

Examples and Case Studies for the 2012 Chemical Data Reporting

U.S. Environmental Protection Agency
Office of Pollution Prevention and Toxics
Economics, Exposure and Technology Division

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INTRODUCTION

This document presents examples and case studies to help you in reporting for 2012 Chemical Data Reporting (CDR), formerly known as Inventory Update Reporting (IUR). EPA designed these examples to illustrate the new reporting requirements, which were published as part of the CDR Rule (published August 16, 2011), and to address general reporting issues from the 2006 IUR. **These case studies are not based on actual data, but are hypothetical situations generated to assist submitters in completing the 2012 Form U electronically, using e-CDRweb.**

Some snapshots used to illustrate the examples are from an earlier version of the e-CDRweb reporting tool and contain an eTSCA designation in the upper right corner. When using e-CDRweb, you will instead see a CSPP designation in the upper right corner (see Figure 9 for an example). Your 2012 CDR submission must be made electronically using the e-CDRweb reporting tool.

This document is intended solely as guidance. This guidance is not a regulation and is not a substitute for the CDR regulations located at 40 CFR Part 711. Nothing in this document serves to supersede or alter existing regulatory requirements or to impose any new legally binding requirements on EPA, state/local agencies, or the regulated community. The general description provided in this document may not apply to a particular situation based on the circumstances. Furthermore, interested parties remain free to raise questions or objections about the substance and application of the guidance as they arise in a particular situation. EPA retains the discretion to adopt approaches on a case-by-case basis that differ from those described in this guidance where appropriate. This document may be revised periodically without public notice.

Additional information on the CDR reporting requirements is located in the *Instructions for the 2012 Chemical Data Reporting*. If you have specific questions about your reporting requirements after reviewing the CDR guidance materials, you may contact the TSCA Hotline at (202) 554-1404 or by email at tsca-hotline@epa.gov.

CDR REPORTING TOPICS COVERED IN THE EXAMPLES AND CASE STUDIES

Topic	Examples and Case Studies								
	A	B	C	D	E	F	G-1	G-2	CS-1
Completing Section 2 of Form U									
Chemical Identification Information	X								X
2011 Production Volume Information	X								X
Exported Volume and Volume Used On Site	X	X							X
2010 Production Volume	X								X
Recycled Chemicals			X						
Physical Forms				X					X
Joint Submissions (Primary Submitter)							X		
Completing Section 3.A of Form U									
Industrial Processing and Use Scenarios					X				X
Number of Industrial Workers									X
Number of Industrial Sites									X
Completing Section 3.B of Form U									
Commercial and Consumer Use Scenarios						X			X
Maximum Concentration						X			X
Number of Commercial Workers						X			X
Completing Section 4 of Form U									
Joint Submissions (Secondary Submitter)								X	

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EXAMPLE A

Section 2.A. Chemical Identification Information and

Section 2.B. Production Volumes

This example illustrates how to properly report:

- Your chemical identification information
- Your site's production and use for calendar year 2011
- Your site's production volume for calendar year 2010

Scenario

Your Plano, TX site began manufacture of a new chemical substance in 2007. The chemical substance was added to the TSCA Inventory under the CA Index Name, Chemical X and CASRN 123-45-6. The identity of the chemical was not claimed confidential. Production of Chemical X was 30,000 lb in 2010 and 120,000 lb in 2011. You did not import any additional volumes of the chemical. In 2011, your site used 60,000 lb of Chemical X as an intermediate in the manufacture of an industrial product, 30,000 lb was exported to a company in Europe, and 30,000 lb was sent to a site owned by your company in Freeport, TX.

How will you report under CDR?

Note that the production volume for Chemical X met the 25,000 lb reporting threshold in 2011; therefore, your chemical substance is subject to CDR requirements.

Chemical Identification Information for Non-Confidential Substances

- Because the identity of Chemical X is not identified as confidential on the TSCA Inventory, you do not check CBI for Chemical Identification (Data Element 2.A.1). Note that you may claim the chemical identity confidential only if the identity of the Chemical X is treated as confidential in the Master Inventory File as of the time the report is submitted. If you were to assert a confidentiality claim, you are required to submit with claim detailed written answers to the substantiation questions at 40 CFR part 711.30(b)(1).
- e-CDRweb uses the Agency's Substance Registry Services (SRS) to enable you to select the TSCA Inventory-listed name and identifying number for your chemical substance. Use the SRS search tool to search for the CASRN and CAS Index Name that identify your chemical substance (Data Elements 2.A.2 and 2.A.4).
- You would indicate Number ID Code "C" (Data Element 2.A.3). The Number ID Code corresponds to the type of identifying number you entered for Data Element 2.A.2 ("C" code corresponds to CAS Registry Number).

Figure 1 illustrates in the bold and blue highlighted boxes how you would report the chemical identification data elements for Example A.

Example A

The screenshot displays the TSCA eForm U interface for Section 2.A - Chemical Identification. The top navigation bar includes 'Home', 'Forms', 'User Management', 'Resources', and 'Log Out'. The user is logged in as 'John Doe, Primary Authorized Official'. The left sidebar shows a tree view of the form sections, with 'Chemical Identification (2.A)' selected. The main content area contains the following fields and controls:

- CBI for Chemical Identification (2.A.1)
- Chemical Identifying Number (2.A.2)
- Number ID Code (2.A.3)
- Chemical Name (2.A.4)
- Search
- Chemical Alias
- Text description: "The chemical report folder alias is an optional field that changes the folder name in the navigator on the left. Its purpose is to make it easier to distinguish between chemical folders when there is more than one."
- Navigation buttons: Previous, Next
- Bottom bar buttons: Add Chemical, Add Joint Submission, Upload XML, Validate, Save, Preview, Submit

Figure 1: Form U, Section 2.A. Chemical Identification

Production for Calendar Year 2011

- You are required to provide detailed manufacturing, processing, and use information for your 2011 site activities because the production volume meets the 25,000 lb threshold for reporting manufacturing information and the 100,000 lb threshold for reporting processing and use information.
- In 2011, your site domestically manufactured 120,000 lb of Chemical X and did not import the chemical (Data Elements 2.B.4 – 2.B.6). Because you did not conduct any import activities, you do not have to indicate whether the chemical was ever physically at the site. Data Element 2.B.7 will be grayed out. The ‘Chemical never physically at site’ indication applies only to imported chemicals.
- Of the 120,000 lb manufactured, 50 percent, or 60,000 lb, was used on site for downstream processing (as an intermediate) and 25 percent, or 30,000 lb, was exported to Europe (Data Elements 2.B.8 and 2.B.9).
- The remaining production volume (30,000 lb) was transferred to another company-owned site for use in the production of other chemicals. Use of Chemical X at the Freeport site is not reported in the manufacturing section (Section 2) but will need to be reported in the downstream processing and use section (Section 3). Note that the use of 60,000 lb on site as an intermediate should also be reported in Section 3. (Section 3 is not illustrated for this example.)

Example A

Production Volumes for Calendar Year 2010

- You are required to report the production volume for calendar year 2010 (Data Element 2.B.20).

Figure 2 illustrates in the bold and blue highlighted boxes how you would report the production data elements for Example A.

2012 Form U
Primary Authorized Official

2012 Form U > Cook County > Chemical Report > Manufacturing Information (2.B)

SECTION 2.B - MANUFACTURING INFORMATION

Company Identification (2.B.1) CBI Number of Workers (2.B.10) CBI
 Site Identification (2.B.2) Max Concentration (2.B.11) CBI
 Technical Contact Information (2.B.3) Chemical being recycled? (2.B.12) CBI

Report CY 2011 Production Volume

Activity (2.B.4) Manufacture CBI Import CBI

Domestically Manufactured (2.B.5) **120,000** lbs. CBI
 Imported (2.B.6) **0** lbs. CBI
 Imported Chemical Never Physically at Site (2.B.7) Yes

Volume Used on Site (2.B.8) **60,000** lbs. CBI
 Volume Exported (2.B.9) **30,000** lbs. CBI

Report Physical Form	Applies	CBI	% Production Volume	CBI
Dry Powder (2.B.13)	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>
Pellets/Large Crystals (2.B.14)	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>
Water/Solvent Wet Solid (2.B.15)	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>
Other Solid (2.B.16)	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>
Gas/Vapor (2.B.17)	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>
Liquid (2.B.18)	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>
Unknown (2.B.19)	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>

Report Past Production Volume (2.B.20)

Year	Production Volume	CBI
Calendar Year 2010	30,000 lbs.	<input type="checkbox"/>

Validate Save Preview Submit

Figure 2: Form U, Section 2.B. Manufacturing Information

Note: This example presents guidance on select CDR reporting requirements and does not address all of the information that must be reported under CDR. The Examples and Case Studies crosswalk in the Introduction on page ii will guide you to specific CDR data elements presented in this document.

EXAMPLE B

Section 2.B. Volume Exported and Volume Used On Site

This example illustrates how to properly report:

- The volumes exported and used on site for a reportable chemical substance.

Scenario

Your company manufactures Chemical X, a photosensitive component used in the formulation of photoresist for use in semiconductor manufacturing. Your company began production of Chemical X in 2009 and has since been ramping up production through 2011. Your company produced 250,000 lb of Chemical X in 2010 and 400,000 lb in 2011. Each year, your company has directly exported 60 percent of the total production volume of Chemical X to Asia and has used the other 40 percent on site for the formulation of photoresist. The photoresist is then exported for use at semiconductor manufacturing facilities in Japan and Korea.

How will you report under CDR?

Note the total production volume for 2011 is greater than or equal to 25,000 lb; therefore, Chemical X is subject to CDR requirements.

Volume Exported

- Your company exports a portion of the manufactured volume of Chemical X and should report this activity for 2011. Note that CDR defines the export volume as the volume of domestically manufactured or imported chemical that is directly exported and not domestically processed or used; therefore, the volume of Chemical X that is further formulated on site into a photoresist formulation and then exported should not be included in the total volume exported.
- In 2011, the total volume of Chemical X that is directly exported is 240,000 lb, or 60 percent of the total production volume. The remaining 40 percent of the volume of Chemical X, or 160,000 lb, is used on site (Data Elements 2.B.8 and 2.B.9).
- Note that industrial processing and use information (Section 3.A of Form U) should be reported for the 160,000 lb of Chemical X used on site for photoresist formulation. Consumer and commercial use information (Section 3.B of Form U) is not required since the formulation containing Chemical X is exported.

Example B

Figure 3 illustrates in the bold and blue highlighted boxes how you would report the export volume and volume used on site for Example B.

The screenshot shows the TSCA eForm U interface for Section 2.B - Manufacturing Information. The user is logged in as John Doe, Primary Authorized Official. The interface includes a navigation menu on the left with sections like 'Company & Site Identification Information', 'Chemical Report', and 'Amendment and Late'. The main content area contains several input fields and checkboxes. The 'Report CY 2011 Production Volume' section includes fields for 'Domestically Manufactured (2.B.5)', 'Imported (2.B.6)', and 'Imported Chemical Never Physically at Site (2.B.7)'. The 'Volume Used on Site (2.B.8)' and 'Volume Exported (2.B.9)' fields are highlighted in blue and contain the values 160,000 and 240,000 respectively. The bottom toolbar contains buttons for 'Validate', 'Save', 'Preview', and 'Submit'.

Figure 3: Form U, Section 2.B. Manufacturing Information, Data Elements 2.B.8 and 2.B.9

Note: This example presents guidance on select CDR reporting requirements and does not address all of the information that must be reported under CDR. The Examples and Case Studies crosswalk in Introduction will guide you to specific CDR data elements presented in this document.

EXAMPLE C

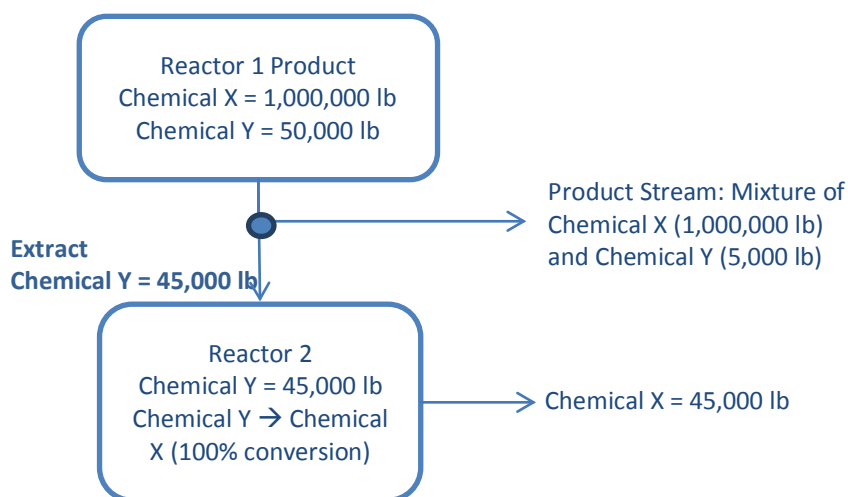
Section 2.B. Manufacturing Information

This example illustrates how to properly report:

- The 2011 volumes for your byproduct chemical; and
- Whether your byproduct chemical is recycled, remanufactured, reprocessed, or reused

Scenario

Chemical X is an industrial chemical. The process your site in Mobile, Alabama uses to manufacture Chemical X results in the manufacture of a byproduct, Chemical Y. In 2011, you manufactured one million lb of liquid Chemical X and 50,000 lb of liquid Chemical Y. Your site can successfully isolate 90 percent, or 45,000 lb, of Chemical Y from the liquid mixture and reprocess Chemical Y to yield additional volume of Chemical X (100% conversion). The remaining volume of Chemical Y, or 5,000 lb, remains in solution with Chemical X.



CDR Reporting requirements:

Chemical X = 1,045,000 lb (Reactor 1 volume + Reactor 2 volume; requires reporting under CDR)

Chemical Y = 45,000 lb (used for a non-exempt commercial purpose, requires reporting under CDR)

Chemical Y = 5,000 lb (not used for a commercial purpose, does not need to be reported)

Figure 4. Chemical Y Manufacturing and Reprocessing Steps

How will you report under CDR?

Chemical Y is a byproduct of your process that is used for a non-exempt commercial purpose; therefore, Chemical Y is reportable under the CDR rule. Note that you are also required to report for Chemical X since it is an intentionally manufactured chemical. The

total volume of Chemical X manufactured, 1.045 million lb (1,000,000 lb manufactured in Reactor 1 plus 45,000 lb manufactured in Reactor 2) should be reported under CDR.

Chemical Recycle

- Your site separates Chemical Y from the process and uses the chemical to produce more of Chemical X. Therefore, you should identify in Form U that Chemical Y is being recycled regardless of the volume you recycle (Data Element 2.B.12). Note that when you complete Form U for Chemical X, you do not check this data element since Chemical X isn't being recycled, reused, remanufactured, or reprocessed.

2011 Production and Use Volumes

- Chemical Y is domestically manufactured. You should check "Manufacture" (Data Element 2.B.4).
- Only a portion of the total manufactured volume of Chemical Y is reportable under CDR. Of the 50,000 lb of Chemical Y manufactured as a byproduct, 45,000 lb was extracted from Reactor 1 and used as an intermediate to produce additional volume of Chemical X. Therefore, 45,000 lb of Chemical Y is considered a byproduct with a non-exempt commercial purpose that requires reporting under the CDR rule (Data Element 2.B.5). The remaining 5,000 lb of Chemical Y is unintentionally present with Chemical X (i.e., it is an impurity). As an impurity, this remaining 5,000 lb of Chemical Y is not reportable under the CDR.
- The reportable volume of Chemical Y is reprocessed and consumed to manufacture additional volume of Chemical X. The total volume used on site is 45,000 lb. (Data Element 2.B.8)
- Chemical Y is not exported. You should indicate zero pounds exported. (Data Element 2.B.9)

Figure 5 illustrates in the bold and blue highlighted boxes how you would report these data elements for Chemical Y of Example C.

Examples and Case Studies for the 2012 Chemical Data Reporting
 Example C

2012 Form U
 Primary Authorized Official

2012 Form U > Cook County > Chemical Report > Manufacturing Information (2.B)

SECTION 2.B - MANUFACTURING INFORMATION

Company Identification (2.B.1) CBI

Site Identification (2.B.2) CBI

Technical Contact Information (2.B.3) CBI

Number of Workers (2.B.10)

Max Concentration (2.B.11)

Chemical being recycled? (2.B.12) CBI

Report CY 2011 Production Volume

Activity (2.B.4) Manufacture CBI Import CBI

Domestically Manufactured (2.B.5) lbs. CBI

Imported (2.B.6) lbs. CBI

Imported Chemical Never Physically at Site (2.B.7) CBI

Volume Used on Site (2.B.8) lbs. CBI

Volume Exported (2.B.9) lbs. CBI

Report Physical Form	Applies	CBI	% Production Volume	CBI
Dry Powder (2.B.13)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>

Figure 5: Form U, Section 2.B. Manufacturing Information, Data Element 2.B.12

Note: This example presents guidance on select CDR reporting requirements and does not address all of the information that must be reported under CDR. The Examples and Case Studies crosswalk in Introduction will guide you to specific CDR data elements presented in this document.

EXAMPLE D

Section 2.B. Physical Forms

This example illustrates how to properly report:

- Multiple physical forms of the reportable chemical substance
- Percent of the total production volume for each physical form

Scenario

Your company manufactures Chemical X which is used as a component in the production of an article. In order to meet the requirements of the various processes used by your customers, you manufacture Chemical X in three different physical forms. In 2011, your company manufactured 33,500 lb of Chemical X as a dry powder, 33,500 lb as pellets, and 33,000 lb as a wet cake for a total production volume of 100,000 lb.

How will you report under CDR?

Note the total production volume for 2011 is greater than or equal to 25,000 lb; therefore, Chemical X is subject to CDR requirements. Chemical X is manufactured in three different physical forms; therefore, all forms should be reported.

Physical Form Identification

- Chemical X is manufactured as dry powder, pellets, and wet cake (i.e., water wet solid). You should indicate these physical forms in the appropriate check boxes (Data Elements 2.B.13, 2.B.14, and 2.B.15).

Percent Production Volume

- Your site should report percent production volume for each physical form based on the total domestically manufactured and imported volume. In 2011, your site manufactured 100,000 lb of Chemical X.
- The dry powder form of Chemical X accounts for 33,500 lb, or 33.5 percent of the total volume. Reported percentage values are rounded to the nearest 10 percent. You would report 30 percent for this physical form.
- The pellet form of Chemical X accounts for 33,500 lb, or 33.5 percent of the total volume. You would report 30 percent for this physical form.
- The wet cake form of Chemical X accounts for 33,000 lb, or 33 percent of the total volume. You would report 30 percent for this physical form.
- Note that rounding percentage values may result in a total percent of production volume that is less than or greater than 100 percent. In this example, the total percentage of the production volume reported for the different physical forms is 90 percent.

Figure 6 illustrates in the bold and blue highlighted boxes how you would report the multiple physical forms for Example D.

The screenshot displays the TSCA 2012 Form U web application interface. The user is logged in as John Doe, Primary Authorized Official. The main content area is titled 'Report Physical Form' and contains a table with the following data:

Physical Form	Applies	CBI	% Production Volume	CBI
Dry Powder (2.B.13)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>
Pellets/Large Crystals (2.B.14)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>
Water/Solvent Wet Solid (2.B.15)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>
Other Solid (2.B.16)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>
Gas/Vapor (2.B.17)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>
Liquid (2.B.18)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>
Unknown (2.B.19)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>

Below this table is the 'Report Past Production Volume (2.B.20)' section, which includes a table for reporting production volume by year:

Year	Production Volume	CBI
Calendar Year 2010	<input type="text"/> lbs.	<input type="checkbox"/>

The interface also features a left-hand navigation menu with sections like 'Company & Site Identification Information', 'Chemical Report', 'Manufacturing Information (2.B)', and 'Amendment and Late'. At the bottom, there are buttons for 'Add Chemical', 'Add Joint Submission', 'Upload XML', 'Validate', 'Save', 'Preview', and 'Submit'.

Figure 6: Form U, Section 2.B. Manufacturing Information, Data Elements 2.B.13 through 2.B.19

Note: This example presents guidance on select CDR reporting requirements and does not address all of the information that must be reported under CDR. The Examples and Case Studies crosswalk in Introduction will guide you to specific CDR data elements presented in this document.

EXAMPLE E

Section 3.A. Industrial Processing and Use

This example illustrates how to properly report:

- The industrial sector codes that apply to your chemical substance
- Your industrial processing and use scenarios, including repackaging
- The percent production volume for each industrial processing and use scenario that you identified for your chemical

Scenario

Your site conducted the following activities for Chemical Y in 2011:

- Domestically manufactured 170,000 lb;
- Imported a total of 30,000 lb from Europe; and
- Exported 16,000 lb to South America.

Of the domestically manufactured and imported volume, 184,000 lb was used or processed domestically. 20,000 lb of Chemical Y in 2011 was consumed by your site in the manufacture of an organic chemical. An additional 30,000 lb of Chemical Y was sold to a customer that also used it for manufacture of an organic chemical. The remaining volume, or 134,000 lb, of Chemical Y was repackaged at one of your distribution facilities and sold for domestic use by several downstream customers for further processing into adhesive formulations for industrial textile products and wood products. You determined from your product marketing department that 78,000 lb of Chemical Y is used in industrial textile products and 56,000 lb in wood products.

How will you report under CDR?

Industrial processing and use information for Chemical Y is based on your 2011 production. Chemical Y meets the production volume threshold of 100,000 lb for downstream processing and use reporting. Note that you are not required to report downstream processing and use information for the exported volume of Chemical Y.

Industrial Sector Codes (IS codes)

EPA developed a list of 48 Industrial Sector (IS) codes for reporting the sectors of industry in which products containing chemical substances which you manufacture or import are used. These IS codes are listed in the TSCA Chemical Data Reporting Requirements (40 CFR part 711) and reproduced in Appendix D of the *Instructions for the 2012 Chemical Data Reporting*. Appendix D also contains the ranges of NAICS codes corresponding to each IS code.

- The IS code for organic chemical manufacturing is IS21, All other basic organic chemical manufacturing.
- The IS code for industrial textile products is IS7, Textiles, apparel, and leather manufacturing.
- The IS code for wood products is IS8, Wood product manufacturing.

Industrial Processing and Use Scenarios

- Industrial processing and use scenarios identify any activities occurring with the chemical substance after it is manufactured. All industrial processing and use scenarios during 2011 at your site and your customer sites should be reported for Chemical Y.
- The downstream use of your chemical is described by a unique combination of processing and use code (P/U), industrial function category (IFC) code, and industrial sector (IS) code. The three codes define an industrial processing and use scenario. Your site should use the identified codes to develop unique scenarios that describe the processing and use of Chemical Y, as illustrated in Figure 5.
- Repackaging of Chemical Y for distribution to downstream customers engaging in various uses should also be reported for each downstream use.
- The first scenario is the use of Chemical Y at your site and at your customer site to manufacture another organic chemical. The following codes apply to this scenario (Data Element 3.A.1):
 - PC – Processing as a reactant
 - IS21 – All other basic organic chemical manufacturing
 - U015 – Intermediates
- The second scenario is the repackaging of Chemical Y for distribution to downstream customers for further processing into adhesive formulations for industrial textiles. The following codes apply to this scenario (Data Element 3.A.2):
 - PK – Processing–repackaging
 - IS7 – Textiles, apparel, and leather manufacturing
 - U002 – Adhesives and sealant chemicals
- The third scenario is the repackaging of Chemical Y for distribution to downstream customers for further processing into adhesive formulations for wood products. The following codes apply to this scenario (Data Element 3.A.3):
 - PK – Processing–repackaging
 - IS8 – Wood product manufacturing
 - U002 – Adhesives and sealant chemicals
- The fourth scenario is the formulation of Chemical Y into an adhesive for use in industrial textiles. The following codes apply to this scenario (Data Elements 3.A.4):
 - PF – Processing–incorporation into formulation, mixture, or reaction product
 - IS7 – Textiles, apparel, and leather manufacturing
 - U002 – Adhesives and sealant chemicals
- The fifth scenario is the formulation of Chemical Y into an adhesive for use in wood products. The following codes apply to this scenario (Data Element 3.A.5):

Example E

- PF – Processing–incorporation into formulation, mixture, or reaction product
- IS8 – Wood product manufacturing
- U002 – Adhesives and sealant chemicals

Percent Production Volume

- Your site’s reported percent production volume should be based on the total volume for Chemical Y (domestically manufactured and imported) at your site. In 2011, your site manufactured (including imported) a total of 200,000 lb of Chemical Y.
- In the first scenario, 20,000 lb of the 200,000 lb manufactured was used as a reactant at your manufacturing site, or 10 percent of the production volume. Additionally, 30,000 lb, or 15 percent, was similarly used by your customer. You should report the portion of Chemical Y’s volume that you use in addition to the volume used by your customer in this section. The total percent of volume used for this industrial processing and use scenario is 25 percent. This value should be rounded to the nearest 10 percent of production volume; therefore, you would report 30 percent for this scenario.
- In the second scenario, 78,000 lb of the 200,000 lb manufactured was repackaged for distribution to downstream customers for further processing in adhesive formulations for use in industrial textiles, or 39 percent of the production volume. You would report 40 percent for this scenario.
- In the third scenario, 56,000 lb out of the 200,000 lb manufactured was repackaged for distribution to downstream customers for further processing in adhesive formulations for use in wood products, or 28 percent of the production volume. You would report 30 percent for this scenario.
- In the fourth scenario, 78,000 lb of the 200,000 lb manufactured was used in industrial textiles, or 39 percent of the production volume. You would report 40 percent for this scenario.
- In the fifth scenario, 56,000 lb out of the 200,000 lb manufactured was used in wood products, or 28 percent of the production volume. You would report 30 percent for this scenario.
- Note that rounding percentage values may result in a total percent of production volume consumed in industrial processing and use that is less than or greater than 100 percent. Repackaging activities or multiple processing steps may result in percentages which add to greater than 100 percent. In this example, the total percent of production volume reported for industrial processing and use is 170 percent.

Figure 7 illustrates in the bold and blue highlighted boxes how you would report these data elements for Example E.

2012 Form U
 Primary Authorized Official
 2012 Form U > Cook County > Chemical Report > Industrial Processing and Use (3.A)

SECTION 3.A - INDUSTRIAL PROCESSING AND USE

Not Applicable

	Type of Process or Use		Sector(s)		Industrial Function Category		Percent Production Volume		Number of Sites		Number of Workers		
	Code	CBI	Code	CBI	Code	CBI	%	CBI	Code	CBI	Code	CBI	
(3.A.1)	PC	<input type="checkbox"/>	IS21	<input type="checkbox"/>	U015	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	×
(3.A.2)	PK	<input type="checkbox"/>	IS7	<input type="checkbox"/>	U002	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	×
(3.A.3)	PK	<input type="checkbox"/>	IS8	<input type="checkbox"/>	U002	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	×
(3.A.4)	PF	<input type="checkbox"/>	IS7	<input type="checkbox"/>	U002	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	×
(3.A.5)	PF	<input type="checkbox"/>	IS8	<input type="checkbox"/>	U002	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	×
(3.A.6)		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	×
(3.A.7)		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	×
(3.A.8)		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	×
(3.A.9)		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	×
(3.A.10)		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	+

Buttons: Add Chemical, Add Joint Submission, Upload XML, Validate, Save, Preview, Submit

Figure 7: Form U, Section 3.A. Industrial Processing and Use Scenarios (Data Elements 3.A.1 through 3.A.10)

Note: This example presents guidance on select CDR reporting requirements and does not address all of the information that must be reported under CDR. The Examples and Case Studies crosswalk in Introduction will guide you to specific CDR data elements presented in this document.

EXAMPLE F

Section 3.B. Consumer and Commercial Use

This example illustrates how to properly report:

- The product categories for your chemical
- Whether your product categories are consumer and/or commercial uses
- The percent production volume for each consumer and/or commercial product category you identified for your chemical
- The number of commercial workers for your commercial use product categories

Scenario

Your site is the sole manufacturer of Chemical Z. The site produced 1.1 million lb of the chemical in 2011, 350,000 lb of which was sold for use in industrial products and the remaining for incorporation into several consumer and commercial products. After conferring with your marketing department, you were able to determine the following uses for Chemical Z:

- 350,000 lb is further processed into products used at industrial sites;
- 100,000 lb is further processed into a formulation used in facial soap;
- 280,000 lb is incorporated into all-purpose paper products; and
- 370,000 lb is used in commercial ink toners.

You obtained additional information from your marketing group on the size and number of commercial sites to which your downstream customers sell their commercial products. Based on information provided, you determined that they sell paper products to over 1,000 commercial sites with 50 to 400 employees at each site and commercial ink toners to approximately 50 sites with less than 10 employees at each site.

How will you report under CDR?

Consumer and commercial use information for Chemical Z is based on your 2011 production.

Product Category

- EPA revised the list of consumer and commercial use product categories for 2012 reporting. You should use the revised list included in Appendix D of the *Instructions for the 2012 Chemical Data Reporting* to determine the product categories that best fit the products manufactured by your customers.
- Based on the available product categories, facial soap is categorized under Personal care products (Product Category C108), all-purpose paper products are Paper products (Product Category C302), and commercial ink toners are Ink, toner, and colorant products (Product Category C306). (Data Elements 3.B.1 - 3.B.3)

Consumer or Commercial Use Check Boxes

- Based on information obtained from your downstream customers, your site can indicate whether the products in which Chemical Z is incorporated are used in consumer and/or commercial uses.
- A product category may be consumer use only, e.g., soaps. It may also be for both consumer and commercial uses, in this case for paper products, or for commercial use only as in the case of use in commercial ink toners. (Data Elements 3.B.1 – 3.B.3)

Percent Production Volume

- Your site should report percent production volume of Chemical Z in each consumer and commercial product based on the total domestically manufactured and imported volume. In 2010, your site manufactured 1.1 million lb of Chemical Z.
- Personal Care Products (C108), account for 100,000 lb of the use of Chemical Z, or 9 percent of the total volume. This value should be rounded to the nearest 10 percent of production volume; therefore, you would report 10 percent for this product category.
- Paper Products (C302) account for 280,000 lb of Chemical Z, or 25 percent of the total volume. This value should be rounded to the nearest 10 percent of production volume; therefore, you would report 30 percent for this product category.
- Ink, Toner, and Colorant Products (C306) account for 370,000 lb of Chemical Z, or 34 percent of the total volume. This value should be rounded to the nearest 10 percent of production volume; therefore, you would report 30 percent for this product category.
- Note that 350,000 lb of Chemical Z (or 30 percent of the total volume) is used at industrial sites and not in consumer or commercial products. Therefore, this volume is not reported in the consumer and commercial use section, but would be included in Section 3.A, which lists industrial process and use scenarios for Chemical Z.

Number of Commercial Workers

- You are not required to report the number of commercial workers for the product category code C108 because it is consumer use only.
- For product category C302, you are only required to report the number of workers at commercial sites (not the consumer population) in which the paper products containing Chemical Z are used (e.g., offices, printing and publishing stores). Based on the information provided by your downstream customers, 50,000 to 400,000 commercial workers may handle the paper products containing Chemical Z. You would report at least 10,000 workers (Number of Workers code W8) for this product category.

EXAMPLE G-1

Section 2.A. Joint Submission Information (Primary Submitter)

This example illustrates how to properly report:

- Joint submission information when you are the primary submitter

Scenario

Your company (Company B) operates a Deepwater, NJ, site that imports a chemical substance with the trade name SpecChem123. This chemical substance is used as a specialty solvent in the manufacture of several products. Your company imports SpecChem123 from Company A, which is located in Clichy Cedex, France. Company A claims that the chemical identity of SpecChem123 is confidential and your company neither knows nor can reasonably ascertain the actual chemical identity of SpecChem123. The Deepwater site imported 250,000 lb in 2010 and 300,000 lb in 2011 of SpecChem123 for use in the manufacture of Chemical Z. The address of Company A is:

Company A
99, Rue Martre
92117 Clichy Cedex
France

How will you report under CDR?

Note that the volume imported in 2011 is greater than or equal to 25,000 lb; therefore, SpecChem123 is subject to the CDR requirements. The volume is also greater than or equal to 100,000 lb, which requires reporting of processing and use information under CDR. Because the chemical identity of SpecChem123 is unknown to your company, and claimed as confidential by your supplier (Company A), you are required to take certain steps to request that Company A make a secondary submission providing the information on the chemical identity of SpecChem123 directly to EPA. Company A is a secondary submitter and is not subject to TSCA reporting; therefore, any reporting would be considered voluntary. You are the manufacturer (importer) and primary submitter of information for SpecChem123; therefore, you are responsible for providing information for Sections 2 and 3 of Form U.

Joint submission designation

- Because you are submitting a joint submission as the primary submitter, you should select “Add Joint submission” on the bottom left of the navigation bar in the reporting tool.

Chemical identification information

- As the primary submitter, you must provide all information on SpecChem123 that is known to or reasonably ascertainable by your company. You should complete the Section 2.A – Chemical Identification (Join Submissions Information) located

in the Joint Submission Report folder that is accessible via the navigation bar in the reporting tool.

- Provide the designated trade name for the chemical (i.e., SpecChem123) and available information about the supplier, Company A (Data Elements 2.A.5 – 2.A.12).

Unique Identifier for Joint Submission

- If the CA Index name and CASRN for SpecChem123 is not known or reasonably ascertainable, you must submit a request to Company A to provide information on the identity of the chemical. Submission by Company A is voluntary.
- Follow the instructions in the box labeled “Unique Identifier for Joint Submission” to communicate with the secondary submitter (Company A) via email. The software will generate an email with a unique ID number and default language that can be tailored and used to notify your secondary submitter of the partial CDR submission, and to request a voluntary submission containing information for the trade name product. The ID number will be used to link the joint reports in an internal database. The email request should comply with guidelines set at 711.15(b)(3)(i) and provide reference to the CDR web site (www.epa.gov/CDR) for guidance on registering with CDX and completing Section 4 of Form U.
- Indicate whether you would like the tool to send a copy of your email to EPA, thereby providing a record of the request to the secondary submitter.
- The tool will make a copy of record available to the primary and the secondary submitters after EPA receives each portion of a joint submission. If the secondary submitter ultimately decides to provide you with the chemical identity information directly, you should change your submission type and submit a single submission.

Figure 9 illustrates in the bold and blue highlighted boxes how you would report these data elements for Example G-1.

The screenshot shows the GSPP (Global Submission Processing Portal) interface for the 2012 Form U. The user is logged in as KJGARRETT, Primary Authorized Official. The page is titled "2012 Form U > 7-ELEVEN #23127 > Joint Submission Report > Chemical Identification (2.A)". The main content area is "SECTION 2.A - CHEMICAL IDENTIFICATION" and "Section A. Joint Submissions Information (Primary Submitter only)".

The form fields are as follows:

- Trade Product Name or Another Designation (2.A.5): [Blue highlighted text box]
- Other Information (2.A.6): [Blue highlighted text box]
- Secondary Company Name (2.A.7): [Blue highlighted text box]
- Secondary Company Address (2.A.8): [Blue highlighted text box]
- Secondary Company Address 2 (2.A.8): [White text box]
- City/Town (2.A.9): [Blue highlighted text box]
- State (2.A.10): [Blue highlighted dropdown menu]
- Zip Code (2.A.11): [Blue highlighted text box]
- Country (2.A.12): [Blue highlighted dropdown menu]
- Joint Submission Report Folder Alias: [White text box]

A note below the fields states: "The joint submission folder alias is an optional field that changes the folder name in the navigator on the left. Its purpose is to make it easier to distinguish between joint submission folders when there is more than one."

A unique identifier for the joint submission is displayed: 920de182-b233-41c5-9ff-f317c44840af. A detailed explanation of this identifier is provided in a text box below the form.

At the bottom of the page, there are navigation buttons: "Previous" and "Next". The footer contains four buttons: "Validate" (with a green checkmark icon), "Save" (with a floppy disk icon), "Preview" (with a computer monitor icon), and "Submit" (with a document icon).

Figure 9: Form U, Section 2.A. Joint Submission Information for Primary Submitter

Note: This example presents guidance on select CDR reporting requirements and does not address all of the information that must be reported under CDR. The Examples and Case Studies crosswalk in Introduction will guide you to specific CDR data elements presented in this document.

EXAMPLE G-2:

Section 4. Joint Submission Information (Secondary Submitter)

This example illustrates how to properly report:

- Joint submission information when you are the secondary submitter

Scenario

Company A, located in Clichy Cedex, France, manufactures a 95 percent solution of Chemical X, which is sold to Company B under the trade name SpecChem123 and used as a specialty solvent at Company B's facility in Deepwater, NJ. Chemical X is listed on the public portion of the TSCA Inventory, but Company A claims as a trade secret the fact that SpecChem123 consists of Chemical X, and has refused to divulge this information to Company B. Company B has explained that it is reporting the import of SpecChem123 from Company A, and has requested that Company A supply the chemical identity of SpecChem123 directly to EPA, through a secondary submission. Company B provided Company A with the following Unique Identifier for Joint Submissions: 920de182-b233-41c5-9fff-f317c44840af. SpecChem123 contains 95 percent of Chemical X, which has the CASRN of 123-45-6.

The process engineer at Company A that oversees the manufacture of SpecChem123 is Pierre Cousteau. His contact information is as follows:

Pierre Cousteau
Company A
99, Rue Martre
92117 Clichy Cedex
France
Phone: (555) 555-5555
Email: pierre.cousteau@email.com

The address for Company B is:

Company B
1212 Technology Road
Deepwater, NJ 08070

How will you report under CDR?

Company B was required to ask Company A to submit chemical identity information under a secondary voluntary submission for SpecChem123. If Company A wishes to provide the secondary submission, it would do so in the following manner: it would fill out the information in Sections 4.A and 4.B for their company, as well as the information in Section 4.C for trade name product.

Secondary company information

- The company name and mailing address provided during CDX registration will populate section 4.A.
- For section 4.B, Company A should select a technical contact from the drop down list of Support Registrants. Once selected, the technical contact information (name, phone number, mailing address, and email address) provided during CDX registration will populate Section B.

Figures 10 and 11 illustrate in the bold and blue highlighted boxes how Company A would report these data elements for Example G-2.

The screenshot displays the TSCA 2012 Form U web application interface. At the top, the user is logged in as 'URSECONDARY1, Secondary Authorized Official'. The main content area is titled 'SECTION 4.A - SECONDARY COMPANY INFORMATION'. It contains several text input fields for the following information: Secondary Company Name (4.A.1), Secondary Company Address (4.A.2-3), City/Town (4.A.4), County/Parish (4.A.5), State/Province (4.A.6), Zip Code (4.A.7), and Country (4.A.8). Below these fields, a message states: 'If any of the above information is incorrect, please sign into CDX and make the necessary change(s) to your registration information. Changes made in CDX will be reflected here.' A 'Next' button is located below the message. The left sidebar shows a navigation menu with options like 'Secondary Company Information', 'Trade Product Information', and 'Amendment and Late Submission'. The bottom of the page features a blue footer with buttons for 'Add Trade Product', 'Upload XML', 'Validate', 'Save', 'Preview', and 'Submit'.

Figure 10: Form U, Section 4.A. Joint Submission Information - Secondary Company Information

2012 Form U
Secondary Authorized Official

Home Forms User Management Resources

Logged in as: IURSECONDARY1, Secondary Authorized Official

2012 Form U > CGI > Trade Product Information > Technical Contact Information (4.B)

SECTION 4.B - TECHNICAL CONTACT INFORMATION

Prefix (4.B.1) [Dropdown] Default Contact

First Name (4.B.1) [Text Box]

Middle Initial (4.B.1) [Text Box]

Last Name (4.B.1) [Text Box]

Suffix (4.B.1) [Dropdown]

Company Name (4.B.2) [Text Box]

Telephone (4.B.3) [Text Box] ext. [Text Box]

Email Address (4.B.4) [Text Box]

Mailing Address 1 (4.B.5) [Text Box]

Mailing Address 2 (4.B.6) [Text Box]

City (4.B.7) [Text Box]

State (4.B.8) [Dropdown]

Zip Code (4.B.9) [Text Box]

Country (4.B.10) [Text Box]

Previous Next

Add Trade Product Upload XML

Validate Save Preview Submit

Figure 11: Form U, Section 4.B. Joint Submission Information - Technical Contact Information

Chemical identification information

- Because Company A is submitting a joint submission as the secondary submitter, they should enter the Unique Identifier for Joint Submissions number provided to them by the primary submitter (Company B) in Section 4.C. Once entered, click on “Populate” to populate the table with the trade name product.
- As a secondary submitter for the joint submission for SpecChem123, Company A should provide information on the chemical identity of the trade name product or mixture.
- SpecChem123 contains a chemical (Chemical X) that is listed on the public portion of the TSCA Inventory; therefore, Company A should use SRS to select the appropriate CASRN and CA Index Name to identify SpecChem123.
- EPA will presume that the information reported by the secondary submitter (Company A) in Section 4.D., and the information Company A reports about the connection between the chemical identity and the primary submitter (Company B), is subject to a confidentiality claim when it is reported by a secondary submitter.
- SpecChem123 contains 95 percent Chemical X by composition.

- Company A should verify that all fields are correct on the preview screen and submit the file to EPA via CDX.

Figures 12 and 13 illustrate how you would report these data elements for Example G-2.

The screenshot displays the TSCA 2012 Form U web application interface. At the top, the user is logged in as 'IURSECONDARY1, Secondary Authorized Official'. The navigation menu includes 'Home', 'Forms', 'User Management', and 'Resources'. The left sidebar shows a tree view of the form sections: '2012 Form U', 'Secondary Authorized Official', 'Secondary Company Information' (with sub-items 4.A and 4.B), 'Trade Product Information' (with sub-items 4.C and 4.D), and 'Amendment and Late Submission' (with sub-item Explanation). The main content area is titled 'SECTION 4.C - PRIMARY COMPANY INFORMATION'. It features a text input field for 'Enter Unique Identifier for Joint Submission' with a 'Populate' button. Below this is a table with columns 'Unique ID', 'Trade Name (2.A.5)', and 'Actions'. A blue bar highlights the 'Trade Name (2.A.5)' column. At the bottom of the page, there is a blue bar with buttons for 'Add Trade Product', 'Upload XML', 'Validate', 'Save', 'Preview', and 'Submit'.

Figure 12: Form U, Section 4.C. Joint Submission Information – Primary Company Information

The screenshot displays the TSCA 2012 Form U web application interface. At the top, the user is logged in as 'IURSECONDARY1, Secondary Authorized Official'. The navigation menu includes 'Home', 'Forms', 'User Management', and 'Resources'. The breadcrumb trail shows the path: '2012 Form U > CGI > Trade Product Information > Trade Product Information (4.D)'. The main content area is titled 'SECTION 4.D - TRADE PRODUCT IDENTIFICATION INFO'. It contains several input fields: 'Trade Product Name (4.D.1)', 'Provided Company Trade Names (2.A.5)', and 'Other Information (4.D.3)'. A table for section (4.D.2) is present with the following structure:

(4.D.2)			
Action	Chemical Name/Generic Name	CASRN/Accession Number	Percent Composition (%)

Below the table, there is a checkbox labeled 'Contains Non-reportable Substances:'. At the bottom of the form, there are 'Previous' and 'Next' buttons. A dark blue footer bar contains buttons for 'Add Trade Product', 'Upload XML', 'Validate' (with a green checkmark icon), 'Save', 'Preview', and 'Submit'.

Figure 13: Form U, Section 4.D. Joint Submission Information – Trade Product Identification

Note: This example presents guidance on select CDR reporting requirements and does not address all of the information that must be reported under CDR. The Examples and Case Studies crosswalk in Introduction will guide you to specific CDR data elements presented in this document.

GENERAL CASE STUDY

Scenario: BestChem, Inc. manufactures and imports Chemical X for the production of Chemical Y at its Waco, TX, site. Chemical Y is sold to domestic and international paint and coatings manufacturers for the formulation of coatings for industrial and consumer uses. Table 1 provides a summary of BestChem's importation, domestic manufacture, and exportation of Chemicals X and Y in 2010 and 2011.

Table 1. Summary of Quantities of Chemicals X and Y Imported, Domestically Manufactured, and Exported

Year	Chemical X		Chemical Y	
	Volume Imported (lb)	Volume Domestically Manufactured (lb)	Volume Domestically Manufactured (lb)	Volume Exported (lb)
2010	1,000,000	500,000	3,000,000	500,000
2011	500,000	3,000,000	7,000,000	1,000,000

Chemical X is imported in solid powder form at 99 percent concentration by weight; however, before it is used as a reactant, it is dissolved in a solvent to produce a liquid mixture containing 50 percent of chemical X by weight. When domestically manufactured, Chemical X is produced at this same concentration (50 percent) in liquid form. The entire imported and domestically manufactured volume is used in the production of Chemical Y at BestChem's Waco site.

The Waco site operates three shifts and BestChem estimates the following number of workers may be reasonably likely to be exposed during the manufacturing activities for Chemical X:

- One worker/shift is exposed as the imported chemical is unloaded;
- Four workers/shift are exposed during manufacturing processes; and
- 10 maintenance workers are exposed during various cleaning processes.

Chemical Y is manufactured as a liquid mixture containing 35 percent of Chemical Y by weight. During 2011, 5 million lb of the manufactured Chemical Y were shipped off site in the form of the liquid mixture. The remaining 2 million lb were dried to make a powder containing 86 percent of Chemical Y by weight.

BestChem estimates the following number of workers may be reasonably likely to be exposed during the manufacturing activities for Chemical Y:

- Six workers/shift are exposed to both Chemicals X and Y during the manufacture of Chemical Y;
- Four workers/shift are exposed during the drying operations to produce the powder form of Chemical Y;
- Four workers/shift are exposed to Chemical Y during packaging; and

- 10 maintenance workers are exposed to Chemical Y during cleaning processes.

Chemical Y is used as a dispersant in paints. BestChem ships Chemical Y to the following destinations:

- One million lb is shipped to eight domestic sites that formulate furniture coatings;
- 5 million lb is shipped to 35 sites which formulate architectural coatings for commercial and consumer use; and
- One million lb is exported.

Although the above sites are not under BestChem's control, BestChem was able to estimate that up to 12 workers may be exposed to Chemical Y at each coating formulation site. The number of customer sites that buy the furniture paints and coatings and the number of workers that may be exposed at the furniture manufacturing sites are not known to or reasonably ascertainable by BestChem. Due to the widespread use of architectural paints and coatings, BestChem estimates over 10,000 commercial workers may be exposed to Chemical Y during this use. The concentration of Chemical Y in the coating products is less than two percent by weight.

How will you Report under CDR?

Both Chemicals X and Y are manufactured for commercial purposes, are listed on the TSCA Inventory, and are not the subject of any reporting exemptions. The production volume in 2011 is greater than 25,000 lb for each of the chemicals. Therefore, BestChem must file Form U for both Chemical X and Chemical Y.

The sections below illustrate how to complete Section 2.B and Section 3 for both chemical substances.

Chemical X - Section 2.B

2011 Production Volume Information

- BestChem both domestically manufactured and imported Chemical X in 2011; therefore, both "Manufacture" and "Import" are selected. The domestically manufactured and imported volumes are reported separately. (Data Elements 2.B.4 – 2.B.6).
- Because Chemical X is used at the site of import, it was physically at the site. (Data Element 2.B.7)
- BestChem uses the entire volume of Chemical X (both domestically manufactured and imported) at its Waco site to manufacture Chemical Y. Therefore, 3.5 million lb is the total volume used on site. (Data Element 2.B.8).
- No volume of Chemical X is exported. (Data Element 2.B.9)

Number of Workers

- The number of workers potentially exposed during manufacturing is computed as follows:

(1 worker/shift during unloading + 4 workers/shift during manufacturing) x 3 shifts
+ 10 maintenance workers
= 25 workers total

This corresponds to range code W3 (at least 25 workers but fewer than 50). (Data Element 2.B.10)

Note that the workers exposed to Chemical X during the manufacture of Chemical Y would be reported as workers exposed during processing and use of Chemical X in Section 3.

Maximum Concentration

- Chemical X neither leaves the site nor is it a site-limited intermediate since it is imported. Therefore, the highest concentration at which Chemical X is processed or used on-site should be reported. Code M5 (greater than 90% by weight) is reported corresponding to the 99% concentration at which Chemical X is imported. (Data Element 2.B.11).

Is chemical being recycled?

- Chemical X was consumed to manufacture Chemical Y and was not recycled within the process. (Data Element 2.B.12)

Physical Forms

- Chemical X neither is sent off-site nor is site-limited since it is imported. Therefore, all forms in which Chemical X is processed or used should be reported. Rounded to the nearest ten percent, 10 percent is imported as a dry solid and 90 percent is manufactured as a liquid. (Data Elements 2.B.13 – 2.B.19)

Production Volume for Calendar Year 2010

- When reporting the production volume for calendar year 2010, add the domestically manufactured and imported volumes. All other data elements in Section 2.B should be based on 2011 production volume. (Data Element 2.B.20)

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Primary Authorized Official

2012 Form U > Cook County > Chemical Report > Manufacturing Information (2.B)

SECTION 2.B - MANUFACTURING INFORMATION

Company Identification (2.B.1) CBI Number of Workers (2.B.10) W3 CBI
 Site Identification (2.B.2) Max Concentration (2.B.11) M5 CBI
 Technical Contact Information (2.B.3) Chemical being recycled? (2.B.12) No CBI

Report CY 2011 Production Volume

Activity (2.B.4) Manufacture CBI Import CBI CBI

Domestically Manufactured (2.B.5) 3,000,000 lbs. CBI
 Imported (2.B.6) 500,000 lbs. CBI
 Imported Chemical Never Physically at Site (2.B.7) No CBI
 Volume Used on Site (2.B.8) 3,500,000 lbs. CBI
 Volume Exported (2.B.9) 0 lbs. CBI

Report Physical Form	Applies	CBI	% Production Volume	CBI
Dry Powder (2.B.13)	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>
Pellets/Large Crystals (2.B.14)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	10	<input type="checkbox"/>
Water/Solvent Wet Solid (2.B.15)	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>
Other Solid (2.B.16)	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>
Gas/Vapor (2.B.17)	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>
Liquid (2.B.18)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	90	<input type="checkbox"/>
Unknown (2.B.19)	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>

Report Past Production Volume (2.B.20)

Year	Production Volume	CBI
Calendar Year 2010	1,500,000 lbs.	<input type="checkbox"/>

Validate Save Preview Submit

Figure 13. Form U, Section 2.B for Chemical X

Chemical X – Section 3 (Data Elements 3.A.1 – 3.A.10)

Industrial Processing and Use

- The entire volume of Chemical X is used in the manufacture of Chemical Y; therefore, there is only one processing and use scenario.
- Chemical X is only used as a reactant for Chemical Y. The processing and use code is PC, Processing as a reactant.
- BestChem reviewed the Industrial Sector codes and determined the processing of Chemical X to manufacture Chemical Y is under IS21 – All other basic organic chemical manufacturing. Although Chemical Y will eventually be used in Paints

and Coatings, the use of Chemical X to manufacture Chemical Y should be reported here.

- Chemical X is an Intermediates (U015) in the production of Chemical Y.
- All of Chemical X, including the amount imported, is used as an intermediate in the manufacture of Chemical Y; the percent of the production volume reported as used for this purpose is 100 percent.
- Chemical X is used only at BestChem’s Waco Site. S1 (fewer than 10 sites) is reported.
- BestChem would report the six workers/shift exposed to Chemical X during the manufacture of Chemical Y in the this section:

Six workers/shift x 3 shifts = 18 workers = W2 (at least 10 workers but fewer than 25)

Consumer and Commercial Use

- Chemical X has no consumer or commercial use; therefore, the N/A box is marked.

2012 Form U
 Primary Authorized Official

2012 Form U > Cook County > Chemical Report > Industrial Processing and Use (3.A)

SECTION 3.A - INDUSTRIAL PROCESSING AND USE

Not Applicable

	Type of Process or Use		Sector(s)		Industrial Function Category		Percent Production Volume		Number of Sites		Number of Workers		
	Code	CBI	Code	CBI	Code	CBI	%	CBI	Code	CBI	Code	CBI	
(3.A.1)	PC	<input type="checkbox"/>	IS21	<input type="checkbox"/>	U015	<input type="checkbox"/>		<input type="checkbox"/>	S1	<input type="checkbox"/>	W2	<input type="checkbox"/>	×
(3.A.2)		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	×
(3.A.3)		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	×
(3.A.4)		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	×
(3.A.5)		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	×
(3.A.6)		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	×
(3.A.7)		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	×
(3.A.8)		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	×
(3.A.9)		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	×
(3.A.10)		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	+

Figure 14. Form U, Section 3.A for Chemical X

Figure 15. Form U, Section 3.B for Chemical X

Chemical Y – Section 2.B

2011 Production Volume Information

- BestChem domestically manufactured Chemical Y in 2011 and did not import this chemical in 2011 (Data Elements 2.B.4 to 2.B.6).
- Chemical Y was not imported. The “Chemical never physically at site” does not apply to this chemical. (Data Element 2.B.7)
- After manufacture, Chemical Y is shipped to customer sites. No volume was used on-site. (Data Element 2.B.8)
- The only other volume reported is the amount of Chemical Y exported in 2011. (Data Element 2.B.9).

Number of Workers

- The number of workers reasonably likely to be exposed during manufacturing is computed as follows:

(Six workers/shift during manufacturing + four workers/shift during drying operations + four workers/shift during packaging) x three shifts
+ 10 maintenance workers
= 52 workers total

This corresponds to range code W4 (at least 50 workers but fewer than 100).
(Data Element 2.B.10).

Maximum Concentration

- Although Chemical Y is manufactured at 35 percent concentration and the majority of Chemical Y is shipped off site at 35 percent concentration, a portion of the chemical is shipped off site at 86 percent concentration; therefore, code M4 (60-90 percent concentration by weight) is reported. (Data Element 2.B.11).

Is chemical being recycled?

- Chemical Y is sold to downstream customers and not recycled within the process. (Data Element 2.B.12)

Physical Forms

- Although Chemical Y is manufactured as a liquid, the physical form of the chemical as it leaves the site is reported. BestChem reports 30 percent dry powder (2 million lb powder / 7 million lb total = 28.5 percent rounded to the nearest 10 percent) and 70 percent liquid (5 million lb liquid / 7,000,000 lb total = 71.5 percent rounded to nearest 10 percent). (Data Elements 2.B.13 – 2.B.19).

Production Volume for Calendar Year 2010

The volume of Chemical Y manufactured, including imported, in calendar year 2010 should also be reported. All other data elements in Section 2.B should be based on 2011 production volume. (Data Element 2.B.20).

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Primary Authorized Official

Home Forms User Management Resources Log Out

2012 Form U > Cook County > Chemical Report > Manufacturing Information (2.B)

SECTION 2.B - MANUFACTURING INFORMATION

Company Identification (2.B.1) CBI Number of Workers (2.B.10) W4 CBI

Site Identification (2.B.2) Max Concentration (2.B.11) M4 CBI

Technical Contact Information (2.B.3) Chemical being recycled? (2.B.12) No CBI

Report CY 2011 Production Volume

Activity (2.B.4) Manufacture CBI Import CBI CBI

Domestically Manufactured (2.B.5) lbs. CBI

Imported (2.B.6) lbs. CBI

Imported Chemical Never Physically at Site (2.B.7) CBI

Volume Used on Site (2.B.8) lbs. CBI

Volume Exported (2.B.9) lbs. CBI

Report Physical Form	Applies	CBI	% Production Volume	CBI
Dry Powder (2.B.13)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	30	<input type="checkbox"/>
Pellets/Large Crystals (2.B.14)	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>
Water/Solvent Wet Solid (2.B.15)	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>
Other Solid (2.B.16)	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>
Gas/Vapor (2.B.17)	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>
Liquid (2.B.18)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	70	<input type="checkbox"/>
Unknown (2.B.19)	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>

Report Past Production Volume (2.B.20)

Year	Production Volume	CBI
Calendar Year 2010	3,000,000 lbs.	<input type="checkbox"/>

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Figure 16. Form U, Section 2.B for Chemical Y

Chemical Y – Section 3

Industrial Processing and Use (Data Element 3.A.1 – 3.A.10)

- Although Chemical Y is sold to two types of coating manufacturers, these both fall under the same combination of Process or Use type, Industrial Sector, and Industrial Function Category and can be combined onto one line to represent a single use scenario (Data Element 3.A.1):
 - PF – Processing–incorporation into formulation, mixture, or reaction product;
 - IS27 – Paint and coating manufacturing; and

- U034 – Paint additives and coating additives not described by other categories.
- For the paints and coatings use scenario, 6 million lb are formulated domestically into paints / 7 million lb total = 85.7 percent rounded to the nearest 10 percent. The total manufactured volume, including the imported volume, if any, should be used to calculate the percentage for each use.
- BestChem estimated that there were eight sites that formulate furniture coatings and 35 architectural paint formulation sites for a total of 43 sites, which corresponds to S3 (at least 25 but fewer than 100 sites).
- BestChem also estimated there were 12 workers at each of the 43 sites for a total of 516 workers, which corresponds to W6 (at least 500 but fewer than 1,000 workers).
- Under CDR, BestChem is responsible not only for reporting manufacturing and formulation activities for Chemical Y, but also for the uses of Chemical Y. Therefore, the use of Chemical Y in furniture manufacturing would represent a second processing and use scenario (Data Element 3.A.2):
 - U – Non-incorporative activities;
 - IS44 – Furniture and related products manufacturing; and
 - U034 – Paint additives and coating additives not described by other categories
- BestChem assumes that one million lb out of 7 million lb = 14.3 percent rounded to the nearest ten percent, or ten percent, of Chemical Y is used to manufacture furniture coatings that will eventually be used in the manufacture of furniture.
- For the furniture manufacturing use scenario, BestChem determined that no other information is known or reasonably ascertainable.
- The volume exported is not reflected in the Industrial Processing and Use section (Section 3.A).

Consumer and Commercial Use (Data Elements 3.B.1 - 3.B.10)

- The only consumer and commercial use for Chemical Y is in Paints and coatings (Product Category C202). The paints have both consumer and commercial paint applications. (Data Element 3.B.1).
- The paints are not intended for or marketed to children.
- BestChem shipped 5 million lb of Chemical Y for use in domestic architectural coatings / 7 million lb total = 71.5 percent rounded to nearest 10 percent. The maximum concentration of Chemical Y is 2 percent, which corresponds to code M2 (at least 1 percent but less than 30 percent by weight). Due to the widespread use of architectural coatings, BestChem estimates over 10,000 commercial workers may be exposed to Chemical Y (W8).

Examples and Case Studies for the 2012 Chemical Data Reporting
General Case Study

2012 Form U
Primary Authorized Official

2012 Form U > Cook County > Chemical Report > Industrial Processing and Use (3.A)

SECTION 3.A - INDUSTRIAL PROCESSING AND USE

Not Applicable

	Type of Process or Use		Sector(s)		Industrial Function Category		Percent Production Volume		Number of Sites		Number of Workers		
	Code	CBI	Code	CBI	Code	CBI	%	CBI	Code	CBI	Code	CBI	
(3.A.1)	PF	<input type="checkbox"/>	IS27	<input type="checkbox"/>	U034	<input type="checkbox"/>		<input type="checkbox"/>	S3	<input type="checkbox"/>	W6	<input type="checkbox"/>	✖
(3.A.2)	U	<input type="checkbox"/>	IS44	<input type="checkbox"/>	U034	<input type="checkbox"/>		<input type="checkbox"/>	NKRA	<input type="checkbox"/>	NKRA	<input type="checkbox"/>	✖
(3.A.3)		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	✖
(3.A.4)		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	✖
(3.A.5)		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	✖
(3.A.6)		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	✖
(3.A.7)		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	✖
(3.A.8)		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	✖
(3.A.9)		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	✖
(3.A.10)		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	+

Add Chemical
Add Joint Submission
Upload XML

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Figure 17. Form U, Section 3.A for Chemical Y

2012 Form U
Primary Authorized Official

2012 Form U > Cook County > Chemical Report > Consumer and Commercial Use (3.B)

SECTION 3.B - CONSUMER AND COMMERCIAL USE

Not Applicable

	Product Category		Consumer and/or Commercial		Used in Products Intended for Children?		Percent Production Volume		Maximum Concentration		Number of Commercial Workers		
	Code	CBI	Options	CBI	Code	CBI	%	CBI	Code	CBI	Code	CBI	
(3.B.1)	C202	<input type="checkbox"/>	Both	<input type="checkbox"/>	No	<input type="checkbox"/>		<input type="checkbox"/>	M2	<input type="checkbox"/>	W8	<input type="checkbox"/>	✖
(3.B.2)		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	✖
(3.B.3)		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	✖
(3.B.4)		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	✖
(3.B.5)		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	✖
(3.B.6)		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	✖
(3.B.7)		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	✖
(3.B.8)		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	✖
(3.B.9)		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	✖
(3.B.10)		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	+

Add Chemical
Add Joint Submission
Upload XML

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Figure 18. Form U, Section 3.B for Chemical Y

Note: This example presents guidance on select CDR reporting requirements and does not address all of the information that must be reported under CDR. The Examples and Case Studies crosswalk in Introduction will guide you to specific CDR data elements presented in this document.