Create Tips: material

Version: IMDS Release 11.0
Introduction

This series of presentations gives a recommended step-by-step procedure for creating MDSs in the IMDS system, with an emphasis on the creation of materials.

While this presentation gives recommendations on how to input data, it does not replace the individual OEM requirements that can be found on: IMDS Information pages > HELP > OEM Specific Info

Or specific product recommendations found after login under Help > Recommendations.

Note: These examples have been developed in the Model Office and represent demonstration data only.
About the Create Tips Series

Originally, the create tips gave information on materials, components, and semi-components. However, by popular demand, the one large document has been divided into smaller documents for ease of use. This is the largest document because the rules and requirements are more complex for materials than for components and semi-components.
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Basic MDS Structure

In IMDS, the requirement is to reduce all parts to Basic Substances.

The system allows mixing of types at the same level (siblings). However, there are some OEM and Tier One that require all siblings to be of the same type. Therefore, 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 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.

The Recommendation link under Help 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.
Creating Your MDS

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:

1. 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*)

2. Have your supplier input material MDS and send it to you (*best if you have time and a cooperative supplier*)

3. Build the material tree yourself and internally release (*time consuming and you may not have information*)
Do You Have to Create a Material?

The first question to ask is “Do I have to create a Material?”

If your material is published to a public norm or standard then most OEMs would prefer that you use an IMDS-Committee Published Material.

Do you manufacture the material?

If you do not manufacture the material then you should require your supplier to enter the data and either send or propose it to you. If you cannot get your supplier to enter the data – they must send you the breakdown of the product – ALL substances – an MSDS sheet does NOT contain sufficient information to create a material.

Reminder, if you create the material MDS then you are considered legally responsible for the validity of the data. We recommend that if you don’t manufacture the material, then you don’t create the MDS.

Is the material already in IMDS – either created by my company, my supplier, or IMDS-Committee?

The next section will give you some searching tips.
How to Search for a Material
Material Search Tips

Best to use IMDS ID

Wild cards (*), partial names, etc. may also be useful (discussed later)

You only have access to materials your company has created, data that has been published, and data that was sent to your company and accepted.

The IMDS-Committee only publishes materials to a Public Norm and where that Norm has been defined by the basic substances that sum to 100%. (Some public norms give characteristics of the material but not the substances defined to 100%.)
Filters – Ingredients Page Filters

Name – the description given on the Ingredients page if your company created it or you are searching in Published data. The description from the Recipient Data page if it was sent/proposed to your company. Note: if you cannot find the MDS, you may want to do a wild card search as there must be an EXACT match to display and leading spaces may be an issue. The search is not case sensitive.

Internal Mat.-No. – the Internal Mat.-No from the Ingredients page if your company created it or you are searching in Published data. The information from the Recipient Data page if it was sent/proposed to your company. Note: if you cannot find the MDS, you may want to do a wild card search as there must be an EXACT match to display and leading spaces may be an issue.

ID-No. – the IMDS ID number

Language – whether you are searching for data in the English name field or German name field

Version –
  – Current – the highest version number or all the versions in edit mode if your company created it. The highest version number that you have visibility to if another company created it – warning – if your supplier uses the practice of creating a copy/new version every time they send to another company, you may not have visibility to the latest version of the MDS and will need to use All Versions.
  – All Versions – All versions of the ID.

Preliminary MDS – If checked, will only return MDSs where the “Preliminary MDS” box has been checked on the Ingredients page

Note: The BEST way to find anything in IMDS is by IMDS ID. You must also be looking in the right place:
  – Was it created by your company or another
  – If you cannot find with current versions, try All versions
  – Use Wild card searches – e.g. if looking for published SAE 1010 steel, use *1010 in the Name field
Filters – Creation Dates

Published / accepted / internally released – this option will return only RELEASED MDSs (whole number version) and whether they are created by your own company or a supplier or both will depend on how you set other flags.

Created (own MDS) – this option will return only MDSs and modules created by your company, regardless of whether they have been released or not.

Date - this option will limit your results to MDSs released during the time frame (if first box checked) or created during the time frame (if 2nd box check). Note: The dates must be given in the specified format. Only MDSs have the date tracked (as opposed to modules).

Regulation Request - this option will limit your results to Material MDSs for which Regulation Requests were received during a certain time frame. Note: The dates must be given in the specified format. Only MDSs have the date tracked (as opposed to modules).
Filters – Supplier MDSs 1

You can limit your search to supplier data to data from a select list. By default, for materials, only IMDS-Committee materials will be returned.

Accepted MDSs – return only data that has been accepted by my company

Published MDSs – return only data that has been published

Own MDSS – return only Material MDSS created by your company

Own Modules – return only Modules created by your company

Enable search by supplier – restrict search returns to the suppliers listed. Material searches will automatically have the 3 IMDS-Committee companies listed (see next page for how to add/remove suppliers and a more complete discussion of how this works)

Save List – saves the supplier list for future sessions – this list is saved to the login ID

Note: when searching on Published materials, your supplier list will be supplemented by the IMDS-Committee materials. If you want these on the other tabs, you will have to customize your list.

Additional note – the “save list” from the search screen is also attached to the Receive screen allowing a company to have users focused on certain suppliers. There is a 2nd “save list” available on the Sent screen.
Filters – Supplier MDSs 2

Preferred MDSs – return only data that do not lead to Warnings

obsolete – return only data that were marked obsolete
Filters – Supplier List – Add

To add a supplier to the customized list, click on the
there are two preconditions:
1. accepted or published MDSs must be chosen
2. Enable search by supplier must be clicked to
activate the icon “Add supplier to list”

A search screen will appear where you can
either search on a Company or an Org.-Unit

After a search, you select your supplier and hit
Apply – in this case, I have added IMDS Test
Data to my list (note – the company numbers
displayed are not from the production system.

*Multiple suppliers may be selected to apply
at one time. You need to click individually
on the desired companies or Org.-Units and
then click on Apply all.*
Filters – Supplier List – Remove

To remove a supplier from the customized list, first highlight the supplier to remove (IMDS Test Data) and then click on the “Remove supplier from list” icon.

The list then only contains the default companies.
Filters – Own MDSs/Modules

**Own MDSs** – the search results will only return MDSs and not modules

**Own Modules** – the search results will only return modules and not MDSs

**Last edited by me** – the search result will be limited to those MDSs or Modules last edited by the user ID currently logged in

**Assigned Org.-Unit** – the search result will be limited to MDSs assigned to a particular Organizational Unit

**Assigned Contact** – the search result will be limited to MDSs with the contact person as selected

*Note – The Contacts are from a pull-down list modified by the Company Administrator under Administration > Contact Person*
Filters – Material Specific

**Trade name** – if given, the trade name of the material (e.g. Teflon)

**Std. Mat.-No.** – Standard material number - only available on selected material classifications.

**Symbol** – **Material symbol** – only available on selected material classifications.

**Norm/Standard** – the given Norm/Standard

**Classification** – the material classification
Searching for Materials

Note: It is important to get in the habit of selecting all choices for Origin and Version > All. If your supplier has created the MDS, he may not have given you access to the latest version.
Searching for Published Materials
Searching for Published Materials (ID not known)

**Note:** You should not be using Published Materials from an unknown source – just because someone has published does not mean it is quality data. No one polices the Published Materials list. Users use the non-IMDS Committee MDSs at their own risk. It is recommended that unless the user knows that the MDS supplier is their supplier or manufactures the material, they should take the time to validate the MDS before attaching it to their tree.
Searching for IMDS Committee Published Materials

The IMDS Steering Committee has published MDSs that comply with a material standard and many companies prefer that you use this data instead of creating your own. If you want a material standard published, send to the helpdesk and we will try to add. Not all standards contain a complete list of substances. We can only publish if the standard includes substances that sum to 100%. These have been added to your saved company list when searching for materials. A list of Public Norms can be found IMDS Information Pages > FAQ > General Info > What do the Norms/Standards acronyms mean?

Guide to the IMDS Steering Committee Published Materials:

Stahl und Eisen Liste (313) - predominantly steels and steel alloys – no norm/standard on most of them but contain a material number of form 1.nnnn where nnnn is a 4 digit number.

IMDS-Committee (423) – coatings and alloys and also some semi-components

IMDS-Committee / ILI Metals (18986) – steels published to other standards not in the Stahl und Eisen Liste.

The IMDS Committee metal materials have usually been entered with either the UNS number or the JIS number as the standard material number. It is suggested that you perform a wildcard search on the standard material number (i.e. *10211 in the Std. Mat. No field as it may have been entered as G10211 or G 10211).

The IMDS Committee materials in material classifications 1-5, with very few exceptions, have been entered with the public norm. It is suggested that you perform a wildcard search on the norm (i.e. select norm ASTM and *32 as it may have been entered as B32 or B 32)

Since IMDS Committee materials are undergoing cleanup of duplicate data, it is suggested that you get in the habit of performing a search each time on the norm or standard material number instead of relying on an MDS ID.
Create a Material
Before You Begin – Must Have Data

The following information will be required for you to complete data entry:

Know a **minimum** of 90% of the substances in the material

Material Classification

Applicable Public Norms/Standards

Applicable OEM In-House Norms

Applicable Material Symbols

Any special customer requirements

Recommendation 001 and any other Recommendation pertaining to the product

An MSDS sheet *does not* contain sufficient information to enter the material.

Materials are best entered by someone with a chemical or materials background.

Report only materials in their final state – with the exception of classification 9.x and hides (7.1), the final state usually does not include gases or liquids. If you include liquids or gases in anything apart from 9.X or 7.1, be prepared to defend your submission.

It is extremely rare (although not unheard of) to have a material composed of only one substance. If you use such a construct in your submission, be prepared to defend it.
MDS or Module?

Decide

MDS or Module?

Create an MDS

Limited reuse
If you wish, can also create MDS for a basic building block

Create a Module

Basic building block used several times

- 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 – cannot send to customer or get assigned to an Org.-Unit

Note: Modules only have the Ingredients chapter so cannot be assigned to an Organization Unit nor sent to a recipient
Create the Material

Select Material
Material Links

Most materials follow the same path in creation – there are additional requirements for the following “Special Material” types:

– Filled Thermoplastics
– Unfilled Thermoplastics
– Thermoplastic Elastomers
– Elastomers / elastomeric compounds
Create a Material – Not “Special Material”

At this point, we are assuming that you have already checked to see if the material exists and it doesn’t.

Select a material classification (you only can select classifications in black – the gray ones are the main categories and cannot be chosen)

5.1.a, 5.1.b, 5.2 and 5.3 have a wizard so we’ll do those later

Once the selection is made, click Apply.

Note: The material created in the following steps is for illustrative purposes only – do not copy.
## Specifics on Material Checks – Substances

<table>
<thead>
<tr>
<th>Classification number</th>
<th>Classification name</th>
<th>Must contain</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Steel and Iron materials</td>
<td></td>
</tr>
<tr>
<td>1.1</td>
<td>Steels / cast steel / sintered steel</td>
<td>Fe ≥ 50%</td>
</tr>
<tr>
<td>1.1.1</td>
<td>unalloyed, low alloyed</td>
<td>Fe ≥ 65%</td>
</tr>
<tr>
<td>1.1.2</td>
<td>highly alloyed</td>
<td>Fe ≥ 30%</td>
</tr>
<tr>
<td>1.2</td>
<td>Cast iron</td>
<td>Fe ≥ 50%</td>
</tr>
<tr>
<td>1.2.1</td>
<td>Cast iron with lamellar graphite / tempered cast iron</td>
<td>Fe ≥ 70%</td>
</tr>
<tr>
<td>1.2.2</td>
<td>Cast iron with nodular graphite / vermicular cast iron</td>
<td>Fe ≥ 55%</td>
</tr>
<tr>
<td>1.2.3</td>
<td>Highly alloyed cast iron</td>
<td>Fe ≥ 14%</td>
</tr>
<tr>
<td>2.1</td>
<td>Aluminum and aluminum alloys</td>
<td></td>
</tr>
<tr>
<td>2.1.1</td>
<td>Cast aluminum alloys</td>
<td>Al ≥ 50%</td>
</tr>
<tr>
<td>2.1.2</td>
<td>Wrought aluminum alloys</td>
<td>Al ≥ 50%</td>
</tr>
<tr>
<td>2.2</td>
<td>Magnesium and magnesium alloys</td>
<td></td>
</tr>
<tr>
<td>2.2.1</td>
<td>Cast magnesium alloys</td>
<td>Sum of Mg and Magnesium powder (stabilized) ≥ 50%</td>
</tr>
<tr>
<td>2.2.2</td>
<td>Wrought magnesium alloys</td>
<td>Sum of Mg and Magnesium powder (stabilized) ≥ 50%</td>
</tr>
<tr>
<td>2.3</td>
<td>Titanium and titanium alloys</td>
<td>Ti ≥ 50%</td>
</tr>
<tr>
<td>3</td>
<td>Heavy metals, cast and wrought alloys</td>
<td></td>
</tr>
<tr>
<td>3.1</td>
<td>Copper (e.g. copper amounts in cable harnesses)</td>
<td>Cu ≥ 93%</td>
</tr>
<tr>
<td>3.2</td>
<td>Copper alloys</td>
<td>Cu ≥ 48%</td>
</tr>
<tr>
<td>3.3</td>
<td>Zinc alloys</td>
<td>Sum of Zinc substances ≥ 70%</td>
</tr>
<tr>
<td>3.4</td>
<td>Nickel alloys</td>
<td>Ni ≥ 50%</td>
</tr>
<tr>
<td>3.5</td>
<td>Lead</td>
<td>Pb ≥ 50%</td>
</tr>
<tr>
<td>4</td>
<td>Special metals</td>
<td></td>
</tr>
<tr>
<td>4.1</td>
<td>Platinum / rhodium</td>
<td>Sum of Platinum and Rhodium ≥ 50%</td>
</tr>
<tr>
<td>4.2</td>
<td>Other special metals or their sum ≥ 50%</td>
<td>Other special metals or their sum ≥ 50%</td>
</tr>
</tbody>
</table>
### Specifics on Material Checks – Polymers & Lacquers

<table>
<thead>
<tr>
<th>Classification Number</th>
<th>Classification Name</th>
<th>Must Contain</th>
<th>Must not contain</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>Polymer materials</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.1</td>
<td>Thermoplastics</td>
<td>Sum of substances containing ...poly... in their names excluding sum of</td>
<td></td>
</tr>
<tr>
<td>5.1.a</td>
<td>filled Thermoplastics</td>
<td>Basic Duromers ≥ 23%</td>
<td></td>
</tr>
<tr>
<td>5.1.b</td>
<td>unfilled Thermoplastics</td>
<td>Sum of substances containing ...poly... in their names excluding sum of</td>
<td></td>
</tr>
<tr>
<td>5.2</td>
<td>Thermoplastic elastomers</td>
<td>Sum of substances containing ...poly... in their names excluding sum of</td>
<td></td>
</tr>
<tr>
<td>5.3</td>
<td>Elastomers / elastomeric compounds</td>
<td>Sum of Basic Rubbers or substances containing ...poly... in their names</td>
<td></td>
</tr>
<tr>
<td>5.4</td>
<td>Duromers</td>
<td>Sum of substances containing ...poly... in their names excluding sum of</td>
<td></td>
</tr>
<tr>
<td>5.4.1</td>
<td>Polyurethane</td>
<td>Basic Polymers ≥ 15%</td>
<td></td>
</tr>
<tr>
<td>5.4.2</td>
<td>Unsaturated polyester</td>
<td>Sum of substances containing ...poly... in their names excluding sum of</td>
<td></td>
</tr>
<tr>
<td>5.4.3</td>
<td>Other duromers</td>
<td>Basic Polymers ≥ 15%</td>
<td></td>
</tr>
<tr>
<td>5.5</td>
<td>Polymeric compounds (e.g. inseparable</td>
<td>Sum of substances containing ...poly... in their names excluding sum of</td>
<td></td>
</tr>
<tr>
<td>5.5.1</td>
<td>Plastics (in polymeric compounds)</td>
<td>Basic Polymers ≥ 15%</td>
<td></td>
</tr>
<tr>
<td>5.5.2</td>
<td>Textiles (in polymeric compounds)</td>
<td>Sum of substances containing ...poly... in their names excluding sum of</td>
<td></td>
</tr>
<tr>
<td>5.6</td>
<td>Process polymers</td>
<td>Sum of Basic Duromer or ...poly... ≥ 25%</td>
<td></td>
</tr>
<tr>
<td>6.1</td>
<td>Lacquers</td>
<td>Sum of Basic Duromer or ...poly... ≥ 25%</td>
<td></td>
</tr>
</tbody>
</table>
## Specifics on Material Checks – Other Classifications

<table>
<thead>
<tr>
<th>Classification Number</th>
<th>Classification Name</th>
<th>Must not Contain</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>Process polymers</td>
<td></td>
</tr>
<tr>
<td>6.2</td>
<td>Adhesives, sealants</td>
<td>Sum of substances fitting classifications 1-4 ≥ 90 %</td>
</tr>
<tr>
<td>6.3</td>
<td>Underseal</td>
<td>Sum of substances fitting classifications 1-4 ≥ 50 %</td>
</tr>
<tr>
<td>7</td>
<td>Other materials and material compounds (scope of mixture)</td>
<td></td>
</tr>
<tr>
<td>7.1</td>
<td>Modified organic natural materials (e.g. leather, wood, cardboard, c...)</td>
<td>Sum of substances fitting classifications 1-6 ≥ 50 %</td>
</tr>
<tr>
<td>7.2</td>
<td>Ceramics / glass</td>
<td>Sum of substances fitting classifications 1-4 ≥ 80 %</td>
</tr>
<tr>
<td>9</td>
<td>Fuels and auxiliary means</td>
<td></td>
</tr>
<tr>
<td>9.1</td>
<td>Fuels</td>
<td>Sum of substances fitting classifications 1-6 ≥ 50 %</td>
</tr>
<tr>
<td>9.2</td>
<td>Lubricants</td>
<td>Sum of substances fitting classifications 1-4 ≥ 50 %</td>
</tr>
<tr>
<td>9.3</td>
<td>Brake fluid</td>
<td>Sum of substances fitting classifications 1-4 ≥ 50 %</td>
</tr>
<tr>
<td>9.4</td>
<td>Coolant / other glycols</td>
<td>Sum of substances fitting classifications 1-4 ≥ 50 %</td>
</tr>
<tr>
<td>9.5</td>
<td>Refrigerant</td>
<td>Sum of substances fitting classifications 1-6 ≥ 50 %</td>
</tr>
<tr>
<td>9.6</td>
<td>Washing water, battery acids</td>
<td>Sum of substances fitting classifications 1-6 ≥ 50 %</td>
</tr>
<tr>
<td>9.7</td>
<td>Preservative</td>
<td>Sum of substances fitting classifications 1-4 ≥ 50 %</td>
</tr>
<tr>
<td>9.8</td>
<td>Other fuels and auxiliary means</td>
<td>Sum of substances fitting classifications 1-4 ≥ 50 %</td>
</tr>
</tbody>
</table>
Supply Identification

Select from the following to see a discussion:

Name
Trade name
Internal Mat.-No.
Std. Mat.-No.
Norms/Standards
Inhouse Norms

You CANNOT take the default name - this is the 905428244 MDS that's been created - not useful for finding later.

Classification selection is carried over, but you can change with Search icon.
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 again be copied to the German.

If you would like to put in a different German name, use the pulldown to DE and insert the name, then **Save**.
The material name must always define the material and not be a trade name.

If applicable, material names need to reflect the existing standards

For metallic materials:
- steel – Steel / Iron List, EN 10027, JIS norms, e.g. STM-C 540
- aluminium alloys – EN 573, JIS norms, e.g. Al-Si12
- copper alloys – ISO norms, e.g. CuAl5
- etc.

For plastics – ISO 1043-1 to 4 (see IMDS 010), e.g. Pe-id

For elastomers – ISO 1629 (see IMDS 003), e.g. Acm

For thermoplastic elastomers – ISO 18064 (see IMDS 013), e.g. Tpa-es

If no standard is applicable, the name must be descriptive such as:
- adhesive layer (for adhesives)
- fatting agent (e.g. for leather)
- finish (e.g. for textiles)
- lamination material (e.g. laminate for textiles)
- primer, basecoat, clearcoat (for paints)

The name must be entered in English in the EN field. The name in other languages is optional.
Trade Name

Product trade name. For standard products which are defined in public norms (e.g. most metallic materials), this entry is not mandatory. In drawings these trade names sometimes are pre-defined. Then the entry is mandatory. For materials which are not defined in public norms (e.g. plastic materials, oils, fats, flake layers, glue etc.) this entry is not mandatory but useful in order to uniquely identify the product.

Note: Do not put confidential information in this field, because it will be visible in the supply chain.
Internal Mat.-No.

The number or code that you refer to the material as. This is for YOUR use and your customer should not have any requirement on how you use this field. This entry is not mandatory. This is NOT the same as the standard material number.
**Std. Mat.-No.**

**Standard Material Number** – not all materials have a standard material number and the field is available only for the metallic classifications. Not all metals are manufactured to a standard. Unfortunately, there is no one right answer to the number that should be placed here as different regions have different numbering systems. However, one of the following two is preferred (although a case may be made for VDeH, EN or DIN)

UNS (Unified Numbering System - Metals and Alloys) and most of the IMDS Committee materials were entered with this number

Japanese standard is the JIS
Norms and Standards

Norms and standards refer to public norms in which material compositions are defined (e.g. EN, DIN, JIS, ASTM, ISO etc.).

For materials described in these norms an entry is mandatory. Not all materials are manufactured to a Public Norm.

Now to Norms, if there are any, click on + and a search window will open.

Only OEMs have Inhouse Norms - some suppliers manufactured to an OEM norm.

Note: NOT ALL MATERIALS ARE MANUFACTURED TO A NORM. IF MANUFACTURED TO A NORM, YOU MUST INCLUDE IT. IF THERE IS NO NORM, YOU CANNOT INCLUDE IT.
Add Norms

You need to select a Norm first. The Norm Code needs to be entered below.

Click on **Add**.

Inhouse norms are added the same way but an additional pull-down menu will appear after selecting the company.

About Inhouse Norms – if these are chosen for a certain material, 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.
Inhouse Norms

Inhouse norms can only be seen by users in the creating IMDS company and the OEM who’s norm it is (specific to IMDS company ID).

In this example, Adam Opel GmbH uses inhouse norms, but that inhouse norm would only be visible to users in the creating company and the Adam Opel GmbH (ID 104) and not visible if the same material were used on a part sent to any other company.
Material Supplier

This is a totally fictional material, but we’ll pretend it is to a public norm.
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.

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

The Norm has been applied - repeat if there are any more.
Enter any pertinent remarks.
Click on **Save**.

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. Good uses for this field are weight information – e.g. 1 gram/cc or 2 grams per cm.
Construct Tree

You can add Materials or Basic Substances - in this case, click on the for adding a substance.

- 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), a Pseudo Substance or Joker/Wildcard
Basic Substances
About Basic Substances

ONLY SUBSTANCES EXPECTED TO BE FOUND ON THE VEHICLE AT IT’S END OF LIFE ARE TO INCLUDED IN THE INGREDIENTS. The same philosophy guides the GADSL list (Global Automotive Declarable Substance List – www.gadsl.org). You will not find processing chemicals on the GADSL although some of them may be harmful.

Neither IMDS nor the GADSL is an exhaustive list – with 100,000s of chemicals, it is impossible to list every CAS number. If a CAS number doesn’t appear on the GADSL does not mean it is not declarable/prohibited as the GADSL really is the category list and the reference list is just that – a reference. The GADSL is only updated once a year. IMDS can be updated based on a user request to the IMDS Service Center.

Before asking the helpdesk to add a CAS number, please run it through the CAS number check (at least 50% of the requests the helpdesks get have an incorrect CAS number) - http://www.cas.org/expertise/cascontent/registry/checkdig.html

Not every substance with a CAS number is considered a basic substance in IMDS terms. There are alloys or “groups” that have been assigned a CAS number.

Because the IMDS substance list is a validated list that has been developed over the years at a cost, it is NOT available for download and Use Conditions prohibit the use of the list in 3rd party software except where an agreement exists between the vendor and IMDS.
Basic Substance Search Tips

Best to use CAS number - if it isn’t in the system, send an email to the IMDS Service Center and ask that it be added
When the substance is added or the request is rejected, the Service Center will notify the user accordingly.

This is a European system and there are European spellings - aluminium vs aluminum, sulphur vs sulfur, etc.

Wild cards (*), partial names, etc. may also be useful

*resin will return all resins
Silicone will return all substances starting with silicone

*fibre will return Pseudo-substances that are usually used as fillers or natural occurring substances

Basic durometer, basic elastomer, basic oil, Thermoplastic elastomer and basic rubber will return pseudo-substances
in those categories

A Pseudo-Substance gives an accurate description of the substance or the substance group but does not have a
CAS-No. It is important to point out that these substances are accepted as real substances in IMDS and are not
considered as wildcards. They are therefore allowed to be used within the 90% disclosure rule according to the IMDS
Recommendation 001. If the substance exists as a Pseudo-substance in IMDS, it will not be added as a substance
with a CAS number.
Searching for Basic Substance

- **Have CAS Number?**
  - Yes: Search for Pseudo Substances (see next page)
  - No: Find substance after CAS no. search?
    - Yes: Apply substance to your free structure
    - No: Use [http://www.cas.org/expertisu/cascontentregistry/checkdig.html](http://www.cas.org/expertisu/cascontentregistry/checkdig.html) to perform Check on CAS no.

- **Search for Pseudo Substances?**
  - Yes: Found as Pseudo Substance?
    - Yes: Apply
    - No: Get a valid CAS number from Supplier or Engineering
  - No: Found similar Pseudo Substance?
    - Yes: Submit request by email to Helpdesk with all information and they will ask that it be added – (1-2 Weeks)
    - No: It is probably a Material and will Have to be entered As such

**Note:** not all substances with CAS numbers will be added – those already in the system as Pseudo Substances and those that represent alloys or groups will not be added.
How to Search for Pseudo Substances

A Pseudo Substance has an – in the CAS number field. Pseudo substances can be used up to 100% of a material – however, it is doubtful that any material would be made of 100% of any substance or else you would be supplying a basic substance and if that is the case, you should not have to enter into IMDS.

Since search results are limited to 500 returns, it is not possible to look at a complete list of Pseudo Substances in the system. You will need to enter some information in the name field to find the type of Pseudo Substance you are looking for – for example:

- Basic Duromer – many of these are resins
- Basic Oil – limited list of oils – because many oils are PAHs, you will usually have to search by CAS number
- Basic Polymer – many are ISO 1043 substances – you could also search on polymer name (e.g. *PA6, *EMAK, *FEP, etc.)
- Basic Rubber – again you could either look through the entire list or enter the name in the field – a wildcard search works best (e.g. *ABR, *XCR, etc.)
- Plasticizer – best to do a wildcard search – e.g. enter *plasticizer in the name field
- Flame Retardant – several undeclarable/non-prohibited can be found by entering *1043-4 in the name field
- Man-made fibers – can be found by entering Man-made in the name field
- Natural fibers such as wool and hair – can be found by entering Natural in the name field
- Thermoplastic Elastomers – can be found by entering Thermoplastic in the name field or by more specific searches on the name (e.g. *TPC, *TPV, etc.)
- Soaps and other Thickeners – can be found by entering Thickener in the name field
- Some other fillers can be found by entering the ISO 1043-2 description (e.g. MD for Mineral Powder). You might also try entering *1043-2 in the name field to find the fillers used in Thermoplastics.
- Resins are frequently found by entering *resin in the name field

The above does not contain an exhaustive list, but guidelines on how to structure your search for pseudo substances.
Jokers/Wildcards

You may use Jokers/wildcards in your structure if BOTH of the following conditions are true:

The substance being replaced is not declarable or prohibited.

The TOTAL of all undeclared substances (substances marked confidential or joker/wildcard) is a MAXIMUM of 10% - except where exemption is given in a Recommendation.

Jokers/Wildcards have the CAS number system and there are only 9 of them in IMDS:
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.

This material will primarily consist of substances that are declarable, prohibited, REACH SVHC, or require an application code to illustrate functions of IMDS – this is not a real material.
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, use the “Basic Substance Request” in menu “Functions” with all the relevant information to have it added.
Add First Substance

Now you need to add the Portion (in this case 5-10%).

*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 (in this case “Demo material ih”) to add another substance.
Adding Materials No Longer Possible

You are not allowed to mix materials and substances at the same level. Once you add a substance, the remainder of the material must also be substances.

Add material button is no longer available.
Add Second Substance

The second substance is lead. In this case, we’re using a range of 3-5%.

Note: This formulation is for illustration only – DO NOT use it for your material.
Adding Additional Substances – Reading the Tree

To illustrate the different color coding, several substances have been added.

If the name of the substance is blue, the substance is D (duty-to-declare) on the GADSL (www.gadsl.org).

If the name of the substance is red, the substance is P (prohibited) or D/P on the GADSL.

If the name of the substance is underlined, the substance is on the REACH SVHC list (Substance of Very High Concern).

If none of the above, the substance is not flagged in any way.
Marking a Substance Confidential

Since Sulfur is not flagged, it is possible to mark it confidential.

If you mark a substance confidential, only the following can see/mark the substance:

- All users in the MDS creating company with access to Confidential substances.
- Users in another IMDS company given specific access via Administration > Trust User.

Substances cannot be marked confidential if:
- They are D, P, or D/P
- They require an application code
- They are a joker/wildcard
Periodically, you will want to **Save**. Certainly, when you have all the tree complete, be sure to **Save**.

When you see the warning, you know that the system is copying the text from the English name field into the German.
Quick Error Check

Perform a quick error check before going further.

Click on the icon in the toolbar.
Material Warnings and Errors

The Warning is because materials of classification 4.2 must contain a minimum portion of “special metals”.

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.

The second Error is because no portion has been specified for Sulfur.

The last Error is because no contact person has been assigned.

You can highlight the problem and double-click on it to go directly to where the problem is to solve it.
Adding the Last Substance I

Sulfur has been given a % of 15%. Iron has been added and Rest selected. The MDS has been saved and the system fills in the percentage – 54.5% iron.

Again: This formulation is for illustration only – DO NOT use it for your material.

Now perform the error check again.
Adding the Last Substance II

There’s still an error – but nothing on the ingredients page.

By double-clicking the Error, the system brings you directly to the error in the Supplier Data. To be able to continue you have to specify the Contact Person.
Contact Information / Org.-Unit

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

User IDs and Contact people are created separately – if you need a contact created, ask your Company Administrator.

Select the contact person.

You will only see this area if your company uses Org.-Units and you have Org.-Units assigned to your profile.
Process Chemical Verification Flag

Only substances existing in the final product are to be placed on the tree structure. This is especially important with the REACH regulations. When a substance considered a “processing chemical”, “liquid” or “gas” is added to the tree structure, a warning appears. In order to release the MDS, you will have to indicate how that chemical remains in the final product:

• Intended use
• Reaction residue
• Impurity

The MDS cannot be released until the information is provided.
Making the MDS “Productive”

You need to Wrap this up to be able to use it further. Click in “Recipient data” on Release Internal.

The same check is made – so no surprises.
Now you can continue with click on Release Internal.

The IMDS system allows you to release and send with warnings – that does not mean your customer will accept.

Note: The Send and Propose buttons are grayed out – you cannot use them until you add a recipient.
Note the changes: Version number, Status and buttons

Note: Users with profiles Company Administrator or User (Publish) are also able to Publish the MDS under the conditions that

1. the Company / Org.-Unit is allowed to publish certain MDS types (under Administration > Company)

2. the user is allowed to publish Material MDSs (can be verified under „Settings“ and changed by the Company Administrator under Administration > User)

Version number is now a whole number

Status Change

Now Release Internal is also grayed out – you can still Send and Propose, should you add a recipient.
ID / Version

905428653 – 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 usually be changed (exception is if it has been sent to a customer and in “handshake” mode). If a whole number, no changes can be made on these pages. However, it may be proposed to a recipient.
OEMs will not accept published data. Most suppliers will not accept published data. For that reason, the publish button has been deactivated in Release 7.0 except for special circumstances. Those circumstances can be found in the IMDS Information Pages > FAQ > General Info and in the IMDS Information Pages > FAQ > Faster Data Entry & IMDS Administration > Company Administrator functions.

99% of users NEVER Publish. We highly recommend not publishing the MDS. Publishing allows the MDS to be seen by anyone with an IMDS UserID. Internally Releasing allows only those in your IMDS company to use the MDS. If you want your customer to see it, then you need to use Send or Propose after adding a recipient (later in this document). However, if you supply a standard component or material to many customers, then publishing is acceptable.

**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? And if the material is a Trademarked material and you do not manufacture it, lawyers may become involved.
Create a Module/Material – “Special Materials”

There are 4 material classifications that require a material symbol and the IMDS system guides you in creating that symbol:

5.1.a filled Thermoplastic
5.1.b unfilled Thermoplastic
5.2 Thermoplastic Elastomer
5.3 Elastomers / elastomeric compounds

Since all of these follow basically the same pattern in creating the symbol by using a wizard, we will only cover 5.1.a in this document.
Using the Symbol Wizard – Filled Thermoplastic

Select your basic polymer from the pull down.

As you are making selections, the symbol is being composed.

You need to select the category based on ISO 1043-2 – you cannot make up your own. Technically, you can click Next without filling in the information, but you shouldn’t.
Add the Substances

All the rest of the information is as before.

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

The Material is given a basic name – you can edit.

Since this is according to ISO 1043 you will need to enter it here.
Finish as Normal and Run the Check

In this case, 2 Jokers/Wildcards are used: The Plasticizer is 3-5% with a weighted mean of 4% and the Flame Retardant is Rest or 6%.

After running the check: We have a Warning.
Why the 10% Warning?

The 10% warning requires a bit of understanding on how the calculations work:

Joker: Plasticizer is from 3 to 5% = weighted average 4%
Joker: Flame Retardant = REST - 6%

**BUT**

Even though the Plasticizer has a weighted average of 4%, it COULD have as much as 5% in the material.

So really in this case, the total of unknown is 5% + 6% or 11% which fails the Recommendation 001 10% rule check.

*Note*: Make sure you read Recommendation 001 which is found in the application on the Help > Recommendation menu. You should also read other Recommendations if they pertain to your product.
In Conclusion: Ask Your Customer

IMDS is a common system for data, but each OEM and many Tier One 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 IMDS Information Pages

Many questions can be answered from the IMDS Information Pages > Help > FAQ. You are not the first person who has asked this question and the IMDS Support Team 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. It is recommended that you read them.