

# 2016 Annual Toxic Reduction Public Report

Reporting Under Toxics Reduction Act Reg  
455/09

Sensor Technology Ltd.

### Introduction:

Sensor Technology Ltd. is a manufacturer of piezoelectric ceramics. The lead is used in raw powder and mixed and processed through a series of mixing, wetting, drying and milling in order to make the powder with the correct properties for the end use. Once the powder is made it is then pressed into shapes with the correct dimensions and then it is heated and the ceramic is stabilized. No toxic substance is created during the process, we are using the smallest amount of Lead required to give the ceramics their piezoelectric properties. Sensor Technology is working on a long-term project that is trying to qualify a lead free equivalent.

### General Information:

Deena Osborn – QHSE Manager ([dosborn@sensortech.ca](mailto:dosborn@sensortech.ca))

Employees: 35

NPRI Identification Number - 0000010283

NAICS code: 334410

Co-Ordinates: (UTM Zone 17, UTM Easting 560687, UTM Northing 4927037)

Target Substance for reduction – NA – 08, Lead (and its compounds)

Licence Number of Planner/Certifier: TSRP0037 – Rationale for plan, lead is being used in the smallest amount required to give the properties needed for product.

### Facility's Approach to Toxic Substance Accounting:

Lead Used: 1000 to 10000 kgs

Lead Created: 0 kgs

Lead Contained in Product: 1000 to 10000 kgs

Sensor Technology Ltd. looks at the amount of raw lead used in the manufacture of the product; the amount of waste due to production efficiencies and with mass balance determines the amount of lead contained in the waste disposed of.

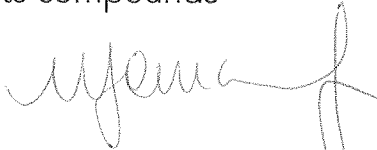
## Certifications

Certification of the Highest Ranking Employee; Niru Somayajula

As of May 31, 2017, I, Niru Somayajula, certify that I have read the toxic substance reduction plans for the toxic substance referred to below and am familiar with its contents, and to my knowledge the plans are factually accurate and comply with the Toxics Reduction Act, 2009 and the Ontario Regulation 455/09 (General) made under that act.

Lead and its compounds

Signed:



Dated:

May 31, 2017.

Certification of the Certified Planner

As of December 14, 2012, I, Peter Robertson, certify that I am familiar with the process at Sensor Technology Ltd, 20 Stewart Road, Collingwood, Ontario, that use or create the prescribed toxic substance, lead, and that I agree with the estimates as referenced to in subparagraphs 7 iii, iv, and v of subsection 4(1) of the Toxics reduction Act, 2009, and as set out within the said plan of December 14, 2012, and that the plan complies with that Act and Ontario Regulation 455/09 (General), made under that act.

Signed



Dated December 15, 2012

Lead and its compounds – December 15, 2012

### Objectives and Targets:

To reduce the amount of waste generated in the machining of pressed shapes by 1% annually by improving the dies used to reduce the amount of material that needs to be removed

Progress:

Target not met, an increase was noted due to change to more efficient production processes.

Year	Substance	Amount Used	Change in Waste
2012	Lead	1000 to 10000 kgs	Baseline
2013	Lead	1000 to 10000 kgs	+<10%
2014	Lead	1000 to 10000 kgs	+>10%
2015	Lead	1000 to 10000 kgs	+>10%
2016	Lead	1000 to 10000 kgs	+>10%

All changes are due to manufacturing process changes in the industry from pressing shapes and machining to pressing blocks and core drilling for more accurate and consistent properties of the ceramics.

Implementation of Plan:

More parts are being made by pressing blocks and using other machining methods to create the shapes increasing efficiency but making the tracking of original plan hard to quantify. Toxic Reduction Plan will be adjusted in next reporting year to reflect current process and steps required to reduce lead disposal will be defined.

Certification:

As of May 31, 2017, I, Deena Osborn, certify that I have read the reports on the toxic substance reduction plans for the toxic substance referred to below and am familiar with their contents, and to my knowledge the information contained in the reports are factually accurate and the reports comply with the Toxics Reduction Act, 2009, Reg 455/09 (General) made under that Act.

Lead and its compound

Signed: 

Dated: may 31, 2017