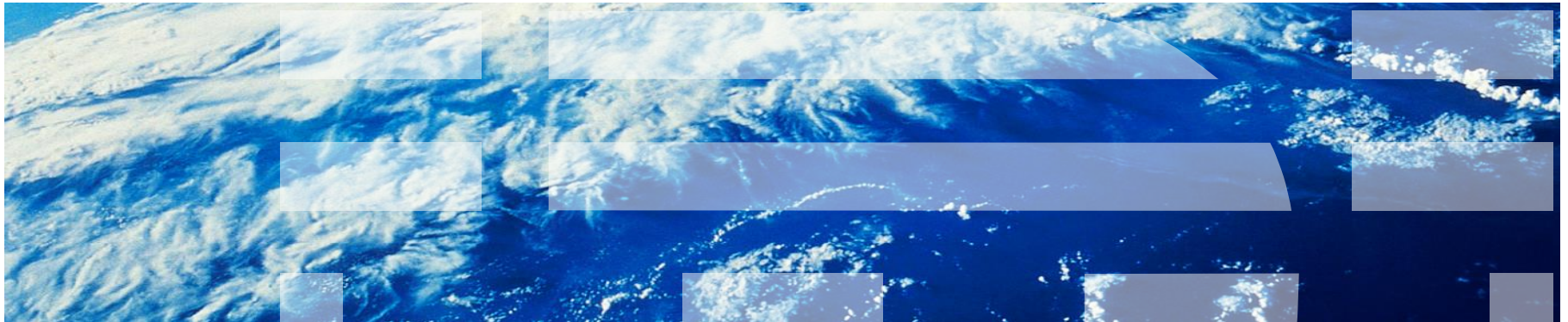


# IBM Product Content Declaration (PCD) 2Q 2022 Release

June 2022

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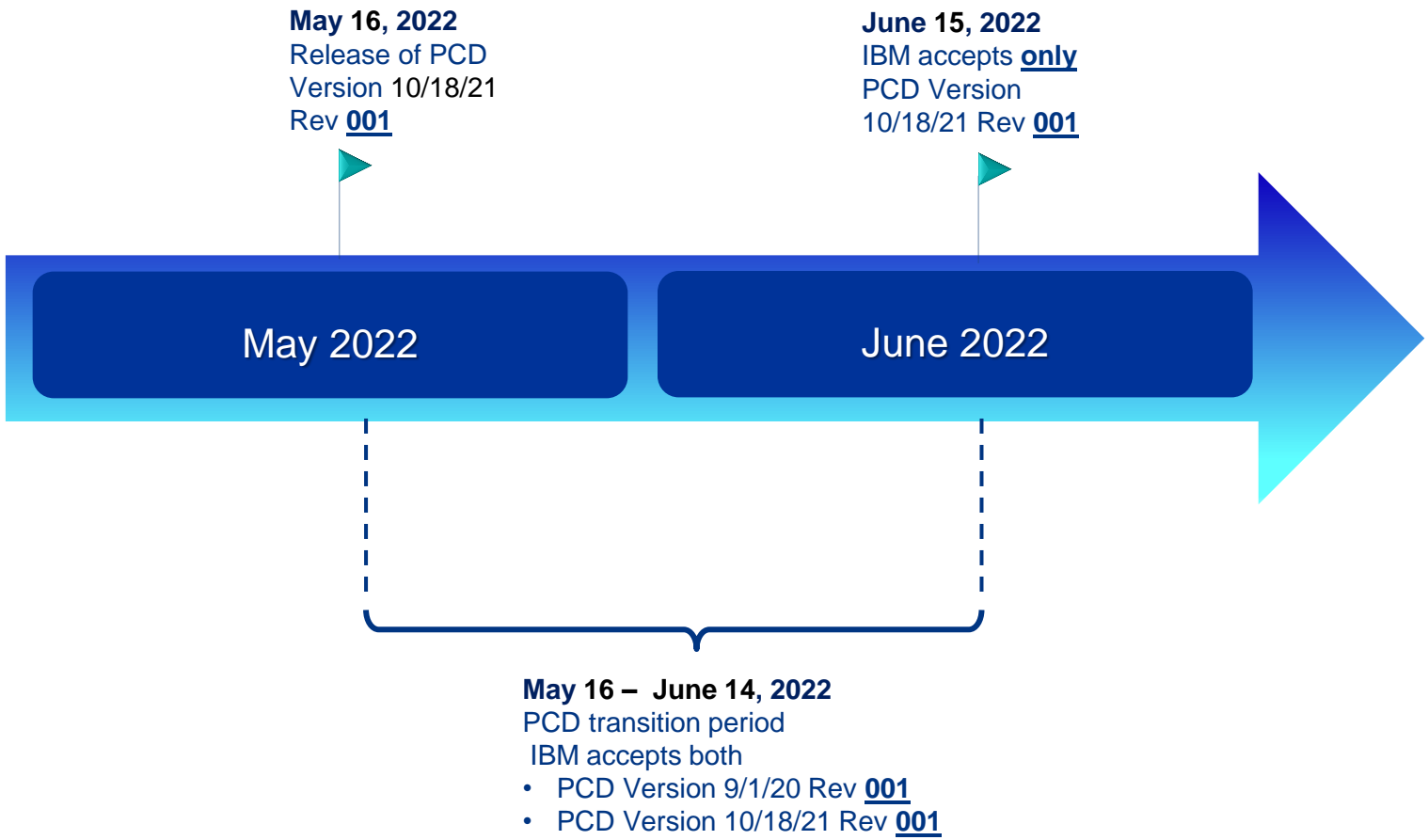
# Agenda

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## PCD Migration Timeline

There is a 4-week transition window for migrating to the new revision of the PCD form **beginning May 16, 2022 and ending on June 14, 2022**. During this period, both the old PCD Version 9/1/20 Rev 001 and the new PCD Version 10/18/21 Rev 001 will be accepted.



## 2Q 2022 PCD Release Summary of Changes

### Instructions Tab

Updated PCD Version to 10/18/21 rev 001, EC P45430

#### Added

- New Q12: “Does the item contain resin parts weighing 25 grams or greater? Resin parts that are exempt from this question are cable jackets, discrete printed circuit board components, and integrated circuits.”

### Reportables Tab

#### Modifications

- Changed title of Column E to “Usage and/or locations of substance in the part number”.
- Changed “Perfluoroalkyl sulfonates (PFASs)” to “Per and poly fluoroalkyl substances (PFAS)”.
- Increased number of rows available for data on “Per and poly fluoroalkyl substances (PFAS)” to 10 rows.

#### Added

- New Chemical Category “Critical Raw Materials” which includes a drop-down list for selection of chemicals.

#### Removed

- Medium chain chlorinated paraffins (MCCPs)
- Pentachlorothiophenol (PCTP) (CAS 133-49-3)
- Perfluoro carboxylic acid and related compounds (PFCAs)

### SVHC Reportable Tab

#### Added 10 SVHCs

- ChloroAlkanes, C14 - C16 (CAS 1372804-76-6)
- Chloroparaffins, C14 - C17 (CAS 85535-85-9)
- Chloro tetradecane (CAS 198840-65-2)
- 4,4'-(1-methylpropylidene) bisphenol (CAS 77-40-7)
- 2,2-bis(bromomethyl)propane-1,3-diol (BMP) (CAS 3296-90-0)
- 2,2-dimethylpropan-1-ol,tribromo derivative (TBNPA) (CAS 36483-57-5)
- 3-bromo-2,2-bis(bromomethyl)-1-propanol (TBNPA) (CAS 1522-92-5)
- 2,3-dibromo-1-propanol (2,3-DBPA) (CAS 96-13-9)
- 1,4 dioxane (CAS 123-91-1)
- Bis(2-(2-methoxyethoxy)ethyl)ether (CAS 143-24-8)

#### Modification

- Changed CAS# for 2,3,3,3-tetrafluoro-2-(heptafluoropropoxy)propionic acid to 13252-13-6

## 2Q 2022 PCD Release Summary of Changes

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### Responsible Minerals Tab

#### Modifications

- Instructions updated to indicate 3TG and cobalt in our supply chain must be sourced ethically and not from a US sanctioned country/entity including an example.

### Packaging Tab

#### Modifications

- Added the link to the ESI Packaging application under Section 3 - Instruction and Guidance. This link should be used to access the application after completion of the registration in the IBM Supply Portal.

### Battery and Assembly Battery Tab

#### Battery tab

- Changed input cell message for Q10 to "Enter the total weight in "grams" of the cell or battery pack identified in Q2. Format to 2 decimal places."

#### Assembly Battery tab

- Changed input cell message for Q12 to "Enter the total weight in "grams" of the cell or battery pack identified in Q1 or Q2. Format to 2 decimal places."

### Resin Materials Tab (NEW)

#### Added

- Added new Resin Materials worksheet. Information in this worksheet needs to be filled out if Q12 in the Instructions tab is answered "YES" and item contains resin parts weighing 25 grams or greater.

# Instructions Sheet – Verify the Correct Form Version

Check that the PCD Version 10/18/21 Rev 001 (EC P45430) is being used. The version is shown in the Instructions tab of the PCD.

## Instructions Sheet

### Product Content Declaration for IBM Suppliers

EC P45430

Version 10/18/21

Rev 001

IBM PN 46C3484

Release Date: May 2022

#### Scope and Instructions

This declaration form applies to all materials, parts, and products supplied for IBM hardware applications and is used to verify compliance to environmental requirements in IBM Engineering Specification 46G3772; to requirements in 53P6233 or 97P3864, or 873444 (for components only); as well as to IBM's Conflict Minerals Standard.

This form is to be filled out to the requirements of the current versions of Engineering Specifications 46G3772 and 53P6233, 97P3864, or 873444, as of the submission date on this form.

The current versions of these specifications can be found at:

<https://www.ibm.com/procurement/ossi>

Before filling out this form, verify that the current version (see form version date) of this form is being used. The current version of the PCD form can be found at:

<http://www.ibm.com/ibm/environment/products/ecpquest.shtml>

This PCD is to be used to report part information including battery data, if applicable. Data for a single battery with an IBM PN, or as many as 5 batteries that do not have an IBM PN but are part of an assembly having an IBM PN, may be reported. When reporting battery data, only one IBM PN may be entered on the Part Numbers sheet, i.e., a PN for a battery or a PN for an assembly with batteries. If additional PNs must be reported on, then use multiple PCDs.

All suppliers should complete the entire questionnaire and return it to the requestor. [See Legal Notice below](#). Supplier questions regarding this form should be referred to the IBM Procurement representative. If responses to this questionnaire are identical for multiple part numbers from the supplier, then one completed questionnaire may be used to submit data for a list of designated part numbers for which the answer set applies.

USE COPY, AND THE VALUES OPTION OF PASTE SPECIAL, OR THE TEXT OPTION OF PASTE SPECIAL, WHENEVER COPYING DATA INTO A CELL. DO NOT USE COPY AND PASTE, OR CUT AND PASTE, SINCE ERRORS CAN RESULT. TO REMOVE A CELL ENTRY, USE THE DELETE KEY.

DO NOT USE THE FOLLOWING CHARACTERS IN ANY SHEET IN THIS WORKBOOK { } | ~ \

# Instructions Sheet – Added Resin Materials Question (New)

- ❑ Added a new question in the Instructions worksheet Q12 Resin Materials. If a part or product contains more than 25 grams of plastic resin, the Resin Materials worksheet needs to be filled out with more information.
- ❑ Plastic resin in cable jackets, discrete PCB components and integrated circuits are exempt from this question.

## Instructions Sheet

### Product Content Declaration for IBM Suppliers

EC P45430

Version 10/18/21

Rev 001

IBM PN 46C3484

Release Date: May 2022

#### Scope and Instructions

This declaration form applies to all materials, parts, and products supplied for IBM hardware applications and is used to verify compliance to environmental requirements in IBM Engineering Specification 46G3772; to requirements in 53P6233 or 97P3864, or 873444 (for components only); as well as to IBM's Conflict Minerals Standard.

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The current versions of these specifications can be found at:

<https://www.ibm.com/procurement/ossi>

Before filling out this form, verify that the current version (see form version date) of this form is being used. The current version of the PCD form can be found at:

<http://www.ibm.com/ibm/environment/products/ecpquest.shtml>

This PCD is to be used to report part information including battery data, if applicable. Data for a single battery with an IBM PN, or as many as 5 batteries that do not have an IBM PN but are part of an assembly having an IBM PN, may be reported. When reporting battery data, only one IBM PN may be entered on the Part Numbers sheet, i.e., a PN for a battery or a PN for an assembly with batteries. If additional PNs must be reported on, then use multiple PCDs.



Answer YES if you provide bezel, covers, guides, latches, baffles, housing, clips, fillers, foams or any other resin part above 25 grams. You are required to fill out the Part Numbers and Resin Materials sheets.

#### 11. Medical Device or Monitoring and Control Instrument

Is this PCD for a medical device or a monitoring and control instrument including industrial monitoring and control instruments?

Please select Yes or No

#### 12. Resin Materials

Does the item contain resin parts weighing 25 grams or greater? Resin parts that are exempt from this question are cable jackets, discrete printed circuit board components, and integrated circuits.

Please select Yes or No

# Resin Materials Sheet (New)

- Resin Materials worksheet needs to be filled out if Q12 of the Instructions tab is YES.
- Each IBM part number containing 25g or more resin materials needs to have the resin information declared in the Resin Materials worksheet.

## Instructions Sheet

### 12. Resin Materials

Does the item contain resin parts weighing 25 grams or greater? Resin parts that are exempt from this question are cable jackets, discrete printed circuit board components, and integrated circuits.

Yes

Complete the Part Numbers sheet and Resin Materials sheet.

## Resin Materials Sheet

Please use this sheet to report resin materials for identified IBM part numbers 25 grams or greater.

Each part number as containing a resin material must be listed and reported.

Individualized part numbers must be reported on this PCD for each part number containing a resin material 25 grams or greater (do not report higher level assembly).

For Description of Part Number, examples may include but not limited to: bezels, latches, hooks, baffles, housings, and foams.

For Material Supplier, examples may include but not limited to: Sabic, Covestro, RTP, and Avient.

For Material Supplier Product Name/Grade, examples may include but not limited to: Permastat 2500 FR A, Cycoloy FR C 6600, Lexan RCX7243 and Bayblend FR630GR.

For Resin Type, examples may include but not limited to: Polycarbonate/ABS (PC/ABS), Polycarbonate (PC), Polyurethane (PU), and Polycarbonate/Poly(lactic acid) (PC/PLA).

For % Post Consumer Recycled and % Bio Based or Renewable Content, please indicate what percentage of this material is contained within the overall weight of the resin. For example, if 0.5 gram is used within a 5 gram part then the percentage would be 10%. The range can be from 0 (meaning the part does not contain either of these) to 100 % (meaning it's only made from these materials).

Item #	IBM PN of Component	Description of Part Number	Material Supplier	Material Supplier Product Name/Grade	Resin Type	% Post Consumer Recycled	% Bio Based or Renewable Content
1							
2							
3							
4							
5							
6							

Select IBM PN from the drop-down list



# Resin Materials Sheet – How To Report

- In col B, select the appropriate IBM PN from the drop-down menu selection.
- Fill out cols C to F with the appropriate resin information. These are free-form text fields.
- Examples of each type of information is shown.

## Resin Materials Sheet

Please use this sheet to report resin materials for identified IBM part numbers 25 grams or greater.

Each part number as containing a resin material must be listed and reported.

Individualized part numbers must be reported on this PCD for each part number containing a resin material 25 grams or greater (do not report higher level assembly).

For Description of Part Number, examples may include but not limited to: bezels, latches, hooks, baffles, housings, and foams.

For Material Supplier, examples may include but not limited to: Sabic, Covestro, RTP, and Avient.

For Material Supplier Product Name/Grade, examples may include but not limited to: Permastat 2500 FR A, Cycoloy FR C 6600, Lexan RCX7243 and Bayblend FR630GR.

For Resin Type, examples may include but not limited to: Polycarbonate/ABS (PC/ABS), Polycarbonate (PC), Polyurethane (PU), and Polycarbonate/Polylactic acid (PC/PLA).

For % Post Consumer Recycled and % Bio Based or Renewable Content, please indicate what percentage of this material is contained within the overall weight of the resin. For example, if 0.5 gram is used within a 5 gram part then the percentage would be 10%. The range can be from 0 (meaning the part does not contain either of these) to 100 % (meaning it's only made from these materials).

A	B	C	D	E	F	G	H
Item #	IBM PN of Component	Description of Part Number	Material Supplier	Material Supplier Product Name/Grade	Resin Type	% Post Consumer Recycled	% Bio Based or Renewable Content
1	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
2	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
3	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
4	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
5	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
6	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Col B: Select the IBM PN from the drop-down list.

Col C: Examples of Part Description - bezel, covers, guides, latches, baffles, housing, clips, fillers, and foams

Col D: Examples for Supplier of resin material - Sabic, Covestro, RTP, Avient

Col E: Examples of Material supplier product name / grade - Permastat 2500 FR A, Cycoloy FR C 6600, Lexan RCX7243

Col F: Examples of Resin Types - Polycarbonate (PC), Polyurethane (PU), Polycarbonate/Polylactic acid (PC/PLA)

# Resin Materials Sheet – How To Report

- ❑ Post-consumer recycled material: Ratio of a product’s recycled material to the total material of the product. PCR resins are materials containing recycled everyday plastic items that are ground and blended with virgin material to form a resin for new polymeric molding.
- ❑ Biobased content/renewable content: Ratio of a product’s new organic carbon to total organic carbon, as measured by the standard test method (ASTM D6866). New organic carbon is derived from plants, renewable feedstock, and other renewable agriculture material.

## Resin Materials Sheet

Please use this sheet to report resin materials for identified IBM part numbers 25 grams or greater.

Each part number as containing a resin material must be listed and reported.

Individualized part numbers must be reported on this PCD for each part number containing a resin material 25 grams or greater (do not report higher level assembly).

For Description of Part Number, examples may include but not limited to: bezels, latches, hooks, baffles, housings, and foams.

For Material Supplier, examples may include but not limited to: Sabic, Covestro, RTP, and Avient.

For Material Supplier Product Name/Grade, examples may include but not limited to: Permastat 2500 FR A, Cycoloy FR C 6600, Lexan RCX7243 and Bayblend FR630GR.

For Resin Type, examples may include but not limited to: Polycarbonate/ABS (PC/ABS), Polycarbonate (PC), Polyurethane (PU), and Polycarbonate/Polylactic acid (PC/PLA).

For % Post Consumer Recycled and % Bio Based or Renewable Content, please indicate what percentage of this material is contained within the overall weight of the resin. For example, if 0.5 gram is used within a 5 gram part then the percentage would be 10%. The range can be from 0 (meaning the part does not contain either of these) to 100 % (meaning it's only made from these materials).

A	B	C	D	E	F	G	H
Item #	IBM PN of Component	Description of Part Number	Material Supplier	Material Supplier Product Name/Grade	Resin Type	% Post Consumer Recycled	% Bio Based or Renewable Content
1							
2							
3							
4							
5							
6							

Select IBM PN from the drop-down list

Col G: State the % of the resin contains post consumer recycled material. Range of values is between 0 to 100%.

Col G: State the % of the resin contains biobased or renewable content. Range of values is between 0 to 100%.

# Reportable Sheet

Changed title of Column E to “Usage and/or locations of substance in the part number”, clarifies that the location of usage should be meaningful and should indicate the application of the substance.

## Previous PCD Versions

PLEASE LEAVE COLUMNS C, D, & E BLANK UNLESS YOU ARE ENTERING REPORTABLE DATA !

Chemical Category	Specify the names of the compounds present and their CAS number	Amount (grams) of substance present in the part, or in the homogeneous material (green)	Locations of substance in the part number
1,2,3-Trichlorobenzene (CAS 87-61-6)			



## 10/18/21 Rev 001 PCD

PLEASE LEAVE COLUMNS C, D, & E BLANK UNLESS YOU ARE ENTERING REPORTABLE DATA !

Chemical Category	Specify the names of the compounds present and their CAS number	Amount (grams) of substance present in the part, or in the homogeneous material (green)	Usage and/or locations of substance in the part number
1,2,3-Trichlorobenzene (CAS 87-61-6)	1,2,3-Trichlorobenzene (CAS #: 87-61-6)	0.0324g	Dielectric fluid in capacitor

Reminders when filling out the Reportable tab:

- Substances color coded black = Report substance weight in the part
- Substances color coded green = Report substance weight in homogenous material

# Reportable Sheet

❑ Add a new Chemical Category, "Critical Raw Materials", this includes a drop-down list of the selection of chemicals.

## Reportables Sheet

PLEASE LEAVE COLUMNS C, D, & E BLANK UNLESS YOU ARE ENTERING REPORTABLE DATA !

Chemical Category	Specify the names of the compounds present and their CAS number	Amount (grams) of substance present in the part, or in the homogeneous material (green)	Usage and/or locations of substance in the part number
<b>Critical Raw Materials</b>	<ul style="list-style-type: none"> <li>Cerium (CAS 7440-45-1)</li> <li>Gallium (CAS 7440-55-3)</li> <li>Germanium (CAS 7440-56-3)</li> <li>Iridium (CAS 7439-88-5)</li> <li>Lanthanum (CAS 7439-91-0)</li> </ul>		
<b>Decabromodiphenyl ethane (DBDPE) (CAS 84852-53-9)</b> <small>(This substance is not to be included in the Brominated Flame Retardant)</small>	<ul style="list-style-type: none"> <li>Lutheium (CAS 7440-18-8)</li> <li>Niobium (CAS 7440-03-1)</li> <li>Osmium (CAS 7440-04-2)</li> </ul>		

The Critical Raw Materials category includes a drop-down list of the selection of chemicals and must be reported at any level:

Cerium (CAS 7440-45-1)	Gallium (CAS 7440-55-3)
Germanium (CAS 7440-56-3)	Iridium (CAS 7439-88-5)
Lanthanum (CAS 7439-91-0)	Lutheium (CAS 7440-18-8)
Niobium (CAS 7440-03-1)	Osmium (CAS 7440-04-2)
Palladium (CAS 7440-05-3)	Platinum (CAS 7440-06-4)
Rhodium (CAS 7440-22-4)	Ruthenium (CAS 7440-18-8)
Samarium (CAS 7440-19-9)	Scandium (CAS 7440-20-2)
Tantalum (CAS 7440-25-7)	Titanium (CAS 7440-32-6)
Yttrium (CAS 7440-65-5)	

The Amount of Substance present and Usage and/or locations of substance in the part number still need to be declared.

# Reportable Sheet

- The following substances have been removed from the Reportable worksheet of the PCD:
  - Medium chain chlorinated paraffins (MCCPs)
  - Pentachlorothiophenol (PCTP) (CAS 133-49-3)
  - Perfluoro carboxylic acid and related compounds (PFCAs)

## Previous PCD Versions

PLEASE LEAVE COLUMNS C, D, & E BLANK UNLESS YOU ARE ENTERING REPORTABLE DATA!

Chemical Category	Specify the names of the compounds present and their CAS number	Amount (grams) of substance present in the part, or in the homogeneous material (green)	Locations of substance in the part number
Medium chained chlorinated paraffins (MCCPs)			MCCP has been removed from the Reportable sheet, it is now a SVHC Reportable.
Pentachlorothiophenol (PCTP) (CAS 133-49-3)			PCTP has been removed from the Reportable sheet, it is now a Prohibited substance.
Perfluoro carboxylic acid and related compounds (PFCAs)			PFCAs have been removed as they are a subset of the Per and poly fluoroalkyl substances (PFAS) family.

# Reportable Sheet – Special Mention on PFAS

- ❑ “Perfluoroalkyl sulfonates (PFASs)” updated to “Per and poly fluoroalkyl substances (PFAS)” on the Reportable and Data Summary worksheets.
- ❑ Number of rows available for data on “Per and poly fluoroalkyl substances (PFAS)” increased to 10.

## Previous PCD Versions

PLEASE LEAVE COLUMNS C, D, & E BLANK UNLESS YOU ARE ENTERING REPORTABLE DATA !

Chemical Category	Specify the names of the compounds present and their CAS number	Amount (grams) of substance present in the part, or in the homogeneous material (green)	Locations of substance in the part number
Perfluoroalkyl sulfonates (PFASs)			



## 10/18/21 Rev 001 PCD

PLEASE LEAVE COLUMNS C, D, & E BLANK UNLESS YOU ARE ENTERING REPORTABLE DATA !

Chemical Category	Specify the names of the compounds present and their CAS number	Amount (grams) of substance present in the part, or in the homogeneous material (green)	Usage and/or locations of substance in the part number
Per and poly fluoroalkyl substances (PFAS)			

Note the change to the nomenclature of PFAS, this current nomenclature covers a lot more substances than the previous definition.

## Introduction to PFAS

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- PFAS is receiving high degrees of public and regulatory attention throughout the world. Actions include reporting use cases and restriction the use of PFAS.
  - The EU has stated their intent to restrict all non-essential uses of PFAS
  - The US EPA is developing regulations that require reporting of use cases including a look-back of ten (10) years
  - US States have proposed or enacted REPORTING requirements for uses of PFAS sold into their territory.
- Definition of PFAS from ES 46G3772 Table 4a. “Other Reporting Requirements - Substances”
  - “PFASs are defined as fluorinated substances that contain at least one fully fluorinated methyl or methylene carbon atom (without any H/Cl/Br/I atom attached to it), i.e., any chemical with at least one perfluorinated methyl group (-CF<sub>3</sub>) or at least one perfluorinated methylenegroup (-CF<sub>2</sub>-), including branched fluoroalkyl groups and substances containing ether linkages, fluoropolymers and side chain fluorinated polymers.”
- The Organisation for Economic Co-operation and Development (OECD) Comprehensive Database of Per- and polyfluoroalkyl substances provides a comprehensive list of substances:
  - [www.oecd.org/chemicalsafety/risk-management/global-database-of-per-and-polyfluoroalkyl-substances.xlsx](http://www.oecd.org/chemicalsafety/risk-management/global-database-of-per-and-polyfluoroalkyl-substances.xlsx)

## Introduction to PFAS – IBM Specific Guidance

- All use cases of PFAS must reported be to IBM at ANY level
- Refer to ES 46G3772 for the type, scope and details of restriction for the various sub-categories of PFAS substances

Substance	Type of Restriction	Scope of Restriction	Details of Restriction
PFOS	Prohibited	All uses	Table 1
PFOA	Prohibited	All uses	Table 1
PFAS	Report at any level of use	Parts, Products and Deliverables	Table 4a
Long Chain PFAS	Prohibited	Field Use Materials and Chemical Product Supplies	Table 2
Short Chain PFAS	Restricted	Field Use Materials and Chemical Product Supplies	Table 2



# Reporting PFAS on the PCD - Example

- ❑ All PFAS substances need to be reported on the Reportable worksheet.
- ❑ If more than 10 PFAS chemicals need to be declared on the PCD, contact your IBM Engineering representative to provide more details.

## Reportables Sheet

**REPORTING EXAMPLE**

PLEASE LEAVE COLUMNS C, D, & E BLANK UNLESS YOU ARE ENTERING REPORTABLE DATA!

Chemical Category	Both CAS# and chemical name. If substance has no CAS#, list chemical name. Specify the names of the compounds present and their CAS number	Amount (grams) of substance present in the part, or in the homogeneous material (green)	Location and/or usage of the substance Usage and/or locations of substance in the part number
Per and poly fluoroalkyl substances (PFAS)	Perfluorohexanoic acid (CAS #: 307-24-4)  Sulfonium, tri-phenyl salt with trifluoromethane sulfonic acid	5000  0.8	Insulation for cables  Coating

# SVHC Reportable Sheet

- Ten substances of very high concern (SVHCs) added to Table 5 and Annex NN in ES 46G3772.
- Modified CAS# for 2,3,3,3-tetrafluoro-2-(heptafluoropropoxy)propionic acid to 13252-13-6.
- Must report at or above 0.1% weight by weight of the appropriate constituent Article.

## SVHC Reportable Sheet

**TABLE 3. SVHC Reportable Substances**

The reporting thresholds for these substances are specified in Table 5 and Annex NN of ES 46G3772 and are based on the concentration of the relevant substance present in an Article. An "Article" as is clarified by the ECJ Court Case Number: C106/14, and per such, an IBM PN could be a complex Article containing multiple constituent Articles; therefore the concentration must be calculated using the weight of the appropriate constituent Article. Use the drop-down list in Column B of the table below to select the IBM Part Number (the drop-down lists all the PNs entered in the "Part Numbers" sheet of this form). If you are purchasing this IBM PN from multiple suppliers, please record the one with the highest value. The Supplier Part Number in Column C will automatically be populated. Use Column D to select from the drop-down list to identify the substances in the reportable category that are present. The CAS number will automatically be entered in Column E. If the substance name is not listed, please select Other and enter the substance name in Column G and its CAS number in Column E, without extra spaces. In Column F, enter the total weight (in grams) of the substance. Please fill rows sequentially so there are no blank rows between entries. **Correct any errors first before making more selections.** To remove an entry, select the blank at the top of the drop-down list. When reporting more than one substance per PN, reselect the PN prior to selecting the next substance.

Please select IBM part number and substance from the drop-down list. Then enter the weight of the substance and where it is used in the part.						
Part Number Counts		Error Messages		Number of Errors		
10	10			0		
IBM Part Number (select from drop-down list)	Supplier Part Number	Substance (select from drop-down list)	CAS Number	Weight of the substance in the part (gms)	Other (Additional substances not listed)	Location(s) where the substance is used in the part, e.g., connector housing, pins, socket, heatsink, etc.
00D4826	00D4826	ChloroAlkanes, C14 - C16   1372804-76-6	1372804-76-6	0.5000000000		Location A
00D4826	00D4826	Chloroparaffins, C14 - C17   85535-85-9	85535-85-9	0.5000000000		Location A
00D4826	00D4826	Chloro tetradecane   198840-65-2	198840-65-2	0.5000000000		Location A
00D4826	00D4826	4,4'-(1-methylpropylidene) bisphenol   77-40-7	77-40-7	0.5000000000		Location A
00D4826	00D4826	2,2-bis(bromomethyl)propane-1,3-diol (BMP)   3296-90-0	3296-90-0	0.5000000000		Location A
00D4826	00D4826	2,2-dimethylpropan-1-ol,tribromo derivative (TBNPA)   36483-57-5	36483-57-5	0.5000000000		Location A
00D4826	00D4826	3-bromo-2,2-bis(bromomethyl)-1-propanol (TBNPA)   1522-92-5	1522-92-5	0.5000000000		Location A
00D4826	00D4826	2,3-dibromo-1-propanol (2,3-DBPA)   96-13-9	96-13-9	0.5000000000		Location A
00D4826	00D4826	1,4 dioxane   123-91-1	123-91-1	0.5000000000		Location A
00D4826	00D4826	Bis(2-(2-methoxyethoxy)ethyl)ether   143-24-8	143-24-8	0.5000000000		Location A

## Previous PCD Versions

## 10/18/21 Rev 001 PCD

<b>Substance (select from drop-down list)</b>	<b>CAS Number</b>
2,3,3,3-tetrafluoro-2-(heptafluoropropoxy)propionic acid   000-00-0	000-00-0



<b>Substance (select from drop-down list)</b>	<b>CAS Number</b>
2,3,3,3-tetrafluoro-2-(heptafluoropropoxy)propionic acid   13252-13-6	13252-13-6

# Packaging Sheet

- ❑ Updated Section 3: Instructions/Guidance to add the link to the ESI Packaging application. Suppliers should use this link to access the application after completing registration in the IBM Supply Portal

## Packaging Sheet

### 2. Registration Instructions for ESI Packaging Database Access

Refer to the following website for instructions on how to apply for access for the ESI Packaging Database via the Electronic Supply Chain Interlock (ESI) Tool:

<https://www.ibm.com/procurement/appTools#esi>

(Please note that access may take several days.)

### 3. Instructions/Guidance

Product and Packaging information must be documented in the ESI Packaging Database to facilitate IBM's country specific regulatory reporting. For assistance contact your IBM Procurement Engineer.

Individual ESI Packaging data forms are required for each orderable and packaged PN referenced on the PCD including FRUs and Options. If the Machine Type/Models, Part Numbers, FRUs or Options can ship in more than one package design, then use a separate form to document each unique package design, even if they have the same Machine Type.

If this is a product developed by a non-IBM Supplier/OEM/ODM or a Purchased Complete item, the company IBM has contracted for the product/packaging design will be responsible for providing/entering the required information/packaging data into the ESI Packaging Database. For DIMM shipments from the DIMM supplier to IBM facilities, IBM does not specify or contract the product/packaging design. Please refer to the IBM Supplier web page for IBM Requirements (IBM ES 5897660) and registration instructions for ESI Packaging:

<https://www.ibm.com/procurement/ossi>

Please use the following link to access the ESI Packaging application once you have completed registration in the IBM Supply Portal:

<https://esipackaging.c8f8f055.public.multi-containers.ibm.com>

# Battery Sheet

❑ Updated the input text message in the Battery Weight question to "Enter the total weight in "grams" of the cell or battery pack identified in Q2. Format to 2 decimal places." This message appears when users click on the cell to enter the battery weight.

## Battery Sheet

For part numbers that contain batteries, the supplier is required to report characteristics and transportation data, and is responsible for compliance. Please answer the following questions for this purpose. Logic in the PCD will determine which questions are to be answered, and the choices displayed. So, when completing this sheet, it is best to answer the questions in order.

Q1	Battery/Cell/Pack Manufacturer	<input type="text"/>	E.g.: Panasonic
Q2	Battery/Cell/Pack Supplier Assembly PN or Model	<input type="text"/>	E.g.: CR2032
Q3	Is this a battery pack?	<input type="text"/>	
↓			
Q9	Rated Capacity	<input type="text"/>	Ah
Q10	Battery Weight	<input type="text"/>	g
Q11	Is there a date of manufacture on the external battery case?	<input type="text"/>	<input type="checkbox"/>
Q12	Is there an expiration date on the external battery case?	<input type="text"/>	<input type="checkbox"/>
Q13	Is the capacity in Ah marked on the external battery case?	<input type="text"/>	<input type="checkbox"/>

Enter the total weight in "grams" of the cell or battery pack identified in Q2. Format to 2 decimal places.

# Assembly Battery Sheet

Updated the input text message in the Battery Weight question to "Enter the total weight in "grams" of the cell or battery pack identified in Q1 or Q2. Format to 2 decimal places." This message appears when users click on the cells in Q12 to enter the battery weight.

## Assembly Battery Sheet

For part numbers that contain batteries, the supplier is required to report characteristics and transportation data, and is responsible for compliance. Please answer the following questions for this purpose. Logic in the PCD will determine which questions are to be answered, and the choices displayed. So, when completing this sheet, it is best to answer the questions in order.

Legend: Do Not Fill

	Battery 1	Battery 2
<b>Q1</b> Battery Model/Name (Select from drop-down list if present, and advance to Q10. Otherwise, go to Q2.)		
<b>Q2</b> Enter the Battery or Cell Pack Supplier Assembly PN or Model if it is not included in the Q1 drop-down list		
<b>Q10</b> Quantity of this Battery per Assembly Part Number (Each)		
<b>Q11</b> Rated Capacity (Ah)		
<b>Q12</b> Battery Weight (g)		
<b>Q13</b> Is there a date of manufacture on the external battery case?		
<b>Q14</b> Is there an expiration date on the external battery case?		
<b>Q15</b> Is the capacity in Ah marked on the external battery case?		

Enter the total weight in "grams" of the cell or battery pack identified in Q1 or Q2. Format to 2 decimal places.

# Assembly Battery Sheet – Common Error

Do not declare the battery content of an assembly if the battery has a separate PN listed in the BoM structure of the assembly.

## Assembly Battery Sheet

### REPORTING EXAMPLE

If the BoM for the assembly PN includes a battery PN, answer NO to the assembly containing battery question in Q6, A separate PCD will need to be submitted to IBM containing the material information for the battery PN.



### 6. Battery

Is this IBM PN a battery, battery pack or battery feature? (A battery pack or battery feature is a collection of any number of batteries whose primary purpose is the same as a single battery.)

Proceed to the next question

Is this IBM PN an assembly that contains a battery(s), and the Bill of Material for this assembly is not owned by IBM? (If you are providing data for an ODM/OEM assembly for which you own the Bill of Material, and the assembly contains a battery(s), you should answer "Yes" to this question.)

Please complete the Part Numbers sheet and Assembly Battery sheet.



### 6. Battery

Is this IBM PN a battery, battery pack or battery feature? (A battery pack or battery feature is a collection of any number of batteries whose primary purpose is the same as a single battery.)

Proceed to the next question

Is this IBM PN an assembly that contains a battery(s), and the Bill of Material for this assembly is not owned by IBM? (If you are providing data for an ODM/OEM assembly for which you own the Bill of Material, and the assembly contains a battery(s), you should answer "Yes" to this question.)

Do not complete the Battery sheet or the Assembly Battery sheet.

# Responsible Minerals Sheet

Updated the 2<sup>nd</sup> paragraph of the instructional text.

## Responsible Minerals Sheet

Since the passage of Section 1502 of the Dodd-Frank Financial Reform Act of 2010, IBM focus has been on ensuring that 3TG sources do not contribute directly or indirectly to armed groups in the Democratic Republic of the Congo (DRC) and adjoining countries. At present, we are taking measures to further expand our due diligence to include minerals in our supply chain identified as having originated from other conflict affected and high-risk areas (CAHRAs).

The foundation of IBM's responsible minerals sourcing policy is based on the framework of the Organisation for Economic Co-Operation and Development (OECD) Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas (CAHRAs). We participate in industry initiatives to create and deploy supply chain verification processes; such as: the Responsible Minerals Initiative (RMI), the Conflict Minerals Reporting Template (CMRT), Cobalt Reporting Template (CRT), and the Responsible Minerals Assurance Process (RMAP). Furthermore, we conduct scheduled due diligence with our direct suppliers of hardware components to share knowledge regarding the upstream supply chain, smelter or refiner (SOR) status, best practices and supply chain risks. These efforts are important elements of our work to affirm that 3TG and cobalt in our supply chain must be sourced ethically and not from US sanctioned country/entity (e.g.: Sherritt International (Parent company) - Fort Saskatchewan Metal Facility - sources from Cuba, a US sanctioned country/entity).

The term "responsible minerals" is defined as Tantalum, Tin, Tungsten, Gold (3TG), and Cobalt.

The purpose of this PCD is to declare whether any responsible mineral is necessary to the functionality or production of the subject parts. This PCD is not used to declare whether the responsible mineral(s) originated in the Democratic of Congo or adjoining countries.

**IBM Responsible Minerals Standard and Supplier Education:** <https://www.ibm.com/procurement/responsibleminerals>

Is cobalt necessary to the functionality or production of the parts on this PCD?

Is gold necessary to the functionality or production of the parts on this PCD?

Is tantalum necessary to the functionality or production of the parts on this PCD?

Is tin necessary to the functionality or production of the parts on this PCD?

Is tungsten necessary to the functionality or production of the parts on this PCD?

## Summary and Key Takeaways

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- Key Changes to the new PCD Version 10/18/21 Rev 001 include:
  - Addition of a new question Q12 in the Instructions worksheet and adding a Resin Materials worksheet.
  - Multiple modifications to the Reportable worksheet, such as a new Critical Raw Materials category and updates to the “Per and poly fluoroalkyl substances (PFAS)” category which includes over 4000+ substances that need to be reported.
  - Addition of 10 new SVHCs in the Reportable SVHC worksheet.
  - Updates to the instructional text in the Packaging, Responsible Minerals, Battery and Assembly Battery worksheet.
- The new PCD version 10/18/21 Rev 001 was released on **May 16, 2022**. Both the current PCD Version 9/1/20 Rev 001 and new PCD Version 10/18/21 Rev 001 will be accepted from **May 16 to June 14, 2022**
- **Effective June 15, 2022**, only the new PCD Version 10/18/21 Rev 001 will be accepted.
- Refer to IBM ES 46G3772 and ES 97P3864 when completing the PCD form.
- Start with a new/blank PCD when completing a PCD request. Do not copy and paste from an old PCD.
- Start with the **Instructions worksheet** and work your way through the required worksheet based on the guidance provided.
  - All 12 questions **must be answered** on the Instructions worksheet.
- The Error Summary worksheet gathers all errors from earlier worksheet and will show those errors along with links to the worksheet(s) of concern. All critical errors need to be corrected before submitting the PCD or it will be returned for corrections.



## Links and PCD Help

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- Global Procurement Information for Suppliers webpage is your valuable resource for **Environmental and Packaging Requirements**. Here you will find IBM ES 46G3772 and ES 97P3864. This site also contains supplier information on IBM's Social & Environmental Management System Requirements, Supply Chain Social Responsibility, Responsible Minerals and other information needed to do business with IBM Procurement.
  - <https://www.ibm.com/procurement/ossi.wss>
- To download current PCD form:
  - <https://www.ibm.com/ibm/environment/products/ecpquest.shtml>
- To review recent PCD education:
  - <https://www.ibm.com/procurement/sipcd.wss>
- Have questions or need assistance with completing the PCD form - Email [pcdsupp@sg.ibm.com](mailto:pcdsupp@sg.ibm.com).
- IBM is committed to environmental leadership in all of its business activities. To learn more about IBM and the environment:
  - <https://www.ibm.com/ibm/environment/index.shtml>

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# Back - Up

## Material Declaration (PCD) Data Collection Operations Team Based in SGP

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# IBM ES 46G3772 and Product Content Declaration (PCD)



## Product Content Declaration for IBM Suppliers

EC P44600 Version 6/16/18 Rev 002 IBM PI #EC3484 Release Date: December 2018

**Scope and Instructions**  
 This declaration form applies to all materials, parts, and products supplied for IBM hardware applications and is used to verify compliance to environmental requirements in IBM Engineering Specification 46G3772, to requirements in 59P233 or 97P3864, or 873444 (for components only), as well as to IBM's Conflict Minerals Standard.  
 This form is to be filled out to the requirements of the current versions of Engineering Specifications 46G3772 and 59P233, 97P3864, or 873444, as of the submission date on this form.  
 The current versions of these specifications can be found at: <https://www-91.ibm.com/procurement/procurement/US/Content/Specs/7/United-States-information-for-suppliers>  
 Before filling out this form, verify that the current version (see form version date) of this form is being used. The current version of the PCD form can be found at: <https://www.ibm.com/environment/products/pcdrequest.shtml>  
 This PCD is to be used to report part information including battery data, if applicable. Data for a single battery with an IBM PI, or as many as 5 batteries that do not have an IBM PI but are part of an assembly having an IBM PI, may be reported. When reporting battery data, only one IBM PI may be reported on the Part Numbers sheet, i.e., a PI for a battery or a PI for an assembly with batteries. If additional PIs must be reported on, then use multiple PCDs.  
 All suppliers should complete the entire questionnaire and return it to the requester. See Legal Notice below. Supplier questions regarding this form should be referred to the IBM Procurement representative. If responses to this questionnaire are identical for multiple part numbers from the supplier, then one completed questionnaire may be used to submit data for a list of designated part numbers for which the answer set applies.  
 USE COPY, AND THE VALUES OPTION OF PASTE SPECIAL, WHENEVER COPYING DATA INTO A CELL. DO NOT USE COPY AND PASTE, OR CUT AND PASTE, SINCE ERRORS CAN RESULT TO REMOVE A CELL ENTRY, USE THE DELETE KEY.  
 DO NOT USE THE FOLLOWING CHARACTERS IN ANY SHEET IN THIS WORKBOOK: { } ~ | - /

**Material, Part or Product Description**  
 Complete supplier information and designate the part number(s) (or material codes if you supply raw materials) for which the answers to this questionnaire apply:

Supplier Name \_\_\_\_\_ (Required)  
 Supplier Address \_\_\_\_\_  
 Supplier City, State or Province, Country \_\_\_\_\_ (Required)  
 Supplier Contact \_\_\_\_\_ (Required)  
 Contact Phone Number \_\_\_\_\_  
 Contact E-mail \_\_\_\_\_ (Required)  
 Submission Date for Declaration \_\_\_\_\_ (Required)

For Raw Material:  
 IBM material code \_\_\_\_\_  
 Material name/description \_\_\_\_\_

For Parts:  
 IBM part numbers \_\_\_\_\_  
 Supplier part no. \_\_\_\_\_  
[See Sheet OEM OEM CM's for instructions on data reporting for assembly level PIs](#)  
[Click here to enter an IBM Part Number](#)  
[Click here to enter a Supplier Part Number](#)

For Products:  
 IBM part numbers \_\_\_\_\_  
 Supplier part no. \_\_\_\_\_  
[See Sheet OEM OEM CM's for instructions on data reporting for assembly level PIs](#)  
[Click here to enter an IBM Product Part Number](#)  
[Click here to enter a Supplier Product Part Number](#)

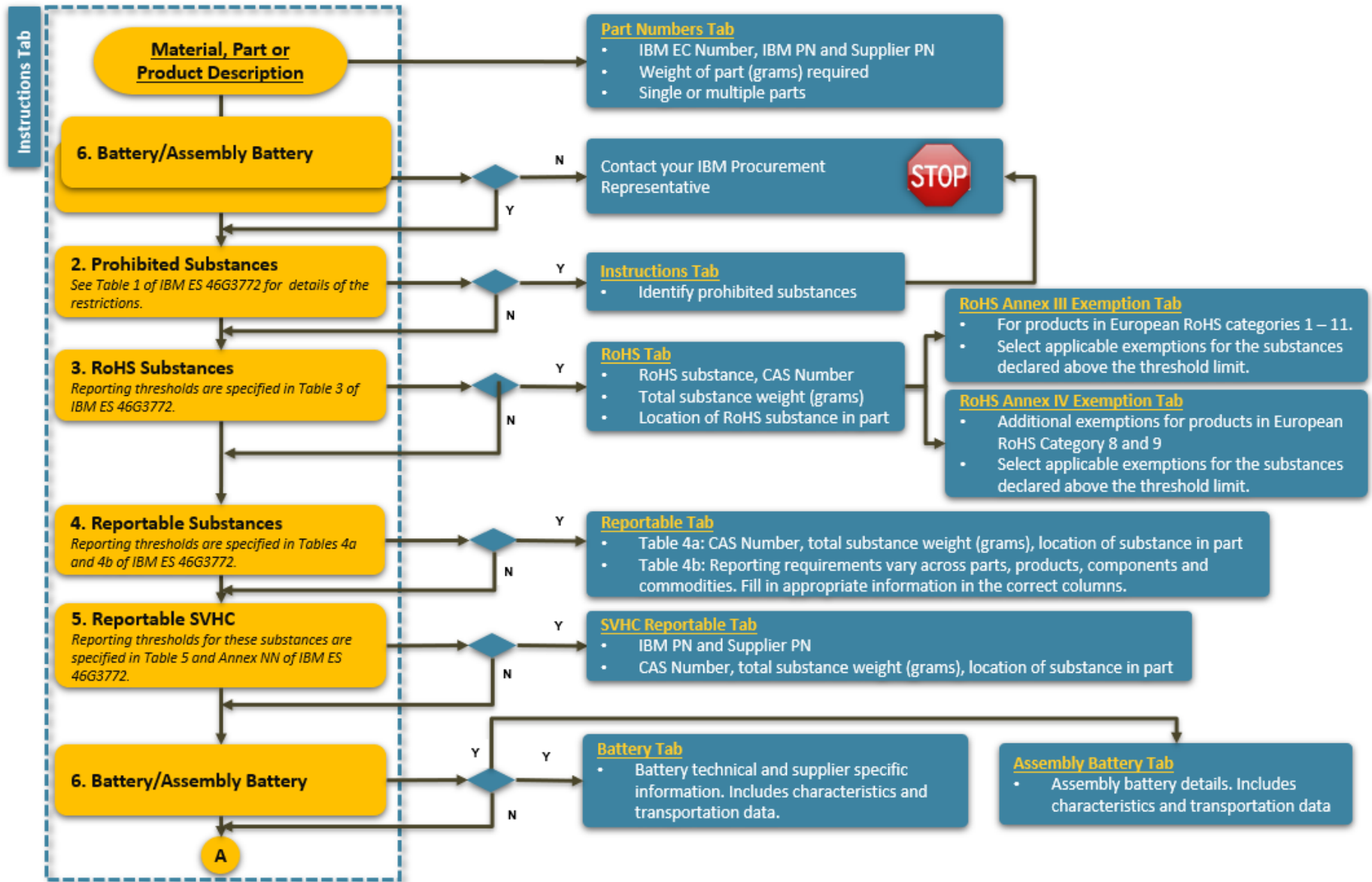
**Global Environmental Legislation**

- IBM ES 46G3772\***
- Baseline Environmental Requirements for Supplier Deliverables to IBM.
- IBM ES 97P3864\***
- Compliance Requirements for the European Union Directive (and other jurisdictions) on the Restriction of the Use of Certain Hazardous Substances (RoHS) in Electrical and Electronic Equipment for IBM Products.

- Product Content Declaration (PCD) Form\*\***
- Used to establish compliance of procured materials, parts and products to IBM ES 46G3772 and 97P3864.
  - Required format for loading into IBM internal systems
  - Required from all suppliers.
  - New PCD version is released at least once per year.

\* IBM ES 46G3772 and ES 97P3864 can be downloaded from: <https://www.ibm.com/procurement/ossi.wss>  
 \*\* Latest IBM PCD can be downloaded starting from: <https://www.ibm.com/ibm/environment/products/ecpquest.shtml>

# PCD Form Overview and Sequence of Completion



# PCD Form Overview and Sequence of Completion – Cont'd

