

Table A.1

**Administrative Information  
Raytheon ELCAN Optical Technologies  
Midland, Ontario**

**1 Identification of Toxics Reduction Act Applicable Substances**

1.1	Substance	Acetone
	CAS #	67-64-1
1.2	Substance	Total Selenium
	CAS #	NA-12
1.3	Substance	Volatile Organic Compounds
	CAS #	NA - M16
1.4	Substance	Ethanol
	CAS #	64-17-5

**2 Facility Identification, Site Address, Co-ordinates and Employees**

2.1	Facility NPRI ID	7357
2.2	Facility Reg. 127 ID	
2.3	Facility Owner/Operator Legal Name	Raytheon ELCAN Optical Technologies
2.4	Facility Owner/Operator Trade Name	Raytheon ELCAN Optical Technologies
2.5	Facility Street Address	450 Leitz Road, Midland, Ontario, L4R 5B8
2.6	Facility Mailing Address	
2.7	UTM Co-ordinates (NAD83)	
2.8	Number of (Eq.) Full-time Employees	630

**3 Industrial Classification Codes**

3.1	Two-digit NAICS Code	33
3.2	Four-digit NAICS Code	3333
3.3	Six-digit NAICS Canada Code	333310

**4 Identification of Canadian Parent Company**

4.1	Percentage Owned	1
4.2	Legal Name	Raytheon Canada Ltd.
4.3	Mailing Address	360 Albert St. Suite 1640, Ottawa, Ontario, K1R 7X7

**5 Facility Public Contact**

5.1	Title (Mr./Ms./etc)	Mr.
5.2	First Name	Michael
5.3	Last Name	Reid
5.4	Position	Manager of Environmental Health and Safety
5.5	Phone	(705) 528-7133

Table A.2

Toxics Reduction Act Compounds Public Reporting Ranges  
 Raytheon ELCAN Optical Technologies  
 Midland, Ontario

Compound	Units	CAS No.	Amount Used	Amount Created	Air Release Estimate	Amount Disposed	Amount Transferred	Amount Contained in Product
Reg. 127 Acetone	(tonnes)	67-64-1	>10 - 100	0	>1 - 10	>1 - 10	0	0
Part 1 Total Selenium	(kg)	NA-12	>100 - 1,000	0	>1 - 10	>10 - 100	0	0
Part 4 Volatile Organic Compounds	(tonnes)	NA-M16	>10 - 100	>0 - 1	>10 - 100	0	0	0
Part 5 Ethanol	(tonnes)	64-17-5	NR	NR	NR	NR	NR	NR

Note:

- (1) Ranges
- >0 - 1
- >1 - 10
- >10 - 100
- >100 - 1000

**Table A.3**  
**Summary of Reasons for Change for Toxic Substance Amounts**  
**Raytheon ELCAN Optical Technologies**  
**Midland, Ontario**

Compound	CAS No.	Year	Units	Amount	Amount Used		Description of Reason for Change
					Change from 2014-2015 (Quantity)	(%)	
Reg. 127 Acetone	67-64-1	2014	(tonne)	>10 - 100	>1 - 10	↓ 10 - 100 %	Decrease in solvent usage
		2015	(tonne)	>10 - 100			
Part 1 Total Selenium	NA-12	2014	(kg)	>100 - 1,000	>100 - 1,000	↓ 10 - 100 %	Decrease in usage of zinc selenide lenses
		2015	(kg)	>100 - 1,000			
Part 4 Volatile Organic Compounds	NA-M16	2014	(tonne)	>10 - 100	>1 - 10	↑ 10 - 100 %	Increase in painting and other VOC releases
		2015	(tonne)	>10 - 100			
Part 5 Ethanol	64-17-5	2014	(tonne)	>1 - 10	>1 - 10	↓ 10 - 100 %	All ethanol is recycled on-site.
		2015	(tonne)	NR			
<b>Amount Created</b>							
Compound	CAS No.	Year	Amount	Change from 2014-2015		Description of Reason for Change	
				Change from 2014-2015 (Quantity)	(%)		
Reg. 127 Acetone	67-64-1	2014	(tonne)	0	0	0.0%	No change
		2015	(tonne)	0			
Part 1 Total Selenium	NA-12	2014	(kg)	0	0	0.0%	No change
		2015	(kg)	0			
Part 4 Volatile Organic Compounds	NA-M16	2014	(tonne)	>0 - 1	>0 - 1	↑ 10 - 100 %	Increase in natural gas combustion
		2015	(tonne)	>0 - 1			
Part 5 Ethanol	64-17-5	2014	(tonne)	0	0	0.0%	No change
		2015	(tonne)	0			

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Midland, Ontario

Compound	CAS No.	Year	Amount	Air Release		Description of Reason for Change
				Amount	Change from 2014-2015 (%)	
Reg. 127 Acetone	67-64-1	2014	(tonne)	>1 - 10	>1 - 10	Decrease in solvent usage
		2015	(tonne)	>1 - 10	↓ 10 - 100 %	
Part 1 Total Selenium	NA-12	2014	(kg)	>1 - 10	>1 - 10	Decrease in usage of zinc selenide lenses
		2015	(kg)	>1 - 10	↓ 10 - 100 %	
Part 4 Volatile Organic Compounds	NA-M16	2014	(tonne)	>10 - 100	>1 - 10	Increase in painting and other VOC releases
		2015	(tonne)	>10 - 100	↑ 10 - 100 %	
Part 5 Ethanol	64-17-5	2014	(tonne)	>1 - 10	>1 - 10	All ethanol is recycled on-site.
		2015	(tonne)	NR	↓ 10 - 100 %	
Compound	CAS No.	Year	Amount	Amount Disposed		Description of Reason for Change
				Amount	Change from 2014-2015 (%)	
Reg. 127 Acetone	67-64-1	2014	(tonne)	>1 - 10	>1 - 10	No significant change
		2015	(tonne)	>1 - 10	↑ 1 - 10 %	
Part 1 Total Selenium	NA-12	2014	(kg)	>10 - 100	>10 - 100	Increase in selenide disposals
		2015	(kg)	>10 - 100	↑ 10 - 100 %	
Part 4 Volatile Organic Compounds	NA-M16	2014	(tonne)	0	0	No change
		2015	(tonne)	0	0.0%	
Part 5 Ethanol	64-17-5	2014	(tonne)	0	0	No change
		2015	(tonne)	0	0.0%	

**Table A.3**  
**Summary of Reasons for Change for Toxic Substance Amounts**  
**Raytheon ELCAN Optical Technologies**  
**Midland, Ontario**

Compound	CAS No.	Year		Amount	Amount Transferred Change from 2014-2015 (%)		Description of Reason for Change
		2014	2015		2014	2015	
Reg. 127 Acetone	67-64-1	(tonne)	0	0	0	0.0%	No change
		(tonne)	0	0	0	0.0%	
Part 1 Total Selenium	NA-12	(kg)	0	0	0	0.0%	No change
		(kg)	0	0	0	0.0%	
Part 4 Volatile Organic Compounds	NA-M18	(tonne)	0	0	0	0.0%	No change
		(tonne)	0	0	0	0.0%	
Part 5 Ethanol	64-17-5	(tonne)	0	0	0	0.0%	No change
		(tonne)	0	0	0	0.0%	
Compound	CAS No.	Year		Amount	Amount Contained in Product Change from 2014-2015 (%)		Description of Reason for Change
		2014	2015		2014	2015	
Reg. 127 Acetone	67-64-1	(tonne)	0	0	0	0.0%	No change
		(tonne)	0	0	0	0.0%	
Part 1 Total Selenium	NA-12	(kg)	> 100 - 1,000	> 10 - 100	> 100 - 1,000	↓ 10 - 100 %	Decrease in usage of zinc selenide lenses
		(kg)	> 10 - 100	> 100 - 1,000	> 100 - 1,000	> 10 - 100 %	
Part 4 Volatile Organic Compounds	NA-M18	(tonne)	0	0	0	0.0%	No change
		(tonne)	0	0	0	0.0%	
Part 5 Ethanol	64-17-5	(tonne)	0	0	0	0.0%	No change
		(tonne)	0	0	0	0.0%	

Notes:  
 Typical Reasons for Change in provided in the following list:  
 A - Changes in Production Levels  
 B - Changes in Estimation Methods  
 C - Pollution Prevention Activities  
 D - Changes in On-Site Treatment  
 E - Changes in Disposal  
 F - Changes in Off-Site Transfers for Recycling  
 G - Other (specify in comments)  
 H - No Significant Change (< 10%) or No Change  
 I - Not Applicable (First year reporting this substance)

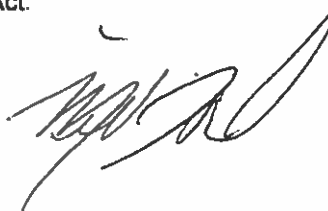
**Table A.4**

**Toxics Reduction Act Report Copy of Certification  
Raytheon ELCAN Optical Technologies  
Midland, Ontario**

**Certification - Subsection 26 (4)**

As of June 1, 2016, I, Michael Reid, certify that I have read the reports on the toxic substance reduction plans for the toxic substances referred to below 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 that Act.

Acetone  
Total Selenium  
Volatile Organic Compounds  
Ethanol

A handwritten signature in black ink, appearing to read "Michael Reid", is written over a faint, illegible stamp or watermark.