

TOXIC SUBSTANCE REDUCTION PLAN
FOR SOLVENT NAPHTHA LIGHT
ALIPHATIC (CAS # 64742-89-8) AND
STODDARD SOLVENT (CAS # 8052-41-3)

TALMOLDER INC.

As required by O. Reg. 455/09

Dec 6,2013

This Toxic Reduction Plan Summary accurately reflects the Toxic Substance Reduction Plan Dated December 6, 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 its operation; Talmolder uses Solvent Naphtha Light Aliphatic and Stoddard Solvent as Mold Release. Talmolder intends to reduce the use of this toxic substance at the facility. This facility does not create Solvent Naphtha Light Aliphatic and Stoddard Solvent; 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

Since Talmolder's production is based on using Solvent Naphtha Light Aliphatic and Stoddard Solvent as mold release, as opposed to using Methylene Chloride, that is considered a Hazardous Air Pollutant, the only options for Talmolder is to reduce the amounts of Solvent Naphtha Light Aliphatic and Stoddard Solvent used by replacing the solvent-based Mold Release with a water-based mold release. This initiative is already on its way, however some of the products that Talmolder manufactures still require the use of a solvent-based mold release.

Talmolder expects to reduce the use of Solvent Naphtha Light Aliphatic and Stoddard Solvent by about 10% in 1 to 2 years by the said replacement of Mold Release.

2 DESCRIPTION OF TOXIC SUBSTANCE FOUND AT TALMOLDER

There are six substances that are contained in Phase II 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

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

Phone Number	Canada 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 (this plan)	Solvent naphtha light aliphatic
CAS Number	64742-89-8
Substance 4 (this 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

3.6 Plan Contacts

Plan prepared and certified by:
Planner License
Address

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4 IDENTIFICATION AND ANALYSIS OF TOXIC SUBSTANCE REDUCTION OPTIONS FOR SOLVENT NAPHTHA LIGHT ALIPHATIC AND STODDARD SOLVENT

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 mold release instead of Solvent Naphtha Light Aliphatic and Stoddard Solvent

Solvent Naphtha Light Aliphatic and Stoddard Solvent are being used at Talmolder because it is an alternative to Methylene Chloride, which have been considered a Hazardous Air Pollutant. During the last 10 years Talmolder has been phasing out the use of solvent-based mold release and moving towards water based mold release. However, some products still require the use of solvent-based mold release. The estimated reduction for this type of product would be 100%, since they do not contain any Solvent Naphtha Light Aliphatic or Stoddard Solvent.

4.1.1.1 Estimated reductions

Since Talmolder has been phasing out its use of solvent-based mold 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 Solvent Naphtha Light Aliphatic: 130 kg.

Reduction of Stoddard solvent: 129 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 SOLVENT NAPHTHA LIGHT ALIPHATIC AND STODDARD SOLVENT AT THE FACILITY

In order to reduce the use of Solvent Naphtha Light Aliphatic and Stoddard Solvent at the facility, Talmolder has implemented the option described in 4.1.1 as Material and Feedstock Substitution and the option described. Table 1 presents a summary of the implementation of the option mentioned on 6.1.1. for the replacement of the mentioned solvent-based mold release.

Table 1 Description and Timetable for Implementation of Option 6.1.1

Step	Description	Estimated Timeline
1	Quotations with different suppliers	2-4 Month
2	Test and presentation by supplier	4-8 Month
3	Equipment Modifications	4-8 Months
4	Inventory Management Optimization	2-4 Months

We can also see in Table 2 and a detail of the estimated reduction per such implementation

Table 2 Estimate of Reduction of Solvent Naphtha Light Aliphatic and Stoddard Solvent by Implementation of Option 6.1.1

Type	Estimated Reduction in kg (NLA)/(SSL)	Anticipated Date
Use	130/123	1-2 years
Creation	0/0	1-2 years
Release to Air	130/123	1-2 years
Release to Water	0/0	1-2 years
Release to Land	0/0	1-2 years
Disposal off-site	0/0	1-2 years
Disposal on-site	0/0	1-2 years
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 SOLVENT NAPHTHA LIGHT ALIPHATIC AND STODDARD SOLVENT

7.1 CERTIFICATION BY THE HIGHEST RAKING EMPLOYEE

As of December 6, 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

Solvent Naphtha Light Aliphatic and Stoddard Solvent



Harindran Nianathan
Manager of Operations
Talmolder Inc.

7.2 CERTIFICATION BY LICENSED PLANNER

As of December 6, 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.

Solvent Naphtha Light Aliphatic and Stoddard Solvent



German Rincon [Planner License # TSRP0197]
General Manager
EC² Environmental and Chemical Consulting