CHENTRAC Quick Guide for Auto Body Shops

ChemTRAC is a program that aims to improve public health and support a green local economy by reducing toxic chemicals in our environment. ChemTRAC requires businesses to report their use and release of <u>25 priority substances</u> to the City each year under the Environmental Disclosure and Reporting Bylaw.

This Quick Guide will help businesses in the autobody refinishing and collision repair sector determine whether they need to report to ChemTRAC, and if they do, how to report. The guide includes information and tools for calculating the use and release of chemicals that are reportable to ChemTRAC. More detailed information about the Bylaw and the autobody refinishing and collision repair calculation tools are available on the ChemTRAC webpage for this industrial sector.

This guide outlines the following steps to follow for reporting to ChemTRAC:

- Steps 1-3 explain how to calculate the use and release of chemicals in your facility and determine whether a report is required;
- Steps 4 and 5 provide instructions on how to submit a report.

For accessibility support anytime, please call or email ChemTRAC at 416-338-7600 or <u>chemtrac@toronto.ca</u>

Steps for reporting to ChemTRAC

- 1- Gather information about chemicals used in the facility between January 1st to December 31st of the reporting year;
- 2- Calculate amounts used and released by the facility using a ChemTRAC calculator;
- 3- Compare the results from the calculations with the <u>ChemTRAC reporting thresholds</u> and determine if a report is required;
- 4- Submit a report to ChemTRAC;
- 5- Keep all documents for your records.

1- Gather information

It is necessary to gather information of the annual use (litres or gallons) of paints, primers, solvents, thinners and other solvent-containing materials such as degreaser. You must include all materials used between January 1st to December 31st of the year for which you are reporting. This information will be used to fill out the calculator in Step 3.

2. Calculate amounts used and released by the facility using a ChemTRAC calculator;

2.1 Download the latest calculator

Download the Autobody Refinishing calculator from the ChemTRAC website. It is important to download the calculator each year in order to make sure that you are using the most up-todate calculator. To download the calculator, go to the <u>Autobody Refinishing and Collision</u> <u>Repair sector webpage.</u> (Figure 1). Click on "Step 2: Do the Calculation".

Figure 1. Screenshot of the Autobody Refinishing web page.



The next screen will show several calculators useful for your specific sector (Figure 2). The general one is named "Autobody Refinishing". You may need to use the other ones if your facility performs welding, has dust collectors, uses solvents for parts cleaning only, or uses natural gas to provide process heat for activities.

Click on the link "Autobody Refinishing (Excel)" to download the calculator.

Figure 2. Calculators available for the Autobody Repair sector.

Step 1- Do I Need to Report?		Œ
Step 2: Do the Calculation		e
To help you estimate the amount that you can use. These can be o (www.openoffice.org [@]) or Libre(ts you need to report to ChemTRAC, Toronto Public opened using Microsoft Excel or a free office suite Office (www.libreoffice.org ¹²).	c Health has developed calculators* such as OpenOffice
These documents may not be ful ChemTRAC (email chemtrac@to	lly AODA** compliant. For accessible formats or co ronto.ca or call 416-338-7600).	ommunication support, please contac
You may download the calculato the "Calculation of Totals" calcul	rs related to your business processes. If you use n ator to add up the use and release amounts.	nore than one calculator, you may use
Tips:		
 If you have used more than the reporting threshold for \ If you have used more than 	150 L (40 gallons) of paint products and cleaners /OCs. 125,000 cubic metres of natural gas per year to pr	per year, then you may have reached ovide heat for your processes, then
you may have reached the r	eporting threshold for NOx.	
-		
Process	Calculators	Guide
Process Auto body refinishing	Calculators Autobody Refinishing (Excel)	Guide Guide 📾
Process Auto body refinishing Welding	Calculators Autobody Refinishing (Excel) Resistance Spot Welding (Excel) Electric Arc Welding (Excel)	Guide Guide 📦
Process Auto body refinishing Welding If you have one or more dust collectors	Calculators Autobody Refinishing (Excel) • Resistance Spot Welding (Excel) • Electric Arc Welding (Excel) Dust Collectors (Excel)	Guide Guide B Click on this link to download the
Process Auto body refinishing Welding If you have one or more dust collectors If you use chemicals that are VOCs or contain VOCs for parts cleaning or degreasing only	Calculators Autobody Refinishing (Excel) • Resistance Spot Welding (Excel) • Electric Arc Welding (Excel) Dust Collectors (Excel) Volatile organic compounds (VOCs) (Excel)	Guide Guide Click on this link to download the calculator
Process Auto body refinishing Welding If you have one or more dust collectors If you use chemicals that are VOCs or contain VOCs for parts cleaning or degreasing only Process heating	Calculators Autobody Refinishing (Excel) • Resistance Spot Welding (Excel) • Electric Arc Welding (Excel) Dust Collectors (Excel) Volatile organic compounds (VOCs) (Excel) • Natural gas boilers (0-99 MMBTUs) (Excel) • Natural gas boilers (0-99 MMBTUs) (Excel) • Click to find more calculators for process for proces	Guide Guide Click on this link to download the calculator

Please email <u>chemtrac@toronto.ca</u> if you need help downloading the calculators.

Note: The **"Enable Content"** button on the Excel toolbar may need to be clicked on to enable data entry (Figure 3).

Figure 3. How to "Enable Content" in Excel.



2.2 Fill out the "Autobody Refinishing" calculator

The "Autobody Refinishing" calculator has five tables that require your input and one that displays the results. These tables are in six different tabs (spreadsheets in the workbook):

- A. Facility information
- B. Paint Usage
- C. Other chemical usage
- D. Cleaning & Transferred Waste
- E. Sanding
- F. Output (Total MPO and Release)

To navigate these different tabs, click on the blue buttons at the right side of each page as shown in the image below (Figure 4).

A. Facility Information

Figure 4 shows the table that needs to be filled with your facility information. Fill in the cells coloured in green.





B. Paint Usage

There are two tables in the Paint Usage tab, Table A and Table B (Figure 5). Please only complete one table:

- If you have collected the amounts of specific paint products and other materials, complete Table A.
- If you only know the total amounts of paint products and other materials, complete Table B.

Use the information gathered in step 1 to fill in the green cells in Table A <u>or</u> B. Please make sure that you enter these amounts in litres (L).

Select water-based or solvent-based material in the corresponding drop-down menu for each product (Figure 5).

Input the number of towels used and select if you have a VOC control emission device.

Note: A Unit Conversion table has been included here to assist you to convert units if needed.





You should use Table A if you have a complete list of the amounts of products used in your facility during the year. For each product, enter the amount in litres (L) and choose the Product Type from the dropdown menu, if they are water- based or solvent-based (Figure 6).

9 10	۲a "Ta		Please complete Table A	OR Table B below	
11	" OF		Table A: Complete this table if	you know the break down of the paint	used
12	A		Choose the "Product Type" and p	rovide the quantity of each product us	ed below:
13	"Table		Product	Product Type	Quantity Used (L/yr)
14	e.		Primer Surfacer	Select	
15	plet		Primer Surfacer	Select Water-based/ Low VOC Solvent based	
16	E		Primer Sealer	We don't use this	
17	S		Primer Sealer	Select	
18	ase		Epoxy Primer (Part A)	Select	
19	oleg		Epoxy Primer (Part A)	Select	
20			Epoxy Primer (Catalyst/Activator)	Select	
21			Epoxy Primer (Catalyst/Activator)	Select	
22			Pre-Treatment Wash Primer	n/a	
23	\prec	7	Adhesion Promoter	n/a	
24			Colour Coating	Select	
0			Colour Conting	Select 💌	

Figure 6. Table A in the Paint Usage spreadsheet.

In the next table, enter the quantity of shop towels used, and enter the information for VOCs control devices if any (Figure 7).

Figure 7.	Table for	[·] inputting	cleaning	towels and	VOCs	control c	devices.
		, ,					

Quantity of shop towels used		units	•
Do you operate any VOC emiss Only applicable if entire proces	sions control device? s is enclosed	No	•
If yes, please provide the control	ol efficiency (%):	0%	

If you do not have detailed information to fill Table A, you may fill Table B (Figure 8) using the total volume of the paint products used in one year and left over amounts.

Figure 8. Table B in the Paint Usage spreadsheet.

Table B: Complete this table if you **DO NOT** know the break down of the paint used

 Enter the amounts in green cells

Product	Quantity Used (L/yr)
Total volume of all Paint products Purchased in a year (e.g. 2014)	
Total volume of all Paint products left over from previous year (e.g. 2	2013)
Total volume of all Paint products not used this year (e.g. 2014)	
Total volume of Reducer and Activator used in a year (e.g. 2014)	
Total volume of all Paint products used in a year (e.g. 2014)	0

For your convenience, there is a unit conversion table in this spreadsheet (Figure 9).

Figure 9. Unit conversion tables

	Unit Conve	rsio	on Table)
The qua used mus use i	antity of coatings it be reported in n another unit of conversion too	and litre: volu bls b	l other pro s. If you me ume, use ti elow:	ducts easure he
	,	Vol	ume	
1.0	gallons (US)	=	3.8	litres
1.0	gallons (UK)	=	4.5	litres
1.0	cubic metres (n	=	1000	litres
1.0	quarts (US)	=	0.95	litres
1.0	ounces (US)	=	0.03	litres
1.0	millilitres	=	0.001	litres
1.0	pint	=	0.47	litres
Imperia	al to Metric Un	it C	onversio	n
li	mperial		Metr	ic
1.0	gal	=	3.785	L
1.0	lb/gal	=	119.8	g/L
1.0	g	=	0.001	kg
1.0	lb	=	0.454	kg

C. Other Chemical Usage

This table should be completed if you use any other materials that contain VOCs (e.g. panel adhesive). The material amounts should be entered in litres per year, and the VOC content of the materials in grams per litre (Figure 10).

Figure 10. Other Chemical Usage table.

4	A B	с	D	E	F	G	н
		СЦЕЛЛОД	C				
1 2		Other Chemical Usage					
3	Instructions	Version 3.5, Last Updated: Apr	2015, JN (C	IIA), SI, JL & ZI			
		This page assists you in estin	nating the re	leases of VOC	s from Othe	er Chemical I	Products
4	Encility Info	in your facility.	tion request	od in the vellor	v collo		
5	Facility Into	Please provide all the information			v cells.		
		 Please report VOCs used to reported Surface Cleaner d 	for cleaning ata in the "I	In the "Clear Paint Usage"	ning" spre	adsheet. If eet. do not	you report it
5	Paint Usage	· ·		unit obuge	spicadoin		
/							
2	You Other Chemical	Efficiency of VOCs emission cor	ntrol device	0%	Only applica	able if entire pr	ocess is enclose
á	her Usage						
-		Calculating \	/OCs from	Various Ma	terials		
.0	Cleaning & Transferred	(Enter data in columns A B at	nd C. Colum	D and E will c	alculate au	tomatically)	
2	Waste	A	B	C	D	E	
-			Amount	VOC Content	Voc	Controlled	
	Sanding	Material	used in the	(from MSDS)	Usage	VOC	
3		material	year			Release	
4	Output (Total		L	g/L	kg	kg	
5	MPOs & Release)	* Example: Panel Adhesive	150	16.00	2.40	2.40	
5		panel adhesive	200.0	15.0	3.0	3.0	
7	Calculations				0.0	0.0	
в					0.0	0.0	
9	Deferences				0.0	0.0	
0	Kelelences				0.0	0.0	
1					0.0	0.0	
2					0.0	0.0	
3					0.0	0.0	
4					0.0	0.0	
5					0.0	0.0	
,					0.0	0.0	
2					0.0	0.0	
,					0.0	0.0	
)					0.0	0.0	
1					0.0	0.0	
2					0.0	0.0	
3					0.0	0.0	
4		Totals	200		3	3	
		I nis line is only an example and it	hobulon included	in the total calcul:	ation		

Where to find the VOC Content:

You may find the VOC content of your materials from Safety Data Sheets (SDS) or ask the supplier. If you have the SDS, find the "Physical and Chemical Properties" section and you will find the VOC content.

If you find it as gram per liter, input the amount directly into the table under the VOC content column. If you find the VOC in other formats such as volatility percentage or weight percentage (% w/w), you may convert it to grams per litre by using the specific gravity from the SDS (see the "Physical and Chemical Properties" section). Input these two data in the unit conversion table provided in the "Paint Usage" spreadsheet as shown in the image below. See the example in the conversion table below.

In this example the Volatility percentage is 59% and the Specific Gravity is 1 (from SDS). The VOC content is 590 g/l. Input the result in "Other Chemicals" Input table in column C as shown in Figure 11.

Figure 11. Calculate the VOC content



D. Cleaning and Transferred Waste

In the "Cleaning Chemicals" table in this spreadsheet, enter the amounts of the materials used for cleaning such as gun wash and thinner (Figure 12). In the table "Transferred Chemicals Waste", enter amounts of the waste chemicals picked up by a waste management company and transferred outside of the facility for recycling or disposal. For your convenience, the table has been populated with a default VOC content amount of 850 g/L. You can replace this default value for a specific one if available.



Figure 12. Tables in the Cleaning and Transferred Waste spreadsheet

E. Sanding and Blasting

Select "Yes" or "No" to identify if you have a preparation station for sanding. If yes, input the filter efficiency percentage of the preparation station.

There are two input tables for inputting the data for the sanding and abrasive blasting processes at your facility.

Table A is for Sanding: Input the number of ventilation system or dust collectors units, input the air flow rate amount in cubic feet per minute (CFM) and enter the operating schedule. You may find the air flow rate from the steel plate specification or specification sheet or ask the supplier. Estimate the amount of hours per day, days per week and weeks per year that you use the ventilation systems or each dust collector if any. (Figure 13).

Table B for Abrasive Blasting: Input the amount of abrasive used for parts blasting, in kilograms.





F. Output from Calculator

The "Output (Total MPOs & Release)" tab will show the results of the calculations in the "OUTPUT SUMMARY" table (Figure 14). These are the amounts of VOCs and PM_{2.5} that the facility manufactured, processed, otherwise used, and released to air during the reporting year.



	А	В	С	D	E	F	G	н	I
			СШ						
1			G						
2		Instructions	Output (Total MPOs & Releas	e)				
3			Version 3.	5, Last Updated: Apr 2015, J	JN (CIIA), SI, JL & ZI				,
		Facility Info	To determ MPOs or re	nine if you need to report, ad	d the amounts shown i	in the Output Su	Immary table to	any other	
4			the total to	the reporting thresholds.	S of Sources, it any, in	your racinty. Th	ch you need to	compare	
5		Paint Usage	You may	use the Calculation of Tota	als spreadsheet to calc	culate the totals.			
6									I
7		Other Chemical	OUTPL	JT SUMMARY (Only Chem	TRAC priority subst	ances)			
8		Usage		ChemTRAC Priority		Quantity	kg/yr)		
				Substances	Manufactured ¹	Processed ¹	Otherwise	Released	
9		Cleaning & Transferred	Dertiout	ata Mattar 2.5 (DM	325	0	Used'	to Air'	
10		Waste	Particu	ale Maller 2.5 (PM _{2.5})	525	U	U	525	
11			(VOCs)	blathe Organic Compounds	0	0	1.037	604	
12		Sanding	¹ Defini	tions available on Reference	es tab.		.,		
13									
14	You are	Output (Total							
16	here	MPOs & Release)							
17									
18 19		Calculations							
20									
21		References							
22									
24		2							
25		INI	INRA	NTA					
27		1141							

3. Compare the Results with ChemTRAC Reporting Thresholds

The most common priority substances that autobody repair shops report to ChemTRAC are volatile organic compounds (VOCs) and particulate matter 2.5 (PM_{2.5}). However, if other activities use chemicals, for example welding and parts washing, you need to use the other calculators and quantify those substances.

Enter the amounts from the Output Summary table into the thresholds comparison table below.

Thresholds Comparison Table

Chemical	Threshol d (kg/yr)	Category (column)	Results from Output Summary table (kg/yr)	Meet/Exceed Threshold (yes/no)
particulate matter 2.5 (PM _{2.5})	30	Released to Air	325	yes
volatile organic compounds (VOCs)	100	Released to Air	604	yes

The results of the calculator need to be compared with the reporting thresholds to determine if you need to report them. In summary:

- You will need to report **volatile organic compounds (VOCs)**, if the amount in the **Released to Air** column in the Output Summary table is **100 kg** or more.
- You will need to report **particulate matter 2.5 (PM_{2.5}),** if the amount in the **Released to Air** column in the Output Summary table is **30 kg** or more.
- If the amounts Released to Air of **both** substances are below the thresholds, you are not obligated to file a report.

For more information, refer to the Autobody Refinishing and Collision Repair sector webpage.

4. Submit a Report to ChemTRAC

If you determine that you are above the reporting thresholds, you must submit a report to ChemTRAC. Submitting a report is optional if your amounts are below the reporting thresholds.

Submit a report by going to the <u>ChemTRAC website</u> and clicking on the <u>"Submit ChemTRAC Report"</u> button (Figure 15).

Figure 15. Screenshot of the ChemTRAC webpage.



On the first page, click on Start Here.

On the second page, click on **"I agree"** to accept the terms and conditions and then enter your **Registration ID** in the box (Figure 16).

Figure 16. Sign in to the ChemTRAC Online Reporting System.

You are in a secure site		
Please enter your Registration ID (R-code) ID please contact us at <u>chemtrac@toronto</u>	in the input field below and click the next button. If you ca or call Toronto Health Connection at 416 338 7600.	u do not know your Registration
R - Code Example: R-0000000000-000000	Enter Registration	
Enter Registration ID (required)	Code received by mail	Click here
		to continue
Important Notice - As a security precaut after you log in with your R-code. If a pa	ion, each page will timeout after 15 minutes as indicate ge times out it will end your submission and you will h	ed at the top of each panave to re-enter your data

You can find your Registration ID in the letter you received from ChemTRAC. If you lose your Registration ID, you can always contact ChemTRAC by email (chemtrac@toronto.ca) or phone (416-338-7600) to retrieve it.

Click on "**Sign In**". This will bring you to **Step 1 (Facility Information).** Check your facility information for accuracy (correct any mistakes or update any information as required). For the **NAICS code**, select the first 2 digits from the list in the drop down menu followed by the second and the last 2 digits. Here are the relevant NAICS codes for the Autobody Refinishing and Collision Repair industry:

NAICS Code:	Industry
811111	General Automotive Repair
811112	Automotive Exhaust System Repair
811121	Automotive Body, Paint and Interior Repair and Maintenance
811119	Other Automotive Mechanical and Electrical Repair and Maintenance
811122	Automotive Glass Replacement Shops
811192	Car Washes
811199	All Other Automotive Repair and Maintenance

Click Next to go to Step 2: and check your contact information for accuracy (correct any

mistakes or update any information as required).

Click Next to go to Step 3: Select the Reporting Year (Figure 17).

Then select the action you want to take:

- If you **meet the threshold** for one or more priority substances
- If you want to update or change the priority sunstance data you have already submitted
- If you want to report as **below threshold**
- If you want to report as **exempt**

Figure 17. Step 3 for online reporting.



Note: If you need more than 15 minutes on each step, click **Back** and then **Next** button at the bottom of the screen. The system will reset the timer.

Click Next to go to Step 4: Select the chemicals for which you need to report (Figure 18).

If you have already reported for one or more chemicals in previous years, you will find those chemicals already selected.

Important note: if you are resubmitting your report to update the amounts of one or more chemicals, the old report will be replaced with the new one. Therefore, you need to enter all the amounts for all the chemicals again. It is not enough to include only the numbers and chemicals that you want to update.

Figure 18. Step 4. Select the chemicals you are reporting.

•	1	2	3	4	5	6	7	8
Chemical S	Selection - :	Step 4 of 8						
Chemica	al Type: Vo	latile Orga	nic Compo	unds (VOCs	:)			
1 🗆 12.0	ichloroetha	ne (Ethvlene	dichloride) w	ith CAS numb	er 107.06.2			
· · · · · · ·	citioniae wi	ar ess nome						
Volat	tile Organic	Compounds	(VOCs) Total					
Chemica	al Type: He	avy Metal	5					
🗌 Cadn	nium and its	compounds						
Chro	mium, Hexav	alent and it	s compounds					
Chro	mium, Non-I	Hexavalent a	nd its compo	unds				
🗌 Lead	and its com	pounds						
🔲 Many	ganese and	its compoun	ds					
Merc	ury and its c	ompounds						
Nicke	el and its cor	mpounds						
Chemica	al Type: Ot	her Chemi	cals					
1,2-0	ibromoetha	ne (Ethylene	dibromide) v	vith CAS num	ber 106-93-4			
Dichl	loromethane	(Methylene	chloride) wit	h CAS numbe	75-09-2			
Nitro	gen Oxides	(NOx) with C	AS number 1	1104-93-1				
Partie	culate Matte	r 2.5 (PM2.5)						
🗆 Tetra	chloroethyle	ne (Perchlor	oethylene) wi	th CAS numb	er 127-18-4			
Caution: W you update chemical fo	ou may retur e previously or that same	m to the app submitted ch year.	olication at a nemical data f	later date bef for one report	ore June 30, t ing year you	o update pre will need to	viously subm re-submit all f	itted inform the data fo

Click **Next** to go to **Step 5:** Enter the amounts for each selected chemicals in the appropriate box and select the estimation method from the list in the drop down menu.

Select: Yes if you report to NPRI or No if you do not report to NPRI, then click Next.

Figure 19. Step 5. Insert the reportable amounts for each chemical with other requested information.



If you receive a **warning message** on the system for an inconsistent amount, please select the appropriate reason(s). If you select **other**, please enter your reason in the box manually.

Click Next to go to Step 6: Enter your Environmental Information (if any).

Click Next to go to Step 7: Review your information.

Select the submitter from the list or enter the name of a new submitter.

Enter any additional information in the comment box provided (if any).

Check the box for "Statement of Certification".

Click **Submit Report** to go to **Step 8:** Print the **Confirmation Page** within 15 minutes of submission.

To update or revise a submitted report:

If for any reason you need to update your report, you will have to login by clicking on <u>"Submit</u> <u>ChemTRAC Report"</u> button on the ChemTRAC homepage and follow the first two steps described before.

At the **Step 3**, select the reporting year and the second option to **Update or Change Chemical Data** (Figure 20).

Note: Select **all** priority substances that you meet the thresholds and re-enter **all** the information including the updated ones.

Figure 20. How to update a report in the ChemTRAC reporting system.

		1	2	3	4	5	6	7	8		
	•							-			
	Reporting Period and Report Type - Step 3 of 8										
If	If you are a returning user and wish to see your contact and facility information click on the 'Back' button at the bottom of this page.										
	Select reporting period (required)										
2016											
Please select what you would like to report (required) : O Report chemical data since I meet the reporting thresholds											
	O Update or change chemical data that I have already reported										
O Report that I am below reporting thresholds for all 25 priority substances (chemicals) and I am not Exempt											
	If your facility is exempt from the Bylaw according to Section 423-3 of Municipal Code Chapter 423 Environmental Reporting and Disclosure please select the reason below:										
	O My facility is solely retail										
	O My facility is a medical or dental office										
	O My facility is a restaurant										

5. Keep all Documents for your Records

Keep all your calculation files and supporting documents for at least 5 years from the date of report submission in case your facility gets audited.

Publishing the Data

ChemTRAC publishes the reported data on the <u>ChemTRAC website</u> annually. You can find information on current and previous reports by clicking on <u>"Data Disclosure"</u> and searching by facility name.

Notes:

- Contact us if you need to update information about your facility including the contact person.
- If your facility moves to a new address in Toronto, please contact us to get a new unique registration code for the new location.
- If the facility is closed or sold, please let us know by email or phone.

Contact us:

Email: <u>chemtrac@toronto.ca</u> Phone: 416-338-7600