



INTERNATIONAL  
MATERIAL DATA  
SYSTEM



## Create Tips - Version 4

Incorporating the latest of system release 4.0



This presentation gives a recommended step-by-step procedure for creating MDSs in the IMDS system.

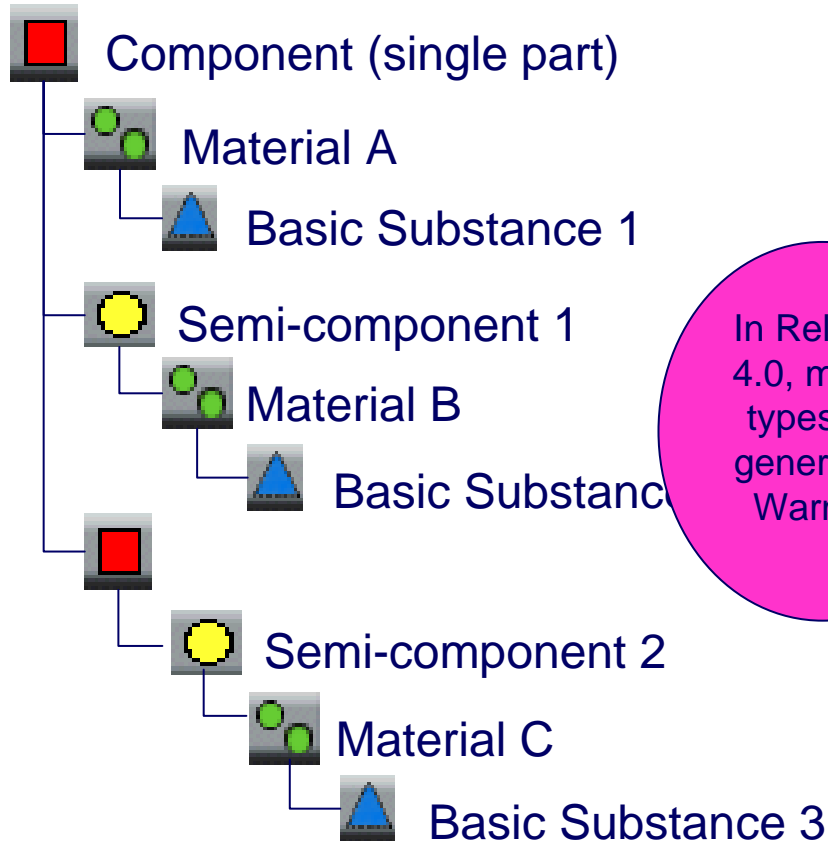
While this presentation gives recommendations on how to input data, it does not replace the individual OEM requirements that can be found on:

[Public pages](#) > [FAQ](#) > [OEM Specific Info](#)

Or specific product recommendations found after login on:

[Recommendation](#)

# Basic MDS Structure



In Release 4.0, mixing types will generate a Warning

*Note - The requirement is to reduce all parts to Basic Substances.*

*At the moment, the system allows mixing of types at the same level - there are some OEM's and Tier One's that require all siblings be of the same type - be sure to understand your customer's requirements before expending a lot of effort – please review Recommendation 001 and other recommendations that pertain to your product.*

# Where To Find Recommendations

- The **Recommendation** link will bring up a screen similar to the following
- **IMDS 001** is what is commonly referred to as Recommendation 001
- You should check this screen once a month for changes that will be made at the end of the month to the basic substance list (deletions, renaming, changing to D/P status)

MDS - MATERIAL DATA SYSTEM - Microsoft Internet Explorer provided by EDS COE

MATERIAL DATA SYSTEM

Recommendation

Initial Date	Last Modification	Number	Title	Download
Feb01st, 2004	Feb20th, 2006	-	IMDS Basic Substance Changes	<a href="#">BSC28February2006 (.pdf)</a> <a href="#">Archive</a> <a href="#">Search IMDS Basic Substance Changes</a>
Jan27th, 2003	Dec13rd, 2005	IMDS 001	General Structure	<a href="#">001 English (.zip)</a> <a href="#">001 English (.pdf)</a>
Feb26th, 2003	Dec13rd, 2005	IMDS 002	"Flat Bill of Material" (FBOM)	<a href="#">002 English (.zip)</a> <a href="#">002 English (.pdf)</a>
Oct01st, 2003	---	IMDS 003	Rubber (Elastomer) Material Composition	<a href="#">003 English (.zip)</a> <a href="#">003a English (.pdf)</a> <a href="#">003b English (.pdf)</a>
Feb26th, 2003	June07th, 2005	IMDS 004	T...	<a href="#">004 English (.zip)</a> <a href="#">004 English (.pdf)</a>

Cancel

When there is an "a" and a "b" part to the Recommendation, there is a file link in "a" that does not work. What it is supposed to link to is in file "b"

# A Word About Searching

- Searching can be made quicker by the use of the filters:

- Accepted - sent to your company and accepted
- Published - available to anyone with an IMDS UserID
- Own - only those created in your IMDS company
- Modules - only modules
- All - anything visible

The screenshot shows the MDS - MATERIAL DATA SYSTEM search interface. The browser title is "MDS - MATERIAL DATA SYSTEM - Microsoft Internet Explorer provided by EDS COE". The interface includes a "Menu" and "Search" button on the left. The main search area has several filters and input fields:

- Filters:**
  - Component
  - Semi-component
  - Material
  - Basic Substance
  - All MDS/Modules
- Search Fields:**
  - Article Name:
  - Part/Item No.:
  - ID-No.:
  - Release date from:  to
  - Supplier:
  - Org.-Unit:
- Search Options:**
  - all
  - accepted
  - published
  - own
  - only Modules
- Version:**
  - current
  - all
- max. hits:**
- Buttons:** Search, Cancel

Callouts provide additional information:

- "Returns only components" points to the Component filter.
- "Returns only semi components" points to the Semi-component filter.
- "Returns only materials" points to the Material filter.
- "Returns only basic substances" points to the Basic Substance filter.
- "Returns everything but basic substances" points to the All MDS/Modules filter.
- "The supplier of MDS filter -" points to the Supplier field.
- "The supplier of MDS filter - Org Unit (if applicable)" points to the Org.-Unit field.
- "Use this search button to activate the search" points to the Search button.
- "Current - highest whole number or in 'edit mode'" and "All - all visible versions" point to the Version radio buttons.

# Search Results

• IMDS ID/Version if version number is decimal, you can change the tree/Supplier Data information – unless you have **sent** the datasheet to the recipient and it is in **“handshake”** mode

• If IMDS version is a whole number, you can only add recipients if you previously had **proposed** the MDS – unless the data sheet was rejected and then you can change the company data of the recipient

Supplier of MDS **NOT** supplier of material or part

Whole number version, also known as **“productive”** and **“released”**. In other words, you’ve decided that the datasheet is **“perfect”** as is and released it to prevent future changes.

No.	Article Name	ID / Version	Supplier
1	A-1	A-1	EDS USA
2	A-1a	A-1a	EDS USA
3	Brass	12345676	EDS USA
4	Chrome Plating	-	EDS USA
5	Component_54107	-	EDS USA
6	Component_76825	-	EDS USA
7	Cover - Supplier C	Supplier 125b	EDS USA
8	Cylinder Head - Supplier A	Supplier 123b	EDS USA
9	Cylinder Head Assembly	Supplier 123	EDS USA
10	Cylinder Head Unit Assembly	Supplier 122	EDS USA
11	Cylinder Head Unit Assembly	Supplier 122a	EDS USA
12	Cylinder Head Unit Assembly	Supplier 122b	EDS USA
13	d789797	-	EDS USA
14	Fender Asssembly	KP-1234	EDS USA
15	Fender Lining	1234567890	EDS USA
16	Gasket Assembly	-	EDS USA
17	Hub Cap	KP-001	EDS USA
18	Hub Cap - all materials	KP-001	EDS USA
19	Hub Cap - all materials egh	KP-001	EDS USA
20	Hub cap material	-	EDS USA
21	Material_52669	-	EDS USA
22	Material_53447	-	EDS USA

Note: If it is a whole number version, **“modify”** is very limited – originally you could change supplier data and Company Data (Recipient Data), but due to the requests of off-line users, it has become more limited over the years.

While you can create Components and Semi-Components (if used) within the ingredients tree, Materials must be created separately. It is strongly suggested that you get your materials into the system first. You have three choices for getting material information into IMDS:

- Use published materials (*use at own risk if not entered by manufacturer of materials or IMDS Committee - anyone can publish and there is no quality check*)
- Have your supplier input material MDS and send it to you (*best if you have time and a cooperative supplier*)
- Build the material tree yourself and internally release (*time consuming and you may not have information*)

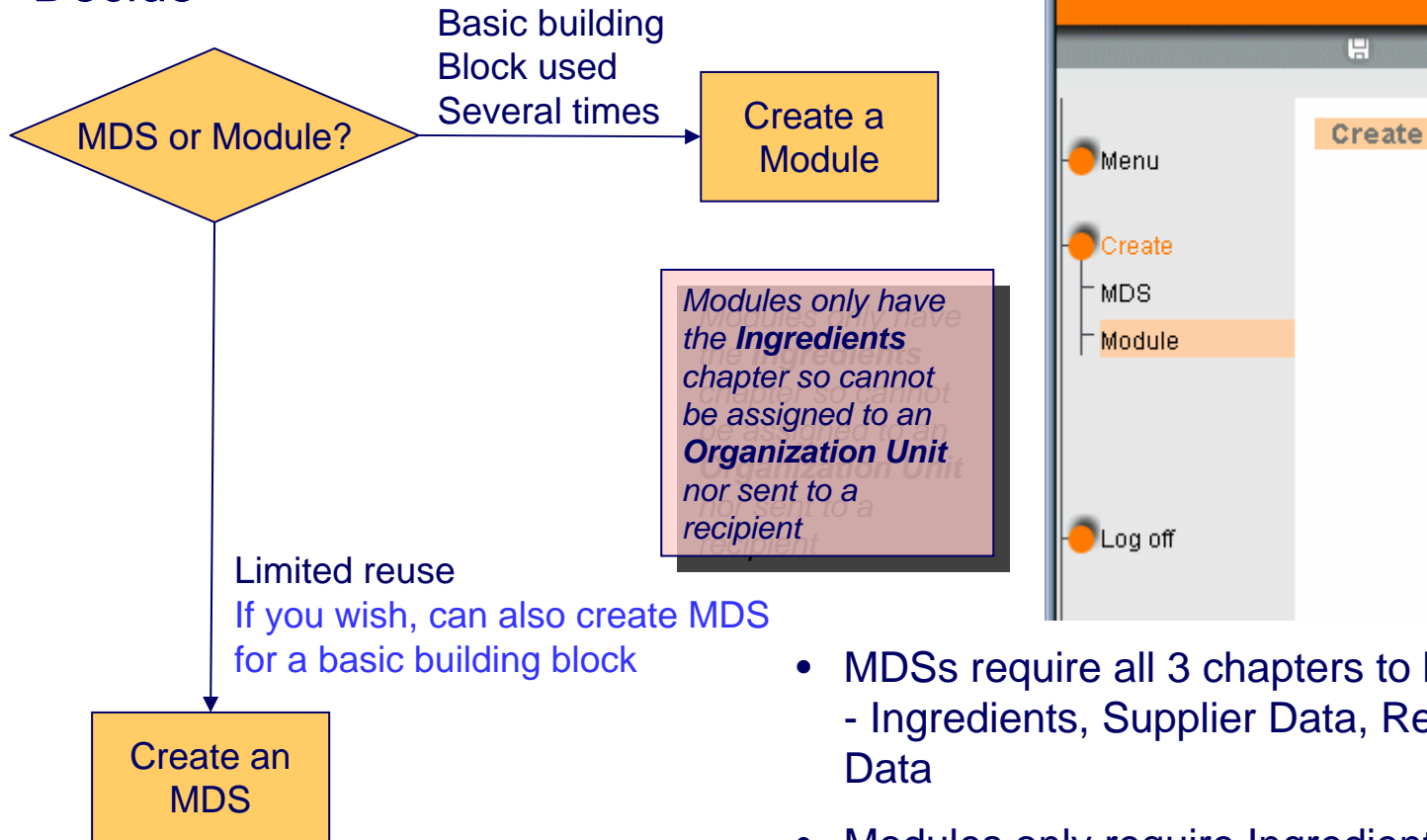
- Certain caution must be used when using Published materials as the creator of the MDS is responsible for the quality. The IMDS Committee has published data to certain norms. In Release 4.0, these datasheets will be given priority in the Search Results (listed ahead of the others). The IMDS Committee has Published Data from 3 companies –
  - IMDS - Committee (423)
    - Special materials (e.g. coatings, ink)
  - IMDS-Committee / ILI Metals (18986)
    - Predominantly the other metal alloys although there are some steels in the list best to place \*xxxx in name field where xxxx is the number of the norm you are looking for - the \* returns where that character string appears in the name field
    - Have some standards/norms
    - Not posted with material number
  - Stahl und Eisen Liste (313)
    - Predominantly steels with European Standards (you're pretty much out of luck if looking for SAE)
    - Usually posted with material number and standard



 Create a Material

# MDS or Module?

- Decide



- MDSs require all 3 chapters to be filled in - Ingredients, Supplier Data, Recipient Data
- Modules only require Ingredients to be defined as the rest gets set when used in an MDS

# Create the Material

Please make your selection:

Component

Semicomponent

Material

Select  
Material



# Create a Module/Material – Not a Thermoplastic nor Elastomer

- You should first check to see if the material exists – you can click on **Search** and go see, but we're going to assume that it doesn't
- Select a material classification (you only can select underlined classifications)

*Filled and Unfilled Thermoplastics and Elastomers are handled differently, so we'll do those later*

- Once the selection is made, click **Next**

MDS - MATERIAL DATA SYSTEM - Microsoft Internet Explorer provided by EDS COE

MATERIAL DATA SYSTEM

Creation of a new material

→ Create → MDS → Material

**Selection of the material classification**

Maybe this material already exists in IMDS.  
If you are unsure about that, here you can jump to the material search.

First of all, please select the material classification:

Classification	Description
0	undefined
1	Steel and iron materials
1.1	<u>Steels / cast steel / sintered steel</u>
1.1.1	<u>unalloyed, low alloyed</u>
1.1.2	<u>highly alloyed</u>
1.2	<u>Cast iron</u>
1.2.1	<u>Cast iron with lamellar graphite / tempered cast iron</u>
1.2.2	<u>Cast iron with nodular graphite / vermicular cast iron</u>
1.2.3	<u>Highly alloyed cast iron</u>
2	Light alloys, cast and wrought alloys
2.1	<u>Aluminium and aluminium alloys</u>
2.1.1	<u>Cast aluminium alloys</u>
2.1.2	<u>Wrought aluminium alloys</u>
2.2	<u>Magnesium and magnesium alloys</u>
2.2.1	<u>Cast magnesium alloys</u>
2.2.2	<u>Wrought magnesium alloys</u>
2.3	<u>Titanium and titanium alloys</u>
3	Heavy metals, cast and wrought alloys

# Supply Identification

- The Material Name and Internal Mat.-No are how you refer to the material in house - so you can find the MDS later.
- Symbol means the ISO 1043 symbol if it is a polymer it is meaningless for Steels

*New in Release 4.0 – Std. Mat-No – primarily used for Steels and all material classifications have Internal Mat.-No field*

*Theoretically, you can use the Material Name and Material-no how you wish, but some OEMs (and hence by necessity the Tier 1s) have specific naming requirements. You may want to review the documentation in **Public Pages > FAQ > OEM Specific Info and Recommendation 001***

The screenshot shows the MDS - MATERIAL DATA SYSTEM web interface. The browser title is 'MDS - MATERIAL DATA SYSTEM - Microsoft Internet Explorer provided by EDS COE'. The page title is 'Ingredients' and the URL is 'Material\_586793 / 0.01 (Node ID 586793)'. The interface includes a navigation menu on the left with options: Menu, Create, MDS, Ingredients, Recycle information, Supplier data, Recipient data, and Log off. The main content area shows the 'Details' panel for the material. The 'Details' panel includes the following fields: Type (Material (MDS)), ID / Version (586793 / 0.01), MDS Supplier (EDS USA), Name (Test 4.0 Material), Trade name, Internal Mat.-No., Std. Mat.-No., Symbol, Classification (highly alloyed), Norms/Standards, Inhouse Norms, Supplier, Remark, and Development Sample Re. A yellow callout box points to the 'Material\_586793' text in the main content area, and another yellow callout box points to the 'Search' button next to the 'Classification' field.

Hint - suggest you don't take the default name - this is the 586793 MDS that's been created - not useful for finding later – and many customers insist on a meaningful name

Classification selection is carried over, but you can change with **Search** button

# Caution About Names/Trade Names

- Materials are multi-lingual. Normally, you will fill in the English and hit save, IMDS will note that the German (DE) is blank and copy the English into the German.
- If you change the Name or Trade Name after the save, the English **WILL NOT** be copied to the German. When you do your search, you will have 2 different items in the results.
- Solution - when you change the Name or Trade name, use the pulldown to DE and delete whatever is there, then save and the English will be copied to the German.

Name	Material_77462	(EN)
Trade name		(EN)
Name		(DE)
Trade name		(DE)

*Users frequently accidentally delete a material because both the English and German are displayed in a search. IF IT IS THE SAME ID/VERSION IT IS THE SAME MDS!!*

# Norms and Standards

- This material is going to be a type of steel
- Now to Norms, if there are any, click on +
- Only OEMs have Inhouse Norms -some suppliers manufacture to an OEM norm. If you don't find your norm, add it to the comment field

*Lately, some OEMs have been requiring the Material-No. field to include the Norm. We're not sure why.*

MDS - MATERIAL DATA SYSTEM - Microsoft Internet Explorer provided by EDS COE

MATERIAL DATA SYSTEM

Ingredients  
Material\_586793 586793 / 0.01 (Node ID 586793)

Create MDS Ingredients

GADSL

Material\_586793

Details

Type Material (MDS)  
ID / Version 586793 / 0.01  
MDS Supplier EDS USA  
Name Test 4.0 Material (EN)  
Trade name (EN)  
Internal Mat.-No.  
Std. Mat.-No.  
Symbol  
Classification highly alloyed Search  
Norms/Standards  
Inhouse Norms  
Supplier  
Remark  
Development Sample Report

Tree search

Find Norms

# Add Norms

- Depending on what you select on the left window, the right window will change
- Select from the right window and enter the code
- Click on **Apply**
- Inhouse norms are added the same way but appear in the lower box

select norm - Microsoft Internet Explorer provided by EDS COE

MDS  
Material\_509692 509692 / 0.01 → Material → select norm

public norms  
BMW  
DaimlerChrysler AG  
Ford Motor Company  
Adam Opel AG  
Volkswagen AG  
Toyota Motor Corporator  
SUZUKI MOTOR CORPO  
sup12  
car1

PREN  
QQ  
SAE  
SAE AMS  
SE  
SEW  
SIS  
SS  
SS EN  
SS EN ISO

Code: 1010

Apply Back

*About in house Norms – they are only visible to the MDS creating company and the OEM whose norm they are. Everyone else in the supply chain will not see them. Suppliers who copy instead of reference the MDS sent to them will not know that a material has been made to an OEM norm.*



# Material Supplier

- The Norms have been applied - repeat if there are any more
- Enter your supplier information if required or desired
- Click on **Save**

*Many suppliers don't want to state who their suppliers are. Check with your customer to see if this is a requirement.*

MDS - MATERIAL DATA SYSTEM - Microsoft Internet Explorer provided by EDS COE

Ingredients  
Test 4.0 Material 586793 / 0.01 (Node ID 586793)

Menu  
Create  
MDS  
Ingredients  
Recyclate information  
Supplier data  
Recipient data  
Log off

Tree search

Details

Type Material (MDS)  
ID / Version 586793 / 0.01  
MDS Supplier EDS USA  
Name Test 4.0 Material (EN)  
Trade name (EN)  
Internal Mat.-No.  
Std. Mat.-No.  
Symbol  
Classification highly alloyed Search  
Norms/Standards SAE 1010 + -  
Inhouse Norms  
Supplier  
Remark (EN)  
Development Sample Report

Applied Norms

If required, enter the material supplier name - this probably is not the same as the supplier of the MDS (in this case your company)

Save Next

# Remark

- The Norms have been applied - repeat if there are any more
- Enter any pertinent remarks
- Click on **Save**

The screenshot shows the MDS - MATERIAL DATA SYSTEM web interface. The browser title is "MDS - MATERIAL DATA SYSTEM - Microsoft Internet Explorer provided by EDS COE". The page header is "MATERIAL DATEN SYSTEM". The main content area is titled "Ingredients" and shows "Test Material 509692 / 0.01 (Node ID 509692)". The left sidebar has a "Menu" section with "Create" and "Log off" options, and an "MDS" section with "Ingredients", "Recyclate information", "Supplier data", and "Recipient data". The main form has a "Test Material" tree view and a "ILRS" dropdown. The form fields are: Type: Material (MDS); ID / Version: 509692 / 0.01; MDS Supplier: KPTest; Name: Test Material (EN); Trade name: (EN); Material-No.: ; Symbol: ; Classification: highly alloyed (Search); Norms/Standards: SAE 1010 (+, -); Inhouse Norms: ; Supplier: ; Remark: (EN); Report: . At the bottom right are "Save" and "Next" buttons.

If required, enter any remarks - the English is not copied to the German here – when copying/pasting from an MSOffice product you may have problems as the hidden formatting characters interfere with saving your remarks. If you must copy/paste, use Notepad or Wordpad.

# Development Sample Report

- If you have a “First Sample Approval Report”, check this box
- Click on **Save**

MDS - MATERIAL DATA SYSTEM - Microsoft Internet Explorer provided by EDS COE

MATERIAL DATA SYSTEM

### Ingredients

Test Material 509692 / 0.01 (Node ID 509692)

Create → MDS → Ingredients

ILRS


Test Material

Type	Material (MDS)
ID / Version	509692 / 0.01
MDS Supplier	KPTest
Name	Test Material (EN)
Trade name	(EN)
Material-No.	
Symbol	
Classification	highly alloyed Search
Norms/Standards	SAE 1010 + -
Inhouse Norms	
Supplier	
Remark	(EN)
Development Sample Report	<input type="checkbox"/>

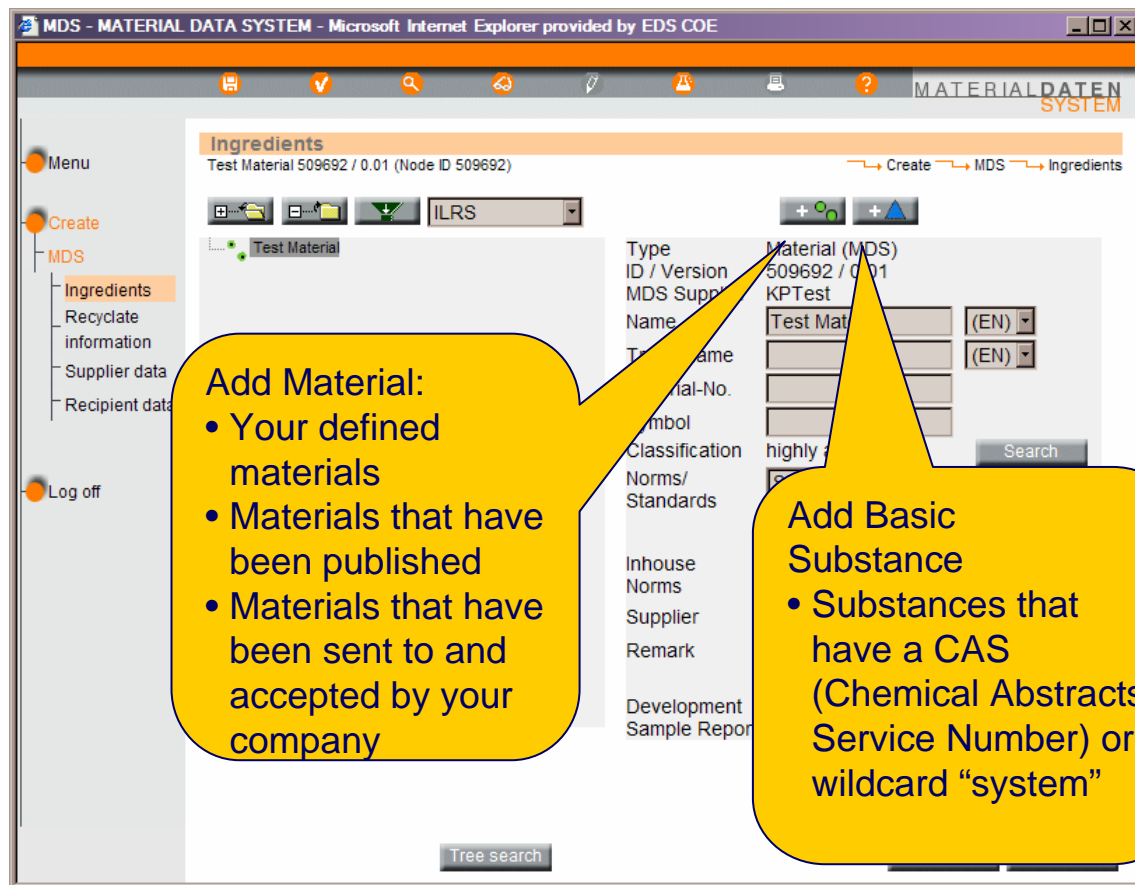
Save Next

Development Sample  
Report Check box

# Construct Tree

- You can add Materials or Basic Substance - in this case, click on the 

*New in Release 4.0 - once you attach a basic substance, you can only continue to attach basic substances and once you attach a material, you can only continue to attach materials*



**Add Material:**

- Your defined materials
- Materials that have been published
- Materials that have been sent to and accepted by your company

**Add Basic Substance**

- Substances that have a CAS (Chemical Abstracts Service Number) or wildcard "system"

# Find First Substance

- Enter the entire compound, or a shortened version of it, or the CAS number and click on **Search**

*Search hint:*

*Sometimes less is more - the more filters you fill in, the more it has to match and the search may come back unsuccessful.*

MDS, Module and Substance search - extended - Microsoft Internet Explorer provided by EDS COE

MDS and Module Search

Search

Component  Semi-component  Material  Basic Substance  All MDS/Modules

Name / Synonym:

CAS No.:

EU-Index:

Einecs-No.:

VDA-Categories requires declaration:  Yes  No  N.A.

is forbidden:  Yes  No  N.A.

max. hits

Search Cancel

# ••• Add First Substance

- Scroll down the list until you find the Basic Substance and click **Apply**

*Basic substance addition - If you don't find your substance and have the CAS number, email the help desk with all the relevant information to have it added.*

MDS, Module and Substance search - extended - Microsoft Internet Explorer provided by EDS COE

MDS and Module Search

Search Criteria: Name=carbon,duty-to-declare=N.A.,prohibited=N.A.  
Total records found: 55

No.	Name	CAS No.	EU-Index	Einecs-No.	Synonym	ILRS
1	<a href="#">2-ethylhexyl chloroformate</a>	24468-13-1		246-278-9	Carbonochlor...	-
2	<a href="#">allyl-chloroformate</a>	2937-50-0	-	220-916-6	Carbonochlor...	-
3	<a href="#">ammonium-carbonate</a>	10361-29-2	-	233-786-0	Carbonic acid...	-
4	<a href="#">barium carbonate</a>	513-77-9	056-003-00-2	208-167-3	Carbonic acid...	-
5	<a href="#">benzyl-chloroformate</a>	501-53-1	607-064-00-4	207-925-0	Carbonochlor...	-
6	<a href="#">butyl-chloroformate</a>	592-34-7	607-138-00-6	209-750-5	Carbonochlor...	-
7	<a href="#">cadmium-carbonate</a>	513-78-0		208-168-9	Carbonic acid... DP	
8	<a href="#">calcium-carbonate</a>	471-34-1		207-439-9	Carbonic acid...	-
9	<a href="#">carbon</a>	7440-44-0		231-153-3	Charcoal, acti...	-
10	<a href="#">carbon-13</a>	14762-74-4	-	-	Carbon-13C	-
11	<a href="#">Carbon-black</a>	1333-86-4		215-609-9	Lampblack	-
12	<a href="#">carbon-dioxide</a>	124-38-9	-	204-696-9	Carbonic acid...	-
13	<a href="#">carbon-dioxide</a>	124-38-9	-	204-696-9	Carbonic acid...	-
14	<a href="#">carbon-dioxide</a>	124-38-9	-	204-696-9	Carbonic anh...	-
15	<a href="#">carbon-disulphide</a>	75-15-0	006-003-00-3	200-843-6	Carbon bisulf...	DP
16	<a href="#">carbon-disulphide</a>	75-15-0	006-003-00-3	200-843-6	Carbon bisul...	DP
17	<a href="#">carbon-disulphide</a>	75-15-0	006-003-00-3	200-843-6	Carbon-disulf...	DP
18	<a href="#">carbon-monoxide</a>	630-08-0	006-001-00-2	211-128-3	Carbonic oxide	-
19	<a href="#">carbon-monoxide</a>	630-08-0	006-001-00-2	211-128-3	Exhaust gas	-
20	<a href="#">carbon-tetrachloride</a>	56-23-5	602-008-00-5	200-262-8	tetrachlorome...	DP
21	<a href="#">Carbonic acid, manganese(...)</a>	34156-69-9		-	-	-
22	<a href="#">Carbonium</a>	7440-44-0	-	231-130-11	-	-
23	<a href="#">carbonyl-sulphide</a>	463-58-1	-	207-340-0	Carbon Mono...	-
24	<a href="#">carbonyl sulphide</a>	463-58-1	-	207-340-0	Carbon Oxy...	-

[1] [2] [3]

Apply View New Search Cancel

# Fill in First Substance %

- Now you need to add the **Portion** (in this case 10-14%).

*New in Release 4.0 – if you go outside the Recommendation 001 ranges, you will get a **Warning: Range of portion may not exceed allowed percentage.** This is a warning and not an error and IMDS will allow you to send. However your customer may choose not to accept.*

- Notice you can't go down the tree any further from a Basic Substance
- Click on the top of the tree (Test material) to add another substance.

The screenshot shows the MDS - MATERIAL DATA SYSTEM interface. The main content area displays the 'Ingredients' section for 'Test 4.0 Material 586793 / 0.01 (Node ID 586793)'. A tree view on the left shows 'Test 4.0 Material' with a sub-entry 'carbon'. The 'Details' panel on the right shows the following information:

Type	Basic Substance
Name	carbon
Einecs-No.	231-153-3
EU-Index	
CAS No.	7440-44-0
GADSL category	
Synonyms	Charcoal, activated Activated carbon
Confidential	<input type="checkbox"/>
Portion	From 10 to 14 12[%] Fix 0 [%] Test 0[%]

A yellow callout box points to the 'Portion' field, containing the text: 'If a substance is not a wild card and not on a reportable list, you can mark it confidential and authorize a specific user in another IMDS company with "trust user" to view it - otherwise users in other companies will see **Confidential Substances**'.

# Add Second Substance

- The second substance is sulphur (or in American, sulfur).

*In this case, we're using a Fixed % of 3%*

*Note – this formulation is for illustration only – DO NOT use it for your steel*

MDS - MATERIAL DATA SYSTEM - Microsoft Internet Explorer provided by EDS COE

Ingredients  
Test 4.0 Material 586793 / 0.01 (Node ID 586793)

Menu  
Create  
MDS  
Ingredients  
Recycle  
information  
Supplier data  
Recipient data  
Log off

Test 4.0 Material  
carbon  
sulphur

GADSL

Details

Type: Basic Substance  
Name: sulphur  
Einescs-No.: 231-722-6  
EU-Index: -  
CAS No.: 7704-34-9  
GADSL category:  
Synonyms: Bensulfoid, Brimstone

Confidential:

Portion:  From 0 to 0 0[%]  
 Fix 3 [%]  
 Rest 0[%]

Tree search Save Next



- Periodically, you will want to Save. Certainly, when you have all the tree complete, be sure to **Save**.

MDS - MATERIAL DATA SYSTEM - Microsoft Internet Explorer provided by EDS COE

MATERIAL DATA SYSTEM

### Ingredients

Test 4.0 Material 586793 / 0.01 (Node ID 586793) [Create](#) [MDS](#) [Ingredients](#)

GADSL

Test 4.0 Material

- carbon
- sulphur

**Details**

Type	Basic Substance
Name	sulphur
Eines-No.	231-722-6
EU-Index	-
CAS No.	7704-34-9
GADSL category	Bensulfoïd
Synonyms	Brimstone

Confidential

Portion

From 0 to 0 0[%]

Fix 3 [%]

Rest 0[%]

Tree search Save Next

# Quick Error Check

- We're going to do a quick error check before going further.
- Click on the ✓ icon in the toolbar

MDS - MATERIAL DATA SYSTEM - Microsoft Internet Explorer provided by EDS COE

Ingredients  
Test 4.0 Material 586793 / 0.01 (Node 586793)

Menu  
Create  
MDS  
Ingredients  
Recycle information  
Supplier data  
Recipient data  
Log off

Test 4.0 Material  
carbon  
sulphur

GADSL

Type Substance

CAS No. 7704-34-9  
GADSL category  
Synonyms Bensulfoid  
Brimstone  
Confidential   
Portion  From 0 to 0 0[%]  
 Fix 3 [%]  
 Rest 0[%]

Tree search Save Next

Error check icon

# Material Errors

- In this case, there's an error created on purpose.
- The first error is because all of our % don't sum to 100 (for the from-to %, the midpoint is used). Some hardcopy datasheets only list the impurities and forget that main ingredient - in this case iron. Select **Cancel**.

The screenshot displays the MDS - MATERIAL DATA SYSTEM web application in a Microsoft Internet Explorer browser. The main window shows a navigation menu on the left with options like 'Menu', 'Create', 'MDS', 'Ingredients', 'Recycle information', 'Supplier data', and 'Recipient data'. A 'Log off' button is also visible. The main content area shows a tree view with 'Test 4.0' selected. A 'Check Results' dialog box is open in the foreground, displaying the following text:

Check Results

Double-click to jump to the error.

Error: Test 4.0 Material: Sum of fixed values and range values too small  
Error: Test 4.0 Material: Contact must be specified

All existing errors need to be eliminated before any further processing may take place.

Buttons: Correct, Check, Cancel

At the bottom of the main window, there are buttons for 'Tree search', 'Save', and 'Next'. The progress indicator on the right shows '0[%]'.

# Adding the Last Substance

- Iron has been added and **Rest** selected.
- The **MDS** has been saved and the system fills in the percentage - 85% iron.

*Again - this formulation if for illustration only – DO NOT use it for your steel*

- Now the error check again

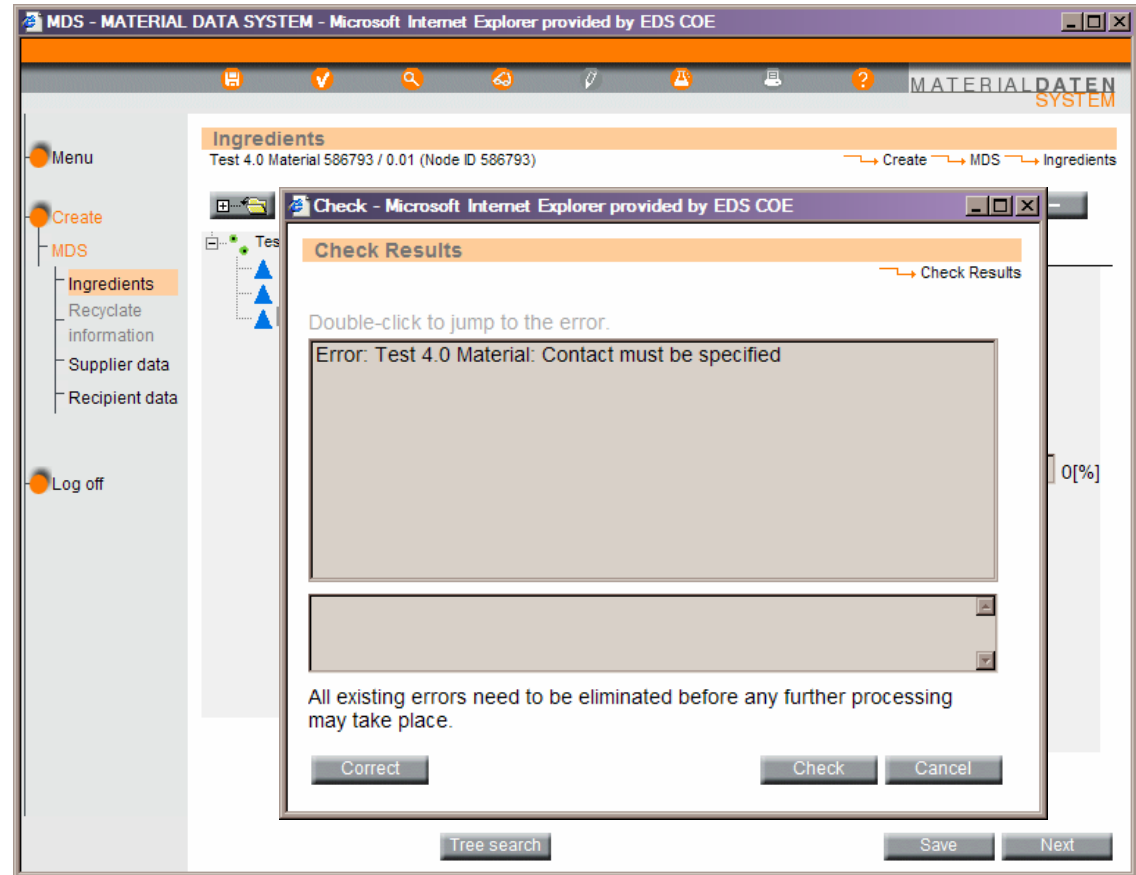
The screenshot displays the MDS - MATERIAL DATA SYSTEM interface in a Microsoft Internet Explorer browser. The main content area is titled 'Ingredients' and shows a tree view for 'Test 4.0 Material' with sub-items for 'carbon', 'sulphur', and 'iron'. The 'Details' panel on the right shows the following information:

Type	Basic Substance
Name	iron
Einecs-No.	231-096-4
EU-Index	
CAS No.	7439-89-6
GADSL category	Steel
Synonyms	
Confidential	<input type="checkbox"/>
Portion	<input type="radio"/> From <input type="text" value="0"/> to <input type="text" value="0"/> 0[%] <input type="radio"/> Fix <input type="text" value="0"/> [%] <input checked="" type="radio"/> Rest 0[%]

Buttons for 'Tree search', 'Save', and 'Next' are visible at the bottom of the interface.

# Adding the Last Substance

- There's still an error - but nothing on the ingredients page.
- Click **Cancel**
- When the window closes, click **Next**



# Recyclate Information

- The chapter is still there but nothing you can do. Instead of clicking **Next** on the previous screen, you could have clicked **Supplier data**
- However, now that you're here, click **Next**

The screenshot shows a web browser window titled "MDS - MATERIAL DATA SYSTEM - Microsoft Internet Explorer provided by EDS COE". The browser's address bar shows "MATERIAL DATA SYSTEM". The page content is titled "Recyclate information" and includes the following text:

Test 4.0 Material 586793 / 0.01 (Node ID 586793) [Create](#) [MDS](#) [Recyclate](#)

Since IMDS release 3.0, recyclate information is part of the "Ingredients" screen (chapter 1).

Recyclate information is only applicable for references to polymer materials of certain classifications under components and semicomponents.

The menu item "Recyclate information" in the left navigation menu will be removed shortly.

The left navigation menu includes: Menu, Create, MDS (Ingredients, Recyclate information, Supplier data, Recipient data), and Log off. At the bottom of the page, there are buttons for "Back", "Save", and "Next".

# Contact Information/Org Unit

- If your company uses Org Units (discussed another time) you need to file this MDS there.
- Select the Contact person and the other information will be filled in automatically.

*UserIDs and Contact people are created separately - if you need a contact created, ask the Client Manager.*

MDS - MATERIAL DATA SYSTEM - Microsoft Internet Explorer provided by EDS COE

MATERIAL DATA SYSTEM

Supplier data  
Test Material 509692 / 0.01 (Node ID 509692) Search Edit MDS Supplier data

MDS Status: Edit mode

Company: KPTest  
--  
DE (Germany)

Organisation unit: Level 1B  
189238 Esdlj  
1bn32 eiora  
SE (Sweden)

Contact Person: undefined  
Telephone No.: undefined  
Phipps, Kathy  
Fax No.:  
E-Mail:  
active:

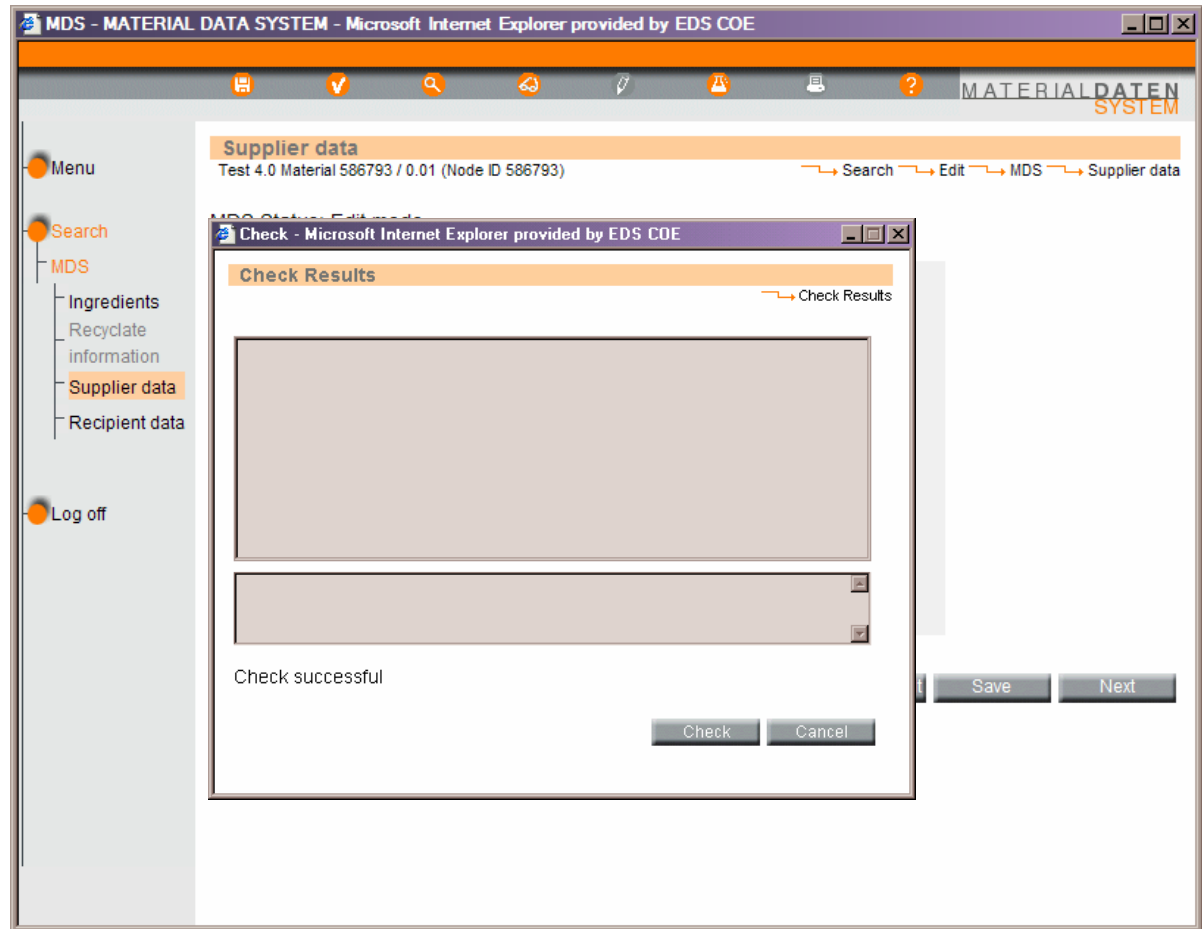
Back

You will only see this area if your company uses Org Units and you have Org Units assigned to your profile

Select the contact person.

# Check Now Successful

- Now that we have the contact person, the errors are removed.
- Click **Cancel**
- Click **Next**





# ••• Making MDS “Productive” - Step 1

- We need to Wrap this up to be able to use it further. Click on **Internal**.
- The same check is made so no surprises. Now you can click on **Internal**

*Note – the **Send** and **Propose** buttons are grayed out – you cannot use them until you add a recipient*

The screenshot displays the MDS - MATERIAL DATA SYSTEM web interface in Microsoft Internet Explorer. The main window shows the 'Recipient data' page for 'Test 4.0 Material 586793 / 0.01 (Node ID 586793)'. The page includes a navigation menu on the left with options like 'Menu', 'Search', 'MDS', 'Ingredients', 'Recyclate information', 'Supplier data', and 'Recipient data'. The main content area shows 'MDS Status: Edit mode' and buttons for 'Send', 'Propose', 'Internal', and 'Publish'. Below this is a table with columns: 'No. to comp. (Org.-Unit... Name)', 'Internal Mat.-...', 'Drawing No.', and 'Recip. Status'. At the bottom of the main window are 'Back' and 'Add' buttons.

A smaller dialog box titled 'Check - Microsoft Internet Explorer provided by EDS COE' is overlaid on the bottom right. It shows 'Check Results' and a large empty text area. Below the text area, it says 'Check successful' and has 'Internal' and 'Cancel' buttons.

# ••• Making MDS “Productive” - Step 2

- And answer **OK**

The screenshot displays the MDS - MATERIAL DATA SYSTEM web application. The main window shows the 'Recipient data' page for 'Test 4.0 Material 586793 / 0.01 (Node ID 586793)'. The page is in 'Edit mode' and features buttons for 'Send', 'Propose', 'Internal', and 'Publish'. A table with columns 'No. to comp. (Org.-Unit... Name)', 'Internal Mat.-...', 'Drawing No.', and 'Recip. Status' is visible. A 'Check Results' dialog box is open, and a 'Microsoft Internet Explorer' dialog box is overlaid on top, asking 'You are about to release this MDS for internal use. Continue?' with 'OK' and 'Cancel' buttons.

# Changes

- Note the changes  
- Version number,  
status and buttons

The screenshot displays the MDS - MATERIAL DATA SYSTEM interface. The main content area shows 'Recipient data' for 'Test 4.0 Material 586793 / 1 (Node ID 586793)'. The MDS Status is 'Internally released'. A table below shows columns for 'No. to comp. (Org.-Unit...)', 'Name', 'Internal Mat.-...', 'Drawing No.', and 'Recip. Status'. The 'Internal' button is grayed out, while 'Send', 'Propose', and 'Publish' are active. A 'Back' and 'Add' button are at the bottom.

Version number now a whole number

Status Change

Now **Internal** is also grayed out – you can still **Publish** and **Propose**, should you add a recipient

- 586793 - the position in the data base, what is commonly referred to as the **IMDS ID**
- 1 - Version number. If a decimal (.01, .02, .03, etc.) Ingredients and Supplier data can be changed. If a whole number, no changes can be made on these pages. However, it may be proposed to a recipient.
- Node ID – of value to people who have paid to use IMDS through either our Advanced Interface (AI) or Advanced Accelerator (imds-a2)

## Recipient data

Test 4.0 Material 586793 / 1 (Node ID 586793)

# Publish or Internally Release

- 99% of users NEVER Publish. Publishing allows the MDS to be seen by anyone with an IMDS UserID - not usually recommended. Internally Releasing allows only those in your IMDS company to use the MDS.
- **WARNING ABOUT USING PUBLISHED MDSs - because anyone can publish, it is recommended that you NOT use any published MDSs unless they were published by your supplier, the IMDS Committee or the manufacturer of the material. No one is responsible for checking the quality of published MDSs.**
- **WARNING ABOUT PUBLISHING IF YOU DON'T MAKE THE MATERIAL - your company's name and contact information is on the datasheet. Who do you think someone will call if there is a question or problem in the future?**

# Substances Without a CAS Number

- The 10% rule – almost everyone has the requirement that you must declare a minimum of 90% of the material – this means that the maximum you don't have to declare is 10%.
- This 10% may be “jokers” or “wildcards” or substances marked “confidential”. Jokers/Wildcards have the word **system** for the CAS No., EU-Index and Einecs-No. You cannot use these as a replacement for any substance that must be declared.
- IMDS also has **Pseudo Substances** – A pseudo-substance gives an accurate description of the substance or the substance group but does not have a CAS-No. these substances are accepted as real substances in IMDS and are not considered as jokers/wildcards. These substances have a – for the CAS No., EU-Index and Einecs-No.

MDS - MATERIAL DATA SYSTEM - Microsoft Internet Explorer provided by EDS COE

MATERIAL DATA SYSTEM

MDS and Module Search

Search Criteria: CAS No.=system,duty-to-declare=N.A.,prohibited=N.A.  
Total records found: 9

No.	Name	CAS No.	EU-Index	Einecs-No.	Synonym	ILRS
1	Flame Retardant. not to de...	system	system	system	-	-
2	Further Additives. not to de...	system	system	system	Additives, not...	-
3	Impact modifier. not to decl...	system	system	system	-	-
4	Inorganic Ingredient. not to...	system	system	system	Mineral Mater...	-
5	Misc. not to declare	system	system	system	Miscellaneous	-
6	not yet specified. not to dec...	system	system	system	-	-
7	Organic Ingredient. not to d...	system	system	system	Natural Ingre...	-
8	Pigment portion. not to decl...	system	system	system	colorant, not t...	-
9	Plasticizer. not to declare	system	system	system	-	-

[1]

View New Search

# Substances in Red

- Since April 2005, the GADSL has been the default Declarable Substance list ([www.GADSL.org](http://www.GADSL.org))
- Any substance on the list will appear in Red and if you click on the substance, the system will give you details.
- You can also find the status of the substance on the Search Results.

MDS - MATERIAL DATA SYSTEM - Microsoft Internet Explorer provided by EDS COE

Ingredients  
Nickel Coating-kp 104243 / 1 (Node ID 104243)

Search View MDS Ingredients

GADSL

Nickel Coating-kp  
nickel

Details

Type	Basic Substance
Name	nickel
Einecs-No.	231-111-4
EU-Index	028-002-00-7
CAS No.	7440-02-0
GADSL category	duty-to-declare
Synonyms	Raney Alloy
Portion	Rest 100 [%]

Tree search SearchResult Next

For a more complete discussion on the meanings of D, P, D/P, please visit Public Pages > Lists > GADSL



# Create a Module/Material - Thermoplastic

*If you don't need this, skip to next section*

- You should first check to see if the material exists – you can click on **Search** and go see, but we're going to assume that it doesn't
- Select a material classification (you only can select underlined classifications)

*Filled and Unfilled Thermoplastics and Elastomers are handled differently, so I've selected Filled Thermoplastic*

- Once the selection is made, click **Next**

Classification	Description
3.3	<a href="#">Lead</a>
4	Special metals
4.1	<a href="#">Platinum / rhodium</a>
4.2	<a href="#">Other special metals</a>
5	Polymer materials
5.1	Thermoplastics
5.1.a	<b>filled Thermoplastics</b>
5.1.b	unfilled Thermoplastics
5.2	<a href="#">Thermoplastic elastomers</a>
5.3	<a href="#">Elastomers / elastomeric compounds</a>
5.4	<a href="#">Duromers</a>
5.4.1	<a href="#">Polyurethane</a>
5.4.2	<a href="#">Unsaturated polyester</a>
5.4.3	<a href="#">Other duromers</a>
5.5	Polymeric compounds (e.g. inseparable laminated trim parts)
5.5.1	<a href="#">Plastics (in polymeric compounds)</a>
5.5.2	<a href="#">Textiles (in polymeric compounds)</a>
6	Process polymers
6.1	<a href="#">Lacquers</a>



# The System as a Guide – Filled Thermoplastic

The classification is carried forward

You need to select the category based on ISO 1043-1 – you cannot make up your own. Technically, you can click **Next** without filling in the information, but you shouldn't.

MDS - MATERIAL DATA SYSTEM - Microsoft Internet Explorer provided by EDS COE

MATERIAL DATEN SYSTEM

Creation of a new material

Create -> MDS -> Material

Menu

Create

MDS

Module

Log off

### Composition of the material symbol

The selected material classification permits creation of Name and Symbol field entries using dropdown selections derived from the IMDS Basic Polymer List. Therefore please select the symbols/abbreviated terms suitable for the material.

Classification:  
Basic polymers ISO 1043-1:

Flame retardants ISO 1043-4 (optional):

Composed symbol:

filled Thermoplastics

- ABS
- EVAC
- HDPE
- LDPE
- PA6
- PA66
- PA66-I
- PC
- PES
- PF-I
- POM

It is also possible to adapt the symbol manually (lowermost input field). This is necessary for materials with more than one filler (e. g. glassfibre GF and mineral powder MD). Example: PA6-(GF15+MD10); here you can add "(...+MD10)" manually.

Cancel

Next

# ••• Add the Filler

Selection ABS

Most Thermoplastics will have a filler – select from the pull down – I'm selecting GF

MDS - MATERIAL DATA SYSTEM - Microsoft Internet Explorer provided by EDS COE

Creation of a new material

Menu

MDS

Module

Log off

Composition of the material symbol

The selected material classification permits creation of Name and Symbol field entries using dropdown selections derived from the IMDS Basic Polymer List. Therefore please select the symbols/abbreviated terms suitable for the material.

Classification:

Basic polymers ISO 1043-1:

Filling materials ISO 1043-2:

Plasticizers ISO 1043-3 (optional):

Flame retardants ISO 1043-4 (optional):

Composed symbol:

filled Thermoplastics

ABS

5 [%]

BD

CD

CF

DD

KD

MD

TD

possible to adapt the symbol manually (lowermost input field). This is necessary for materials with more than one filler (e. g. glassfibre GF and mineral powder MD). Example: PA6-(GF15+MD10); here you can add "(...+MD10)" manually.

Next

*The filler codes follow ISO 1043:2. They are published in a document from ISO. Since the document needs to be paid for, we cannot post it at our site. To purchase, <http://www.iso.org/iso/en/CatalogueDetailPage.CatalogueDetail?CSNUMBER=29756&scopelist=ALL>*

# Complete the Basics

MDS - MATERIAL DATA SYSTEM - Microsoft Internet Explorer provided by EDS COE

MATERIAL DATA SYSTEM

Creation of a new material

→ Create → MDS → Material

**Composition of the material symbol**

The selected material classification permits creation of Name and Symbol field entries using dropdown selections derived from the IMDS Basic Polymer List. Therefor please select the symbols/abbreviated terms suitable for the material.

Classification: filled Thermoplastics

Basic polymers ISO 1043-1: ABS

Fillers/reinforcing materials ISO 1043-2: GF: 5 [%]

Plasticizers ISO 1043-3 (optional):

Flame retardants ISO 1043-4 (optional):

Composed symbol: ABS-GF5

It is also possible to adapt the symbol manually (lowermost input field). This is necessary for materials with more than one filler (e. g. glassfibre GF and mineral powder MD).  
Example: PA6-(GF15+MD10); here you can add "(...+MD10)" manually.

Cancel Next

Let's give it the works –  
Plasticizers and Flame  
Retardants

As I've been making selections, the  
**Composed symbol** is being  
automatically filled in

When done, click **Next**

# Add the Substances

MDS - MATERIAL DATA SYSTEM - Microsoft Internet Explorer provided by EDS COE

Ingredients  
ABS 586795 / 0.01 (Node ID 586795)

Search Edit MDS

GADSL

ABS  
ABS  
Glass-fibre

Menu  
Search  
MDS  
Ingredients  
Recyclate information  
Supplier data

Details

Type Material (MDS)  
ID / Version 586795 / 0.01  
MDS Supplier EDS USA  
Name ABS (EN)  
Trade name (EN)  
Internal Mat.-No.  
Std. Mat.-No.  
Symbol ABS-GF5 P FR Edit  
Classification filled Thermoplastics Search  
Norms/Standards + -  
Inhouse Norms  
Supplier  
Remark (EN)  
Development Sample Report

Tree search SearchResult

The Material is given a basic name – you can edit

New in Release 4.0 – Internal Mat.- No so you can build your own material library. Std. Mat.-No doesn't make sense for this material classification.

All the rest of the information is as before

The Symbol has been created, but there is an **Edit** button

Note – this formulation is for illustration only

# Finish as Normal

Again, this is for illustration only, this is not a real formula

The screenshot displays the MDS - MATERIAL DATA SYSTEM interface in a Microsoft Internet Explorer browser. The page title is 'MDS - MATERIAL DATA SYSTEM - Microsoft Internet Explorer provided by EDS COE'. The main content area is titled 'Ingredients' and shows the material 'ABS 586795 / 0.01 (Node ID 586795)'. A search bar contains 'GADSL'. The left sidebar has a 'Menu' section with 'Search' selected, and a tree view showing 'MDS' > 'Ingredients' > 'ABS' > 'Glass-fibre'. The right side features a 'Details' form with the following fields:

Type	Material (MDS)
ID / Version	586795 / 0.01
MDS Supplier	EDS USA
Name	ABS (EN)
Trade name	(EN)
Internal Mat.-No.	
Std. Mat.-No.	
Symbol	ABS-GF5 P FR (Edit)
Classification	filled Thermoplastics (Search)
Norms/Standards	
Inhouse Norms	
Supplier	
Remark	(EN)
Development Sample Report	<input type="checkbox"/>

At the bottom of the page, there are buttons for 'Tree search', 'SearchResult', 'Save', and 'Next'.



# Create a Module/Material – Unfilled Thermoplastic

*If you don't need this, skip to next section*

- You should first check to see if the material exists – you can click on **Search** and go see, but we're going to assume that it doesn't
- Select a material classification (you only can select underlined classifications)

*Since we've already looked at Filled Thermoplastic, this time I've selected Unfilled Thermoplastic*

- Once the selection is made, click **Next**

MDS - MATERIAL DATA SYSTEM - Microsoft Internet Explorer provided by EDS COE

MATERIAL DATA SYSTEM

Creation of a new material

Selection of the material classification

Maybe this material already exists in IMDS. If you are unsure about that, here you can jump to the material search.

First of all, please select the material classification:

Classification	Description
3.1	<a href="#">Copper (e.g. copper amounts in cable harnesses)</a>
3.2	<a href="#">Copper alloys</a>
3.3	<a href="#">Zinc alloys</a>
3.4	<a href="#">Nickel alloys</a>
3.5	<a href="#">Lead</a>
4	Special metals
4.1	<a href="#">Platinum / rhodium</a>
4.2	<a href="#">Other special metals</a>
5	Polymer materials
5.1	Thermoplastics
5.1.a	<a href="#">filled Thermoplastics</a>
5.1.b	<a href="#">unfilled Thermoplastics</a>
5.2	<a href="#">Thermoplastic elastomers</a>
5.3	<a href="#">Elastomers / elastomeric compounds</a>
5.4	<a href="#">Duromers</a>
5.4.1	<a href="#">Polyurethane</a>
5.4.2	<a href="#">Unsaturated polyester</a>
5.4.3	<a href="#">Other duromers</a>

# The System as a Guide – Unfilled Thermoplastic

The screenshot shows a web browser window titled "MDS - MATERIAL DATA SYSTEM - Microsoft Internet Explorer provided by EDS COE". The page content includes a sidebar with "Create" and "Log off" buttons, and a main area with the heading "Composition of the material symbol". Below this heading, there is explanatory text: "The selected material classification permits creation of Name and Symbol field entries using selections derived from the IMDS Basic Polymer List. Therefore please select the symbols/abbreviations suitable for the material." The form fields include "Classification:" with sub-sections for "Basic polymers ISO 1043-1:", "Plasticizers ISO 1043-3 (optional):", and "Flame retardants ISO 1043-4 (optional):". A dropdown menu titled "unfilled Thermoplastics" is open, showing a list of polymer codes: PA66, ABS, EVAC, HDPE, LDPE, PA6, PA66-I, PC, PES, and PF-I. The "PA66" option is currently selected. At the bottom right of the form, there is a "Next" button.

The classification is carried forward

You need to select the category based on ISO 1043-1 – you cannot make up your own. Technically, you can click **Next** without filling in the information, but you shouldn't.

In this case, since it is unfilled, you don't have the option to select a filler, but you still can have plasticizers and flame retardants – note that many of the flame retardants are at least declarable if not prohibited on the ILRS list.

# Complete as Usual

MDS - MATERIAL DATA SYSTEM - Microsoft Internet Explorer provided by EDS COE

Ingredients  
PA66 586797 / 1 (Node ID 586797) Create MDS Ingredients

Menu  
Create  
MDS  
Ingredients  
Recyclate information  
Supplier data  
Recipient data  
Log off

PA66  
PA66

GADSL

Details

Type Material (MDS)  
ID / Version 586797 / 1  
MDS Supplier EDS USA  
Name PA66 (EN)  
Trade name (EN)  
Internal Mat.-No.  
Std. Mat.-No.  
Symbol PA66  
Classification unfilled Thermoplastics  
Norms/Standards  
Inhouse Norms  
Supplier  
Remark (EN)  
Development Sample Report

Tree search

Note – this formulation is for illustration only





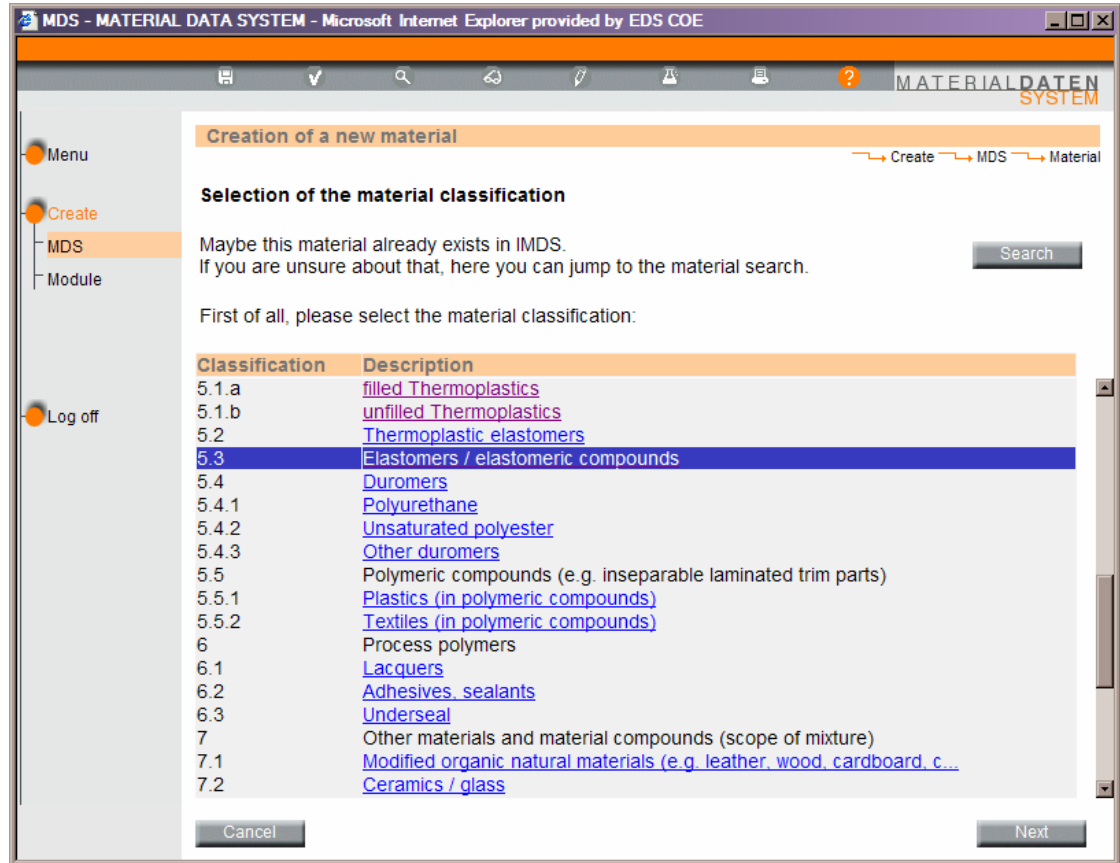
# Create a Module/Material – Elastomers / elastomeric compounds

*If you don't need this, skip to next section*

- You should first check to see if the material exists – you can click on **Search** and go see, but we're going to assume that it doesn't
- Select a material classification (you only can select underlined classifications)

*Since we've already looked at Filled and Unfilled Thermoplastics, this time I've selected Elastomers / elastomeric compounds*

- Once the selection is made, click **Next**





# The System as a Guide – Elastomers / elastomeric compounds

The classification is carried forward

You need to select the category based on ISO 1629 – you cannot make up your own. Technically, you can click **Next** without filling in the information, but you shouldn't.

# Complete as Usual

MDS - MATERIAL DATA SYSTEM - Microsoft Internet Explorer provided by EDS COE

Ingredients  
ABR 586798 / 1 (Node ID 586798) Create MDS Ingredients

Menu  
Create  
MDS  
Ingredients  
Recyclate information  
Supplier data  
Recipient data  
Log off

Tree search

**Details**

Type	Material (MDS)
ID / Version	586798 / 1
MDS Supplier	EDS USA
Name	ABR (EN)
Trade name	(EN)
Internal Mat.-No.	
Std. Mat.-No.	
Symbol	ABR
Classification	Elastomers / elastomeric compounds
Norms/Standards	
Inhouse Norms	
Supplier	
Remark	(EN)
Development Sample Report	<input type="checkbox"/>

*Note – this formulation is for illustration only*

 Create a Component

# ❖❖❖ Create the Component

Please make your selection:

Component  Semiconductor  Material

Select  
**Component** -  
we'll discuss  
Semiconductors  
later

# Fill in the Identifiers

- Fill in the Description and Part/Item No.

*This is how you refer to the item within your company and used for finding it later.*

*Theoretically, you can put anything you want in the Part/Item No. and Description – but if it will later be attached to another tree, some OEMs and hence Tier 1s may have other requirements. **Note: if this part is to be sent to your customer, their Part number and Description MUST appear in the Recipient Data – THEY DO NOT SEE THE VALUES ON THIS SCREEN, THEY SEE VALUES FROM THE RECIPEINT DATA IN THEIR VIEW!***

MDS - MATERIAL DATA SYSTEM - Microsoft Internet Explorer provided by EDS COE

Ingredients  
Component\_586799 586799 / 0.01 (Node ID 586799)

Menu  
Create  
MDS  
Ingredients  
Recycle information  
Supplier data  
Recipient data  
Log off

Details

Type	Component (MDS)
ID / Version	586799 / 0.01
MDS Supplier	EDS USA
Description	Testing 4.0 structure
Part/Item No.	
Measured Weight per Item	0 g
Tolerance	+/- 0 [%]
Calculated Weight per Item	0 [g]
Deviation	0 [%]
Development report	<input type="checkbox"/>

Save Next

Hint - suggest you don't take the default name - this is the 586799 MDS that's been created - not useful for finding later.

# Fill in the Weight

- Enter the weight, select the units, and select the tolerance (in %).

Tolerance is not the same as the part design, but used for checking to see if all the component weights sum correctly.

MDS - MATERIAL DATA SYSTEM - Microsoft Internet Explorer provided by EDS COE

Ingredients  
Component\_586799 586799 / 0.01 (Node ID 586799)

Menu  
Create  
MDS  
Ingredients  
Recycle information  
Supplier data  
Recipient data  
Log off

Details

Type	Component (MDS)
ID / Version	586799 / 0.01
MDS Supplier	EDS USA
Description	Testing 4.0 structure
Part/Item No.	
Measured Weight per Item	120 g
Tolerance	+/- 0 [%]
Calculated Weight per Item	0 [g]
Deviation	0 [%]
Development Sample Report	<input type="checkbox"/>

Save Next

*If your customer does an Analysis of the total weight of materials, using a Tolerance that is > 0% may cause a flag and hence an email to you telling you to fix it.*

# Add the Material – No D/P Substances, or Polymer

- Select the add material button

*With Release 3.0, not all materials are handled the same – we'll first start out with a plain material with no D/P, or Classifications regarding special handling.*

The screenshot shows the MDS MATERIAL DATA SYSTEM interface. The main window displays the 'Ingredients' section for 'Component\_586799 586799 / 0.01 (Node ID 586799)'. The interface includes a menu on the left, a toolbar with various icons, and a 'Details' panel on the right. Three callouts point to the toolbar: 'Create a sub component in tree' points to the red square icon, 'Create a semi-component in tree' points to the yellow circle icon, and 'Add Material' points to the green circle icon. A fourth callout, 'Add existing component or semi-component', points to the right-pointing arrow icon. The 'Details' panel shows fields for Type, ID / Version, MDS Supplier, Description, Part/Item No., Measured Weight per Item, Tolerance, Calculated Weight per Item, Deviation, and Development Sample Report.

Details	
Type	Component (MDS)
ID / Version	586799 / 0.01
MDS Supplier	EDS USA
Description	Testing 4.0 struct
Part/Item No.	
Measured Weight per Item	120 g
Tolerance	+/- 0
Calculated Weight per Item	0 [g]
Deviation	0 [%]
Development Sample Report	<input type="checkbox"/>



# Search for Material

- Since we don't have too many materials, just search on "origin own" and select **Search**

New in Release 4.0 – since materials are multi-lingual, for names and tradenames, you now get only the language you want.

The screenshot shows the 'MDS and Module Search' dialog box. It features several search criteria fields and radio button options. A yellow callout points to the 'Name' field containing '\*4.0'. Another yellow callout points to the 'Origin' radio button labeled 'own'. A third yellow callout points to the 'Search' button at the bottom right. A pink callout at the top right explains the multi-lingual search feature.

MDS. Module and Substance search - extended -

MDS and Module Search

Component  Semi-component  Material  Basic Substance  All MDS/Modules

Name: \*4.0 Language:  English  German

Internal Mat.-No.:

ID-No.:

Release date from:  to

Supplier:

Org.-Unit:

Origin:  all  accepted  published  
 own  only Modules

Org.-Unit:

Version:  current  all

Trade name:

Std. Mat.-No.:  Symbol:

Norm/Standard:

Classification:

Searching on \*4.0 is a wildcard search and will return all that have 4.0 in name

Select "own"

Search button to find MDSs

# Apply Material

- This is my latest because it has the highest ID - highlight and click on **Apply**

*Note: if you select a material that does not have a whole number version, you will have to come back later and release it before you can release or send the component.*

MDS, Module and Substance search - extended - Microsoft Internet Explorer provided by EDS COE

MDS and Module Search

Search Criteria: Name=\*4.0, Origin=own, Version=current  
1 item found.

No.	Name, >Symbol<	Trade name	Mat.-No.	ID / Version	Supplier
1	Test 4.0 Material	-	-	586793 / 1	EDS USA

Buttons: Apply, Preview, New Search, Cancel

Select Apply

# Add the Material Weight

- All the information except the weight is from the Steel MDS - you cannot change anything except the weight
- Fill in the weight and Units - in this case the component is 80% of this material
- **Save** and hit **Next**

New in Release 4.0 –  
Recyclate Information now  
available for other materials

MDS - MATERIAL DATA SYSTEM - Microsoft Internet Explorer

Ingredients  
Testing 4.0 structure 586799 / 0.01 (Node ID 586799)

Menu  
Create  
MDS  
Ingredients  
Recyclate information  
Supplier data  
Recipient data  
Log off

GADSL

Testing 4.0 structure  
Test 4.0 Material

Details Recyclate

Type Material (MDS)  
ID / Version 586793 / 1  
MDS Supplier EDS USA

Name Test 4.0 Material (EN)  
Trade name (EN)  
Internal Mat.-No.  
Std. Mat.-No.  
Symbol  
Classification highly alloyed  
Norms/Standards SAE 1010  
Inhouse Norms  
Supplier  
Remark

80 g

Tree search Save Next

Fill in Weight and  
select units

# ••• Add the Recyclate Information

- You can only add recyclate information if you are in **EDIT** mode (version is a decimal and you are not in **View** mode).
- If you have the default **NO** clicked, all values will be grayed out.
- **Save** and go back and click on **Ingredients**

New in Release 4.0 –  
Recyclate Information now  
available for other materials

The screenshot shows the MDS - MATERIAL DATA SYSTEM web interface. The browser title is "MDS - MATERIAL DATA SYSTEM - Microsoft Internet Explorer". The page has a navigation menu on the left with options: Menu, Create, MDS, Ingredients, Recyclate information, Supplier data, Recipient data, and Log off. The main content area is titled "Ingredients" and shows "Testing 4.0 structure 586799 / 0.01 (Node ID 586799)". Below this, there is a tree view with "Testing 4.0 structure" and "Test 4.0 Material". The "Recyclate" tab is selected, showing the following form fields:

- Material: Test 4.0 Material
- Does the material contain recyclate?  
 Yes  No
- Content of post industrial recyclate:  
(e. g. from injection molding, rejected parts etc.)  
From  to  [%]
- Content of post consumer recyclate:  
(e. g. from scrapped and damaged vehicles, packaging wastes, scrapped household appliances etc.)  
From  to  [%]

At the bottom of the form, there are "Tree search", "Save", and "Next" buttons. A yellow callout box points to the form fields with the text: "Fill in information if desired/required –". A pink callout box points to the "Recyclate" tab with the text: "New in Release 4.0 – Recyclate Information now available for other materials".

Fill in information if  
desired/required –



# Add the Material with D, P, or D/P Substance

- Select the add material button

*If the material has Lead, Mercury, Cadmium, Nickel, or Hexavalent Chromium in it, you will be asked questions when attaching.*

Add Material

Ingredients  
Testing 4.0 structure 586799 / 0.01 (Node ID 586799)

Menu  
Create  
MDS  
Ingredients  
Recycle information  
Supplier data  
Recipient data  
Log off

Tree search

Save Next

Details	
Type	Component (MDS)
ID / Version	586799 / 0.01
MDS Supplier	EDS USA
Description	Testing 4.0 structure
Part/Item No.	
Measured Weight per Item	120 g
Tolerance	+/- 0 [%]
Calculated Weight per Item	80 [g]
Deviation	-33.333333 [%]
Development Sample Report	<input type="checkbox"/>

Note that the system is doing some calculations for us

# Apply Material

- I'm choosing a Nickel Coating because Nickel needs an application code - highlight and click on **Apply**

*Note: if you select a material that does not have a whole number version, you will have to come back later and release it before you can release or send the component.*

MDS, Module and Substance search - extended - Microsoft Internet Explorer provided by EDS COE

MDS and Module Search

Search Criteria: Name=nickel, Origin=own, Version=current  
2 items found, showing all items.

No.	Name, >Symbol<	Trade name	Mat.-No.	ID / Version	Supplier
1	Nickel Coating-kp	-	-	104243 / 1	EDS USA
2	Nickel Coating-kp2	-	-	105409 / 1	EDS USA

Buttons: Apply, Preview, New Search, Cancel

Select Apply

# Tab - Application

- Since we just showed Recyclate on the Steel, you should be able to figure this one out.
- Before selecting the application, you first need to enter the weight and hit **Save** because one of the attributes the system uses to determine valid choices is the weight

New in Release 4.0 –  
Recyclate Information now  
available for other materials

Since Nickel requires an  
application, we have a new tab

The screenshot displays the MATERIAL DATA SYSTEM interface. On the left is a navigation menu with options: Menu, Create, MDS, Ingredients, Recyclate information, Supplier data, Recipient data, and Log off. The main window shows a tree view under 'Testing 4.0 structure' with sub-items 'Test 4.0 Material' and 'Nickel Coating-kp2'. A 'GADSL' dropdown menu is visible. The right pane has three tabs: 'Details', 'Recyclate', and 'Application'. The 'Application' tab is active, showing a form with the following fields: Type (Material (MDS)), ID / Version (105409 / 1), MDS Supplier (EDS USA), Name (Nickel Coating-kp2), Trade name, Internal Mat.-No., Std. Mat.-No., Symbol, Classification (Nickel alloys), Norms/Standards, Inhouse Norms, Supplier, Remark, and Weight (10 g). A 'Save' button and a 'Next' button are at the bottom right. A yellow callout bubble points to the 'Application' tab, and another yellow callout bubble points to the 'Weight' field.

Weight of coating added

# Application Tab

- This example is for illustrative purposes only. The system will make a suggestion

*Note: although the system may suggest an application code, it is the responsibility of the user to ensure that the correct application is selected.*

Based on the material classification, the substance, and the weight of the substance, the system has suggested an application

The screenshot shows the MDS - MATERIAL DATA SYSTEM interface. The main window displays the 'Ingredients' section for 'Testing 4.0 structure 586799 / 0'. The 'Ingredients' list includes 'Test 4.0 Material' and 'Nickel Coating-kp2'. The 'Application' tab is selected, showing a table with one item found:

Basic Substance	%(MAX)	Application
nickel	100.0	<a href="#">Other application (S...</a>

Buttons for 'Details', 'Recycle', and 'App' are visible above the table. The interface also includes a 'Menu', 'Create', 'Log off', 'Tree search', 'Save', and 'Next' options.



# Selecting an Application

- There is a complex matrix that is used to determine which applications are valid.

*Note: although the system may suggest an application code, it is the responsibility of the user to ensure that the correct application is selected.*

Only valid choices are displayed. These choices are based on the material classification, the substance, and the weight of the substance

MDS - MATERIAL DATA SYSTEM

Ingredient  
Testing 4.0 structure

Menu  
Create  
MDS  
Ingredients  
Recyclate  
information  
Supplier data  
Recipient data  
Log off

GADSL

Testing 4.0 structure  
Test 4.0 Material  
Nickel Coating-kp2

Details Recyclate Application

Component: Testing 4.0 structure  
Origin: own  
Material: Nickel Coating-kp2  
Basic Substance: nickel  
Portion: 100.0 % (MAX)  
Application :

Component of a surface likely to be routinely touched (eg. handles and buckles), that have a nickel release rate exceeding 0.5µg/cm2/week.  
 Other application (Surface not routinely touched or nickel release rate < 0.5µg/cm2/week)

Back

Tree search Save Next

Application codes can only be changed when the MDS is in edit mode

# Add the Material Requiring Parts Marking Information

- Select the add material button

*The Parts Marking Question needs to be answered for all Polymer materials*

**Add Material**

**Ingredients**  
Testing 4.0 structure 586799 / 0.01 (Node ID 586799)

Menu  
Create  
MDS  
Ingredients  
Recycle information  
Supplier data  
Recipient data  
Log off

Testing 4.0 structure  
Test 4.0 Material  
Nickel Coating-kp2

**Details**

Type	Component (MDS)
ID / Version	586799 / 0.01
MDS Supplier	EDS USA
Description	Testing 4.0 structure
Part/Item No.	
Measured Weight per Item	120 g
Tolerance	+/- 0 [%]
Calculated Weight per Item	90 [g]
Deviation	-25 [%]
Development Sample Report	<input type="checkbox"/>

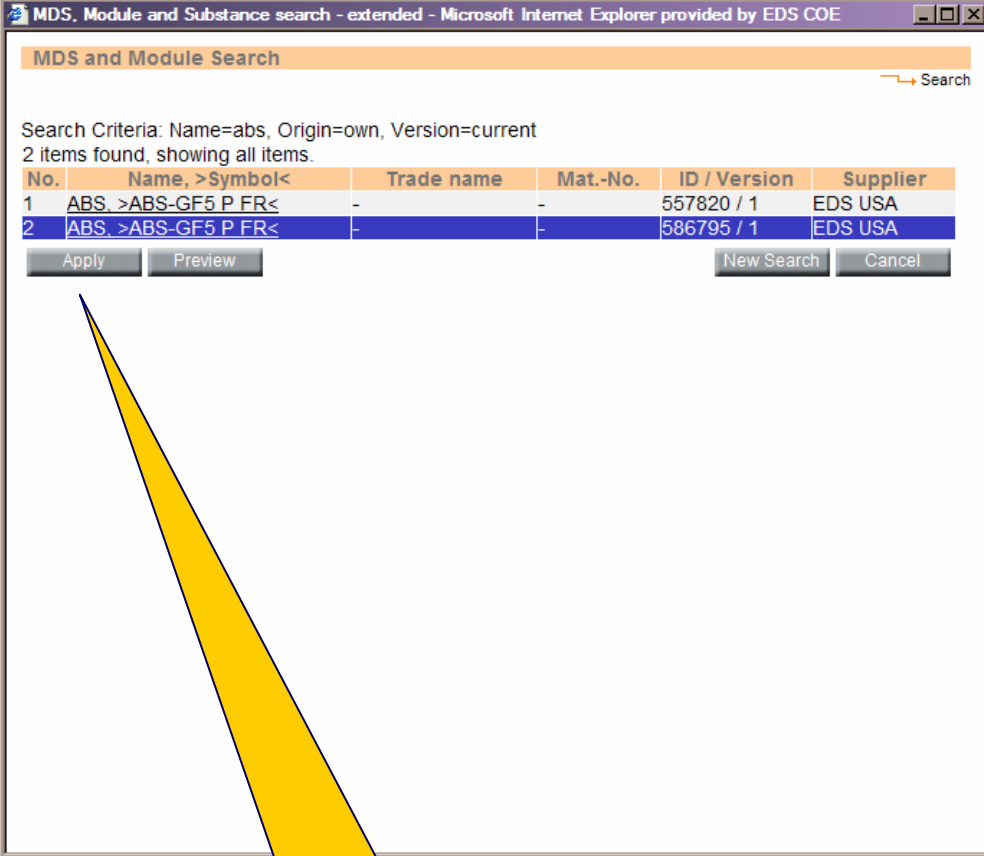
Tree search Save Next

Note that the tab only appears when selecting the material – not when the top node is viewed

# Apply Material

- I'm selecting this material because I know that it is under classification 5

*Note: if you select a material that does not have a whole number version, you will have to come back later and release it before you can release or send the component.*



MDS, Module and Substance search - extended - Microsoft Internet Explorer provided by EDS COE

MDS and Module Search

Search Criteria: Name=abs, Origin=own, Version=current  
2 items found, showing all items.

No.	Name, >Symbol<	Trade name	Mat.-No.	ID / Version	Supplier
1	ABS, >ABS-GF5 P FR<	-	-	557820 / 1	EDS USA
2	ABS, >ABS-GF5 P FR<	-	-	586795 / 1	EDS USA

Apply Preview New Search Cancel

Select Apply

# Question – Parts Marking

- At this point, because we've just added a material with a Polymer classification, we're being asked if we've physically marked the part

*Note: If you click on the underlined link, you will get the complete explanation of what you should be doing. Note if you're unsure, you should have someone go out and look at a part that's ready to leave the plant and check to see if it is marked.*

The screenshot shows the MDS - MATERIAL DATA SYSTEM interface. A yellow callout bubble points to a question in the 'Details' section: 'Polymeric part(s) marked'. The question has three radio button options: 'Yes (Parts marked as require...', 'No (Parts not marked as req...', and 'Not Applicable (Parts do not r...'. The 'Yes' option is selected. Below the question is a 'Development Sample Report' checkbox, which is unchecked. The interface also shows a tree view on the left with 'Testing 4.0 structure' expanded, and a 'Tree search' button at the bottom. The 'Save' and 'Next' buttons are visible at the bottom right.



# Add the Material Requiring Recyclate Information

- Once again, you may have to answer the Recyclate question.

The screenshot shows the MDS - MATERIAL DATA SYSTEM web interface. The browser title is "MDS - MATERIAL DATA SYSTEM - Microsoft Internet Explorer provided by EDS COE". The page header includes "MATERIAL DATA SYSTEM".

**Ingredients**  
Testing 4.0 structure 586799 / 0.01 (Node ID 586799)

Navigation: Create → MDS → Ingredient

Menu: Menu, Create, MDS, Ingredients, Recyclate information, Supplier data, Recipient data, Log off

Tree View:

- Testing 4.0 structure
  - Test 4.0 Material
    - Nickel Coating-kp2
    - ABS

Details Recyclate

Type	Material (MDS)	
ID / Version	586795 / 1	
MDS Supplier	EDS USA	
Name	ABS	(EN)
Trade name		(EN)
Internal Mat.-No.		
Std. Mat.-No.		
Symbol	ABS-GF5 P FR	
Classification	filled Thermoplastics	
Norms/Standards		
Inhouse Norms		
Supplier		
Remark		
Weight	20	g

Buttons: Tree search, Save, Next

# Top Level View

- I've added a 4<sup>th</sup> material so now my deviation is 0.
- The Tabs for Application and Recyclate appear ONLY on the materials.

The screenshot displays the MDS - MATERIAL DATA SYSTEM web interface. The browser title is 'MDS - MATERIAL DATA SYSTEM - Microsoft Internet Explorer provided by EDS COE'. The page header includes 'MATERIAL DATA SYSTEM' and navigation links for 'Create', 'MDS', and 'Ingredients'. The main content area is titled 'Ingredients' and shows a tree view for 'Testing 4.0 structure 586799 / 0.01 (Node ID 586799)'. The tree view includes 'Test 4.0 Material', 'Nickel Coating-kp2', 'ABS', and 'ABR'. A 'Details' panel on the right shows the following information:

Type	Component (MDS)
ID / Version	586799 / 0.01
MDS Supplier	EDS USA
Description	Testing 4.0 structure
Part/Item No.	
Measured Weight per Item	120 [g]
Tolerance	+/- 0 [%]
Calculated Weight per Item	120 [g]
Deviation	0 [%]

Additional options in the 'Details' panel include 'Polymeric part(s) marked' (radio buttons for Yes, No, and Not Applicable) and 'Development Sample Report' (checkbox).

# Supplier Data

- Select the Organization Unit if applicable
- Select the Contact Person
- **Save**
- Click on **Next**

The screenshot shows a web browser window titled "MDS - MATERIAL DATA SYSTEM - Microsoft Internet Explorer provided by EDS COE". The browser address bar shows "MATERIALDATEN SYSTEM". The page content includes a navigation menu on the left with options: Menu, Create, MDS, Ingredients, Recyclate information, Supplier data (highlighted), and Recipient data. Below the menu is a "Log off" button. The main content area is titled "Supplier data" and shows "Testing 4.0 structure 586799 / 0.01 (Node ID 586799)". It indicates "MDS Status: Edit mode" and provides a breadcrumb trail: "Create -> MDS -> Supplier data". The form fields are as follows:

Company:	EDS USA
DUNS Number:	-
	Tower Drive 800
	48098 Troy
	US (United States)
Contact Person:	Contact, My
Telephone No.:	+01 248.555-1212
Fax No.:	
E-mail:	my.contact@mydomain.com
active:	Yes

At the bottom of the form, there are three buttons: "Back", "Save", and "Next".

# Internally Release Component

- Select **Internal**
- The check is successful
- Select **Internal**
- Select **OK**

The screenshot displays the MDS - MATERIAL DATA SYSTEM web interface in Microsoft Internet Explorer. The main window shows the 'Recipient data' section for 'Testing 4.0 structure 586799 / 0.01 (Node ID 586799)'. The 'MDS Status' is 'Edit mode'. Below this, there are buttons for 'Send', 'Propose', 'Internal', and 'Publish'. A table with columns 'No.to comp. (Org.-Unit...', 'Part/Item No.', 'Drawing No.', and 'Recip. Status' is visible. A 'Check - Microsoft Internet Explorer provided by EDS COE' dialog box is overlaid on the main window. The dialog box has a title bar 'Check - Microsoft Internet Explorer provided by EDS COE' and a 'Check Results' section. Below this, there is a large empty rectangular area, followed by a smaller rectangular area with a scroll bar. At the bottom of the dialog box, it says 'Check successful' and has buttons for 'Internal' and 'Cancel'. A 'Save' button is also visible in the bottom right corner of the main window.



# Component Released

- Component is internally released
- Now go back to **Menu** and **Create** to create another component.

Version number is changed

MDS - MATERIAL DATA SYSTEM - Microsoft Internet Explorer provided by

MATERIAL DATA SYSTEM

Recipient data  
Testing 4.0 structure 586799 / 1 (Node ID 586799) Create MDS Recipient data

MDS Status: Internally released Send Propose Internal Publish

No.to comp. (Org.-Unit...	Description	Part/Item No.	Drawing No.	Recip. Status
---------------------------	-------------	---------------	-------------	---------------

Menu  
Create  
MDS  
Ingredients  
Recyclate information  
Supplier data  
Recipient data

Back Add Save

A word about IMDS IDs and Node IDs – when there is only one version in the system, the IMDS ID and the Node ID are the same. The IMDS ID is used on the search screen to find the MDS and all of its versions. The Node ID is used by users who use an XML interface or IMDS-a2 to attach a specific ID and version to their trees directly without having to go through a search or the browser. These interfaces are at additional cost and are described on Public Pages > Services

# Assembly Component

- This is going to be an assembly of existing components
- Enter the total weight
- Click on the “Add existing MDS” button
- When the screen comes up, search on own

The screenshot shows the MDS - MATERIAL DATA SYSTEM web interface. The main content area is titled 'Ingredients' and displays 'Component\_586800 586800 / 0.01 (Node ID 586800)'. A yellow callout bubble points to the 'Add existing MDS' button, which is represented by a plus sign and a document icon. The interface includes a left-hand menu with options like 'Menu', 'Create', 'MDS', 'Ingredients', 'Recycle information', 'Supplier data', 'Recipient data', and 'Log off'. The 'Details' section on the right contains the following information:

Type	Component (MDS)
ID / Version	586800 / 0.01
MDS Supplier	EDS USA
Description	Assembly - Release 4.0
Part/Item No.	
Measured Weight per Item	150 g
Tolerance	+/- 0 [%]
Calculated Weight per Item	0 [g]
Deviation	0 [%]
Development Sample Report	<input type="checkbox"/>

At the bottom of the interface, there are buttons for 'Tree search', 'Save', and 'Next'.

# Attach First Component

- I've selected the one we've just created
- Select **Apply**

MDS. Module and Substance search - extended - Microsoft Internet Explorer provided by EDS COE

MDS and Module Search

Search Criteria: Origin=own, Version=current  
80 items found, displaying 47 to 69.

No.	Article Name	Part/Item No.	ID / Version	Supplier
47	<a href="#">Hub Cap</a>	KP-001	50757 / 1.01	EDS USA
48	<a href="#">Hub Cap - all materials</a>	KP-001	50757 / 3.01	EDS USA
49	<a href="#">Hub Cap - all materials egh</a>	KP-001	50757 / 2.01	EDS USA
50	<a href="#">Muffler Test</a>	0V216ADC	126849 / 0.01	EDS USA
51	<a href="#">Muffler Test</a>	0V216ADC	135159 / 0.01	EDS USA
52	<a href="#">Muffler Test</a>	0V216ADC	126833 / 0.01	EDS USA
53	<a href="#">Multilevel Component</a>	KP-12345-1	557822 / 1	EDS USA
54	<a href="#">My Component</a>	-	104039 / 1	EDS USA
55	<a href="#">Plastic Ring-kp</a>	D9842	104544 / 1	EDS USA
56	<a href="#">Rocker Arm - Supplier B</a>	Supplier 124b	51785 / 0.01	EDS USA
57	<a href="#">Rocker Arm - Supplier B</a>	Supplier 124	51749 / 0.01	EDS USA
58	<a href="#">Spring LH Dampner - Supplier B</a>	-	51763 / 0.01	EDS USA
59	<a href="#">Test Analysis comp</a>	-	75434 / 0.01	EDS USA
60	<a href="#">test app ID, recycle, marking</a>	-	557821 / 0.01	EDS USA
61	<a href="#">test component</a>	-	492688 / 2	EDS USA
62	<a href="#">test polyurethane pre release</a>	-	542076 / 0.01	EDS USA
63	<a href="#">test semi-component attachment</a>	-	542056 / 0.01	EDS USA
64	<a href="#">testing 3.0 - attaching pre-released requiring...</a>	KP-test recyc...	542077 / 1	EDS USA
65	<a href="#">Testing 4.0 structure</a>	-	586799 / 1	EDS USA
66	<a href="#">Testing all of 3.0</a>	KP-987286	541343 / 1	EDS USA
67	<a href="#">Testing Legacy Data requiring App.</a>	KP-99996	560316 / 1	EDS USA
68	<a href="#">testing mixed application</a>	kp-app-	542074 / 0.01	EDS USA
69	<a href="#">testing pre released - own requiring application</a>	-	553599 / 0.01	EDS USA

Apply Preview New Search Cancel

# Assembly Updated

- Doesn't look like there's much to do beyond indicating how many of these are in the assembly
- To add another component, you must click on the top of the tree.

The screenshot shows the MDS - MATERIAL DATA SYSTEM web interface. The main content area displays the 'Ingredients' section for an assembly. The assembly name is 'Assembly - Release... 586800 / 0.01 (Node ID 586800)'. The tree view on the left shows the assembly structure, with 'Testing 4.0 structure' selected. The details panel on the right shows the following information:

Details	
Type	Component (MDS)
ID / Version	586799 / 1
MDS Supplier	EDS USA
Description	Testing 4.0 structure
Part/Item No.	
Measured Weight per Item	120 [g]
Tolerance	+/- 0 [%]
Calculated Weight per Item	120 [g]
Deviation	0 [%]
<a href="#">Polymeric part(s) marked</a>	Parts do not require marking due to specifications of weight, geometric restriction or surface requirements.
Quantity	<input type="text" value="1"/> Items

A yellow callout box points to the 'Quantity' field with the text: 'Enter how many of these are going to be in the assembly'. A pink callout box points to the top of the tree view with the text: 'The system automatically does a Save because the component name is copied to the top of the tree on the left.'

The system automatically does a Save because the component name is copied to the top of the tree on the left.

# Adding Existing Component 2

- The 2<sup>nd</sup> component is a Nickel Plated Bolt – Published by another company before Release 3.0 was incorporated

MDS - MATERIAL DATA SYSTEM - Microsoft Internet Explorer provided by EDS COE

Ingredients  
Assembly - Release... 586800 / 0.01 (Node ID 586800)

Menu  
Create  
MDS  
Ingredients  
Recycle information  
Supplier data  
Recipient data  
Log off

Assembly - Release 4.0  
Testing 4.0 structure  
Nickel Plated Bolt

Details

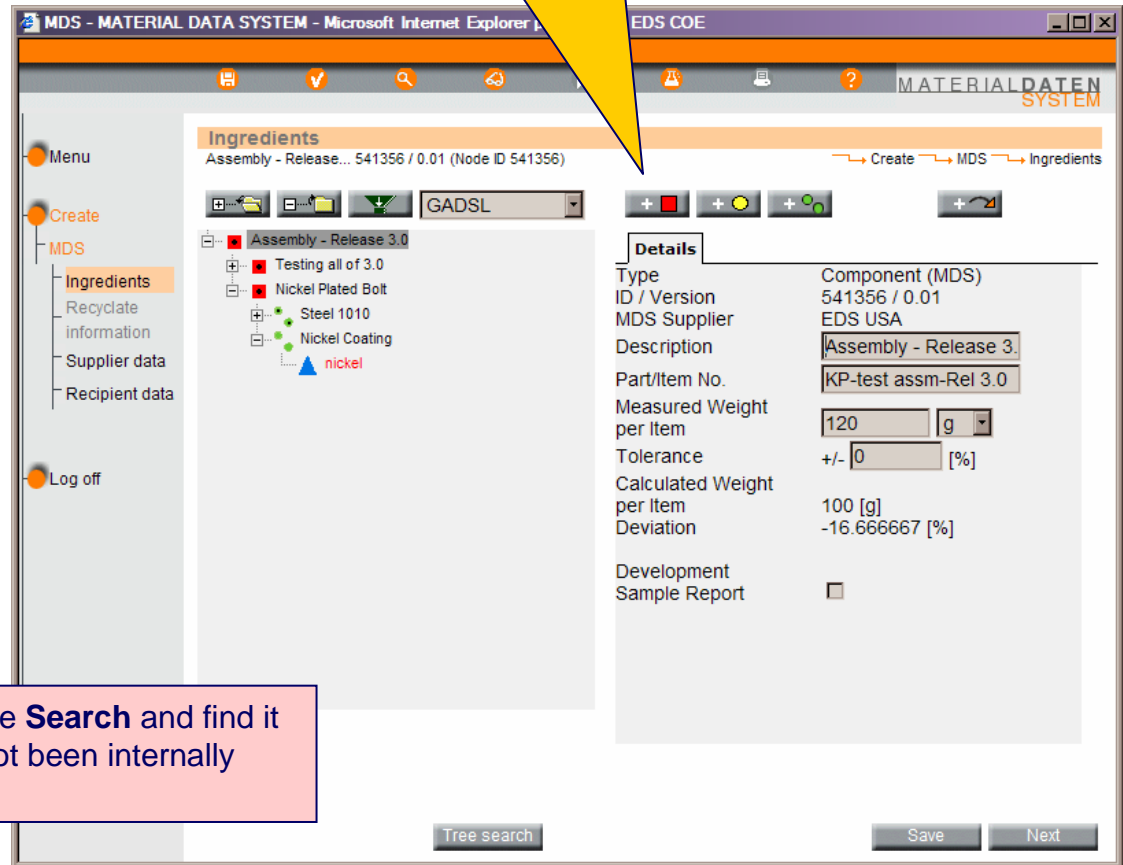
Type	Component (MDS)
ID / Version	93318 / 1
MDS Supplier	Light Plastics
Description	Nickel Plated Bolt
Part/Item No.	YTR763
Measured Weight per Item	5 [g]
Tolerance	+/- 1 [%]
Calculated Weight per Item	5 [g]
Deviation	0 [%]
Quantity	1 Items

Tree search Save Next

# Add New Component

- Create a sub component on the fly by clicking on the “add component” button

Add Component button



If an icon has a black dot in it, you can use **Search** and find it – if not, it exists only in the tree – it has not been internally released.

# Component Error Checking

- Save
- Click on the ✓ icon

The screenshot displays the MDS - MATERIAL DATA SYSTEM web interface. The browser title is "MDS - MATERIAL DATA SYSTEM - Microsoft Internet Explorer provided by EDS COE". The page header includes "MATERIAL DATA SYSTEM". The main content area is titled "Ingredients" and shows a tree view for "Assembly - Release 3.0" (Node ID 541356). The tree view includes the following items:

- Testing all of 3.0
- Nickel Plated Bolt
- Steel 1010
- Nickel Coating
- nickel

The "Details" panel on the right contains the following information:

Type	Component (MDS)
ID / Version	541356 / 0.01
MDS Supplier	EDS USA
Description	Assembly - Release 3.0
Part/Item No.	KP-test assm-Rel 3.0
Measured Weight per Item	120 g
Tolerance	+/- 0 [%]
Calculated Weight per Item	100 [g]
Deviation	-16.666667 [%]
Development Sample Report	<input type="checkbox"/>

At the bottom of the interface, there are buttons for "Tree search", "Save", and "Next".

# Errors!!!

- Lots of errors!

The screenshot displays the MDS - MATERIAL DATA SYSTEM interface in a Microsoft Internet Explorer browser window. The main window shows a tree view of ingredients under 'Assembly - Release... 541356 / 0.01 (Node ID 541356)'. A 'Check Results' dialog box is open in the foreground, listing several errors:

- Error: Assembly - Release 4.0: The deviation between measured and calc
- Warning: Nickel Coating: Applications have to be selected for all basic sub
- Error: Component\_586801: The quantity must be one item at least!
- Error: Component\_586801: Non basic substances must be decomposed f
- Error: Component\_586801: Replace the default name of this datasheet/m
- Error: Component\_586801: The measured weight per item needs to be hi
- Error: Assembly - Release 4.0: Contact must be specified

The dialog box also includes a 'Next' button and a message: 'All existing errors need to be eliminated before any further processing may take place.' At the bottom of the dialog are buttons for 'Correct', 'Check', and 'Cancel'.



# Component\_586801 Errors

- Forgot to put a quantity in
- The component doesn't have anything under it - need to attach a material
- Need to name component
- Forgot to put a weight
- I'll fix those and run the check again



# Less Errors

- Referenced datasheet is not internally released and the classification problem is also on the material - cannot fix from here. Exit out, search out the datasheet, internally release it and come back to run the check again
- The Nickel application question is a warning only

The screenshot displays the MDS - MATERIAL DATA SYSTEM interface in Microsoft Internet Explorer. The main window shows the 'Ingredients' section for 'Assembly - Release... 586800 / 0.01 (Node ID 586800)'. The 'Details' panel on the right shows information for 'Acrylic Resin', including its type, ID, and supplier. A 'Check Results' dialog box is overlaid on the main window, displaying the following error messages:

Warning: Nickel Coating: Applications have to be selected for all basic sub  
Error: Acrylic Resin: The referenced datasheet is not internally released  
Error: Acrylic Resin: No classification specified!  
Error: Assembly - Release 4.0: Contact must be specified

The dialog box also includes a 'Correct' button and a 'Check' button. The main window's 'Check Results' section is partially visible, showing a dropdown menu set to '(EN)' and a 'Next' button.

# Weight Errors

- I've said the clip weighs 5 gm but only supplied 3 gm of material – I need to fix
- Also, I picked something that I have to add recycle information – that can be done from here
- In this case, change material weight to 5 gm and give the recycle question an answer
- **Save** and ✓

The screenshot displays the MDS - MATERIAL DATA SYSTEM interface in a Microsoft Internet Explorer browser window. The main window shows the 'Ingredients' section for 'Assembly - Release... 586800 / 0.01 (Node ID 586800)'. The 'Details' tab is active, showing information for 'Acrylic Resin' with fields for Name, Type, ID / Version, and MDS Supplier. A 'Check - Microsoft Internet Explorer provided by EDS COE' dialog box is open in the foreground, displaying 'Check Results'. The dialog box contains the following text:

Double-click to jump to the error.

- Warning: Nickel Coating: Applications have to be selected for all basic sub
- Error: Plastic clip: The deviation between measured and calculated weight
- Error: Acrylic Resin: Recyclate information has not been entered
- Error: Assembly - Release 4.0: Contact must be specified

At the bottom of the dialog box, it states: 'All existing errors need to be eliminated before any further processing may take place.' and provides buttons for 'Correct', 'Check', and 'Cancel'.

# Weight Errors

- Tree is fixed, the contact error is fixed on the supplier data screen
- **Cancel** and hit **Next**
- Supply the contact info, **Save** and **Next**

Before we leave this screen – you'll note that some of the icons have a dot in them and some of them don't. Those that have the dot in them can be found using the appropriate Search screen. If it doesn't, then you can't. This frequently happens when you are attaching something your supplier sent you – you would not have access to materials they've created and released internally.

The screenshot shows the MDS - MATERIAL DATA SYSTEM interface in Microsoft Internet Explorer. The main window displays a tree view of ingredients under the heading 'Ingredients'. The tree includes 'Assembly - Release 4.0', 'Testing 4.0 structure', 'Nickel Plated Bolt', 'Plastic clip', and 'Acrylic Resin'. The 'Acrylic Resin' item is selected, and its details are shown in a panel on the right. The details include: Type: Material (MDS), ID / Version: 121592 / 0.01, MDS Supplier: EDS USA, Name: Acrylic Resin, Trade name: Acrylic Resin, and Internal Mat.-No.008. A 'Check Results' dialog box is overlaid on the bottom right, showing a warning: 'Warning: Nickel Coating: Applications have to be selected for all basic sut' and an error: 'Error: Assembly - Release 4.0: Contact must be specified'. The dialog box also contains a 'Correct' button, a 'Check' button, and a 'Cancel' button.

# Correcting Nickel Application Warning

- To correct an Application Code Warning, you have to go to the Component where the material is attached – you do not own it

The screenshot shows the MDS - MATERIAL DATA SYSTEM interface. The main window displays a component tree for 'Assembly - Release 4.0' with the following ingredients:

- Testing 4.0 structure
- Nickel Plated Bolt
- Steel 1010
- Nickel Coating
- Plastic clip
- Acrylic Resin

The 'Details' panel for the selected component shows:

Type	Component (MDS)
ID / Version	93318 / 1
MDS Supplier	Light Plastics
Description	Nickel Plated Bolt
Part/Item No.	YTR763
Measured Weight	

A 'Check Results' dialog box is open, displaying the following warning:

Warning: Nickel Coating: Applications have to be selected for all basic sub-assembly.  
Error: Assembly - Release 4.0: Contact must be specified

The dialog box also contains the text: 'Double-click to jump to the error.' and 'existing errors need to be eliminated before any further processing may take place.' The dialog box has 'Correct', 'Check', and 'Cancel' buttons.

- In this case, Light Plastics owns the component where the Nickel Coating is attached. You would have to contact Light Plastics to have them copy/new version of the bolt and then publish (or send to you) again. This would probably be version 2.
- Then you would have to delete off version 1 of this MDS and add Version 2.
- If your company created the component, it will be an **ERROR** and not a warning. You would have to copy/new version of the component and add the application codes, release it, then work your way up the tree copy/new version, deleting off old and adding in new.

# Search for a Recipient

- Click on **Add** to find the recipient

**Add Recipient button**

**Before recipient added  
Send and Propose  
buttons grayed out**

MDS - MATERIAL DATA SYSTEM - Microsoft Internet Explorer

MATERIAL DATA SYSTEM

Recipient data  
Assembly - Release... 586800 / 0.01 (Node ID 5...)

MDS Status: Edit mode

Send Propose Internal Publish

No.to comp. (Org.-Unit...Descrip	Part/Item no.	Drawing No.	Recip. Status
----------------------------------	---------------	-------------	---------------

Back Add SearchResult Save

# Select the Recipient

- In this case, I'm selecting a dummy company - highlight and click **Apply**

Which one to select??? In this case the company I'm sending to has Organization Units. Theoretically, you should only have to send/propose to a company once because once accepted, it's available to all in the roof company.

**You can list a Company Name only once on the recipient list.**

For example, the system will not allow you to put both KPTest (Level 1A) and KPTest (Level 4) as recipients.

**Outside of the "roof" Org Unit (e.g. KPTest) only those users with the Org Unit attached to them can see what you send to an Org Unit.**

Company - Microsoft Internet Explorer provided by EDS COE

Company

Administration Company Search

Search Criteria:

Company Name: kptest Company-/Org.-ID:

Org.-Unit:

zip code:

User Name:

City:

User ID:

Search Cancel

6 items found, showing all items.

No.	Company Name	Org.-Unit	ID	zip code	City
1	<u>KPTest</u>	KPTest	4893	-	
2	<u>KPTest</u>	Level 1A	4894	48329	Waterford, MI
3	<u>KPTest</u>	Level 1B	4895	1bn32	eiora
4	<u>KPTest</u>	Level 2	4896	69083	My City, ZZ
5	<u>KPTest</u>	Level 3	4897	181wz	New City
6	<u>KPTest</u>	Level 4	4898	1WZ498	Dislkj

Apply View Back



# Enter Recipient Data

- The **Company Data** window appears - you need to enter recipient specific information - your customer's part number, description, supplier code and any other customer requested information

If your customer rejects the MDS and says it is not their part number or you need to change the description, **you must change it here** as this is their view

When done, click **Change**

Note: My selection appears here and the Org Unit is in ( )

**Supplier Code** – Depends on how your customer refers to you – Some OEMs have special codes they assign, others use DUNS Numbers, others use nothing at all

Please check the FAQ on Forwarding for information on this topic

I know, it looks like you can type here, but you can't



# Recipient Data Decoded

- This page contains your CUSTOMER'S information and status of MDS –
  - Part/Item No. – your customer's number (system required)
  - Description – how your customer commonly refers to the product (system required)
  - Drawing No. (system optional)
  - Drawing dated: (system optional)
  - Drawing Change Level: (system optional)
  - Report no. – if you checked Development Sample Report, you should have an entry here (system optional)
  - Date of Report – (system optional)
  - Purchase Order No. (system optional)
  - Bill of Delivery No. (system optional)
  - Supplier Code – how customer refers to you (commonly DUNS) (required)

**Note: certain OEMs have a slightly different Data page. Different customers have different data requirements on this page – be sure to check with them on what needs to be supplied.**

Company data - Microsoft Internet Explorer provided by EDS COE

Company data

Recip. Status: edit mode

Recipient: KPTest (Level 1A)  
Company- / Org.-ID: 4894

[Part/Item No.:](#)

Description:

Drawing No.:

Drawing dated:

Drawing Change Level:

Report No.:

Date of Report:  (MM/DD/YYYY)

Purchase Order No.:

Bill of Delivery No.:

[Supplier Code:](#)

Reason for denial:

Forwarding allowed:  Yes  No

If your customer says they cannot see the MDS, be sure to check here to see if you sent to correct ID

New in Release 4.0 – if client manager adds a DUNS number to your company profile, this field is pre-populated – but you can still edit it

When done, click **Change**

# Recipient Changes

- Note the changes

MDS - MATERIAL DATA SYSTEM - Microsoft Internet Explorer provided by EDS COE

Recipient data  
Assembly - Release... 586800 / 0.01 (Node ID 586800) Search Edit MDS Recipient data

MDS Status: Edit mode Send Propose Internal Publish

No. to comp. (Org.-Unit...	Description	Part/Item No.	Drawing No.	Recip. Status
1	KPTest (Level 1A) [4... KP - Release 4.0	KP-67823-R4		edit mode

Menu  
Search  
MDS  
Ingredients  
Recyclate information  
Supplier data  
Recipient data  
Log off

Back Add View Modify Delete SearchResult Save

Recipient description – this is what your customer will see – NOT **Assembly - Release 4.0** (your part description)

Recipient part number – this is what your customer will see – NOT a blank

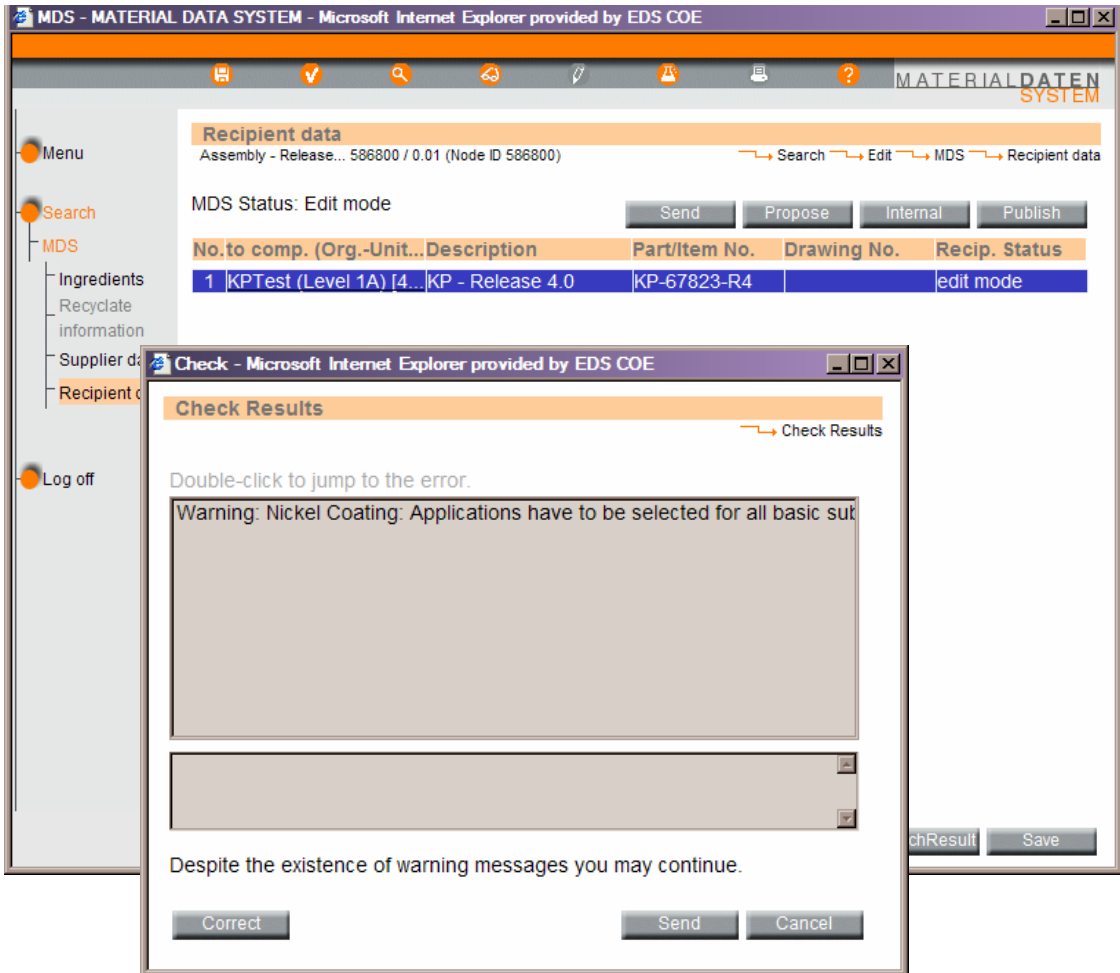
More Buttons

# Send or Propose?

- **Send** - you send this MDS **ONLY** to this customer – the version number will remain .0x until your customer accepts. It is in “handshake” mode and you can make edits anywhere (including the tree) until your customer accepts.
- **Propose** - you make this part for several customers under different customer part numbers – the version number will go to the next whole number immediately and you can only change the company data information should your customer reject it.

Send	Propose
Part/Item No.	Drawing
KP-67823-R4	

- Click **Send**
- Check is successful – you can send with a warning – some of the newer Warnings, you cannot correct without making a copy/new version
- Click **Send** and **OK** on message.



The screenshot shows the MDS - MATERIAL DATA SYSTEM interface in Microsoft Internet Explorer. The main window displays 'Recipient data' for 'Assembly - Release... 586800 / 0.01 (Node ID 586800)'. The MDS Status is 'Edit mode'. A table lists components, with one row selected: '1 KPTest (Level 1A) [4... KP - Release 4.0 | KP-67823-R4 | edit mode'. A 'Check' dialog box is open, showing 'Check Results' with a warning: 'Warning: Nickel Coating: Applications have to be selected for all basic sub...'. The dialog includes 'Correct', 'Send', and 'Cancel' buttons. The main window also has 'Send', 'Propose', 'Internal', and 'Publish' buttons.

# Result of Send

- Send is a 1-1 relationship - if your customer wants changes on the tree, it is still in edit mode and you can make changes.
- If you **Propose**, the version increases to a whole number and you can not make changes - though you can add more recipients

The screenshot shows the 'Recipient data' section of the MDS - MATERIAL DATA SYSTEM. The interface includes a menu on the left, a search bar, and a table of recipient data. A yellow callout points to the 'MDS Status: Handshake' text, indicating that the system is in a state where changes can be made. Another yellow callout points to the 'Recip. Status' column, which shows 'not yet browsed' for the selected item. A third yellow callout points to the version number '0.01', indicating that the version has not changed.

No. to comp. (Org.-U)	Description	Part/Item No.	Drawing No.	Recip. Status
1	KPTest (Level 1A)	KP - Release 4.0	KP-67823-R4	not yet browsed

# ••• Sending to an OEM

- Sending to an OEM is a little different if you are attaching MDSs released prior to 3.0. that require application codes
- When you run the check to the OEM, you cannot send without application codes which is a bit tricky if you're attaching a component with Lead, Mercury, Cadmium, Hexavalent Chromium, or Nickel that was released prior to Release 3.0 and may or may not be owned by you.
  - If the system can make a determination based on substance, weight, and material classification, or if there is a similar substance on a material with the same classification in the tree, it will set that
  - After an OEM is selected as a recipient, you can go to the material with the substance in question and select an application whether you own the material or not



# Sending to an OEM – Attaching Component

- This component is published prior to release 3.0 and has lead on the tree. It does not belong to my company

Basic Substance	% (MAX)	Application
lead	10.0	<a href="#">none</a>

Lead requires an application code, but since there are no dots in the material icon, we do not own it.

Because no recipient determined and OEM recipients are treated differently than Supplier recipients, you cannot pick an application yet.

Component:	MM
Material:	Lead finish
Basic Substance:	lead
Portion:	10.0 % (MAX)
Application:	none

Back

# After Adding an OEM as a Recipient

- Once I have added an OEM as a recipient, the view changes and I can pick the application

The screenshot shows the MDS - MATERIAL DATA SYSTEM web interface. The main view displays a tree structure of ingredients under the heading "Ingredients". The tree includes "Attaching pre 3.0 requiring app", "2SA1461-T2B", "MM", "Chip (Die)", "Bonding wires", "Lead frame", "Diepad plating", "Encapsulation", "Die Attachment", "Lead finish", "tin", and "lead". A callout box points to the "lead" item, which is highlighted in red. To the right, there are two panels: "Details" and "Application". The "Application" panel shows a table with one item found:

Basic Substance	% (MAX)	Application
lead	10.0	<a href="#">none</a>

Below this, a larger "Application" panel is open, showing a list of application options for lead:

- Glass in bulbs and glaze of spark plugs
- Solder in electronic circuit boards and other electric applications
- Other application (potentially prohibited)
- Electrical components which contain lead in a glass or ceramic matrix compound except glass in bulbs and glaze of spark plugs
- Copper in brake linings
- Battery
- Carbon brushes for electric motors

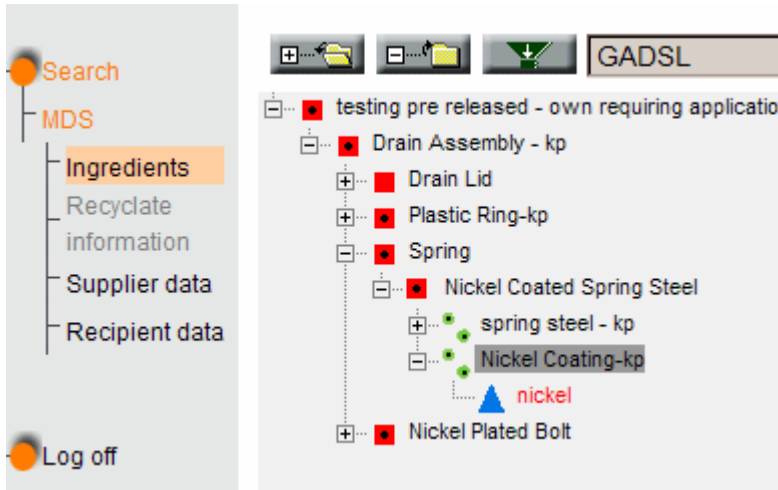
A "Back" button is visible at the bottom of this panel.

It still says none – but when we click on it, we now have selections

Because the system cannot tell which application to default to, you need to select one.



# Fixing Application ERROR – Own Company Created Component



1. Copy/new version of the MDS the material is directly attached to and add the application codes.
2. Internally release the MDS
3. If the MDS is attached to another component, you must:
  - a. Copy/new version of that component/semi-component
  - b. Delete off component above and add new component
  - c. Either internally release or send to customer
  - d. If this is attached to another component, repeat step 3 until you have an MDS to send to customer

In the above case, I would have to:

- Copy/new version of the **Nickel Coated Spring steel** to add the applications and then release.
- Copy/new version of the **Spring**, delete off old version of **Nickel Coated Spring Steel**, add new version and internally release.
- Copy/new version of **Drain Assembly – kp**, delete off old version of **Spring** and add new
- Delete off **Drain Assembly-kp** and add new version. Then I can send to customer.



# Sending an Attached MDS Requiring Parts Marking Question

- Whether sending to an OEM or sending to a supplier, you will get a **WARNING** when sending this MDS with an attached component that will require the Parts Marking question to be answered in 3.0. This is a **WARNING** and the MDS can still be sent – however, your customer may require you to resubmit and answer the question

Note: although this will generate a warning, because this is a released MDS and you do not own it, you do not see any options to select.



# Sending an Attached MDS Requiring Recyclate Information

- Whether sending to an OEM or sending to a supplier, you will get a WARNING when sending this MDS with an attached component that will require Recyclate information to be answered in 3.0. This is a WARNING and the MDS can still be sent

The screenshot shows the MDS - MATERIAL DATA SYSTEM interface in Microsoft Internet Explorer. The browser title is 'MDS - MATERIAL DATA SYSTEM - Microsoft Internet Explorer provided by EDS COE'. The page header includes 'MATERIAL DATA SYSTEM'. The main content area is titled 'Ingredients' and shows a tree view of components for 'testing 3.0 - attaching pre-released requiring recyclat'. The tree includes 'Inflator Assembly' with sub-items 'Inflator housing', 'Booster tube', 'filter', and 'Shunt ring'. A selected item is 'PTFE', which is further detailed as 'Ethylene, tetrafluoro-, polymer' and 'Miscellaneous'. On the right side, there are tabs for 'Details' and 'Recyclate'. The 'Recyclate' tab is active, showing a form with the following fields: 'Material: PTFE', 'Does the material contain recyclate?' (radio buttons for Yes and No), 'Content of post industrial recyclate: (e. g. from injection molding, rejected parts etc.)' (From [ ] to [ ] [%]), and 'Content of post consumer recyclate: (e. g. from scabbled and damaged vehicles, packaging wastes, scrapped household appliances etc.)' (From [ ] to [ ] [%]). At the bottom right, there are 'Save' and 'Next' buttons. A pink callout box points to the 'Recyclate' section with the text: 'Note: although this will generate a warning, because this is a released MDS and you do not own it, you do not see any options to select.'

 Miscellaneous Topics

# ••• Semicomponent ≠ Subcomponent

- Semicomponents are not discussed here because there are few good uses for them and they are often misused. A Semicomponent **IS NOT** the same as what is commonly referred to a subcomponent. If you use something in “one of”, “two of”, etc. you should be making components.
- Semicomponents can be use for a bolt of cloth, a wire wrap that is cut down, vinyl tubing that is cut from a roll, paint, etc. - something that is used by weight, length, or volume during processing
- Semicomponents can be made of materials and other semi-components.

- In all of these examples, I've created MDSs - this is the default. Modules are much faster to create, but you cannot assign them to Organizational Units at this time.

- IMDS is a common system for data, but each OEM and many Tier 1's have their own acceptance criteria regarding:
  - Tree structure
  - Amount of miscellaneous material allowed
  - What goes on the company data screen
  - What has to be declared
- If a question arises, ask your customer what is required

# Read the Public Pages

- Many questions can be answered from the Public Pages > **FAQs**. Chances are you are not the first person who has asked this question and the Level 2 helpdesk has placed common questions on the site.
- Familiarize yourself with changes in the system - the login screen frequently has a message about a new release and a link to the release notes. You are expected to read them. At the moment the helpdesk is free of charge to users, as is IMDS itself. We simply do not have the resources at the helpdesk to respond answering the same question individually to 50,000 users.



- Users frequently complain about the system “being slow” - the system will never be as fast as something on the hard drive of your PC, as you are interfacing with an application in Europe (15-20 hops) on each click of the mouse.

**After numerous investigations, the root cause is either: network bandwidth of the user’s site, how the signal is routed to Europe or internet traffic. During the Iraq War, users consistently complained of slow down during the 11:30-1:00 timeframe - the number of users on the system was not at a peak but many company employees were netsurfing during lunch - not an IMDS problem – PLEASE USE THE SYSTEM TEST TO HELP YOUR IT DEPARTMENT TO ANALYZE THE PROBLEM – THIS IS OUTSIDE THE SCOPE OF THE IMDS HELPDESK**

- To run a system test, use the  button and follow the instructions
- If you have really bad connections, you may want to investigate purchasing the imds-a2 application – information can be found from the Services link on the Public Pages