Description of the Toxic Substances Found at AkzoNobel

There are four Phase 1 toxic substances that require the development of a toxic substance reduction plan based on the criteria set out in the Toxics Reduction Act, 2009 and Ontario Regulation 455/09.

These substances are:

Ethylbenzene*	100-41-4
Methanol	67-56-1
Toluene	108-88-3
Xylene*	1330-20-7

These are organic solvent used as diluents in the manufacture of organic coatings. The site doesn't create or destroy any of these substances. As these compounds are used as formulating components, a single plan will be used to address their reduction. The compound ethyl benzene is treated as xylene as the former is one of four compounds found in xylene.

Statement of Intent

AkzoNobel sells liquid coatings to the wood market. The purpose of these coatings is to protect and enhance the wood substrate. Ontario has declared certain solvents that are used in organic coatings as 'toxic' substances. The use of these solvents is dictated by market demands which ultimately determine the usage level. AkzoNobel manufactures a variety of liquid coatings including ultraviolet cured coatings and water borne coatings that minimize the use of solvents altogether. AkzoNobel cannot make unilateral changes to its formulations without the consent of its customer base. As the market adapts towards these non-solvent based coatings or as it trends away from the use of the toxic solvents, AkzoNobel is there to help its customers to make this transition.

In the development of any new coatings, these solvents will be reviewed to ascertain whether their use is justified. Preference will be given to raw materials that do not use the 'toxic' solvents as diluents. If a supplier offers a resin in both toluene and n-butyl acetate, the resin offered in n-butyl acetate will be selected.

AkzoNobel is well aware of its commitments as a steward and takes steps to handle these solvents in a responsible manner. It is in the best interest of AkzoNobel from both a business and environmental perspective to minimize any releases of these solvents.

Objective

AkzoNobel, being a technology leader in wood coatings, takes pride in providing alternatives for its customer base. In the 2012 calendar year, several of its customers have started a transition towards alternative coatings such as water based coatings. AkzoNobel will seek to lower its own demand of these toxics by using alternative blends of resins that contain other solvents, when feasible.

Target

No target reduction amount and timeline can be set as the plan depends on the reaction of the market from both the supply and demand side.

Basic Facility Information

Company Name:	Akzo Nobel Wood Coatings Ltd.
Site Address:	155 Rose Glen Road North
	Port Hope, ON, L1A 3V6
Spatial Co-ordinates:	Latitude 43.969593
	Longitude -78.284173
	Datum WGS84
Number of Full Time Employees:	80
NPRI ID:	5619
O.Reg 127 ID:	6213
Two Digit NAICS Code:	32
Four Digit NAICS Code:	3255
Six Digit NAICS Code:	325510 Paint and Coating Manufacturing
Public Contact:	Frank Jossinet, Operations Manager (905)885-6388
Technical Contact:	Frank Jossinet, Operations Manager (905)885-6388
Highest Ranking Employee:	Paul Macko, General Manager (905)885-6388
Person who prepared the plan:	Frank Jossinet, Operations Manager (905)885-6388
Planner responsible for making recommendations:	Scott Manser, Senior Project Manager Ortech Environmental

Options to be Implemented

1) Product Substitution

a. The R&D conducted at the facility will continue to focus on water based and solvent free coatings as well as on transitioning customers that are looking for ways to reduce or eliminate the use of toxic solvents.

b. Preference will be given to selecting raw materials for use that are free of toxics during the development stages.

2) Training or Improved Operating Practices

a. To look for in-house cleaning solutions that are not solvent based. This would look at replacing the use of solvents as the primary cleaning vehicles for surfaces that are open such as floors and walls.

b. To continue engaging employees into developing practices that minimize the occurrence of any unwanted event that could release toxic or other substances.

Plan Summary Statement

This plan summary accurately reflects the content of the toxic substance reduction plan for the substances listed below:

Ethyl Benzene, cas#100-41-4	Methanol, cas#67-56-1
Toluene, cas#108-88-3	Xylene, cas#1330-20-7

Certification by Highest Ranking Employee

As of December 21, 2012 I, Paul Macko, certify that I have read the toxic substance reduction plan for the toxic substances referred to below and I am familiar with its contents, and to my knowledge the plan is factually accurate and complies with the Toxics Reduction Act, 2009 and Ontario Regulation 455/09 (General) made under that Act.

_____

Paul Macko
Canadian General Manager
AkzoNobel Wood Coatings

Option 1: Transition Customers to Non-Toxic Products

Option(s)	Estimate of Reduction kg / (%)										
	Used	Created	On-Site Releases			Disposal		Transferred (recycling)	Contained in product	Transformed	Destroyed
			Air	Land	Water	On-Site	Off-Site				
Ethylbenzene*	2,725 5%		41 5%					0	2,684 5%		
Methanol	8,097 5%		120 5%					0	7,842 5%		
Toluene	30,914 5%		465 5%					0	29,364 5%		
Xylene*	11,240 5%		165 5%					0	10,665 5%		

Baseline (kgs)	Used	Created	On-Site Releases			Disposal		Transferred (recycling)	Contained in product	Transformed	Destroyed
			Air	Land	Water	On-Site	Off-Site				
Ethylbenzene*	54,502		820						53,682		
Methanol	161,935		2,400					2,700	156,835		
Toluene	618,288		9,300					21,700	587,288		
Xylene*	224,802		3,300					8,200	213,302		

Option 2: Improvements to Pot Cleaning

Option(s)	Estimate of Reduction kg / (%)										
	Used	Created	On-Site Releases			Disposal		Transferred (recycling)	Contained in product	Transformed	Destroyed
			Air	Land	Water	On-Site	Off-Site				
Ethylbenzene*											
Methanol								135 5%			
Toluene								1,085 5%			
Xylene*								410 5%			

Baseline (kgs)	Used	Created	On-Site Releases			Disposal		Transferred (recycling)	Contained in product	Transformed	Destroyed
			Air	Land	Water	On-Site	Off-Site				
Ethylbenzene*	54,502		820						53,682		
Methanol	161,935		2,400					2,700	156,835		
Toluene	618,288		9,300					21,700	587,288		
Xylene*	224,802		3,300					8,200	213,302		

Implementation Timeline for Option #1 : Transition Customers to Non-Toxic Products

Step	Description	Estimated Timeline
1	Review of changes with customer	Jun-13
2	Start of Trials	Sep-13
3	Completion of Trials	Jan-14
4	Commercialization of New Formulation	Apr-14

Implementation Timeline for Option #2 : Improve Pot Cleaning

Step	Description	Estimated Timeline
1	Process Change	2013