Plan Summary Preview
Company Details
Company Legal Name
Halton Chemical Inc.
Company Address
840 Appleby Line, Burlington (Ontario)
Report Details
NPRI ID
7106
Facility Name
Halton Chemical Inc. PLANT/WAREHOUSE
Facility Address
840 Appleby Line South, Burlington (Ontario)
Update Comments
Activities
Contacts
Select the Facility Contacts
Facility Contacts
Please assign the appropriate contact under each category below.
Public Contact: *
Jamie Dickens
Highest Ranking Employee
Jamie Dickens
Person responsible for Toxic Substance Reduction Plan preparation
Karen McLean
Organization Validation

Company and Parent Company	y Information
Company Details	
Company Legal Name: *	Halton Chemical Inc.
Company Trade Name: *	Halton Chemical Inc.
Business Number: *	102253903
Mailing Address	
Delivery Mode	General Delivery
PO Box	
Rural Route Number	
Address Line 1	840 Appleby Line
City *	Burlington
Province/Territory **	Ontario
Postal Code: **	L7L2Y7
Physical Address	
Address Line 1	840 Appleby Line
City	Burlington
Province/Territory **	Ontario
Postal Code **	L7L2Y7
Additional Information	
Land Survey Description	
National Topographical Description	
Parent Companies  Empty	

## **Facility Validation**

The information in this section was copied from the Single Window Information Manager (SWIM) at the time the plan summary was created. Please verify the information and update it where required. Please note that any changes made here will only be reflected in this plan summary. To ensure updates reflected in future reports, please ensure the information is updated in SWIM. After making updates in SWIM, return here and click the "Refresh" button to trigger a reload of the SWIM information. Please note all previously entered data will be modified.

Facility Information	
Facility Name: *	Halton Chemical Inc. PLANT/WAREHOUSE
NAICS Code: *	325520
NPRI Id: *	7106
ON Reg 127/01 ld	356987
Facility Mailing Address	
Delivery Mode	General Delivery
PO Box	
Rural Route Number	
Address Line 1	840 Appleby Line South
City *	Burlington
Province/Territory **	Ontario
Postal Code: **	L7L2Y7
Physical Address	
Address Line 1	840 Appleby Line South
City	Burlington
Province/Territory **	Ontario
Postal Code **	L7L2Y7
Additional Information	

Land Survey Description	
National Topographical Description	
Geographical Address	
Latitude **	43.37660
Longitude **	-79.76710
UTM Zone **	17
UTM Easting **	599865
UTM Northing **	4803365
Contact Validation	
	ated in SWIM. After making updates in SWIM, return here and of the SWIM information. Please note all previously entered data
Public Contact	
First Name: *	Jamie
Last Name: *	Dickens
Position: *	General Manager
Telephone: *	9056376313
Ext	
Fax	9056378918
Email: *	jdickens@haltonchemical.com
Highart Banking Employee	
Highest Ranking Employee	

Last Name: \*

	Dickens
Position: *	General Manager
Telephone: *	9056376313
Ext	
Fax	9056378918
Email: *	jdickens@haltonchemical.com
Person responsible for the To	oxic Substance Reduction Plan preparation
First Name: *	Karen
Last Name: *	McLean
Position: *	Regulatory Coordinator
Telephone: *	9056373613
Ext	
Fax	9056378918
Email: *	karen@haltonchemical.com
Employees	
Employees	
Number of Full-time Employees: *	
12	
Copy of Certifications of Plan	
Copy of Certifications of Plan	
Upload Document	

A copy of the certification statement(s) from the Highest Ranking Employee and the Licensed Planner(s), for the Toxic Substance Reduction Plan for which the Plan Summary is being submitted are required. Please upload a single document containing all certifications.

Do not upload any certification statements that are dated after December 31. If this applies, click "?" (Help) for more information.

Comments

Website address where the Plan Summary is posted for the public

http://www.haltonchemical.com/reports

File Name Date

Halton Chemical.pdf 12/12/2017 6:02:45 PM

### Plan Summary Submission

#### **Electronic Submission**

Company Name

Halton Chemical Inc.

**Facility Name** 

Halton Chemical Inc. PLANT/WAREHOUSE

Report Submitted By (authorized delegate)

Karen Mclean

I, the authorized delegate, acknowledge that by pressing the "Continue" button, I am electronically submitting the facility TRA Plan Summary for the identified facility.

#### Substances

## 100-41-4, Ethylbenzene

100-41-4, Ethylbenzene

#### **Substances Section Data**

#### Statement of Intent

Are the following included in the Facility's TRA Plan?

#### Use

Is there a statement that the owner or operator of the facility intends to reduce the use of the toxic substance at the facility?: \*

No

If 'yes', exact statement of the intent that is included in the facility's TRA Plan to reduce the use of the toxic substance at the facility: \*\*

If 'no', reason in the facility's TRA Plan for no intent to reduce the use of the toxic substance at the facility: \*\*

Halton Chemical Inc. is committed to protecting the environment. Whenever feasible, we will reduce or eliminate the use of Ethyl Benzene, which is a component introduced at the supplier level in a number of products we use. Toxic substance reduction will be an ongoing effort at our facility.

No viable alternative product was found that would significantly decrease the amount of Ethyl Benzene, nor an option that was considered technically and financially feasible at this time. The rationale associated with this statement is due to the fact that Halton Chemical Inc. has already implemented measures to reduce the use of Ethyl Benzene in the system, where further changes are detrimental to the end desired product.

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Is there a statement that the owner or operator of the facility intends to reduce the creation of the toxic substance at the facility?: *	
No	
If 'yes', exact statement of the intent that is included in the facility's TRA Plan to reduce the creation of the toxic substance at the facility: **	

If 'no', reason in the facility's TRA Plan for no intent to reduce the creation of the toxic substance at the facility: \*\*

Halton Chemical Inc. does not create Ethylbenzene in their process as it is a simple batch mixing process.

## Objectives, Targets and Description

## **Objectives**

Objectives in plan: \*

Halton Chemical Inc. will to identify new reduction options or alternatives to products containing for Ethylbenzene by determining the flow of the chemical through the process of the Facility.

Our plan will involve continually identifying the greatest potential for reduction at the raw materials level as this is the main source for the introduction of Ethyl Benzene into the Facility.

The Facility will use a combination of Product-focused and Production area approach. The individual raw materials will be analyzed by their MSDS and the Production area will be analyzed to minimize loss within each process.

## **Use Targets**

# What is the targeted reduction in use of the toxic substance at the

## facility? \*

No quantity target		Quantity	Unit
$\boxtimes$	or		

What is the targeted timeframe for this reduction? \*

No timeline target		years
$\boxtimes$	or	
Description of targets		
Creation Targets		
What is the targete	ed reduction i	n creation of the toxic substance at the
facility? *		
No quantity target	Quantity	Unit
⊠ or		
What is the targete	ed timeframe	for this reduction? *
No timeline target		years
$\boxtimes$	or	
Description of Target		
Reasons for Use		
Why is the toxic substance	used at the facility	?: *
As a formulation compone	ent	
Summarize why the toxic s	substance is used a	t the facility: **
Ethylbenzene is a unique	aromatic hydrocarb	on with high Kauri Butanol "KB" levels.
hydrocarbon solvent, and	is governed by an Ally referred to as the	ernational, standardized measure of solvent power for a ASTM standardized test, ASTM D1133. The result of this test e "Kb value". A higher Kb value means the solvent is more certain materials.
		xylene make ethyl benzene difficult to substitute. In order to ge our current raw material base and our chemical
Reasons for Creat	tion	
Why is the toxic substance	created at the facil	lity?: *
This substance is not crea	ited at the facility	

Summarize why the toxic substance is created at the facility: \*\*

This substance is not created at this facility.

### Toxic Reduction Options for Implementation

## Description of the toxic reduction option(s) to be implemented

Is there a statement that no option will be implemented?: \*

Yes, we are not implementing

If you answered "No" to this question, please add the option(s) under the appropriate Toxic Substance Reduction Categories (e.g. Materials or feedstock substitution, Product design or reformulation, etc.).

If you answered "Yes" please select the appropriate reason(s) in the picklist below for why no option was implemented for this substance at your facility. You may choose to provide an explanation in the text box that is beneath the picklist.

#### Materials or feedstock substitution

**Empty** 

#### Product design or reformulation

**Empty** 

### Equipment or process modifications

**Empty** 

## Spill or leak prevention

**Empty** 

## On-site reuse, recycling or recovery

**Empty** 

## Improved inventory management or purchasing techniques

**Empty** 

## Good operator practice or training

**Empty** 

Identify at least one reason why no option to reduce the use or creation of this substance was implemented at your facility:

Select the applicable reason or reasons \*\*

The substance is essential in the manufacturing process and becomes a product or component of the product

Explanation of the reasons why no option will be implemented

Halton Chemical Inc. has reviewed their processes and formulation and have categorized them according to the seven (7) MOE's predetermined reduction areas. The following are the major reasons why no option was implemented which in summary involves the lack of technical and economical feasibility and due to the fact that Halton Chemical Inc. has already implemented measures in 2010 to reduce the use of Ethyl Benzene.

Replacing G240 will reduce Ethyl Benzene consumption by 134.7566 kg which constitutes a 1.067% reduction, however with an \$85.68 increase per drum.

In 2010 when these procedures were implemented, production losses were (and still are) tracked on batch cards produced for each product and each batch made. Losses were reduced immediately by 50 – 60%.

Halton Chemical Inc. previously investigated in-house recycling. High installation and maintenance costs were associated with the equipment. As well, multiple ongoing regulations and permits were required. One

of the main components in many of our products is not recyclable, and has a known tendency to damage recycling equipment.
Rationale for why the listed options were chosen for implementation
General description of any actions undertaken by the owner and operator of the facility to reduce the use and creation of the toxic substance at the facility that are outside of the plan
License Number of the toxic substance reduction planner who made recommendations in the toxic substance reduction plan for this substance (format TSRPXXXX): *
TSRP0237
Name of the toxic substance reduction planner who made recommendations in the toxic substance reduction plan for this substance (First Name Last Name)
License Number of the toxic substance reduction planner who has certified the toxic substance reduction plan for this substance (format TSRPXXXX): *
TSRP0237
Name of the toxic substance reduction planner who has certified the toxic substance reduction plan for this substance (First Name Last Name)
What version of the plan is this summary based on?: *
Reviewed Plan
108-88-3, Toluene
108-88-3, Toluene
Substances Section Data

#### Statement of Intent

Are the following included in the Facility's TRA Plan?

#### Use

Is there a statement that the owner or operator of the facility intends to reduce the use of the toxic substance at the facility?: \*

No

If 'yes', exact statement of the intent that is included in the facility's TRA Plan to reduce the use of the toxic substance at the facility: \*\*

If 'no', reason in the facility's TRA Plan for no intent to reduce the use of the toxic substance at the facility: \*\*

After review of the Toxic Substance Reduction Plan, no current available options listed were viable for the reduction of Toluene. Halton Chemical Inc. is continuing to exercise good practices to reduce loss of the material throughout the process.

#### Creation

Is there a statement that the owner or operator of the facility intends to reduce the creation of the toxic substance at the facility?: \*

No

If 'yes', exact statement of the intent that is included in the facility's TRA Plan to reduce the creation of the toxic substance at the facility: \*\*

If 'no', reason in the facility's TRA Plan for no intent to reduce the creation of the toxic substance at the facility: \*\*

Toluene is not created at the Halton Chemical Facility.

## Objectives, Targets and Description

## **Objectives**

Objectives in plan: \*

Halton Chemical Inc. will to identify new reduction options or alternatives to products containing for Toluene by determining the flow of the chemical through the process of the Facility.

Our plan will involve continually identifying the greatest potential for reduction at the raw materials level as this is the main source for the introduction of Toluene into the Facility.

The Facility will use a combination of Product-focused and Production area approach. The individual raw materials will be analyzed by their MSDS and the Production area will be analyzed to minimize loss within each process.

## **Use Targets**

facility? \* No quantity Quantity Unit target  $|\mathsf{X}|$ or What is the targeted timeframe for this reduction? \* No timeline target years 冈 or Description of targets **Creation Targets** What is the targeted reduction in creation of the toxic substance at the facility? \* No quantity Quantity Unit target  $|\mathsf{X}|$ or What is the targeted timeframe for this reduction? \* No timeline target years X or **Description of Target** Reasons for Use Why is the toxic substance used at the facility?: \* As a formulation component

What is the targeted reduction in use of the toxic substance at the

Page 12 of 52

Summarize why the toxic substance is used at the facility: \*\*

Toluene is a common solvent, able to dissolve paints, paint thinners, silicone sealants, many chemical reactants, rubber, printing ink, adhesives (glues), lacquers, leather tanners, and disinfectants. (Wikipedia)

Toluene is a unique aromatic hydrocarbon with high Kauri Butanol "KB" levels. (105 for Toluene)

The Kauri-butanol value ("Kb value") is an international, standardized measure of solvent power for a hydrocarbon solvent, and is governed by an ASTM standardized test, ASTM D1133. The result of this test is a scaleless index, usually referred to as the "Kb value". A higher Kb value means the solvent is more aggressive or active in the ability to dissolve certain materials. Mild solvents have low scores in the tens and twenties; powerful solvents like chlorinated solvents and "High Sol 10" or "High Sol 15" (naphthenic aromatic solvents) have ratings in that are in the low hundreds.

The high KB levels along with specific hydrogen bonding attributes make toluene ideally suited as industrial solvents for paints, coatings and adhesives. Most of the resins, rubbers and plastic based polymers used in our formulas are centered around the specific parameters found in toluene. In order to substitute away from these raw materials we would have to completely change our current raw material base to polymers that exhibit solubility in non-aromatic solvents.

#### Reasons for Creation

Why is the toxic substance created at the facility?: \*

This substance is not created at the facility

Summarize why the toxic substance is created at the facility: \*\*

Toluene is not created at the Halton Chemical Facility.

## Toxic Reduction Options for Implementation

#### Description of the toxic reduction option(s) to be implemented

Is there a statement that no option will be implemented?: \*

Yes, we are not implementing

If you answered "No" to this question, please add the option(s) under the appropriate Toxic Substance Reduction Categories (e.g. Materials or feedstock substitution, Product design or reformulation, etc.).

If you answered "Yes" please select the appropriate reason(s) in the picklist below for why no option was implemented for this substance at your facility. You may choose to provide an explanation in the text box that is beneath the picklist.

### Materials or feedstock substitution

**Empty** 

Product design or reformulation

**Empty** 

Equipment or process modifications

**Empty** 

Spill or leak prevention

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#### On-site reuse, recycling or recovery

**Empty** 

## Improved inventory management or purchasing techniques

**Empty** 

#### Good operator practice or training

#### **Empty**

Identify at least one reason why no option to reduce the use or creation of this substance was implemented at your facility:

Select the applicable reason or reasons \*\*

The substance is essential in the manufacturing process and becomes a product or component of the product

Explanation of the reasons why no option will be implemented

Halton Chemical Inc. has reviewed the use of Toluene and summarize that there are no current technical and economical feasible solutions at this time that have not already been implemented in 2010. The following are some of the reasons:

Replacing G243 will reduce Toluene consumption by 14.8 kg and by 0.009%. Cost of replacement is unknown.

Replacing L72 will reduce Toluene consumption by 1.3855 kg and 0.00085% and would cost \$107.27 more annually.

In 2010 when these procedures were implemented, production losses were (and still are) tracked on batch cards produced for each product and each batch made. Losses were reduced immediately by 50 – 60%.

Rationale for why the listed options were chosen for implementation

General description of any actions undertaken by the owner and operator of the facility to reduce the use and creation of the toxic substance at the facility that are outside of the plan

License Number of the toxic substance reduction planner who made recommendations in the toxic substance reduction plan for this substance (format TSRPXXXX): \*

#### **TSRP0237**

Name of the toxic substance reduction planner who made recommendations in the toxic substance reduction plan for this substance (First Name Last Name)

License Number of the toxic substance reduction planner who has certified the toxic substance reduction plan for this substance (format TSRPXXXX): \*

TSRP0237
Name of the toxic substance reduction planner who has certified the toxic substance reduction plan for this substance (First Name Last Name)
What version of the plan is this summary based on?: *
Reviewed Plan
110-54-3, n-Hexane
110-54-3, n-Hexane
Substances Section Data
Statement of Intent
Are the following included in the Facility's TRA Plan?
Use
Is there a statement that the owner or operator of the facility intends to reduce the use of the toxic substance at the facility?: *
No
If 'yes', exact statement of the intent that is included in the facility's TRA Plan to reduce the use of the toxic substance at the facility: **
If 'no', reason in the facility's TRA Plan for no intent to reduce the use of the toxic substance at the facility:
After review of the Toxic Substance Reduction Plan, no current available options listed were viable for the reduction of n-Hexane. Halton Chemical Inc. is continuing to exercise good practices to reduce loss of the material throughout the process.
Creation
Is there a statement that the owner or operator of the facility intends to reduce the creation of the toxic substance at the facility?: *
No
If 'yes', exact statement of the intent that is included in the facility's TRA Plan to reduce the creation of the toxic substance at the facility: **
If 'no', reason in the facility's TRA Plan for no intent to reduce the creation of the toxic substance at the facility: **

n-Hexane is not created at the Halton Chemical Facility.

Objectives, Targets	and Descrip	otion			
Objectives					
Objectives in plan: *					
Halton Chemical Inc. is comreliminate the use of Hexane.			nenever feasible, we will reduce or ng effort at our facility.		
Use Targets					
What is the targeted	I reduction i	n use of the toxi	c substance at the		
facility? *					
No quantity target	Quantity		Unit		
⊠ or					
What is the targeted	timeframe	for this reduction	n? *		
No timeline target		years			
$\boxtimes$	or				
Description of targets					
Creation Targets					
•	reduction in	n creation of the	toxic substance at the		
facility? *					
No quantity target	Quantity		Unit		
⊠ or					
What is the targeted	l timeframe	for this reduction	n? *		
No timeline target		years			
$\boxtimes$	or				
Description of Target					

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Why is the toxic substance used at the facility?: \*

As a formulation component

Summarize why the toxic substance is used at the facility: \*\*

n-Hexane is a formulation component mixed with other substances to produce the desired end product as specified by the client.

#### Reasons for Creation

Why is the toxic substance created at the facility?: \*

This substance is not created at the facility

Summarize why the toxic substance is created at the facility: \*\*

n-Hexane is not created in the Halton Chemical Facility.

### Toxic Reduction Options for Implementation

### Description of the toxic reduction option(s) to be implemented

Is there a statement that no option will be implemented?: \*

Yes, we are not implementing

If you answered "No" to this question, please add the option(s) under the appropriate Toxic Substance Reduction Categories (e.g. Materials or feedstock substitution, Product design or reformulation, etc.).

If you answered "Yes" please select the appropriate reason(s) in the picklist below for why no option was implemented for this substance at your facility. You may choose to provide an explanation in the text box that is beneath the picklist.

#### Materials or feedstock substitution

**Empty** 

Product design or reformulation

**Empty** 

Equipment or process modifications

**Empty** 

Spill or leak prevention

**Empty** 

On-site reuse, recycling or recovery

**Empty** 

## Improved inventory management or purchasing techniques

#### **Empty**

### Good operator practice or training

#### **Empty**

Identify at least one reason why no option to reduce the use or creation of this substance was implemented at your facility:

Select the applicable reason or reasons \*\*

The substance is essential in the manufacturing process and becomes a product or component of the product

Explanation of the reasons why no option will be implemented

After review of the Toxic Substance Reduction Plan, no current available options listed were viable for the reduction of Hexane. Halton Chemical Inc. is continuing to exercise good practices to reduce loss of the material throughout the process.

Rationale for why the listed options were chosen for implementation

General description of any actions undertaken by the owner and operator of the facility to reduce the use and creation of the toxic substance at the facility that are outside of the plan

Halton Chemical Inc. currently has:

Spill prevention training

Fugitive emission/VOC training

Procedures for proper handling of materials and wastes to prevent spills

Run times as short as possible written exactly on batch cards

Dedicate equipment to a single product

Procedures to ensure all containers are covered/closed with tight-fitting lids and bungs

Procedures to ensure drums/containers/batch mixers are drained as much as possible

Written equipment procedures in plain language given to each operator with each batch

Regularly scheduled maintenance for operating equipment

Regularly scheduled maintenance for all scales to ensure weights of raw materials are exact

Weekly production meetings to review the above and address any new issues

License Number of the toxic substance reduction planner who made recommendations in the toxic substance reduction plan for this substance (format TSRPXXXX): \*

#### **TSRP0237**

Name of the toxic substance reduction planner who made recommendations in the toxic substance reduction plan for this substance (First Name Last Name)

License Number of the toxic substance reduction planner who has certified the toxic substance reduction plan for this substance (format TSRPXXXX): \*

**TSRP0237** 

Name of the toxic substance reduction planner who has certified the toxic substance reduction plan for this substance (First Name Last Name)
What version of the plan is this summary based on?: *
Reviewed Plan
117-81-7, Bis(2-ethylhexyl) phthalate
117-81-7, Bis(2-ethylhexyl) phthalate
Substances Section Data
Statement of Intent
Are the following included in the Facility's TRA Plan?
Use
Is there a statement that the owner or operator of the facility intends to reduce the use of the toxic substance at the facility?: *
No
If 'yes', exact statement of the intent that is included in the facility's TRA Plan to reduce the use of the toxic substance at the facility: **
If 'no', reason in the facility's TRA Plan for no intent to reduce the use of the toxic substance at the facility: **
Halton Chemical Inc. has reviewed the use of Bis(2-ethylhexyl)Phthalate in their facility and further reduction cannot be accomplished at this time. Halton Chemical Inc. is committed to searching for new and innovative ways to reduce the use of toxic substances.
Creation
Is there a statement that the owner or operator of the facility intends to reduce the creation of the toxic substance at the facility?: *
No
If 'yes', exact statement of the intent that is included in the facility's TRA Plan to reduce the creation of the toxic substance at the facility: **
If 'no', reason in the facility's TRA Plan for no intent to reduce the creation of the toxic substance at the facility: **
This substance is not created in the Halton Chemical Facility.
Objectives, Targets and Description

Objectives				
Objectives in plan:	*			
Halton Chemical In eliminate the use of Facility.	nc. is comr of Bis(2-eth	nitted to protectin ylhexyl)Phthalate	ng the environment. Whe. Toxic substance redu	nenever feasible, we will reduce or uction will be an ongoing effort at our
Use Targets				
What is the ta	argeted	reduction in	n use of the toxi	c substance at the
facility? *				
No quantity target		Quantity		Unit
$\boxtimes$	or			
What is the ta	argeted	timeframe	for this reduction	n? *
No timeline target			years	
$\boxtimes$		or		
Description of targe	ets			
Creation Targ	gets			
What is the ta	argeted	reduction in	n creation of the	toxic substance at the
facility? *				
No quantity target		Quantity		Unit
$\boxtimes$	or			
What is the ta	argeted	timeframe	for this reduction	n? *
No timeline target	•		years	
×		or		
Description of Targ	et			

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Why is the toxic substance used at the facility?: \*

As a formulation component

Summarize why the toxic substance is used at the facility: \*\*

Bis(2-ethylhexyl)Phthalate is a formulation component mixed with other substances to produce the desired end product as specified by the client.

#### Reasons for Creation

Why is the toxic substance created at the facility?: \*

This substance is not created at the facility

Summarize why the toxic substance is created at the facility: \*\*

Bis(2-ethylhexyl)Phthalate is not created at the Halton Chemical Facility.

#### Toxic Reduction Options for Implementation

### Description of the toxic reduction option(s) to be implemented

Is there a statement that no option will be implemented?: \*

Yes, we are not implementing

If you answered "No" to this question, please add the option(s) under the appropriate Toxic Substance Reduction Categories (e.g. Materials or feedstock substitution, Product design or reformulation, etc.).

If you answered "Yes" please select the appropriate reason(s) in the picklist below for why no option was implemented for this substance at your facility. You may choose to provide an explanation in the text box that is beneath the picklist.

#### Materials or feedstock substitution

**Empty** 

## Product design or reformulation

**Empty** 

## Equipment or process modifications

**Empty** 

## Spill or leak prevention

**Empty** 

## On-site reuse, recycling or recovery

**Empty** 

Improved inventory management or purchasing techniques
Empty
Good operator practice or training
Empty
Identify at least one reason why no option to reduce the use or creation of this substance was implemented
at your facility:
Select the applicable reason or reasons **
The substance is essential in the manufacturing process and becomes a product or component of the product
Explanation of the reasons why no option will be implemented
No viable substitution or alternative for this product has been identified. Halton Chemical Inc. will continue to implement changes to reduce the overall toxic substance use.
Rationale for why the listed options were chosen for implementation
General description of any actions undertaken by the owner and operator of the facility to reduce the use and creation of the toxic substance at the facility that are outside of the plan
License Number of the toxic substance reduction planner who made recommendations in the toxic substance reduction plan for this substance (format TSRPXXXX): *
TSRP0237
Name of the toxic substance reduction planner who made recommendations in the toxic substance reduction plan for this substance (First Name Last Name)
License Number of the toxic substance reduction planner who has certified the toxic substance reduction plan for this substance (format TSRPXXXX): *
TSRP0237
Name of the toxic substance reduction planner who has certified the toxic substance reduction plan for this substance (First Name Last Name)
What version of the plan is this summary based on?: *
Amended Plan
1330-20-7, Xylene (all isomers)

1330-20-7, Xylene (all isomers)

#### Substances Section Data

#### Statement of Intent

Are the following included in the Facility's TRA Plan?

#### Use

Is there a statement that the owner or operator of the facility intends to reduce the use of the toxic substance at the facility?: \*

No

If 'yes', exact statement of the intent that is included in the facility's TRA Plan to reduce the use of the toxic substance at the facility: \*\*

If 'no', reason in the facility's TRA Plan for no intent to reduce the use of the toxic substance at the facility: \*\*

After review of the Toxic Substance Reduction Plan, no current available options listed were viable for the reduction of Xylene. Halton Chemical Inc. is continuing to exercise good practices to reduce loss of the material throughout the process.

#### Creation

Is there a statement that the owner or operator of the facility intends to reduce the creation of the toxic substance at the facility?: \*

No

If 'yes', exact statement of the intent that is included in the facility's TRA Plan to reduce the creation of the toxic substance at the facility: \*\*

If 'no', reason in the facility's TRA Plan for no intent to reduce the creation of the toxic substance at the facility: \*\*

Xylene is not created at the Halton Chemical Facility.

## Objectives, Targets and Description

## **Objectives**

Objectives in plan: \*

Halton Chemical Inc. continues to search for new reduction options or alternatives to products containing for Xylene by determining the flow of the chemical through the process of the Facility.

Our plan will involve continually identifying the greatest potential for reduction at the raw materials level as this is the main source for the introduction of Xylene into the Facility.

The Facility will use a combination of Product-focused and Production area approach. The individual raw materials will be analyzed by their MSDS and the Production area will be analyzed to minimize loss within each process.

What is the targ	geted reduction i	n use of the toxic substance at the	
facility? *			
No quantity target	Quantity	Unit	
⊠ or			
What is the targ	geted timeframe	for this reduction? *	
No timeline target		years	
$\boxtimes$	or		
Description of targets			
Creation Target	te		
		n creation of the toxic substance at th	
facility? *	geted reduction in	T Creation of the toxic substance at th	IC
No quantity	Quantity	Unit	
target	Quantity		
	-		
target ☑ or		for this reduction? *	
target ☑ or		for this reduction? * years	
what is the targ			
what is the target	geted timeframe		
what is the target  No timeline target	geted timeframe		
what is the target  No timeline target  Description of Target  Reasons for Us	geted timeframe	years	

Summarize why the toxic substance is used at the facility: \*\*

Xylene is used as a solvent. In this application, the mixture of isomers is often referred to as xylenes or xylol. Solvent xylene often contains a small percentage of ethylbenzene. Like the individual isomers, the mixture is colorless, sweet-smelling, and highly flammable. Areas of application include printing, rubber, and leather industries. It is a common component of ink, rubber, adhesive,[9] and leather industries. In thinning paints and varnishes, it can be substituted for toluene where slower drying is desired, and thus is used by conservators of art objects in solubility testing.[10] Similarly it is a cleaning agent, e.g., for steel, silicon wafers, and integrated circuits. (Wikipedia)

Xylene is a unique aromatic hydrocarbon with high Kauri Butanol "KB" levels. (93 for Xylene)

The Kauri-butanol value ("Kb value") is an international, standardized measure of solvent power for a hydrocarbon solvent, and is governed by an ASTM standardized test, ASTM D1133. The result of this test is a scaleless index, usually referred to as the "Kb value". A higher Kb value means the solvent is more aggressive or active in the ability to dissolve certain materials. Mild solvents have low scores in the tens and twenties; powerful solvents like chlorinated solvents and "High Sol 10" or "High Sol 15" (naphthenic aromatic solvents) have ratings in that are in the low hundreds.

The high KB levels along with specific hydrogen bonding attributes make Xylene ideally suited as industrial solvents for paints, coatings and adhesives. Most of the resins, rubbers and plastic based polymers used in our formulas are centered around the specific parameters found in Xylene. In order to substitute away from these raw materials we would have to completely change our current raw material base to polymers that exhibit solubility in non-aromatic solvents.

#### Reasons for Creation

Why is the toxic substance created at the facility?: \*

This substance is not created at the facility

Summarize why the toxic substance is created at the facility: \*\*

Xylene is not created at the Halton Chemical Facility.

## **Toxic Reduction Options for Implementation**

## Description of the toxic reduction option(s) to be implemented

Is there a statement that no option will be implemented?: \*

Yes, we are not implementing

If you answered "No" to this question, please add the option(s) under the appropriate Toxic Substance Reduction Categories (e.g. Materials or feedstock substitution, Product design or reformulation, etc.).

If you answered "Yes" please select the appropriate reason(s) in the picklist below for why no option was implemented for this substance at your facility. You may choose to provide an explanation in the text box that is beneath the picklist.

#### Materials or feedstock substitution

**Empty** 

## Product design or reformulation

**Empty** 

Equipment or process modifications  Empty
Spill or leak prevention
Empty
On-site reuse, recycling or recovery
Empty
Improved inventory management or purchasing techniques
Empty
Good operator practice or training
Empty Identify at least one reason why no option to reduce the use or creation of this substance was implemented at your facility:
Select the applicable reason or reasons **
The substance is essential in the manufacturing process and becomes a product or component of the product
Explanation of the reasons why no option will be implemented
Halton Chemical Inc. has reviewed the options in the seven (7) categorizes and have determined that at this time there are no technically and economically feasible solutions beyond what has been implemented in 2010.
For instance: Replacing G240 will reduce Xylene by 539.0265 kg and by 0.867%, but will cost \$85.68 more per drum. The reduction in Xylenes would be minimal compared to the costs that would be incurred from the change.
Rationale for why the listed options were chosen for implementation
General description of any actions undertaken by the owner and operator of the facility to reduce the use and creation of the toxic substance at the facility that are outside of the plan
License Number of the toxic substance reduction planner who made recommendations in the toxic substance reduction plan for this substance (format TSRPXXXX): *
TSRP0237
Name of the toxic substance reduction planner who made recommendations in the toxic substance reduction plan for this substance (First Name Last Name)

License Number of the toxic substance reduction planner who has certified the toxic substance reduction plan for this substance (format TSRPXXXX):  $^{\star}$ 

TSRP0237
Name of the toxic substance reduction planner who has certified the toxic substance reduction plan for this substance (First Name Last Name)
What version of the plan is this summary based on?: *
Reviewed Plan
67-56-1, Methanol
67-56-1, Methanol
Substances Section Data
Statement of Intent
Are the following included in the Facility's TRA Plan?
Use
Is there a statement that the owner or operator of the facility intends to reduce the use of the toxic substance at the facility?: *
Yes
If 'yes', exact statement of the intent that is included in the facility's TRA Plan to reduce the use of the toxic substance at the facility: **
Halton Chemical Inc. is committed to protecting the environment. Whenever feasible, we will eliminate, or reduce the use of Methanol. Toxic substance reduction will be an ongoing effort at our facility.
If 'no', reason in the facility's TRA Plan for no intent to reduce the use of the toxic substance at the facility: **
Creation
Is there a statement that the owner or operator of the facility intends to reduce the creation of the toxic substance at the facility?: *
No
If 'yes', exact statement of the intent that is included in the facility's TRA Plan to reduce the creation of the toxic substance at the facility: **
If 'no', reason in the facility's TRA Plan for no intent to reduce the creation of the toxic substance at the facility: **
The facility does not create methanol.

Objectives, T	argets	and Descrip	tion	
Objectives				
Objectives in plan:	*			
Halton Chemical In containing for Meth	c. is continuanol by de	nually searching fetermining the flow	or new reduction option of the chemical thro	ons or alternatives to products ugh the process of the Facility.
Our plan will involve this is the main sou	e continua irce for the	Illy identifying the introduction of M	greatest potential for lethanol into the Facil	reduction at the raw materials level as ity.
				on area approach. The individual raw rill be analyzed to minimize loss within
Use Targets				
What is the ta	argeted	reduction in	use of the tox	ic substance at the
facility? *				
No quantity target		Quantity		Unit
	or	21203		kg
What is the ta	argeted	timeframe f	or this reductio	n? *
No timeline target			years	
		or	1.5	
Description of targe	ets			
The reduction will the latest by Q4 of		ed over three (3)	phases which will sta	rt in Q1 or Q2 of 2013 and completed at
Creation Targ	gets			
What is the ta	argeted	reduction in	creation of the	e toxic substance at the
facility? *				
No quantity target		Quantity		Unit
$\boxtimes$	or			
What is the ta	argeted	timeframe f	or this reductio	n? *
No timeline target			years	

$\boxtimes$	or	
	OI .	
Description of Target		
Reasons for Us	6e	
Why is the toxic substa	ance used at the facility?	?: *
As a formulation comp	onent	
Summarize why the to	xic substance is used at	t the facility: **
Methanol is a commor denaturing product for		r coatings, strippers and reducers. It is also used as a
Reasons for Cr	eation	
Why is the toxic substa	ance created at the facili	ity?: *
This substance is not	created at the facility	
Summarize why the to	xic substance is created	d at the facility: **
This substance is not	created at the Halton Ch	nemical Facility.
Toxic Reduction	n Options for Imp	olementation
		n option(s) to be implemented
Is there a statement th	at no option will be impl	emented?: *
No, we are implement	ing	
•	•	add the option(s) under the appropriate Toxic Substance tock substitution, Product design or reformulation, etc.).
•	ubstance at your facility.	priate reason(s) in the picklist below for why no option was . You may choose to provide an explanation in the text box that
Materials or fee	edstock substituti	on
Substituted mat	terials	
Which activities	will be undertak	en to implement these reduction options?
Which activities will be	undertaken to impleme	nt these reduction options?: *
Substituted materials		

Describe the option: \*

Substituting Methanol/Alcohol DAG 2A Anhydrous with Denatured Ethanol 2I As a direct addition product, methanol has a number of benefits.  -Low cost -Fast dry -High solubility -Broad compatibility -Pot life extension  In most cases, we cannot simply eliminate a primary alcohol from the formulation. Our only option is to replace the usage percent with another primary alcohol. The obvious choice is ethanol, which is not listed as a toxin or potential toxin on the Toxic Reduction Act. This substitution presents a number of problems from both the functional and economic sides.					
Estimates					
	tonnes	%			
	nt by which the <strong>use</strong> of the implementing the option:	e toxic substance at the facility will be			
	21.20	87.2			
Estimate of the amous reduced as a result of	nt by which the <strong>creation</strong>	of the toxic substance at the facility will be			
X					
	nt by which the toxic substance <strong>co I as a result of implementing the option:</strong>	ntained in the product leaving the			
	21.20	87.2			
Estimate of the amount by which the total <strong>releases to air</strong> of the toxic substance at the facility will be reduced as a result of implementing the option:					
X					
	nt by which the total <strong>releases to wa I as a result of implementing the option:</strong>	ater of the toxic substance at the			
$\boxtimes$					
	nt by which the total <strong>releases to la</strong>	nd of the toxic substance at the			
×					
of the toxic substance	nt by which the <strong>disposals on-site at the facility will be reduced as a result or</strong>	strong> (including tailing and waste rock) implementing this option:			
$\boxtimes$					

	nt by which the <strong>disposals off-site</strong> of the toxic substance at the facility esult on implementing this option:					
×						
	nt by which total <strong>recycling off-site</strong> of the toxic substance at the as a result on implementing this option:					
$\boxtimes$						
Timelines						
N/A	years					
Anticipated timelines t substance:	for achieving the estimated reduction of the <strong>use</strong> of the toxic					
	1.5					
Anticipated timelines t substance:	for achieving the estimated reduction of the <strong>creation</strong> of the toxic					
×						
Product design	or reformulation					
Empty						
Equipment or p	process modifications					
Spill or leak pre	evention					
Empty						
On-site reuse,	recycling or recovery					
Empty						
Improved inventory management or purchasing techniques						
Empty						
•	practice or training					
Empty Identify at least one reason why no option to reduce the use or creation of this substance was implemented at your facility:						
Select the applicable	reason or reasons **					

Explanation of the reasons why no option will be implemented

Environment Canada
Rationale for why the listed options were chosen for implementation
General description of any actions undertaken by the owner and operator of the facility to reduce the use and creation of the toxic substance at the facility that are outside of the plan
License Number of the toxic substance reduction planner who made recommendations in the toxic substance reduction plan for this substance (format TSRPXXXX): *
TSRP0237
Name of the toxic substance reduction planner who made recommendations in the toxic substance reduction plan for this substance (First Name Last Name)
License Number of the toxic substance reduction planner who has certified the toxic substance reduction plan for this substance (format TSRPXXXX): *
TSRP0237
Name of the toxic substance reduction planner who has certified the toxic substance reduction plan for this substance (First Name Last Name)
What version of the plan is this summary based on?: *
Reviewed Plan
67-63-0, Isopropyl alcohol
67-63-0, Isopropyl alcohol
Substances Section Data
Statement of Intent
Are the following included in the Facility's TRA Plan?
Use

Is there a statement that the owner or operator of the facility intends to reduce the use of the toxic substance at the facility?:  $^{\star}$ 

If 'yes', exact statement of the intent that is included in the facility's TRA Plan to reduce the use of the toxic substance at the facility: \*\*

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No

If 'no', reason in the	e facility's TRA Plan for no	o intent to reduce the use of the toxic substance at the facility: **					
No substitutions ar their use of toxic su		ified at this time. Halton Chemical Inc. continues to reduce					
Creation							
Is there a statement that the owner or operator of the facility intends to reduce the creation of the toxic substance at the facility?: *							
No							
If 'yes', exact stated toxic substance at		ncluded in the facility's TRA Plan to reduce the creation of the					
If 'no', reason in the facility: **	e facility's TRA Plan for no	o intent to reduce the creation of the toxic substance at the					
This substance is r	not created at the Halton (	Chemical Facility.					
Objectives. T	argets and Descri	ription					
Objectives	g						
Objectives in plan:	*						
eliminate the use of		ting the environment. Whenever feasible, we will reduce or c substance reduction will be an ongoing effort at our facility.					
Use Targets							
What is the ta facility? *	argeted reduction	in use of the toxic substance at the					
No quantity target	Quantity	Unit					
$\boxtimes$	or						
What is the ta	argeted timeframe	e for this reduction? *					
No timeline target		years					
$\boxtimes$	or						
Description of targe	ets						

Creation Tai	rgets					
What is the	targeted	I reduction in	n creation of the	toxic substance at the		
facility? *						
No quantity target		Quantity		Unit		
$\boxtimes$	or					
What is the	targeted	l timeframe	for this reduction	n? *		
No timeline targe	et		years			
$\boxtimes$		or				
Description of Target						
Reasons for Why is the toxic s	ubstance u	sed at the facility	?: *			
As a formulation						
Summarize why the toxic substance is used at the facility: **						
Isopropyl Alcohol	is used for	the formulation p	process to produce the	desired end product.		
Reasons for	Creation	n				
Why is the toxic substance created at the facility?: *						
This substance is not created at the facility						
Summarize why the toxic substance is created at the facility: **						
This substance is not created at the Halton Chemical Facility.						
Toxic Reduc	ction Op	tions for Imp	olementation			
Description	of the to	xic reductio	n option(s) to be	e implemented		
Is there a statement that no option will be implemented?: *						
Yes, we are not in	mplementin	g				

If you answered "No" to this question, please add the option(s) under the appropriate Toxic Substance Reduction Categories (e.g. Materials or feedstock substitution, Product design or reformulation, etc.).

If you answered "Yes" please select the appropriate reason(s) in the picklist below for why no option was implemented for this substance at your facility. You may choose to provide an explanation in the text box that is beneath the picklist.

#### Materials or feedstock substitution

**Empty** 

Product design or reformulation

**Empty** 

Equipment or process modifications

**Empty** 

Spill or leak prevention

**Empty** 

On-site reuse, recycling or recovery

**Empty** 

Improved inventory management or purchasing techniques

**Empty** 

### Good operator practice or training

**Empty** 

Identify at least one reason why no option to reduce the use or creation of this substance was implemented at your facility:

Select the applicable reason or reasons \*\*

The substance is essential in the manufacturing process and becomes a product or component of the product

Explanation of the reasons why no option will be implemented

After review of the Toxic Substance Reduction Plan, no current available options listed were viable for the reduction of Isopropyl Alcohol. Halton Chemical Inc. is continuing to exercise good practices to reduce loss of the material throughout the process.

Rationale for why the listed options were chosen for implementation

General description of any actions undertaken by the owner and operator of the facility to reduce the use and creation of the toxic substance at the facility that are outside of the plan

Halton Chemical Inc. currently has:

Spill prevention training

Fugitive emission/VOC training

Procedures for proper handling of materials and wastes to prevent spills

Run times as short as possible written exactly on batch cards

Dedicate equipment to a single product

Procedures to ensure all containers are covered/closed with tight-fitting lids and bungs

Procedures to ensure drums/containers/batch mixers are drained as much as possible

Written equipment procedures in plain language given to each operator with each batch

Regularly scheduled maintenance for operating equipment

Regularly scheduled maintenance for all scales to ensure weights of raw materials are exact

Weekly production meetings to review the above and address any new issues

License Number of the toxic substance reduction planner who made recommendations in the toxic substance reduction plan for this substance (format TSRPXXXX): \*

#### **TSRP0237**

Name of the toxic substance reduction planner who made recommendations in the toxic substance reduction plan for this substance (First Name Last Name)

License Number of the toxic substance reduction planner who has certified the toxic substance reduction plan for this substance (format TSRPXXXX): \*

#### **TSRP0237**

Name of the toxic substance reduction planner who has certified the toxic substance reduction plan for this substance (First Name Last Name)

What version of the plan is this summary based on?: \*

Reviewed Plan

### 67-64-1, Acetone

67-64-1. Acetone

#### **Substances Section Data**

#### Statement of Intent

Are the following included in the Facility's TRA Plan?

#### Use

Is there a statement that the owner or operator of the facility intends to reduce the use of the toxic substance at the facility?: \*

No

If 'yes', exact statement of the intent that is included in the facility's TRA Plan to reduce the use of the toxic substance at the facility: \*\*

If 'no', reason in	the facility'	s TRA Plan for no	o intent to reduce the us	se of the toxic substance at the facility: **
	etone. Halto	on Chemical Inc.		ilable options listed were viable for the good practices to reduce loss of the
Creation				
Is there a statem substance at the		e owner or opera	tor of the facility intends	to reduce the creation of the toxic
No				
If 'yes', exact statoxic substance			ncluded in the facility's T	ΓRA Plan to reduce the creation of the
If 'no', reason in facility: **	the facility'	s TRA Plan for no	o intent to reduce the cre	eation of the toxic substance at the
Acetone is not o	reated at th	ne Halton Chemic	cal Facility.	
Objectives	Torgot	and Dogor	intion	
_	rarget	s and Descr	ιριιοπ	
Objectives				
Objectives in pla	ın: * 			
			ting the environment. W	henever feasible, we will reduce or bing effort at our facility.
			U	,
Use Target				
What is the	targete	d reduction	in use of the tox	ic substance at the
facility? *				
No quantity target		Quantity		Unit
$\boxtimes$	or			
What is the	targete	d timeframe	e for this reduction	on? *
<b>N</b>				
No timeline targ	get		years	
$\boxtimes$		or		
Description of ta	rgets			

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Creation Targe	ets	
What is the tar	geted reduction in cre	ation of the toxic substance at the
facility? *		
No quantity target	Quantity	Unit
X c	r	
What is the tar	geted timeframe for th	is reduction? *
No timeline target	years	
X	or	
Description of Target		
Reasons for U		
•	stance used at the facility?: *	
As a formulation con	nponent	
Summarize why the t	toxic substance is used at the fac	cility: **
This substance is us	ed for the formulation process to	produce the desired end product.
Reasons for C	reation	
Why is the toxic subs	stance created at the facility?: *	
This substance is no	t created at the facility	
Summarize why the t	oxic substance is created at the	facility: **
This substance is no	t created at the Halton Chemica	Facility.
Toxic Reduction	on Options for Impleme	entation
Description of	the toxic reduction opt	ion(s) to be implemented
Is there a statement	that no option will be implemente	ed?: *

If you answered "No" to this question, please add the option(s) under the appropriate Toxic Substance

Reduction Categories (e.g. Materials or feedstock substitution, Product design or reformulation, etc.).

If you answered "Yes" please select the appropriate reason(s) in the picklist below for why no option was implemented for this substance at your facility. You may choose to provide an explanation in the text box that is beneath the picklist.

Materials or feedstock substitution

**Empty** 

Product design or reformulation

**Empty** 

Equipment or process modifications

**Empty** 

Spill or leak prevention

**Empty** 

On-site reuse, recycling or recovery

**Empty** 

Improved inventory management or purchasing techniques

**Empty** 

Good operator practice or training

**Empty** 

Identify at least one reason why no option to reduce the use or creation of this substance was implemented at your facility:

Select the applicable reason or reasons \*\*

The substance is essential in the manufacturing process and becomes a product or component of the product

Explanation of the reasons why no option will be implemented

After review of the Toxic Substance Reduction Plan, no current available options listed were viable for the reduction of Acetone. Halton Chemical Inc. is continuing to exercise good practices to reduce loss of the material throughout the process.

Rationale for why the listed options were chosen for implementation

General description of any actions undertaken by the owner and operator of the facility to reduce the use and creation of the toxic substance at the facility that are outside of the plan

Halton Chemical Inc. currently has:

Spill prevention training

Fugitive emission/VOC training

Procedures for proper handling of materials and wastes to prevent spills

Run times as short as possible written exactly on batch cards

Dedicate equipment to a single product

Procedures to ensure all containers are covered/closed with tight-fitting lids and bungs

Procedures to ensure drums/containers/batch mixers are drained as much as possible

Written equipment procedures in plain language given to each operator with each batch

Regularly scheduled maintenance for operating equipment

Regularly scheduled maintenance for all scales to ensure weights of raw materials are exact

Weekly production meetings to review the above and address any new issues

License Number of the toxic substance reduction planner who made recommendations in the toxic substance reduction plan for this substance (format TSRPXXXX): \*

### **TSRP0237**

Name of the toxic substance reduction planner who made recommendations in the toxic substance reduction plan for this substance (First Name Last Name)

License Number of the toxic substance reduction planner who has certified the toxic substance reduction plan for this substance (format TSRPXXXX): \*

#### **TSRP0237**

Name of the toxic substance reduction planner who has certified the toxic substance reduction plan for this substance (First Name Last Name)

What version of the plan is this summary based on?: \*

Reviewed Plan

## 71-36-3, n-Butyl alcohol

71-36-3, n-Butyl alcohol

### **Substances Section Data**

### Statement of Intent

Are the following included in the Facility's TRA Plan?

## Use

Is there a statement that the owner or operator of the facility intends to reduce the use of the toxic substance at the facility?: \*

No

If 'yes', exact statement of the intent that is included in the facility's TRA Plan to reduce the use of the toxic substance at the facility: \*\*

If 'no', reason in t	he facility's	TRA Plan for no	intent to reduce the us	e of the toxic substance at the facility: **
	ityl Alcohol	Halton Chemica		ilable options listed were viable for the xercise good practices to reduce loss of
Creation				
Is there a statement substance at the		owner or operat	or of the facility intends	to reduce the creation of the toxic
No				
If 'yes', exact stat toxic substance a			ncluded in the facility's 1	ΓRA Plan to reduce the creation of the
If 'no', reason in t facility: **	he facility's	TRA Plan for no	intent to reduce the cre	eation of the toxic substance at the
This substance is	not create	d at the Halton (	Chemical Facility.	
Objectives,	Targets	and Descri	intion	
	raigets	and Descin	ιριιοι ι	
Objectives in plan	*			
Objectives in plar				
				henever feasible, we will reduce or in ongoing effort at our facility.
Use Targets	2			
		d reduction	in use of the toy	ic substance at the
	largete	a r <del>e</del> duction	in use of the tox	ic substance at the
facility? *  No quantity		Quantity		Unit
target		Quantity		Offic
$\boxtimes$	or			
What is the	targete	d timeframe	for this reduction	on? *
No timeline targe	et		years	
	<u> </u>		Jours	
$\boxtimes$		or		
Description of tar	gets			

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	_			
Creation Tar	gets			
What is the ta	argeted	d reductio	on in creation of the	toxic substance at the
facility? *				
No quantity target		Quantity		Unit
$\boxtimes$	or			
What is the ta	argeted	d timefran	ne for this reduction	n? *
No timeline target	:		years	
$\boxtimes$		or		
Description of Targ	et			
Reasons for	Use			
Why is the toxic su	bstance u	sed at the fac	cility?: *	
As a formulation co	omponent			
Summarize why the	e toxic sul	ostance is use	ed at the facility: **	
This substance is	used for th	ne formulation	n process to produce the de	esired end product.
Reasons for	Creation	n		
Why is the toxic su	bstance c	reated at the	facility?: *	
This substance is	not create	d at the facilit	ty	
Summarize why the	e toxic sul	ostance is cre	eated at the facility: **	
This substance is	not create	d at the Halto	on Chemical Facility.	
Toxic Reduct	ion Op	tions for	Implementation	
Description o	f the to	xic reduc	ction option(s) to be	e implemented
Is there a statemer	nt that no	option will be	implemented?: *	
Yes, we are not im	plementir	ıg		

If you answered "No" to this question, please add the option(s) under the appropriate Toxic Substance

Reduction Categories (e.g. Materials or feedstock substitution, Product design or reformulation, etc.).

If you answered "Yes" please select the appropriate reason(s) in the picklist below for why no option was implemented for this substance at your facility. You may choose to provide an explanation in the text box that is beneath the picklist.

Materials or feedstock substitution

**Empty** 

Product design or reformulation

**Empty** 

Equipment or process modifications

**Empty** 

Spill or leak prevention

**Empty** 

On-site reuse, recycling or recovery

**Empty** 

Improved inventory management or purchasing techniques

**Empty** 

Good operator practice or training

**Empty** 

Identify at least one reason why no option to reduce the use or creation of this substance was implemented at your facility:

Select the applicable reason or reasons \*\*

The substance is essential in the manufacturing process and becomes a product or component of the product

Explanation of the reasons why no option will be implemented

After review of the Toxic Substance Reduction Plan, no current available options listed were viable for the reduction of n-Butyl Alcohol. Halton Chemical Inc. is continuing to exercise good practices to reduce loss of the material throughout the process.

Rationale for why the listed options were chosen for implementation

General description of any actions undertaken by the owner and operator of the facility to reduce the use and creation of the toxic substance at the facility that are outside of the plan

Halton Chemical Inc. currently has:

Spill prevention training

Fugitive emission/VOC training

Procedures for proper handling of materials and wastes to prevent spills

Run times as short as possible written exactly on batch cards

Dedicate equipment to a single product

Procedures to ensure all containers are covered/closed with tight-fitting lids and bungs

Procedures to ensure drums/containers/batch mixers are drained as much as possible

Written equipment procedures in plain language given to each operator with each batch

Regularly scheduled maintenance for operating equipment

Regularly scheduled maintenance for all scales to ensure weights of raw materials are exact

Weekly production meetings to review the above and address any new issues

License Number of the toxic substance reduction planner who made recommendations in the toxic substance reduction plan for this substance (format TSRPXXXX): \*

#### **TSRP0237**

Name of the toxic substance reduction planner who made recommendations in the toxic substance reduction plan for this substance (First Name Last Name)

License Number of the toxic substance reduction planner who has certified the toxic substance reduction plan for this substance (format TSRPXXXX): \*

#### **TSRP0237**

Name of the toxic substance reduction planner who has certified the toxic substance reduction plan for this substance (First Name Last Name)

What version of the plan is this summary based on?: \*

Reviewed Plan

## 78-83-1, i-Butyl alcohol

78-83-1, i-Butyl alcohol

## **Substances Section Data**

### Statement of Intent

Are the following included in the Facility's TRA Plan?

## Use

Is there a statement that the owner or operator of the facility intends to reduce the use of the toxic substance at the facility?: \*

No

If 'yes', exact statement of the intent that is included in the facility's TRA Plan to reduce the use of the toxic substance at the facility: \*\*

If 'no', reason in	the facility's	TRA Plan for no	intent to reduce the us	se of the toxic substance at the facility: **
	ityl Alcohol.	Halton Chemical		ilable options listed were viable for the tercise good practices to reduce loss of
Creation				
Is there a statem substance at the		owner or operato	or of the facility intends	to reduce the creation of the toxic
No				
If 'yes', exact statoxic substance a			cluded in the facility's T	ΓRA Plan to reduce the creation of the
If 'no', reason in facility: **	the facility's	TRA Plan for no	intent to reduce the cre	eation of the toxic substance at the
This substance i	s not create	ed in the Halton C	hemical Facility.	
Objectives	Torquia	and Dagari	ntion	
	rargets	and Descri	puon	
Objectives				
Objectives in pla	n: *			
Halton Chemica eliminate the use	I Inc. is come of i-Butvl	mitted to protecti Alcohol. Toxic sub	ng the environment. Wostance reduction is an	henever feasible, we will reduce or ongoing effort at our Facility.
	•			
Use Targets				
What is the	targete	d reduction i	in use of the tox	ic substance at the
facility? *				
No quantity target		Quantity		Unit
X	or			
What is the	targete	d timeframe	for this reduction	on? *
No timeline targ	jet		years	
$\boxtimes$		or		
Description of tar	raete			
Description of la	i yoto			

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Creation Ta	rgets			
What is the	targeted	I reduction i	n creation of the	e toxic substance at the
facility? *				
No quantity target		Quantity		Unit
$\boxtimes$	or			
What is the	targeted	l timeframe	for this reduction	n? *
No timeline targe	et		years	
$\boxtimes$		or		
Description of Tar	rget			
Reasons for		sed at the facility	·?: *	
As a formulation				
Summarize why t		ostance is used a	at the facility: **	
i-Butyl Alcohol is as specified by th		on component mi	ixed with other substan	ices to produce the final desired product
Reasons for	Creation	n		
Why is the toxic s	ubstance c	reated at the faci	lity?: *	
This substance is	not create	d at the facility		
Summarize why t	he toxic sub	stance is create	d at the facility: **	
The substance is	not created	d at the Halton C	hemical Facility.	
Toxic Reduc	ction Op	tions for Im	plementation	
Description	of the to	xic reduction	on option(s) to b	e implemented
Is there a stateme	ent that no d	pption will be imp	lemented?: *	
Yes, we are not i	mplementin	g		

If you answered "No" to this question, please add the option(s) under the appropriate Toxic Substance

Reduction Categories (e.g. Materials or feedstock substitution, Product design or reformulation, etc.).

If you answered "Yes" please select the appropriate reason(s) in the picklist below for why no option was implemented for this substance at your facility. You may choose to provide an explanation in the text box that is beneath the picklist.

Materials or feedstock substitution

**Empty** 

Product design or reformulation

**Empty** 

Equipment or process modifications

**Empty** 

Spill or leak prevention

**Empty** 

On-site reuse, recycling or recovery

**Empty** 

Improved inventory management or purchasing techniques

**Empty** 

Good operator practice or training

**Empty** 

Identify at least one reason why no option to reduce the use or creation of this substance was implemented at your facility:

Select the applicable reason or reasons \*\*

The substance is essential in the manufacturing process and becomes a product or component of the product

Explanation of the reasons why no option will be implemented

No viable substitution or alternative for this product has been identified. Halton Chemical Inc. will continue to implement changes to reduce the overall toxic substance use.

Rationale for why the listed options were chosen for implementation

General description of any actions undertaken by the owner and operator of the facility to reduce the use and creation of the toxic substance at the facility that are outside of the plan

License Number of the toxic substance reduction planner who made recommendations in the toxic substance reduction plan for this substance (format TSRPXXXX): \*

**TSRP0237** 

Name of the toxic substance reduction planner who made recommendations in the toxic substance reduction plan for this substance (First Name Last Name)
License Number of the toxic substance reduction planner who has certified the toxic substance reduction plan for this substance (format TSRPXXXX): *
TSRP0237
Name of the toxic substance reduction planner who has certified the toxic substance reduction plan for this substance (First Name Last Name)
What version of the plan is this summary based on?: *
Amended Plan
78-93-3, Methyl ethyl ketone
78-93-3, Methyl ethyl ketone
Substances Section Data
Statement of Intent
Are the following included in the Facility's TRA Plan?
Use
Is there a statement that the owner or operator of the facility intends to reduce the use of the toxic substance at the facility?: *
No
If 'yes', exact statement of the intent that is included in the facility's TRA Plan to reduce the use of the toxic substance at the facility: **
If 'no', reason in the facility's TRA Plan for no intent to reduce the use of the toxic substance at the facility: **
Halton Chemical Inc. has already implemented measures to reduce their use of Methyl Ethyl Ketone. Currently, there are no viable substitutions and alternatives at this time to further reduce their use. Halton Chemical Inc. continues to implement new measures to reduce their use of toxic substance reductions.
Creation
Is there a statement that the owner or operator of the facility intends to reduce the creation of the toxic substance at the facility?: *
No
If 'yes', exact statement of the intent that is included in the facility's TRA Plan to reduce the creation of the toxic substance at the facility: **

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If 'no', reason in th	ne facility's	TRA Plan for no	intent to reduce the creation of the toxic substance at the
This substance is	not created	d at the Halton C	hemical Facility.
Objectives, 7	Γargets	and Descri	ption
Objectives			
Objectives in plan:	. *		
Halton Chemical I eliminate the use substance reducti	of Methyl E	thyl Ketone, whi	ng the environment. Whenever feasible, we will reduce or ich is a solvent in a number of products we use. Toxic at our Facility.
Use Targets			
What is the t	argeted	reduction i	in use of the toxic substance at the
facility? *			
No quantity target		Quantity	Unit
$\boxtimes$	or		
What is the t	argeted	l timeframe	for this reduction? *
	_		101 tine readettern.
No timeline targe	ıt.		years
No timeline targe	t	or	
No timeline targe ⊠	t		
_			
X			
X	iets		
Description of targ  Creation Tar	ets	or	
Description of targ  Creation Tar	ets	or	years
Description of targ  Creation Tar  What is the t	ets	or	years
Description of targ  Creation Tar  What is the t facility? *  No quantity	ets	or reduction i	years in creation of the toxic substance at the
Description of targ  Creation Tar  What is the t facility? *  No quantity target	gets argeted	or reduction i	years in creation of the toxic substance at the

⊠ or
Description of Target
Reasons for Use
Why is the toxic substance used at the facility?: *
As a formulation component
Summarize why the toxic substance is used at the facility: **
This substance is used in the formulation process to produce the desired end product.
Reasons for Creation
Why is the toxic substance created at the facility?: *
This substance is not created at the facility
Summarize why the toxic substance is created at the facility: **
This substance is not created at the Halton Chemical Facility.
Toxic Reduction Options for Implementation
Description of the toxic reduction option(s) to be implemented
Is there a statement that no option will be implemented?: *
Yes, we are not implementing
If you answered "No" to this question, please add the option(s) under the appropriate Toxic Substance Reduction Categories (e.g. Materials or feedstock substitution, Product design or reformulation, etc.).
If you answered "Yes" please select the appropriate reason(s) in the picklist below for why no option was implemented for this substance at your facility. You may choose to provide an explanation in the text box that is beneath the picklist.
Materials or feedstock substitution
Empty
Product design or reformulation  Empty
Equipment or process modifications

Empty

## Spill or leak prevention

**Empty** 

On-site reuse, recycling or recovery

**Empty** 

# Improved inventory management or purchasing techniques

**Empty** 

# Good operator practice or training

**Empty** 

Identify at least one reason why no option to reduce the use or creation of this substance was implemented at your facility:

Select the applicable reason or reasons \*\*

The substance is essential in the manufacturing process and becomes a product or component of the product

Explanation of the reasons why no option will be implemented

After review of the Toxic Substance Reduction Plan, no current available options listed were viable for the reduction of Methyl Ethyl Ketone. Halton Chemical Inc. is continuing to exercise good practices to reduce loss of the material throughout the process.

Rationale for why the listed options were chosen for implementation

General description of any actions undertaken by the owner and operator of the facility to reduce the use and creation of the toxic substance at the facility that are outside of the plan

Halton Chemical Inc. currently has:

Spill prevention training

Fugitive emission/VOC training

Procedures for proper handling of materials and wastes to prevent spills

Run times as short as possible written exactly on batch cards

Dedicate equipment to a single product

Procedures to ensure all containers are covered/closed with tight-fitting lids and bungs

Procedures to ensure drums/containers/batch mixers are drained as much as possible

Written equipment procedures in plain language given to each operator with each batch

Regularly scheduled maintenance for operating equipment

Regularly scheduled maintenance for all scales to ensure weights of raw materials are exact

Weekly production meetings to review the above and address any new issues

License Number of the toxic substance reduction planner who made recommendations in the toxic substance reduction plan for this substance (format TSRPXXXX): \*

**TSRP0237** 

Name of the toxic substance reduction planner who made recommendations in the toxic substance reduction plan for this substance (First Name Last Name)

License Number of the toxic substance reduction planner who has certified the toxic substance reduction plan for this substance (format TSRPXXXX): *
TSRP0237
Name of the toxic substance reduction planner who has certified the toxic substance reduction plan for this substance (First Name Last Name)
What version of the plan is this summary based on?: *
Reviewed Plan

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