3.2% or 0.13 tonnes	N/A	N/A
	Rationale	N/A	Change not significant	N/A	Change not significant	N/A	N/A
	No plans to reduce the creation of Ammonia.						
Methylenebis (Phenol Isocyanate) (MDI) 101-68-8	2017	100 to 1,000	0	0.039	0.891	0	0
	2018	100 to 1,000	0	0.039	0.072	0	0
	Change in % and Tonnes	Increase of 2.1% or 2.66 tonnes	N/A	Decrease of 2.1% or 0.001 tonnes	Decrease of 91.9% or 0.82 tonnes	N/A	N/A
	Rationale	Change not significant	N/A	Change not significant	Fewer system cleaning and draining than previous year	N/A	N/A
	No plans to reduce the use of MDI.						
Polymeric diphenylmethane diisocyanate (PMDI) 9016-87-9	2017	100 to 1,000	0	0.0026	0.891	0	0
	2018	100 to 1,000	0	0.0027	0.72	0	0
	Change in % and Tonnes	Increase of 2.1% or 2.66 tonnes	N/A	Increase of 2.2% or 0.0001 tonnes	Decrease of 91.9% or 0.819 tonnes	N/A	N/A
	Rationale	Change not significant	N/A	Change not significant	Fewer system cleaning and draining than previous year	N/A	N/A
	No plans to reduce the use of PMDI.						



Substance Name	Year	Amount Entering Process	Amount Created	Amount Released to Air	Amount Off-Site Disposal	Amount Off-Site Recycling	Amount Contained in Product
Oxides of Nitrogen 11104-93-1	2017	0	10 to 100	20.45	0	0	0
	2018	0	10 to 100	24.31	0	0	0
	Change in % and Tonnes	N/A	Increase of 18.8% or 3.85 tonnes	Increase of 18.8% or 3.85 tonnes	N/A	N/A	N/A
	Rationale	N/A	Increase in natural gas and diesel consumption	Increase in natural gas and diesel consumption	N/A	N/A	N/A
	No plans to reduce the creation of Oxides of Nitrogen.						
PM NA-M08	2017	0	10 to 100	20.45	0	0	0
	2018	0	10 to 100	22.10	0	0	0
	Change in % and Tonnes	N/A	Decrease of 8.7% or 2.10 tonnes	Decrease of 8.7% or 2.10 tonnes	N/A	N/A	N/A
	Rationale	N/A	Change not significant	Change not significant	N/A	N/A	N/A
	No plans to reduce the creation of PM						
PM₁₀ NA-M09	2017	0	10 to 100	24.2	0	0	0
	2018	0	10 to 100	22.03	0	0	0
	Change in % and Tonnes	N/A	Decrease of 8.9% or 2.17 tonnes	Decrease of 8.9% or 2.17 tonnes	N/A	N/A	N/A



Substance Name	Year	Amount Entering Process	Amount Created	Amount Released to Air	Amount Off-Site Disposal	Amount Off-Site Recycling	Amount Contained in Product
	Rationale	N/A	Change not significant	Change not significant	N/A	N/A	N/A
	No plans to reduce the creation of PM ₁₀						
PM_{2.5} NA-M10	2017	0	10 to 100	24.20	0	0	0
	2018	0	10 to 100	21.98	0	0	0
	Change in % and Tonnes	N/A	Decrease of 9.2% or 2.22 tonnes	Decrease of 9.2% or 2.22 tonnes	N/A	N/A	N/A
	Rationale	N/A	Change not significant	Change not significant	N/A	N/A	N/A
	No plans to reduce the creation of PM _{2.5}						
VOCs NA-M16	2017	100 to 1000	0	13.23	0	0	0
	2018	100 to 1000	0	17.267	0	0	0
	Change in % and Tonnes	Increase of 2.7% or 8.70 tonnes	N/A	Increase of 30.5% or 4.04 tonnes	N/A	N/A	N/A
	Rationale	Change not significant	N/A	Increase in quantity of cleaner used	N/A	N/A	N/A
Heavy alkylate naphtha 64741-65-7	2017	10 to 100	0	1.04	0	0	0
	2018	10 to 100	0	2.248	0	0	0
	Change in % and Tonnes	Increase of 116% or 1.21 tonnes	N/A	Increase of 116.7% or 1.21 tonnes	N/A	N/A	N/A



Substance Name	Year	Amount Entering Process	Amount Created	Amount Released to Air	Amount Off-Site Disposal	Amount Off-Site Recycling	Amount Contained in Product
	Rationale	Increase in quantity of parts washer used	N/A	Increase in quantity of cleaner used	N/A	N/A	N/A
	No plans to reduce the creation of Heavy alkylate naphtha						
Heavy aromatic solvent naphtha 64742-94-5	2017	10 to 100	0	10.84	0	0	0
	2018	10 to 100	0	11.09	0	0	0
	Change in % and Tonnes	Increase of 2.3% or 4.03 tonnes	N/A	Increase of 2.3% or 0.25 tonnes	N/A	N/A	N/A
	Rationale	Change not significant	N/A	Change not significant	N/A	N/A	N/A
	No plans to reduce the creation of Heavy aromatic solvent naphtha						
Carbon Monoxide 630-08-0	2017	0	10 to 100	17.13	0	0	0
	2018	0	10 to 100	20.367	0	0	0
	Change in % and Tonnes	N/A	Increase of 18.9% or 3.23 tonnes	Increase of 18.9% or 3.23 tonnes	N/A	N/A	N/A
	Rationale	N/A	Increase in natural gas and diesel consumption	Increase in natural gas and diesel consumption	N/A	N/A	N/A
	No plans to reduce the creation of Carbon Monoxide.						



Exit Record

As of June 1, 2019, I, Brad Boutros certify that I have read the records created for the purposes of section 11.2 of O. Reg. 455/09 (General) made under the Toxics Reductions Act, (2009) in respect of the use and creation of the toxic substance referred to below at the Nemak of Canada Windsor Aluminum Plant and am familiar with its contents and to my knowledge they are factually accurate.

- Sulphuric Acid (CAS 7664-93-9)
- Ammonia (NA – 16)

Brad Boutros, Plant Manager
Nemak Windsor Aluminum Plant

Certification

As of May 22, 2019, I, Brad Boutros, certify that I have read the report on the toxic substance reduction plan for the toxic substances referred to above and am familiar with its contents, and to my knowledge the information contained in the report is factually accurate and the report complies with the *Toxics Reduction Act, 2009* and Ontario Regulation 455/09 (General) made under that Act.

Signed May 22, 2019. Original signature is on file at the facility.

Brad Boutros, Plant Manager
Nemak Windsor Aluminum Plant