

**2016 Annual Public Reporting for Toxic Substances
Phosphorus (Total)**

Facility and Contact Information

Facility NPRI No.	488
Facility MOE No. if assigned	8405
Company legal and trade names of owner and operator of the facility	Ingredion Canada Corporation
Facility street and mailing address	4040 James Street Cardinal, Ontario, K0E 1E0
Name, position, telephone no. of facility public contact	Lee Whitley, Plant Manager 613-657-3131
No. of full-time employee equivalent	200
2, 4, and 6 digit NAICS Codes	31-33 Manufacturing 3112 Grain & Oilseed Milling 311221 Wet Corn Milling
UTM spatial coordinates with NAD83 datum	18T 470334m E 49S9196m N
Legal name of Canadian parent company	Ingredion Canada Corporation
Street and mailing address of parent company	1600 - 90 Burnhamthorpe Road West Mississauga, Ontario, L5B 0H9
Percentage ownership of facility	100

Toxic Substance Plan Information

Name and CAS numbers of toxic substance for this report	Phosphorus (Total), CAS NA-22
Name and CAS numbers of other substances created or used at facility	Ammonia (Total), CAS NA-16 Hydrochloric Acid, CAS 7647-01-0 Sulphur Dioxide, CAS 7446-09-5 Hydrogen Sulphide, CAS 7783-06-4 Total Reduced Sulphur, CAS NA-M14 Nitrogen oxides (expressed as NO ₂), CAS 11104-93-1 Carbon Monoxide, CAS 630-08-0 Total Particulate, CAS NA-M08 PM10 - Particulate <= 10 micron, CAS NA-M09 PM2.5 Particulate <= 2.5 micron, CAS NA-M10
Date of most recent plan	18-Dec-13
Objectives of plan, and targets	Ingredion's main business is producing valuable products from corn, and has already invested significant resources to reduce waste and excess usage of corn containing phosphorus. Through this plan, Ingredion is committed to reducing excess usage of phosphorus. This will be accomplished by assessing potential reductions through material or feedstock substitution, product design or reformulation, equipment or process modification, spill and leak prevention, on-site reuse or recycling, improved inventory management or purchasing techniques, and training or improved operating procedures.
Summarize any amendments to the plan	No plan amendments have been made
Summarize the steps taken during the reporting period towards achieving the objectives of the plan	Steps for 2 reduction options were implemented in previous years.
Summarize the effectiveness of the steps taken during the reporting period	Steps for 2 reduction options were implemented in previous years.
Review implementation progress and timelines set out in the plan	Steps for 2 reduction options were implemented in previous years.

**2016 Annual Public Reporting for Toxic Substances
Phosphorus (Total)**

Summarize actions taken in this reporting year that were additional to the steps described in the plan	There were no additional actions taken for the 2016 reporting year
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Annual Reporting Metrics

Phosphorus (Total)	Tonne or Range			On-site Releases, tonne			Disposals, tonne		Off-Site Recycled, tonne
	Used	Created	In Product	Air	Land	Water	On-Site	Off-Site	
Previous Year	100 - 1000	0	100 - 1000	0.218	0	0.353	0	1.559	0
Current Year	1000-10000	0	1000-10000	0.312	0	0.697	0	1.591	0
Difference	10-100	0	100 - 1000	0.094	0	0.344	0	0.032	0
Percent Difference	1-10%	0%	10-100%	43.12%	0%	97%	0%	2.1%	0%
Reductions in plan	0	0	0	0	0	0	0	0	0
Reductions outside plan	0	0	0	0	0	0	0	0	0
Total Reductions	0	0	0	0	0	0	0	0	0
Percent Reductions	0%	0%	0%	0%	0%	0%	0%	0%	0%
Rationale for changes	Waste water chemical usage was optimized, increasing phosphorus releases within operating limits of plant ECA								

Certification

As of June 1, 2017, I, Lee Whitley, certify that I have read the report on the toxic substance reduction plan for the toxic substance referred to below 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.

Phosphorus (Total)



 Lee Whitley, Plant Manager

**2016 Annual Public Reporting for Toxic Substances
Ammonia (Total)**

Facility and Contact Information

Facility NPRI No.	488
Facility MOE No. if assigned	8405
Company legal and trade names of owner and operator of the facility	Ingredion Canada Corporation
Facility street and mailing address	4040 James Street Cardinal, Ontario, K0E 1E0
Name, position, telephone no. of facility public contact	Lee Whitley 613-657-3131
No. of full-time employee equivalent	200
2, 4, and 6 digit NAICS Codes	31-33 Manufacturing 3112 Grain & Oilseed Milling 311221 Wet Corn Milling
UTM spatial coordinates with NAD83 datum	18T 470334m E 49S9196m N
Legal name of Canadian parent company	Ingredion Canada Corporation
Street and mailing address of parent company	1600 - 90 Burnhamthorpe Road West Mississauga, Ontario, L5B 0H9
Percentage ownership of facility	100

Toxic Substance Plan Information

Name and CAS numbers of toxic substance for this report	Ammonia (Total), CAS NA-16
Name and CAS numbers of other substances created or used at facility	Hydrochloric Acid, CAS 7647-01-0 Sulphur Dioxide, CAS 7446-09-5 Hydrogen Sulphide, CAS 7783-06-4 Total Reduced Sulphur, CAS NA-M14 Carbon Monoxide, CAS 630-08-0 Nitrogen oxides (expressed as NO ₂), CAS 11104-93-1 Phosphorus (Total), CAS NA-22 Total Particulate, CAS NA-M08 PM ₁₀ - Particulate <= 10 micron, CAS NA-M09 PM _{2.5} Particulate <= 2.5 micron, CAS NA-M10
Date of most recent plan	12-Dec-13
Objectives of plan, and targets	Ingredion has a long history of safe and responsible use of hazardous materials in Cardinal, and has already invested significant resources to reduce the use of toxic and hazardous materials including HCl. Going forward, Ingredion is committed to reducing the amount of HCl used. This will be accomplished by assessing potential reductions through material or feedstock substitution, product design or reformulation, equipment or process modification, spill and leak prevention, on-site reuse or recycling, improved inventory management or purchasing techniques, and training or improved operating procedures.
Summarize any amendments to the plan	No plan amendments have been made
Summarize the steps taken during the reporting period towards achieving the objectives of the plan	All planned reduction option steps were completed in previous years and maintained in 2016
Summarize the effectiveness of the steps taken during the reporting period	All planned reduction option steps were completed in previous years and maintained in 2016

**2016 Annual Public Reporting for Toxic Substances
Ammonia (Total)**

Review implementation progress and timelines set out in the plan	All planned reduction option steps were completed in previous years and maintained in 2016
Summarize actions taken in this reporting year that were additional to the steps described in the plan	There were no additional actions taken for the 2016 reporting year

Annual Reporting Metrics

Ammonia (Total)	Tonne or Range			On-site Releases, tonne			Disposals, tonne		Off-Site Recycled, tonne
	Used	Created	In Product	Air	Land	Water	On-Site	Off-Site	
Previous Year	10-100	0	0-1	1.905	0	2.978	0	0	0
Current Year	10-100	0	1-10	2.039	0	1.123	0	0	0
Difference	-10-100	0	1-10	0.134	0	-1.855	0	0	0
Percent Difference	-10-100%	0%	10-100%	7.03%	0%	-62.3%	0%	0%	0%
Reductions in plan	0	0	0	0.000	0	0.000	0	0	0
Reductions outside plan	10-100	0	0	0.000	0	1.855	0	0	0
Total Reductions	10-100	0	0	0.000	0	1.855	0	0	0
Percent Reductions	10-100%	0%	0%	0.00%	0%	62.29%	0%	0%	0%
Rationale for changes	Ammonia consumption and effluent are dependent on a number of variables during waste water treatment and vary from year to year								

Certification

As of June 1, 2017, I, Lee Whitley, certify that I have read the report on the toxic substance reduction plan for the toxic substance referred to below 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.

Ammonia (total)


Lee Whitley, Plant Manager

2016 Annual Public Reporting for Toxic Substances
Total Particulates, Particulates <= 10 micron, Particulates <=2.5 micron

Facility and Contact Information

Facility NPRI No.	488
Facility MOE No. if assigned	8405
Company legal and trade names of owner and operator of the facility	Ingredion Canada Corporation
Facility street and mailing address	4040 James Street Cardinal, Ontario, K0E 1E0
Name, position, telephone no. of facility public contact	Lee Whitley, Plant Manager 613-657-3131
No. of full-time employee equivalent	200
2, 4, and 6 digit NAICS Codes	31-33 Manufacturing 3112 Grain & Oilseed Milling 311221 Wet Corn Milling
UTM spatial coordinates with NAD83 datum	18T 470334m E 4959196m N
Legal name of Canadian parent company	Ingredion Canada Corporation
Street and mailing address of parent company	1600-90 Burhamthorpe Road West Mississauga, Ontario, L5B 0H9
Percentage ownership of facility	100

Toxic Substance Plan Information

Name and CAS numbers of toxic substance for this report	Total Particulate, CAS NA-M08 PM10 - Particulate <= 10 micron, CAS NA-M09 PM2.5 Particulate <= 2.5 micron, CAS NA-M10
Name and CAS numbers of other substances created or used at facility	Hydrochloric Acid, CAS 7647-01-0 Ammonia (total), CAS NA-16 Hydrogen Sulphide, CAS 7783-06-4 Total Reduced Sulphur, CAS NA-M14 Sulphur Dioxide, CAS 7446-09-5 Nitrogen oxides (expressed as NO2), CAS 11104-93-1 Carbon Monoxide, CAS 630-08-0 Phosphorus (total), CAS NA-22
Date of most recent plan	18-Dec-13
Objectives of plan, and targets	Ingredion has a long history of safe and responsible use of combustion fuels and corn milling solutions used in Cardinal. And has already invested significant resources to reduce excess usage of fuels that, when combusted, create and emit toxic substances including particulates. Through this plan, Ingredion is committed to reducing excess creation and emission of particulates. This will be accomplished by assessing potential reductions through material or feedstock substitution, product design or reformulation, equipment or process modification, spill and leak prevention, on-site reuse or recycling, improved inventory management or purchasing techniques, and training or improved operating procedures.
Summarize any amendments to the plan	No plan ammendments have been made.
Summarize the steps taken during the reporting period towards achieving the objectives of the plan	All plan options and steps were completed in previous years
Summarize the effectiveness of the steps taken during the reporting period	All plan options and steps were completed in previous years
Review implementation progress and timelines set out in the plan	All plan options and steps were completed in previous years

2016 Annual Public Reporting for Toxic Substances
Total Particulates, Particulates <= 10 micron, Particulates <=2.5 micron

Summarize actions taken in this reporting year that were additional to the steps described in the plan	There were no additional actions taken for the 2016 reporting year
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Annual Reporting Metrics

PMT -- Total Particulates	Tonne or Range		On-site Releases, tonne			Disposals, tonne		Off-Site
	Used	Created	Air	Land	Water	On-Site	Off-Site	Recycled, tonne
Previous Year	0	10-100	57.985	0	0	0	0	0
Current Year	0	10-100	75.498	0	0	0	0	0
Difference	0	10-100	17.513	0	0	0	0	0
Percent Difference	0%	10-100%	30.20%	0%	0%	0%	0%	0%
Reductions in plan	0	0	0	0	0	0	0	0
Reductions outside plan	0	0	0	0	0	0	0	0
Total Reductions	0	0	0	0	0	0	0	0
Percent Reductions	0%	0%	0%	0%	0%	0%	0%	0%
Rationale for changes	Varying production mix and volumes							

PM10 -- Particulates <= 10 micron	Tonne or Range		On-site Releases, tonne			Disposals, tonne		Off-Site
	Used	Created	Air	Land	Water	On-Site	Off-Site	Recycled, tonne
Previous Year	0	10-100	56.298	0	0	0	0	0
Current Year	0	10-100	73.870	0	0	0	0	0
Difference	0	10-100	17.572	0	0	0	0	0
Percent Difference	0%	10-100%	31.21%	0%	0%	0%	0%	0%
Reductions in plan	0	0	0	0	0	0	0	0
Reductions outside plan	0	0	0	0	0	0	0	0
Total Reductions	0	0	0	0	0	0	0	0
Percent Reductions	0%	0%	0%	0%	0%	0%	0%	0%
Rationale for changes	Varying production mix and volumes							

PM2.5 -- Particulates <= 2.5 micron	Tonne or Range		On-site Releases, tonne			Disposals, tonne		Off-Site
	Used	Created	Air	Land	Water	On-Site	Off-Site	Recycled, tonne
Previous Year	0	10-100	55.614	0	0	0	0	0
Current Year	0	10-100	73.212	0	0	0	0	0
Difference	0	10-100	17.598	0	0	0	0	0
Percent Difference	0%	10-100%	31.64%	0%	0%	0%	0%	0%
Reductions in plan	0	0	0	0	0	0	0	0
Reductions outside plan	0	0	0	0	0	0	0	0
Total Reductions	0	0	0	0	0	0	0	0
Percent Reductions	0%	0%	0%	0%	0%	0%	0%	0%
Rationale for changes	Varying production mix and volumes							

Certification

As of June 1, 2017, I, Lee Whitley, certify that I have read the report on the toxic substance reduction plan for the toxic substance referred to below 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.

Total Particulates Particulates <= 10 Micron Particulates <= 2.5 Micron


 Lee Whitley, Plant Manager

**2016 Annual Public Reporting for Toxic Substances
Nitrogen Oxides (Expressed as NO₂)
Carbon Monoxide**

Facility and Contact Information

Facility NPRI No.	488
Facility MOE No. if assigned	8405
Company legal and trade names of owner and operator of the facility	Ingredion Canada Corporation
Facility street and mailing address	4040 James Street Cardinal, Ontario, K0E 1E0
Name, position, telephone no. of facility public contact	Lee Whitley, Plant Manager 613-657-3131
No. of full-time employee equivalent	200
2, 4, and 6 digit NAICS Codes	31-33 Manufacturing 3112 Grain & Oilseed Milling 311221 Wet Corn Milling
UTM spatial coordinates with NAD83 datum	18T 470334m E 4959196m N
Legal name of Canadian parent company	Ingredion Canada Corporation
Street and mailing address of parent company	1600-90 Burhamthorpe Road West Mississauga, Ontario, L5B 0H9
Percentage ownership of facility	100

Toxic Substance Plan Information

Name and CAS numbers of toxic substance for this report	Nitrogen oxides (expressed as NO ₂), CAS 11104-93-1 Carbon Monoxide, CAS 630-08-0
Name and CAS numbers of other substances created or used at facility	Hydrochloric Acid, CAS 7647-01-0 Ammonia (total), CAS NA-16 Hydrogen Sulphide, CAS 7783-06-4 Total Reduced Sulphur, CAS NA-M14 Sulphur Dioxide, CAS 7446-09-5 Phosphorus (total), CAS NA-22 Total Particulate, CAS NA-M08 PM10 - Particulate <= 10 micron, CAS NA-M09 PM2.5 Particulate <= 2.5 micron, CAS NA-M10
Date of most recent plan	29-Nov-13
Objectives of plan, and targets	Ingredion has a long history of safe and responsible use of combustion fuels and corn milling solutions used in Cardinal. And has already invested significant resources to reduce excess usage of fuels that, when combusted, create and emit toxic substances including CO and NO ₂ . Through this plan, Ingredion is committed to reducing excess creation and emission of CO and NO ₂ . This will be accomplished by assessing potential reductions through material or feedstock substitution, product design or reformulation, equipment or process modification, spill and leak prevention, on-site reuse or recycling, improved inventory management or purchasing techniques, and training or improved operating procedures.
Summarize any amendments to the plan	No plan amendments have been made
Summarize the steps taken during the reporting period towards achieving the objectives of the plan	Two of the three projected were completed in previous years. The third project was put on hold due to changes in energy costs.

**2016 Annual Public Reporting for Toxic Substances
Nitrogen Oxides (Expressed as NO2)
Carbon Monoxide**

Summarize the effectiveness of the steps taken during the reporting period	Plant is focused on energy reduction and reduction of GHG. Reductions from previous actions maintained. No additional reductions in last reporting session.
Review implementation progress and timelines set out in the plan	Two of the three projected were completed in previous years. The third project was put on hold due to changes in energy costs.
Summarize actions taken in this reporting year that were additional to the steps described in the plan	Voluntarily reported for carbon monoxide for 2016, although emissions were below the reporting threshold.

Annual Reporting Metrics

Nitrogen Oxides (Expressed as NO2)	Tonne or Range		On-site Releases, tonne			Disposals, tonne		Off-Site Recycled, tonne
	Used	Created	Air	Land	Water	On-Site	Off-Site	
Previous Year	0	10-100	20.778	0	0	0	0	0
Current Year	0	10-100	21.416	0	0	0	0	0
Difference	0	0-1	0.638	0	0	0	0	0
Percent Difference	0%	0-1%	3.07%	0%	0%	0%	0%	0%
Reductions in plan	0	0	0.00	0	0	0	0	0
Reductions outside plan	0	0	0.00	0	0	0	0	0
Total Reductions	0	0	0.00	0	0	0	0	0
Percent Reductions	0%	0%	0%	0%	0%	0%	0%	0%
Rationale for changes	No significant changes							

Carbon Monoxide	Tonne or Range		On-site Releases, tonne			Disposals, tonne		Off-Site Recycled, tonne
	Used	Created	Air	Land	Water	On-Site	Off-Site	
Previous Year	0	10-100	16.442	0	0	0	0	0
Current Year	0	10-100	16.881	0	0	0	0	0
Difference	0	0-1	0.439	0	0	0	0	0
Percent Difference	0%	0-1%	2.67%	0%	0%	0%	0%	0%
Reductions in plan	0	0	0.00	0	0	0	0	0
Reductions outside plan	0	0	0.00	0	0	0	0	0
Total Reductions	0	0	0.00	0	0	0	0	0
Percent Reductions	0%	0%	0%	0%	0%	0%	0%	0%
Rationale for changes	No significant changes							

Certification

As of June 1, 2017, I, Lee Whitley, certify that I have read the report on the toxic substance reduction plan for the toxic substance referred to below 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.

Nitrogen Oxides (Expressed as NO2)
Carbon Monoxide



Lee Whitley, Plant Manager

**2016 Annual Public Reporting for Toxic Substances
Sulphur Dioxide**

Facility and Contact Information

Facility NPRI No.	488
Facility MOE No. if assigned	8405
Company legal and trade names of owner and operator of the facility	Ingredion Canada Corporation
Facility street and mailing address	4040 James Street Cardinal, Ontario, K0E 1E0
Name, position, telephone no. of facility public contact	Lee Whitley, Plant Manager 613-657-3131
No. of full-time employee equivalent	200
2, 4, and 6 digit NAICS Codes	31-33 Manufacturing 3112 Grain & Oilseed Milling 311221 Wet Corn Milling
UTM spatial coordinates with NAD83 datum	18T 470334m E 4959196m N
Legal name of Canadian parent company	Ingredion Canada Corporation
Street and mailing address of parent company	1600-90 Burhamthorpe Road West Mississauga, Ontario, L5B 0H9
Percentage ownership of facility	100

Toxic Substance Plan Information

Name and CAS numbers of toxic substance for this report	Sulphur Dioxide, CAS 7446-09-5
Name and CAS numbers of other substances created or used at facility	Hydrochloric Acid, CAS 7647-01-0 Ammonia (total), CAS NA-16 Carbon Monoxide, CAS 630-08-0 Hydrogen Sulphide, CAS 7783-06-4 Total Reduced Sulphur, CAS NA-M14 Nitrogen oxides (expressed as NO ₂), CAS 11104-93-1 Phosphorus (total), CAS NA-22 Total Particulate, CAS NA-M08 PM10 - Particulate <= 10 micron, CAS NA-M09 PM2.5 Particulate <= 2.5 micron, CAS NA-M10
Date of most recent plan	18-Dec-13
Objectives of plan, and targets	Ingredion has a long history of safe and responsible use of combustion fuels and corn milling solutions used in Cardinal. And has already invested significant resources to reduce excess usage of fuels that, when combusted, create and emit toxic substances including SO ₂ . Through this plan, Ingredion is committed to reducing excess creation and emission of SO ₂ . This will be accomplished by assessing potential reductions through material or feedstock substitution, product design or reformulation, equipment or process modification, spill and leak prevention, on-site reuse or recycling, improved inventory management or purchasing techniques, and training or improved operating procedures.
Summarize any amendments to the plan	No plan amendments have been made

**2016 Annual Public Reporting for Toxic Substances
Sulphur Dioxide**

Summarize the steps taken during the reporting period towards achieving the objectives of the plan	Steps for 2 reduction options were implemented in previous years. A third option was investigated but not approved for implementation
Summarize the effectiveness of the steps taken during the reporting period	Steps for 2 reduction options were implemented in previous years. A third option was investigated but not approved for implementation
Review implementation progress and timelines set out in the plan	Steps for 2 reduction options were implemented in previous years. A third option was investigated but not approved for implementation
Summarize actions taken in this reporting year that were additional to the steps described in the plan	There were no additional actions taken for the 2016 reporting year

Annual Reporting Metrics

Sulphur Dioxide	Tonne or Range		On-site Releases, tonne			Disposals, tonne		Off-Site Recycled, tonne
	Used	Created	Air	Land	Water	On-Site	Off-Site	
Previous Year	0	100-1000	131.443	0	0	0	0	0
Current Year	0	100-1000	132.254	0	0	0	0	0
Difference	0	0-1	0.811	0	0	0	0	0
Percent Difference	0%	0-1%	0.6%	0%	0%	0%	0.0%	0%
Reductions in plan	0	0	0	0	0	0	0	0
Reductions outside plan	0	0	0	0	0	0	0	0
Total Reductions	0	0	0	0	0	0	0	0
Percent Reductions	0%	0%	0%	0%	0%	0%	0%	0%
Rationale for changes	No significant changes							

Certification

As of June 1, 2017, I, Lee Whitley, certify that I have read the report on the toxic substance reduction plan for the toxic substance referred to below 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.

Sulphur Dioxide



Lee Whitley, Plant Manager

**2016 Annual Public Reporting for Toxic Substances
Hydrochloric Acid**

Facility and Contact Information

Facility NPRI No.	488
Facility MOE No. if assigned	8405
Company legal and trade names of owner and operator of the facility	Ingredion Canada Corporation
Facility street and mailing address	4040 James Street Cardinal, Ontario, K0E 1E0
Name, position, telephone no. of facility public contact	Lee Whitley, Plant Manager 613-657-3131
No. of full-time employee equivalent	200
2, 4, and 6 digit NAICS Codes	31-33 Manufacturing 3112 Grain & Oilseed Milling 311221 Wet Corn Milling
UTM spatial coordinates with NAD83 datum	18T 470334m E 4959196m N
Legal name of Canadian parent company	Ingredion Canada Corporation
Street and mailing address of parent company	1600-90 Burhamthorpe Road West Mississauga, Ontario, L5B 0H9
Percentage ownership of facility	100

Toxic Substance Plan Information

Name and CAS numbers of toxic substance for this report	Hydrochloric Acid, CAS 7647-01-0
Name and CAS numbers of other substances created or used at facility	Ammonia (Total) CAS NA-16 Phosphorus (Total), CAS NA-22 Sulphur Dioxide, CAS 7446-09-5 Hydrogen Sulphide, CAS 7783-06-4 Total Reduced Sulphur, CAS NA-M14 Carbon Monoxide, CAS 630-08-0 Nitrogen oxides (expressed as NO ₂), CAS 11104-93-1 Total Particulate, CAS NA-M08 PM10 - Particulate <= 10 micron, CAS NA-M09 PM2.5 Particulate <= 2.5 micron, CAS NA-M10
Date of most recent plan	December 17, 2012
Objectives of plan, and targets	Ingredion has a long history of safe and responsible use of hazardous materials in Cardinal, and has already invested significant resources to reduce the use of toxic and hazardous materials including HCl. Going forward, Ingredion is committed to reducing the amount of HCl used. This will be accomplished by assessing potential reductions through material or feedstock substitution, product design or reformulation, equipment or process modification, spill and leak prevention, on-site reuse or recycling, improved inventory management or purchasing techniques, and training or improved operating procedures.
Summarize any amendments to the plan	No plan amendments have been made
Summarize the steps taken during the reporting period towards achieving the objectives of the plan	Steps for 1 reduction option was implemented in previous years. A second option was investigated but not approved for implementation

Summarize the effectiveness of the steps taken during the reporting period	Steps for 1 reduction option was implemented in previous years. A second option was investigated but not approved for implementation
Review implementation progress and timelines set out in the plan	Steps for 1 reduction option was implemented in previous years. A second option was investigated but not approved for implementation
Summarize actions taken in this reporting year that were additional to the steps described in the plan	There were no additional actions taken for the 2016 reporting year

Annual Reporting Metrics

Hydrochloric Acid	Tonne or Range			On-site Releases, tonne			Disposals, tonne		Off-Site Recycled, tonne
	Used	Created	In Product	Air	Land	Water	On-Site	Off-Site	
Previous Year	1,000-10,000	0	0	1.636	0	0	0	0	0
Current Year	1,000-10,000	0	0	1.583	0	0	0	0	0
Difference	10-100	0	0	-0.053	0	0	0	0	0
Percent Difference	1-10%	0%	0%	-3.2%	0%	0%	0%	0%	0%
Reductions in plan	0	0	0	0	0	0	0	0	0
Reductions outside plan	0	0	0	0.053	0	0	0	0	0
Total Reductions	0	0	0	0.053	0	0	0	0	0
Percent Reductions	0%	0%	0%	3.24%	0%	0%	0%	0%	0%
Rationale for changes	No significant changes								

Certification

As of June 1, 2017, I, Lee Whitley, certify that I have read the report on the toxic substance reduction plan for the toxic substance referred to below 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.

Hydrochloric Acid

Lee Whitley, Plant Manager

**2016 Annual Public Reporting for Toxic Substances
Hydrogen Sulphide and Total Reduced Sulphur**

Facility and Contact Information

Facility NPRI No.	488
Facility MOE No. if assigned	8405
Company legal and trade names of owner and operator of the facility	Ingredion Canada Corporation
Facility street and mailing address	4040 James Street Cardinal, Ontario K0E 1E0
Name, position, telephone no. of facility public contact	Lee Whitley, Plant Manager 613-657-3131
No. of full-time employee equivalent	200
2, 4, and 6 digit NAICS Codes	31-33 Manufacturing 3112 Grain & Oilseed Milling 311221 Wet Corn Milling
UTM spatial coordinates with NAD83 datum	18T 470334m E 4959196m N
Legal name of Canadian parent company	Ingredion Canada Corporation
Street and mailing address of parent company	1600 - 90 Burnhamthorpe Road West Mississauga, Ontario, L5B 0H9
Percentage ownership of facility	100

Toxic Substance Plan Information

Name and CAS numbers of toxic substance for this report	Hydrogen Sulphide CAS 7783-06-4 Total Reduced Sulphur, CAS NA-M14
Name and CAS numbers of other substances created or used at facility	Hydrochloric Acid, CAS 7647-01-0 Ammonia (total), CAS NA-16 Nitrogen oxides (expressed as NO2), CAS 11104-93-1 Carbon Monoxide, CAS 630-08-0 Sulphur Dioxide, CAS 7446-09-5 Phosphorus (total), CAS NA-22 Total Particulate, CAS NA-M08 PM10 - Particulate <= 10 micron, CAS NA-M09 PM2.5 Particulate <= 2.5 micron, CAS NA-M10
Date of most recent plan	16-Dec-13
Objectives of plan, and targets	Ingredion's main business is producing valuable products from corn and has already invested significant resources to reduce waste and excess chemical usage. Through this plan, Ingredion is committed to reducing excess creation of H2S and TRS. This will be accomplished by assessing potential reductions through material or feedstock substitution, product design or reformulation, equipment or process modification, spill and leak prevention, on-site reuse or recycling, improved inventory management or purchasing techniques and training or improved operating procedures.
Summarize any amendments to the plan	No plan amendments have been made
Summarize the steps taken during the reporting period towards achieving the objectives of the plan	Steps for 3 reduction options were implemented in previous years. A fourth option was investigated but not approved for implementation
Summarize the effectiveness of the steps taken during the reporting period	Steps for 3 reduction options were implemented in previous years. A fourth option was investigated but not approved for implementation

**2016 Annual Public Reporting for Toxic Substances
Hydrogen Sulphide and Total Reduced Sulphur**

Review implementation progress and timelines set out in the plan	Steps for 3 reduction options were implemented in previous years. A fourth option was investigated but not approved for implementation
Summarize actions taken in this reporting year that were additional to the steps described in the plan	There were no additional actions taken for the 2016 reporting year

Annual Reporting Metrics

Hydrogen Sulphide	Tonne or Range			On-site Releases, tonne			Disposals, tonne		Off-Site Recycled, tonne
	Used	Created	In Product	Air	Land	Water	On-Site	Off-Site	
Previous Year	0	10-100	0	0.906	0	0	0	0	0
Current Year	0	10-100	0	0.915	0	0	0	0	0
Difference	0	0-1	0	0.009	0	0	0	0	0
Percent Difference	0%	0-1%	0%	0.99%	0%	0%	0%	0%	0%
Reductions in plan	0	0	0	0.000	0	0	0	0	0
Reductions outside plan	0	0	0	0.000	0	0	0	0	0
Total Reductions	0	0	0	0.000	0	0	0	0	0
Percent Reductions	0%	0%	0%	0.00%	0%	0%	0%	0%	0%
Rationale for changes	No significant change								

Total Reduced Sulphur	Tonne or Range			On-site Releases, tonne			Disposals, tonne		Off-Site Recycled, tonne
	Used	Created	In Product	Air	Land	Water	On-Site	Off-Site	
Previous Year	0	10-100	0	0.907	0	0	0	0	0
Current Year	0	10-100	0	0.915	0	0	0	0	0
Difference	0	0-1	0	0.008	0	0	0	0	0
Percent Difference	0%	0-1%	0%	0.88%	0%	0%	0%	0%	0%
Reductions in plan	0	0	0	0.000	0	0	0	0	0
Reductions outside plan	0	0	0	0.000	0	0	0	0	0
Total Reductions	0	0	0	0.000	0	0	0	0	0
Percent Reductions	0%	0%	0%	0.00%	0%	0%	0%	0%	0%
Rationale for changes	No significant change								

Certification

As of June 1, 2017, I, Lee Whitley, certify that I have read the report on the toxic substance reduction plan for the toxic substance referred to below 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.

Hydrogen Sulphide
Total Reduced Sulphur



Lee Whitley, Plant Manager