TOXIC SUBSTANCE REDUCTION PLAN FOR TOLUENE (CAS # 108-88-3)

TALMOLDER INC.

As required by O. Reg. 455/09

Dec 16,2013

This Toxic Reduction Plan Summary accurately reflects the Toxic Substance Reduction Plan Dated December 16, 2013 that was prepared by Talmolder Inc. As required by Ontario Regulation 455/09.

1 STATEMENT OF INTENT AND OBJECTIVE OF THE PLAN

Talmolder Inc. (Talmolder) is a leader in the manufacturing and engineering of specialty molded foam products. During is operation; Talmolder uses Toluene as a component of the in mold coating. It is also contained in the thinner that dilutes these mold coatings for better spraying. Both the in mold coating and the thinner contain Toluene as per the supplier's proprietary formula. Therefore all the use of Toluene at Talmolder is related to the in mold coating process. Talmolder intends to reduce the use of this toxic substance at the facility. This facility does not create Toluene; therefore this plan will not address reducing its creation.

Talmolder will strive to eliminate the use of toxic substances at the facility; this plan will determine the technical and economic feasibility of each option to determine which are viable for implementation at this time

Talmolder has determined that there are two viable options to reduce the use of Toluene. The first one is by replacing solvent-based in mold coating with a water-based coating. The other alternative is to ask suppliers to reformulate the products so that it uses other substances that are less harmful for the environment. These initiatives are already on their way, however some of the products that Talmolder manufactures still require the use of a solvent-based mold coating, for example metallic colors.

Talmolder expects to reduce the use of Toluene by about 75% in 1 year by the said replacement or reformulation of mold coatings and thinner.

2 DESCRIPTION OF TOXIC SUBSTANCE FOUND AT TALMOLDER

Besides Toluene, There are six substances that are contained in Phase II and that require the development of a toxic substance reduction plan based on the criteria set out in the Toxic Reductions Act, 209 and Ontario Regulation 455/09.

These substances are:

Pentane (CAS# 109-66-0)

- Used as blowing agent in the production of polyurethane foams
- The quantification method is mass balance
- Has unique direct and indirect costs

Acetone (CAS# 67-64-1)

- Used as cleaner agent and to flush supply lines
- The quantification method is mass balance
- Has unique direct and indirect costs

Solvent Naphtha Light Aliphatic (CAS# 64742-89-8)

- Used as mold release applied manually
- The quantification method is mass balance
- Has unique direct and indirect costs

Stoddard solvent (CAS# 8052-41-3)

- Used as mold release applied manually
- The quantification method is mass balance
- Has unique direct and indirect costs

Methylenebis (phenylisocyanate) (CAS# 101-68-8)

- Used as reactant in the production of polyurethane foam
- The quantification method is mass balance
- Has unique direct and indirect costs

Polymeric diphenylmethane diisocyanate (CAS# 9016-87-9)

- Used as reactant in the production of polyurethane foam
- The quantification method is mass balance
- Has unique direct and indirect costs

Tolune (CAS# 108-88-3)

- Used in the in mold coating process applied manually
- The quantification method is mass balance
- Has unique direct and indirect costs

3 FACILITY INFORMATION

Facility name	Talmolder Inc.	
Address	325 Limestone Crescent Downsview, Ontario, M3J 2R1 Canada	
NPRI Identification number	5933	
Two Digit NAICS Code	32	Manufacturing
Four Digit NAICS Code	3261	Plastic Product Manufacturing
Six Digit NAICS Code	326150	Urethane and Other Foam Product (except Polystyrene) Manufacturing
Number of Full-time Employees	79	
UTM Spatial Coordinates	UTM Zone	17T
	Easting	621950
	Northing	4848789
	Latitude	43.7823
	Longitude	-79.4851

Datum	1983

3.1 Owner of the facility information

Name:	The Milestone Group
Address:	1600 Steeles Avenue, Suite 200 Concord, Ontario, L4K 4M2
Phone Number	905-738-1838
Fax Number	905-738-3846
E-mail	john.dilorenzo@milestonegroup.ca

3.2 Operator of the Facility Information

Facility name	Talmolder Inc.
Address	325 Limestone Crescent Downsview, Ontario, M3J 2R1 Canada
Phone Number	416-736-1991
Fax Number	416-736-7942
E-mail	harry@talmolder.com

3.3 Highest Ranking Employee at the Facility Information

Name:	Harindran Nionathan
Position	Manager of Operations
Address	325 Limestone Crescent Downsview, Ontario, M3J 2R1 Canada
Phone Number	416-736-1991
Fax Number	416-736-7942
E-mail	harry@talmolder.com

3.4 Parent Company Information

Legal Name:	Global Upholstery Co Inc
Address	560 Supertest Road Downsview, Ontario, M3J 2M6
Percentage of Facility owned	100%
CRA Business Number	100157486

3.5 Toxic Substances for Which Facility Must Prepare Plan

Substance 1 (other plan)	Pentane
CAS Number	109-66-0
Substance 2 (other plan)	Acetone
CAS Number	67-64-1
Substance 3 (other plan)	Solvent Naphtha Light Aliphatic
CAS Number	64742-89-8
Substance 4 (other plan)	Stoddard solvent
CAS Number	8052-41-3
Substance 5 (other plan)	Methylenebis (phenylisocyanate)
CAS Number	101-68-8
Substance 6 (other plan)	Polymeric diphenylmethane diisocyanate
CAS Number	9016-87-9
Substance 7 (this plan)	Toluene
CAS Number	108-88-3

3.6 Plan Contacts

Plan prepared and certified by:	German Rincon
Planner License	TSRP0197
Address	134 Gilley Rd North York, Ontario, M3K 1L9 Canada
Phone Number	416-716-0042
Fax Number	416-352-5768
E-mail	german@ec2consulting.ca
Plan Coordinator	Vadim Bytensky
Address	325 Limestone Crescent Downsview, Ontario, M3J 2R1 Canada
Phone Number	416-736-1991
Fax Number	416-736-7942
E-mail	vadim_bytensky@talmolder.com

4 IDENTIFICATION AND ANALYSIS OF TOXIC SUBSTANCE REDUCTION OPTIONS FOR TOLUENE

This plan will generate possible options for toxic reduction in seven categories: Material or Feedstock Substitution Options, Product Design or Reformulation, Equipment or Process Modification, Spill and Leak Prevention, Onsite Reuse or Recycling, Improved Inventory Management or Purchasing Techniques, Training or Improved Operating Practices.

4.1 Material or Feedstock Substitution Options

4.1.1 Using water based in mold coating instead of solvent based products

Toluene used at Talmolder is part of the in mold coatings and thinners that are purchased from the suppliers. During the last 10 years Talmolder has been phasing out the use of solvent-based in mold coatings and moving towards water based ones. However, some products still require the use of solvent-based coatings, such as metallic colors. The estimated reduction for this type of product would be 100%, since they do not contain any Toluene.

4.1.1.1 Estimated reductions

Since Talmolder has been phasing out its use of solvent-based in mold coating over a period of 10 years, the company is committed to continuing doing so in the future. However, this will depend on how feasible the use of such substances is with the products actually manufactured at the facility, therefore Talmolder can only estimate that each year about a 10% reduction will take place.

Reduction of Toluene: 100 kg.

4.1.2 Ask suppliers to reformulate thinner and in mold coatings by using different solvents, which are better for health and environment

Talmolder has been in the process of requesting its suppliers to reformulate their product so that it contains less harmful solvents for both human health and the environment. At this moment Talmolder estimates that 65% reduction can be achieved by this method in one year.

4.1.2.1 Estimated Reductions

Since Talmolder estimates that 65% reduction can be achieved via this method, the amount reduced is:

Reduction of Toluene: 646 kg.

4.2 Product Design or Reformulation

No options were identified

4.3 Equipment or Process Modification

No options were identified

4.4 Spill and Leak Prevention

No options were identified

4.5 Onsite Reuse or Recycling

No options were identified

4.6 Improved Inventory Management or Purchasing Techniques

No options were identified. Since the company already purchases only the required materials which are used immediately. Also the company is in continuous communication with its providers in order to supply its needs.

4.7 Training or Improved Operating Practices

No options were identified

5 IMPLEMENTATION OF OPTIONS FOR REDUCTION OF THE USE OF TOLUENE AT THE FACILITY

In order to reduce the use of Toluene at the facility, Talmolder has implemented the option described in 4.1.1 and 6.1.2 as Material and Feedstock Substitution. Table 6 presents a summary of the implementation of the options mentioned on 6.1.1 and 6.1.2 for the replacement of the mentioned solvent-based in mold coatings and reformulation of thinner and in mold coating.

Table 6 Description and Timetable for Implementation of Option 6.1.1 and 6.1.2

Step	Description	Estimated Timeline
1	Quotations with different suppliers	1-2 Month
2	Test and presentation by supplier	1-2 Month
3	Equipment Modifications	2-4 Months
4	Inventory Management Optimization	2-4 Months

We can also see in Table 7 a detail of the estimated reduction per such implementations

Table 7 Estimate of Reduction of Toluene by Implementation of Option 6.1.1 and 6.1.2

Type	Estimated Reduction in kg	Anticipated Date
Use	100/646	8-12 months
Creation	0/0	8-12 months
Release to Air	100/646	8-12 months
Release to Water	0/0	8-12 months
Release to Land	0/0	8-12 months
Disposal off-site	0/0	8-12 months
Disposal on-site	0/0	8-12 months
Transfer off-site for recycling	0/0	1-2 years
Contained in Product	0/0	1-2 years

6 PLANNER RECOMMENDATIONS AND RATIONALE

It is clear that Talmolder is committed to the reduction of use of Toxics, however the quality and durability requirements of its products do not allow exploring any other alternative than the ones described in this Toxic Substance Reduction Plan. For that reason I have no recommendations at the moment.

7 PLAN CERTIFICATIONS FOR TOLUENE

7.1 CERTIFICATION BY THE HIGHEST RAKING EMPLOYEE

As of December 16, 2013, I Harindran Nianathan, certify that I have read the toxic substance reduction plan for the toxic substance referred to below and am familiar with its contents, and to my knowledge the plan is factual and accurate and complies with the *Toxics Reduction Act, 2009* and Ontario Regulation 455/09 (General) made under that Act

Toluene

Harindran Nianathan
Manager of Operations
Talmolder Inc.

7.2 CERTIFICATION BY LICENSED PLANNER

As of December 16, 2013, I German Rincon, certify that I am familiar with the processes at Talmolder Inc. That use the toxic substance referred to below, that I agree with the reductions referred to in subparagraphs 7 iii, iv and v of subsection 4 (1) of the *Toxics Reductions Act, 2009* that are set out in the plan dated December 27, 2012 and that the plan complies with that Act and Ontario Regulation 455/09 (General) made under that Act.

Toluene

German Rincon [Planner License # TSRP0197]
General Manager
EC^2 Environmental and Chemical Consulting