

## TRA Plan Summary - Methylenebis(phenylisocyanate)

### Basic Facility Information

<b>Name &amp; CAS # of Substances</b>	Methylenebis(phenylisocyanate)	101-68-8
<b>Facility Identification and Site Address</b>		
<b>Company Name</b>	Bock North America Limited	
<b>Facility Name</b>	Bock North America	
<b>Facility Address</b>	18 Cherry Blossom Road Cambridge, Ontario N3H 4R7	
<b>Spatial Coordination of Facility</b>	550081.08m Easterly 4807120.39m Northerly	
<b>Number of Employees</b>	87	
<b>NPRI ID</b>	27695	
<b>Parent Company (PC) Information</b>		
<b>Primary North American Industrial Classification System Code (NAICS)</b>		
<b>2 Digit NAICS Code</b>	31-33 – Manufacturing	
<b>4 Digit NAICS Code</b>	3261 – Plastic Product Manufacturing	
<b>6 Digit NAICS Code</b>	326150– Urethane and Other Foam Product (except polystyrene) Manufacturing	
<b>Company Contact Information</b>		
<b>Facility Public Contact:</b>	Lisa Morgan, Environmental, Health and Safety Manager	Same as facility address
	519-653-3334 ext. 213	
	Lmorgan@bocknorthamerica.com	
<b>Facility Technical Contact:</b>	Lisa Morgan, Environmental, Health and Safety Manager	Same as facility address
	519-653-3334 ext. 213	
	Lmorgan@bocknorthamerica.com	

<b>Person who Prepared the Plan: (if different from the Coordinator)</b>	Kaitlin Raheb, P. Eng.	Conestoga-Rovers & Associates Ltd. 651 Colby Drive Waterloo, ON N2V 1C2
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<b>Highest Ranking Employee</b>	Harry Fish, Plant Manager	Same as facility address
	519-653-3334	
	hfish@bocknorthamerica.com	
<b>Planner Information:</b>		
<b>Planner Responsible for Making Recommendations</b>	Kaitlin Raheb, P. Eng.	Conestoga-Rovers & Associates Ltd. 651 Colby Drive Waterloo, ON N2V 1C2
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## **Toxic Reduction Policy Statement of Intent**

The Bock North America Limited Facility (Bock North Facility) uses methylenebis(phenylisocyanate) in four processes as a component of two raw materials used in the manufacturing of components for office furniture. The Facility does not intend to reduce the use of this toxic substance at the Facility. The Facility does not create methylenebis(phenylisocyanate); therefore this plan will not address reducing its creation.

## **Reduction Objectives**

The Bock North Facility produces high quality products in an environmentally responsible manner. The Bock North Facility's manufacturing operation has been optimized to minimize the use of raw materials. The Facility will strive to reduce the use of methylenebis(phenylisocyanate) in the future, should an option become available.

## **Facility Description**

The Bock North Facility manufactures components for office furniture. The manufacturing process consists of injection molding and assembly before being packaged and shipped off-site. The Facility assembles some components; however a lot of parts are shipped to the customer for final assembly and sale to the consumer.

The North American Industry Classification System (NAICS) Code that applies to this Facility is 326150 – Urethane and Other Foam Product (except Polystyrene) Manufacturing.

In 2014, the Facility operated the manufacturing process 5 days per week for 50 weeks per year and the occasional weekend.

***Toxic Substance Reduction Category***

***Option: Identification and Description***

- |  |   |
|--|---|
| 1) Materials or feedstock substitution | <b>No option identified:</b> There are two main types of isocyanate products available for foam injection molding applications, MDI products and TDI products. The MDI products are regarded as the safer and less hazardous material and are what Bock North uses for its manufacturing operations. The Bock North Facility uses specific quantities of ingredients to manufacture final products with the desired properties. Methylenebis(phenylisocyanate) is a commodity component of two raw materials used in the injection molding process. Substituting these products would compromise the product characteristics and quality of the products and therefore would require extensive testing and analysis from the Research and Development Department. Material or feedstock substitutions are not currently possible for Bock North's production. |
| 2) Product design or reformulation     | <b>No option identified:</b> Bock North's formulation for the production of component parts for office furniture is based on past research, trialing and analysis used to create products which meet customer specifications. These products include the use of methylenebis(phenylisocyanate) as a component of two raw materials. A change to the product design or reformulation is not possible under the current conditions at the Facility.   |
| 3) Equipment or Process Modification   | <b>No option identified:</b> The existing injection molding machines operate at specific set parameters to manufacture the desired products and minimize waste. Therefore, there are no process modifications options available that would result in decreasing the use of methylenebis(phenylisocyanate).  |
| 4) Spill and Leak prevention           | <b>No option identified:</b> The products received at the Facility that contain methylenebis(phenylisocyanate) arrive in sealed totes. Bock North has operational procedure documents to avoid spillage of raw materials, and spills have not been an issue. There are no options available in the spill and leak prevention category that would reduce the use of methylenebis(phenylisocyanate).  |

### ***Toxic Substance Reduction Category***

### ***Option: Identification and Description***

- |  |  |
|--|--|
| 5) On-site reuse or recycling                            | <b>No option identified:</b> Excess material from the production of the black foam and white foam components cannot be reused or recycled in the manufacturing process due to the physical changes that occur during injection molding. The process has already been optimized to reduce the amount of waste product produced, which then gets sent off-site. No option is available in this category which would reduce the use of methylenebis(phenylisocyanate).          |
| 6) Improve inventory management or purchasing techniques | <b>No option identified:</b> On-site storage of raw materials is limited to what will be used in the manufacturing operation within a short period of time. There is no wasted product due to expiry of the raw materials in the inventory stage. Therefore the Facility is unable to identify a reduction option related to improved inventory management or purchasing techniques, as they are already doing everything possible in this category.                         |
| 7) Training or improved operating practices              | <b>No option identified:</b> The staff is trained to inspect and monitor process operations to ensure all process equipment is operating properly. Equipment maintenance programs and training on Standard Operating Procedures (SOPs) is provided to ensure efficient operating practices. These programs minimize the production of off-spec product. Therefore there is no option available in this category that would reduce the use of methylenebis(phenylisocyanate). |

### **Plan Summary Statement**

This plan summary accurately reflects the content of the toxic substance reduction plan for methylenebis(phenylisocyanate).

### **Certification By Highest Ranking Employee**

Attached.

### **Certification By Licensed Planner**

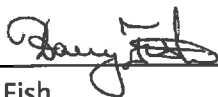
Attached.

## Section 2.0 Plan Certification

### CERTIFICATION BY HIGHEST RANKING EMPLOYEE

As of May 12<sup>th</sup>, 2015, I, Harry Fish, 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 factually accurate and complies with the *Toxics Reduction Act, 2009* and Ontario Regulation 455/09 (General) made under that Act.

Methylenabis (phenylisocyanate)



Harry Fish  
Plant Manager  
Bock North America Limited

### CERTIFICATION BY LICENSED PLANNER

As of May 12<sup>th</sup>, 2015, I, Kaitlin Raheb, certify that I am familiar with the processes at Bock North America Limited that use or create the toxic substance 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 plan dated May 12, 2015 and that the plan complies with that Act and Ontario Regulation 455/09 (General) made under that Act.

Methylenabis(phenylisocyanate)



Kaitlin Raheb  
Licensed Toxic Reduction Planner, License # TSRP0009  
Conestoga-Rovers & Associates Ltd.