ENVIRONMENTAL REQUIREMENTS - Section 16

Reporting of All Materials and Substances

Powers and Sons, LLC is required by its customers to identify restricted/hazardous substances contained in the materials in parts that are supplied to them. Powers and Sons, LLC must comply with reporting standards of Ford Motor Co., Stellantis, General Motors, Volvo as well as many others. Providing this information supports Powers and Sons, LLC and its customer's efforts to comply with the European Union (EU) End of Life Vehicle Directive (2000/53/EC), the Restricted Substance Management Standard (RSMS), and Conflict Minerals reporting obligations.

In addition to meeting this requirement, Powers and Sons, LLC customers are requiring **full disclosure of product content for all parts**. To collect necessary information, Powers and Sons, LLC, its suppliers and customers use the INTERNATIONAL MATERIAL DATA SYSTEM (IMDS). The IMDS website is available at <u>www.mdsystem.com</u>. Any IMDS questions can be directed to the IMDS Administrator. Refer to the Powers and Sons, LLC Key Personnel List, I.M.D.S. Administrator

Part information must be filled out for each part supplied to Powers and Sons, LLC and entered into IMDS per latest instruction 07-36-03 referenced below.

Some Key information required:

- Materials. Define the materials used in making the parts along with the substances comprising those materials
- Steel Source (ie Steel Mill)
- Percentage of recycled material, post-consumer or post-industrial/pre-consumer, used in the part
- Part weight. Includes the saleable part weight along with component weights. Coatings on parts, such as paint or rust preventative, are to be defined as material weights.

Per AIAG Production Part Approval Process (PPAP) Fourth Edition (or latest), section 2.2.18.1: *"...the part weight of the part as shipped, measured and expressed in kilograms (Kg) to four decimal places (0.0000)..."*

Powers and Sons, LLC requires that this information be provided a minimum of two weeks prior to PPAP submittal for new parts. This will allow time for any errors to be corrected.

The Part Submission Warrant (PSW) has a line where the IMDS ID / Version number and date accepted is to be populated

An electronic copy of the Part Submission Warrant can be found in the Suppler Forms section of this manual.

IMDS number must also accompany the Annual Layout. If information has not changed since initial PPAP, the same ID / Version number can be used on an Annual Layout report

Steps 1-29 are used to create a material in IMDS before it can be assigned to the component that is being PPAP'd. Once the material is created it can then be used to create the component in IMDS as described in steps 30-55.

Completely read instructions before attempting

Creating a Material

- 1. Go to www.mdsystem.com
- 2. You may have to disable pop-up blockers
- 3. Register your company or log in

	Login
\mathbf{X}	User ID
\sim	Password
$\langle \rangle$	Language English
$\langle \rangle$	🔑 Login
	User ID forgotten Request new password Terms of use
•	Registration
	Register your companyTips for your company registration

4. Once logged-in select MDS/New/Datasheet/Material or use the "New" icon



5. Select proper Material Classification, double-click or select apply

Classification		
Classification	Description	
0	undefined	
1	Steel and iron materials	
1.1	Steels / cast steel / sintered steel	
1.1.1	unalloyed, low alloyed	
1.1.2	highly alloyed	
1.2	Cast iron	
1.2.1	Cast iron with lamellar graphite / tempered cast iron	
1.2.2	Cast iron with nodular graphite / vermicular cast iron	E
1.2.3	Highly alloyed cast iron	
2	Light alloys, cast and wrought alloys	
2.1	Aluminium and aluminium alloys	
2.1.1	Cast aluminium alloys	
2.1.2	Wrought aluminium alloys	
2.2	Magnesium and magnesium alloys	
2.2.1	Cast magnesium alloys	
2.2.2	Wrought magnesium alloys	
2.3	Titanium and titanium alloys	
3	Heavy metals, cast and wrought alloys	
3.1	Copper (e.g. copper amounts in cable harnesses)	
3.2	Copper alloys	
3.3	Zinc alloys	
3.4	Nickel alloys	
3.5	Lead	
4	Special metals	
4.1	Platinum / rhodium	
4.2	Other special metals	
5	Polymer materials	
5.1	Thermoplastics	-

6. Fill in the name of the material

on Information				
Туре	Material (own M	DS)		
ID / Version	446153729 / 0.0	01		
Node ID	446153729			
Node count	1			
MDS Supplier	Powers & Sons			
Name	Name of Materia	al Goes Here	* 🕜	
Trade name			?	
Internal MatNo.				
pment Sample Report[

7. Fill in the Std. Mat.-No., Norms / Standards, and Source of material (i.e. Steel Mill). All three must be filled in.

Material Information		
Std. Mat. No.	*	
Symbol		
Classification	1.1 Steels / cast steel / sintered steel*	Q
Norms / Standards	O 👄	
(Company Norm	Norm Code
E	- /	
Supplier		

To insert Norms / Standards select on green plus button

From pop up select correct Standard and Norm from drop down buttons

MDS - MATER	Node col MDS Suppl IAL DATA SYSTEM	int 1 Ier Powers & Sons		1
Add Norm /J Company Norm Norm Code	Inhouse Norm public norms public norms public norms Adam Opel GmbH BMW AG Chrysler LLC Daihatsu Motor Co., Ltd. Daimler AG FIAT AUTO Ford Motor Company Fiuji Heavy Industries, Ltd. GM Korea Company HINOIDOUSHA Honda HYUNDIA KIA MOTOR COMPANY Isuzu Motors Limited Mazda Motor Corporation Mitsubishi Motors Corporation NISSAN MOTOR Co., LTD Porsche AG Saangyong Motor Company SUZUKI MOTOR COMPANTION	e not available ⑦ 🕞 Recommendation	✓ Add O Cancel	
	TOYOTA MOTOR CORPORATION Volkswagen AG	er		

8. Select the Blue Prism to insert a substance that will make up material



9. Type in substance name in Name / Synonym (i.e. carbon, iron, nickel) or CAS No.

Name / Synonym		GADSL: duty-to-declare	▼ G	iroup	•
CAS No.		GADSL: prohibited	•		
EU-Index		REACH-SVHC	•		
EINECS-No.					
					Q Search
View - Export					
lame	CAS No.	EU-Index	EINECS-No.	Synonym	GADSL / SVH
					Total records found
Columns Hidden Columns Frozen					Total records round
Columns Hidden Columns Frozen					Apply OCancel

NOTE: A general name will produce a large number of found. If the CAS Number is known using it to search will narrow down the search 11. Select the correct substance and double-click to apply or select Apply

			1			
CAS No.	EU-Index	EINECS-No.	Synonym		GADSL / SVHC	
7440-50-8	-	231-159-6	Cu		D	
				Total	records found 1	3
				Appl	Cancel	

12. On the Details pane under Amount and Weights use the drop-down box to determine how much of a substance is being used /

Confidential		
Amounts and Weights		
Portion	from - to	
	Fix	 0.0 %
weighted mean	Rest	0.0
weighted mean	Rest	

- 13. Under Amounts and Weights there are three choices for the amount of substance used in the material:
 - Fix _____% A fixed portion not to vary
 - From ____% to ____% This is used for a range. A median will be calculated.
 - Rest The rest to make up a 100%

Fill in appropriate amount of substance being used in the material.

14. Select on the Material name on the left side of the screen to add another substance.

15. Save your work frequently



16. Repeat steps 9-14 as needed to complete the material

NOTE: Due to reporting standards as of April 2008, when using the range portion a 10% warning of undeclared substance is likely. The following excerpt is taken from the IMDS website to help explain the new IMDS reporting guidelines:

When calculating the maximum amount of jokers used in a material, IMDS uses "worst case" calculation. The value given as "rest" on the joker substances is not the same as the value used in the warning calculation.

The 10% warning requires a bit of understanding on how the calculations work. For example, if you have a material comprised of substance a, substance b, substance c, and a joker:

Substance a - range from 25 to 29 - weighted average 27 Substance b - range from 36 to 40 - weighted average 38 Substance c - range from 26 to 30 - weighted average 28 Joker - REST - 7%

But

- Even though substance a has a weighted average of 27, it COULD have as little as 25% of substance a
- Even though substance b has a weighted average of 38, it COULD have as little as 36% of substance b
- Even though substance c has a weighted average of 28, it COULD have as little as 26% of substance c

So really, for sure, all we know that the total of substance a, b, and c are 87% so the joker could be 13% which is > 10% and sets off the warning.

Additionally, should you use a range on a joker such as Joker - from 9% to 11%, the maximum value of the range is used in the calculation.

To avoid this warning, do not use "rest" on a joker substance.

- 17. When added up all the substances must equal 100%. If it does not follow the next 4 steps:
 - Click on Blue Prism
 - In Name / Synonym type IRON, PPE, MISC, etc. depending on what material is being created
 - Apply it
 - Under Portion select REST



18. Select Supplier Data Tab and populate Contact Person from drop down



- 19. Save
- 20. Check the data





or

21. Warnings and/or Errors will apear at the bottom of the screen.



- 22. All Errors and/or Warnings must be fixed before proceeding.
- 23. Double-click or highlight, right click, show on the Error/Warning. This will return the screen to the Error/Warning to be fixed.

Che	ck res	ults - 1 Error(s)	(0 Warning(s)		
No.	Туре	Tab	Node / Recipient		
1	٢	Ingredients	Name of Material Goes Here	O Show	

24. If all there are no errors or warnings; From the MDS drop down select Release Internal



25. Select Release Internal



26. At the top of the Details screen is the ID / Version number and the Name of the material. The ID / Version number or Name will be used to create the component in steps 30-54. It is suggested to use the ID / Version number as it is the only material with that ID number and will expedite the search for the material when placing it in the component.



27. As of release 8.0 IMDS has a function that allows frequently used materials (or components) to be placed on a clipboard for easy retrieval. Select Function / Clipboard to open the clipboard



28. Once clipboard is open the material may be added by selecting on the just created material and using the "drag and drop" method or add to the clipboard via the add buttons at the top of the clipboard.



Creating Component

29. Select MDS/New/Datasheet/Component or use the "New" icon

MDS - Functions - Administration	on + Help +		👻 🖻 🕴 💌				
🗅 New	Datasheet	🖉 Component	Ctrl+Alt+1ata				
Save Ctrl+S	Module)	Semicomponent	Ctrl+Alt+2				
Release Internal		🌯 Material	Ctrl+Alt+3				
Convert module to MDS							
Forward	>			-			
Create MDS Report	Curre	nt versions 💌			▼ 🔛	1.5	- The second
Check	-			_	Concer 1	-	
Accept	liched / acconted	/ internally released			Datasheet		Component
Reject	ated (own MDSs)	Thermany released		sup			Component
💢 Delete	/2013 to 1	07/10/2013			Module		Semicomponent
U Log off		0				_	Semicomponent
	_						Antorial
							Taterial

- 30. In the Details pane, under Common Information type in a Description, use the description found in title block of Powers and Sons, LLC print. *NOTE for Coating suppliers + in the description field please fill in as: Coating for (Powers and Sons, LLC Part number)
- 31. Fill in Part/Item NO. (Powers and Sons, LLC part number)



32. Use Drop down to switch weight to Kg

Per AIAG Production Part Approval Process (PPAP) Fourth Edition (or latest), section 2.2.18.1:

"...the part weight of the part as shipped, measured and expressed in kilograms (Kg) to four decimal places (0.0000)..."

Powers and Sons, LLC will reject any IMDS that is not in Kg's

33. Tolerance is calculated as followed:

(?) MDS - MATERIAL DATA SYS	STEM
	Deviation	
	The deviation may not exceed a threshold depends on the compo	certain value. Exceeding this threshold will result in a warning in the MDS Check. The onent's measured weight:
	Measured weight per item	Allowed max. deviation
	< 1g	100%
	< 100g	10%
	< 1kg	5%
	< 10kg	2%
	< 100kg	1%
	≥ 100kg	0.5%
		Close

There are two methods which material may be added refer to step 39 for alternate method.

34. Select the Add a Material reference icon



35. Enter the material name in the Name field or the ID / Version number in the ID field

MDS - MATERIAL DATA SYSTEM	NOS - MATERIAL DATA SYSTEM
Name, ID, Version, Date Name Internal MatNo. ID Current versions Development Sample Report Language English Date (only for MDSs) published / accepted / internally released created (own MDSs) from 06/10/2013 to 07/10/2013	Name 10, Version, Date Name Internal Na-No. D Development Sample Report Language English Date (only for MDSs) published / accepted / internally released Created (own MDSs) from 06/10/2013 to 107/10/2013 to
View - Export Type Name	View - Export Type Name

36. Search -

							Q Sear
View	- Export						
Туре	Name	Symbol	Trade name	Std. MatNo.	Internal MatNo.	ID / Version	Supplier
20	Name of Material Goes Here	-	-	-	-	446153729 / 1	Powers & Sons
							Total records form
	I						Total records four
							🖌 Anniv 🔿 Can
							V Apply L Call

- 37. Select the material and apply (double-click or Apply button)
- 38. Alternately, the material may be added to the component from the clipboard by using the "drag and drop" method. Dropping the material under the component.

Comparison	oop=117619756594714288v_afrWindowMode=08/Adf-Window-Id=imds_window#%2FdatasheetSearch%40%3FAdf-Wi	ndow-1d%3Dimds_window%26_adf.ctrl-state%3Dv7pl6hn7c 🔎 = 🗎 🖒 🗙 🏠
S MDS - MATERIAL DATA SY X	and some Apply some some some some some	and the second s
File Edit View Favorites Tools Help		
🎄 📭 The Official Site of Major 🔞 Hicksville Exempted Villag 🔤 Local Interactive Weather 🎽 Fox News - Breaking New 🍪 Join the Mee	ting GoToM 🛑 Netviewer 🦵 Mail Welcome to Frontier	🏠 👻 🖾 👻 🖃 🖶 💌 Page 🕶 Safety 👻 Tools 👻 🔞 💌
818bbs, Tony 0 Power & Loons (1445) MOS = Functions = Administration = Help =		MATERIAL DATA System
👹 MDS/Module Search Ingredients * Supplier Data * Recipient data * Analysis MDS/Rec	uest	🍏 🎯 🤧 🎝 🔂 👱 🗸 🖨
😥 🔁 Filter GADSL 💽 🔍 🍏 🗸 🍑 👻 🏶 🎸 🥥 🛩 🦕 👻 🗸		Type Name
Component_452251723	Details	Name of Material Goes Here 446153729 / 1
<	Common Information	
	Type Component (own MDS)	
	ID / Version 452251723 / 0.01	

39. Fill in the weight of the material in Kg's, refer to step 33

Create Date 7/9/2013 🕜					
Check/Release Date 7/10/2013 🕜 📑 Recommendation					
Amounts and Weights					
Weight 5 kg 💌					
Material Information					
Std. MatNo					

- 40. Repeat steps 35-40 until all material, coatings, etc. that make up the part are included.
- 41. If the part contains any recycled material indicate how much under Recyclate

✓ Recyclate	
Does the material contain recyclate?	es 💌
	Content of post-industrial/pre-consumer recyclate (see ISO 14021) Post-Industrial Recyclate that has been diverted from the waste stream during a manufac - %
	Content of post consumer recyclate (see ISO 14021)
	Post-Consumer Recyclate has been generated by households or by commercial, industrial

42. On the Detail pane under Amounts and Weights the Measured Weight per item and Calculated weight per item must match to four decimal places, refer to step 33.

Amounts and Weights	
Measured weight per item	5.1234 kg 💌 *
Tolerance +/-	5.0 %*
Calculated weight per item	5.1234 kg
Deviation	0.0%

43. Under Parts Marking, if applicable, populate the Polymeric part(s) marked. If yes or no do not apply select Not Applicable.

Parts Marking			
Polymeric part(s) marked		•	•
	Yes (Parts marked as required by law.) No (Parts not marked as required.) Not Applicable (Parts do not require marking due to specifications of weight, geometric restriction or surface requirements.)		J

44. Select the Supplier Data Tab and populate Contact Person from the drop down

Company			_
Company Company ID DUNS Number Company Address	Powers & Sons 1447 - 1613 Magda Dr 43543 Montpelier, OH US (United States)	Organisation unit Company ID DUNS Number Company Address	Powers & Sens 1447 1613 Magda Dr 43543 Montpelier, C US (United States)

45. Select the Recipient Data tab and select the Add recipient button



46. Type in Powers & Sons (the "&" must be used) in the company name **Or** use Powers and Sons, LLC

mpany ID 14	147	and Se	arch			
MDS - MATERIAL DATA	SYSTEM					
Company						
Company Name	powers & sons	zip code			User Name	
Company ID	1447	City			User ID	
Org Unit		Country	•	ophy m	not companies	
DUNS Number				Unity IC	OL COMpanies	V
						Gearch
View 👻 Export						A
Company Name		Org Unit		ID	zip code	City
Powers & Sons		Powers & Sons		1447	43543	Montpelier, OH

47. Highlight and Apply or double-click search results

View - Export					-
Company Name	Org Unit	ID	zip code	City	
Powers & Sons	Powers & Sons	1447	43543	Montpelier, OH	
					Total records found 1
					Apply Ocancel
					att

48. In Details pane fill in (required by Powers and Sons, LLC) Supplier Code: Your Supplier code to Powers and Sons, LLC

\sim	Details	
	✓ Transfer Information	
Part/Item No.	Company Pioneer Forge [52497]	
	Organisation unit -	
	Recip. Status edit mode	
Date of Report	Supplier Code	?
Bate of Report	Name Description of Part	
\mathbf{X}	Part/Item No.	?
\mathbf{X}	Transmission/Check Date not available	
\mathbf{X}	Forwarding allowed 🗹	
	✓ Drawing	
	Drawing No.	
	Drawing dated	?
	Drawing Change Level	?
	✓ Purchase Order	
	Purchase Order No.	
	Bill of Delivery No.	
	✓ Report	
	Report No.	
	A Date of Report	

49. Release Internal: the ID version number must be a "whole" number i.e. 1, 2, 3, etc.

Nan	ne De	scription	n of Part	ID version	446259	486 / 0.01	Node ID	446
	6	0	Send	Prop	ose	Release	Internal	

- 50. Fix any warnings and errors
- 51. Select Release Internal



52. Select Propose (Do not select send)

MDS/Module Search	Ingredients	Supplier Dat
Name Description of Part ID ve	ersion 446259486 / 1	Node ID 4462
	Propose 💦 Rele	ase Internal

53. Select Propose on pop-up



54. The ID Version number and date accepted is needed on the PSW submitted to Powers and Sons, LLC.

Powers and Sons, LLC MUST ACCEPT the IMDS for it to be valid. <u>**DO NOT**</u> assume that it is correct. The IMDS website is checked once per business day. If the matter is urgent the supplier may contact Powers and Sons, LLC and arrangements can be made to expedite the approval of the IMDS. Refer to the Powers and Sons, LLC Key Personnel List, I.M.D.S. Administrator

• **<u>DISCLAIMER</u>**: THIS DOCUMENT IS NOT INTENDED TO REPLACE THE IMDS WEBSITE, ITS RECOMMENDATIONS OR REPORTING REQUIREMENTS. REPORTING STANDARDS CHANGE FREQUENTLY. THE IMDS WEBSITE IS THE ULITMATE AND FINAL WORD REGARDING ALL IMDS QUESTIONS AND REQUIREMENTS.