

HANWHA L&C CANADA
2860 INNOVATION DRIVE, LONDON, ONTARIO, N6M 0C5

TOXICS REDUCTION ACT
TOXIC SUBSTANCE REDUCTION PLAN SUMMARIES
2013

REPORT PREPARED BY:
O2E INC.

REPORT PREPARED FOR:
HANWHA L&C CANADA

MARCH 31, 2014

LONDON

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CANADA



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1. PLAN SUMMARY – ACETONE

Name and CASRN of Substance	Acetone	67-64-1
Substances for which other plans have been prepared	Styrene	100-42-5

1.1 Basic Facility Information

Basic facility information has been included in Section 3 of this document.

1.2 Toxic Reduction Policy Statement of Intent

Hanwha L&C | Surfaces is committed to being a pro-environment company creating eco-friendly products for the marketplace. They focus their product research and development, manufacturing approach and recycling efforts toward demonstrating how they value the environment and wish to protect its future for generations to come. From recycling 100% of the water used in the production process, installing an air purification system to remove pollutants from the air to a system that collects all dust within the plant, Hanwha strives to ensure a healthy workplace along with an eco-conscious approach in product development, waste management and conservation efforts. Toxic substance reduction will be an ongoing effort at Hanwha, and they will continue to monitor technological advancements to ensure that options that are both technologically and financially viable are implemented at their facility.

1.3 Reduction Objectives

The reduction of toxic substance use, creation and releases is a priority for Hanwha forming part of their sustainability programs and EMS. Their goal is to reduce the use and release of Acetone where technically and economically feasible. No technically and economically feasible reduction options for reducing this substance were identified. Hanwha will continue to monitor new technological advancements to ensure that reduction options that are both technologically and financially viable are implemented at their facility.

1.4 Description of Substance

Resins are cleaned from external parts of machinery and equipment using acetone. The acetone is dispensed and absorbed in white rags and used for the facility's production cleaning. Waste rags are stored in sealed drums for disposal off-site. A portion of the acetone used by the facility's cleaning operations is recovered during the cleaning operations. Recovered waste acetone is transferred to 55 gallon drums for shipment to a solvent recycling facility. The Hanwha facility currently recycles approximately 16-17 % of the total acetone used annually.

1.5 Toxic Substance Reduction Option to be Implemented

There are currently no technically and economically feasible options identified for implementation to reduce the use and release of Acetone.

1.6 Plan Summary Statement

This plan accurately reflects the content of the toxic substance reduction plan for Acetone prepared on behalf of Hanwha, and dated March 31, 2014.

1.7 Copy of Plan Certification

A copy of the plan certification is presented in Section 4 of this document.

2. PLAN SUMMARY – STYRENE

Name and CASRN of Substance	Styrene	100-42-5
Substances for which other plans have been prepared	Acetone	67-64-1

2.1 Basic Facility Information

Basic facility information has been included in Section 3 of this document.

2.2 Toxic Reduction Policy Statement of Intent

Hanwha L&C | Surfaces is committed to being a pro-environment company creating eco-friendly products for the marketplace. They focus their product research and development, manufacturing approach and recycling efforts toward demonstrating how they value the environment and wish to protect its future for generations to come. From recycling 100% of the water used in the production process, installing an air purification system to remove pollutants from the air to a system that collects all dust within the plant, Hanwha strives to ensure a healthy workplace along with an eco-conscious approach in product development, waste management and conservation efforts. Toxic substance reduction will be an ongoing effort at Hanwha, and they will continue to monitor technological advancements to ensure that options that are both technologically and financially viable are implemented at their facility.

2.3 Reduction Objectives

The reduction of toxic substance use, creation and releases is a priority for Hanwha forming part of their sustainability programs and EMS. Their goal is to reduce the use and release of Styrene where technically and economically feasible. No technically and economically feasible reduction options for reducing this substance were identified. Hanwha will continue to monitor new technological advancements to ensure that reduction options that are both technologically and financially viable are implemented at their facility. It is important to note that Styrene is an integral component in the resin used to manufacture the large-sized engineered stone slabs.

2.4 Description of Substance

Styrene is a component of the resin used to produce the solid surface materials made by the facility. Resin containing styrene is used as a binding agent and is mixed with colorants, sand and stone aggregates to produce large-sized engineered stone slabs. The styrene acts as both a diluent for effective viscosity control so that the dry ingredients can be wetted to serve as a cross linking agent and promote the ease of cross linking of the resin. Materials, like styrene, that simultaneously accomplish both of these purposes are called “reactive diluents.”

2.5 Toxic Substance Reduction Option to be Implemented

There are currently no technically and economically feasible options identified for implementation to reduce the use and release of Styrene.

2.6 Plan Summary Statement

This plan accurately reflects the content of the toxic substance reduction plan for Styrene, prepared on behalf of Hanwha, and dated March 31, 2014.

2.7 Copy of Plan Certification

A copy of the plan certification is presented in Section 4 of this document.

3. BASIC FACILITY INFORMATION

Facility Identification and Site Address		
Company Name	Hanwha L&C Canada	
Facility Name	Hanwha L&C Canada	
Facility Address	Physical Address:	Mailing Address
	2860 Innovation Drive London Ontario N6M 0C5	2860 Innovation Drive London Ontario N6M 0C5
Spatial Coordinates (UTM)	489150.61 (Easting)	4756562.38 (Northing)
Datum	WGS84	
Number of Employees	94	
NPRI ID	11764	
ON MOE ID	11764	
Parent Company Information		
Parent Company Name & Address	Not Applicable	
Percent Ownership	Not Applicable	
Primary North American Industrial Classification System Code (NAICS)		
2 Digit NAICS Code	31-33 Manufacturing	
4 Digit NAICS Code	3261 – Plastic Product Manufacturing	
6 Digit NAICS Code	326198 – All Other Plastic Product Manufacturing	
Company Contact Information		
Facility Public Contact	Stacey Smith Environmental, Health & Safety Specialist	Contact Address
	stacey.smith@hanwhacanada.com	Hanwha L&C Canada 2860 Innovation Drive London Ontario N6M 0C5
	Phone: 519-951-3138	
	Fax: 519-457-7808	

4. COPY OF PLAN CONFIRMATION

Rationale Statement – Highest Ranking Employee

Submission of the required plan summaries and certification statements via the Environment Canada Single Window Information Manager (SWIM) system has been delayed as a result of the investigation and assessment of reduction options taking longer than anticipated to complete. Rather than compromise the integrity of the report and results by rushing the assessment to meet the deadline, we have chosen to take the time to properly evaluate all options we believe to be currently available for our operations. As such, submission of the required elements of the toxic substance reduction plans could not be made by the regulatory deadline.


Confirmation by the Highest Ranking Employee

As of April 2, 2014, I, (Michael) Kyong Kwan Kim, confirm that I have read the toxic substance reduction plans for the toxic substances referred to below and am familiar with their contents, and to my knowledge the plans are factually accurate and, with the exception of the regulatory deadline, comply with the Toxics Reduction Act, 2009 and Ontario Regulation 455/09 (General) made under that Act.

Toxic Substances:

Acetone

Styrene



(Michael) Kyong Kwan Kim
Plant Manager
Hanwha L&C Canada

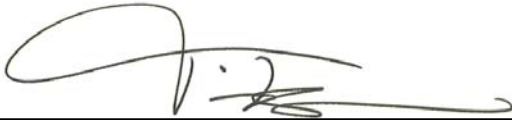
Confirmation by Licensed Planner

As of April 2, 2014, I, Tim Logan confirm that I am familiar with the processes at Hanwha L&C Canada that use or create the toxic substances 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 plans dated March 31, 2014 and that the plans, with the exception of the regulatory deadline, comply with that Act and Ontario Regulation 455/09 (General) made under that Act.

Toxic Substances:

Acetone

Styrene



Tim Logan (License No. TSRP0003)
President
O2E Inc. Environmental Consultants