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Mitsubishi Fuso

IMDS Input Manual



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Introduction

- This manual originates from Daimler's "Supplier Information on MDS Checking in IMDS", modified for MFTBC's supplier to input MDS into IMDS.
- In this documents, there are some examples of IMDS screen.
Please understand that these examples are written in German because they are from Daimler's original manual.

(*) International Material Data System

Automatic Checking of IMDS Data at Daimler

Mitsubishi Fuso, as a member of Daimler Trucks, collects material data of IMDS (International Material Data System) on Daimler's method. It requests its supplies to input MDS (Material Data Sheet) in IMDS. Input MDS will be checked by Daimler's system.

This enables those MDS which relate to complex modules and complete vehicles, as well as other supporting documentation, to be analyzed in accordance with the legal requirements.

Practice has shown that the IMDS input guidelines in the form of recommendations may be interpreted differently. Increasingly, recommendations are not being read, understood or implemented. It is therefore necessary to check the MDS received by Mitsubishi Fuso to ensure good data quality as a basis for internal tools and processes.

Due to the large number of incoming MDS, it is both necessary and useful to automate those processes which are always the same. In order to ensure that an automatic checking system keeps any drop in quality to an absolute minimum, Daimler uses a combination of human judgement and automated checking routines. This enables us to ensure that the frequently complex relationships between components, materials and basic substances are taken into consideration and that we can also accept materials that fall outside the standards.

This supplier information aims to provide all MDS producers with details about what Daimler understands by MDS checking.

Objectives of automatic MDS checking

- Prompt checking of the MDS by Daimler.
- Consistent evaluation of the materials in all Daimler plants and via all MDS.
- More time within the Daimler MDS inspection process to respond to individual material properties.
- Improved support for suppliers in relation to complex queries about MDS checking.

Daimler rejection codes

If your MDS is rejected, you will receive a list of the materials concerned, for which one or more rejection/warning codes have been issued. The material name is taken from the English entry in the MDS and only the first 20 characters are used.

The list of rejection/warning codes can be found on the IMDS website (see also section entitled "Further information"). All the materials concerned must be modified before the MDS are resubmitted to MFTBC. Please note that not all of the codes listed will result in rejection, some of them are to be understood merely as a warning.

Sending an MDS to MFTBC

Provision of MDS should occur at the earliest possible point after MFTBC requests suppliers to input MDS. Please build in sufficient time to allow for any correction loops within the MDS checking process.

Please send your MDS to MFTBC organizational unit (ID: 89408).

Please do not publish any MDS of MFTBC components!

Please only use one MDS ID for each MFTBC part number. If you wish to send another MDS for the same MFTBC part number, please generate a new version of the same MDS ID rather than a completely new one.

A new MDS version should be set up if the component weight changes beyond the agreed scatter range or if one or more materials in the component have changed. (Converting a component to a chrome(VI)-free surface is seen as a material change).

Make sure that all data sheets sent to MFTBC are authorized for distribution.

MFTBC IMDS ID

Please send MDS to the following ID only;

ID: **89408**

MDB recipient information

Please complete the fields shown below before sending your MDS to MFTBC.

Company data	
Recip. Status: edit mode	
Recipient:	Daimler AG (Mitsubishi Fuso Truck and Bus Corporation)
Company- / Org.-ID:	89408
<u>Part/Item No.:</u>	<input type="text"/>
SC1 (supplementary code1):	<input type="text"/>
SC2 (supplementary code2):	<input type="text"/>
Description:	dum01
Drawing No.:	<input type="text"/>
Drawing dated:	<input type="text"/>
DGL (drawing geometry technical level):	<input type="text"/>
Drawing Change Level:	<input type="text"/>
Report No.:	<input type="text"/>
Date of Report:	<input type="text"/> (MM/DD/YY)
Purchase Order No.:	<input type="text"/>
Bill of Delivery No.:	<input type="text"/>
<u>Supplier Code:</u>	<input type="text"/>
Reason for denial:	<input type="text"/>
Transmission/Check Date:	not available
Forwarding allowed:	<input checked="" type="radio"/> Yes <input type="radio"/> No

- Mandatory (Rejection if not O.K.)
- Optional (No automatic rejection)

Instructions on automatic test routines

MFTBC part numbers (rejection code A001)

Please enter the part number designated by MFTBC, not your internal supplier part number.

If the part number were not entered correctly, MFTBC would not be able to cross-check it internally, and in addition, the part number might not be recognized on a parts list by Daimler's check system. It could cause error message or automatic rejection.

Supplier codes (rejection code A002)

As a supplier code, please input "Globus code" (Global Daimler supplier code).

The code has 8 digits. Please do not use blanks or special characters.

Supplementary codes and components in different colors

Please do not enter any additional information (no "0", "X") in the Supplementary code 1 and 2 fields, if you have no information about the supplementary code.

For components supplied to MFTBC in different colors, you only have to send one MDS in a color that is representative of all colors, unless prohibited or declarable basic substances are used for a certain color or the weight deviation of materials exceeds the specified scatter range.

Material variants within a component

If you use materials from different manufacturers in your components, you must submit a material which is representative of all of them.

Use of wild cards (rejection code A007)

Wild cards are place holders for undefined basic substances. These are identified in various fields in the IMDS (e.g. CAS No.) by the word "system".

MDS and Module Search						
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	-	-

The number of wild cards used to "hide" basic substances should not exceed 10% of the total share of each homogenous material. Prohibited or declarable basic substances cannot be "hidden" in this way.

Wild cards also include the basic substances marked as confidential. These can only be viewed by a MFTBC employee authorized by the supplier. If a basic substance marked as confidential is classified as declarable or prohibited, it will be visible in the IMDS to all users at the supplier and MFTBC.

! This does not apply to other wild cards. Each supplier must therefore regularly update its materials that contain wild cards in accordance with the latest changes to the law.

Tolerance ranges, variations (rejection code A008)

Scatter ranges for basic substances (for limits, see Recommendations) are monitored by the checking tool and rejected in the event of variation.

However, when evaluating the material, it is possible to take account of individual variations arising from material standards, etc. Other reasons for variations in the tolerance ranges may be discussed with MFTBC and may be accepted.

Deleted basic substances (rejection code A009)

Deleted materials and basic substances are flagged up to the inspector at Daimler by the checking system. However, not all of the deleted materials and basic substances in the MDS that are flagged up are then rejected. Many MDS are created using basic substances that were previously on the system, and these continue to be valid. However, basic substances that represent generic terms or substance groups and contain no reference to the fact that they are not declarable substances will be rejected.

Examples:

Amount of pigment (not defined in more detail)

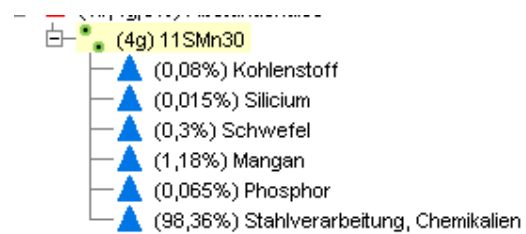
Preservative

Cannot currently be answered

Query/Hg/Cr6/Cd/Pb

Other admixtures

Dye

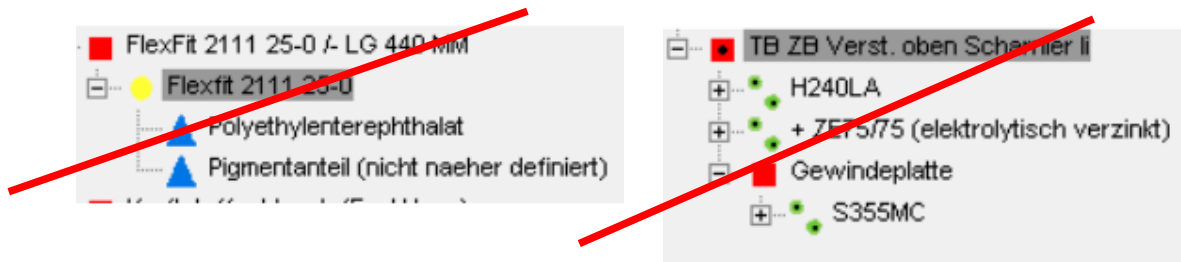


Other basic substances are affected. Please pay attention to these entries for your materials.

Incorrect structure (rejection code A010)

Incorrect structures in accordance with Recommendation 001 will be rejected.

Negative examples:



Instructions on prohibited substances

Checks in accordance with ELV directive annex II (rejection code ELV001/3/4)

All materials containing prohibited substances as set out in the ELV directive are checked, irrespective of any other checks, to ensure that they comply with statutory requirements.

The incorrect assignment of application codes to the relevant basic substances in the application will be rejected.

Application code (ELV002)

Application codes are assigned to the material, but are frequently also dependent on the component. For the most important material-related application codes, please note the following input limits:

Maximum concentration values

The application code for materials that contain up to 0.1% lead or mercury or up to 0.01% cadmium by weight is always

Old code: *“Impurity (not intentionally added)”*

New code: *Concentration within acceptable GADSL limits*

Both application codes are accepted.

Steels

Steels for machining purposes containing $0.1 < x \leq 0.35\%$ lead by weight:

Alloying element in steel for machining purposes or galvanized steel

Aluminum

Aluminum for machining purposes containing $0.1 < x \leq 1.5\%$ lead by weight: (or $0.1 < x \leq 0.4\%$ lead by weight from Jul. 1, 2008)

Alloying element in aluminum for machining purposes

Copper

Copper materials containing $0.1 < x \leq 4\%$ lead by weight

Alloying element in copper

Solder

Solder whose lead content exceeds the aforementioned values:

Solder in electronic circuit boards and other electric applications

Lead and lead components in glass or ceramic materials

Electrical components which contain lead in a glass or ceramic matrix compound except glass in bulbs and glaze of spark plugs

Application codes assigned to specific components are always checked individually.

Checks in accordance with ES-W56901

If materials contain basic substances listed in ES-W56901, these materials will be checked to ensure they are within the relevant limits. If the maximum permissible limits have been exceeded, the MDS will be rejected.

Instructions for the declaration of materials and substances

Material names (rejection code G001)

Material names must be able to be clearly assigned to a material. Due to the large number of data records submitted to Daimler AG, it is necessary to insist on strict compliance in this matter.

The image shows a screenshot of a software interface for material details. The form is titled 'Details' and contains several fields. On the right side, there are callout boxes with arrows pointing to specific fields, indicating their status: 'Mandatory' or 'Optional'. The fields and their callouts are as follows:

Field	Callout
Name	Mandatory
Trade name	Optional
Internal Mat.-No.	Optional
Std. Mat.-No.	Optional
Classification	Mandatory for plastics
Norms/Standards	Mandatory
Inhouse Norms	Mandatory for metals
Supplier	Optional
Remark	Optional

The field for the English-language entry must be completed using the English material name. If standard materials are used, e.g. from the metalworking sector, the names specified in the relevant standard should be used. Supplementary names can also be stored in the trade name field.

Negative example:
Unsuitable material name



Negative example:
Below is a selection of material names that illustrate how the name can make it difficult

Mix
Carrier fabric5
FLEECE
5779
Rhenus Norplex ELV 2
VAL013V, Fr-4
Outer layer PD2204
TS 3528
SGW
Surface (Shield) Q
Plastic
Coating
Alloy 151
FXD6A
E110
2LL9120000

For non-standardized materials, use names that clearly describe the material. In the material name for an adhesive, for example, the words "adhesive", "bonding agent" or "glue" should be used. The same applies to paints, where the unambiguous term "paint" or similar must be used. You can include an individual description after this name, or enter it in the "Brand name" field.

Only this will make it possible to quickly assign the material. Enter an English translation of the material name in the field for the English material name.

Material classification (rejection code G002)

The material classification is selected based on the type of material rather than its usage. For example, an e-plated zinc alloy is used for preservation, but the material is classified as a "Zinc alloy".

For thermoplastics, please only use the classifications "filled" or "unfilled thermoplastics". The classification "Plastics in polymeric compound" should be avoided, as generally a compound consists of several materials and this would therefore be in breach of the rule about specifying each homogenous material. The classification "Thermoplastics" is also not acceptable.

Material standard (G003)

Please use up-to-date, international material standards which contain the chemical basic substance list for the materials. Standards concerning physical material properties are irrelevant in IMDS, which is a database of chemical material information.

Material standards for filled and unfilled thermoplastics, thermosets, elastomers and thermoplastic elastomers are not required.

Trade names missing (G004)

Please enter the trade names in the "trade names" field and not in the field for the material names. The trade name is not required by MFTBC and this will therefore not result in the material being rejected.

In-house standard missing (rejection code G005)

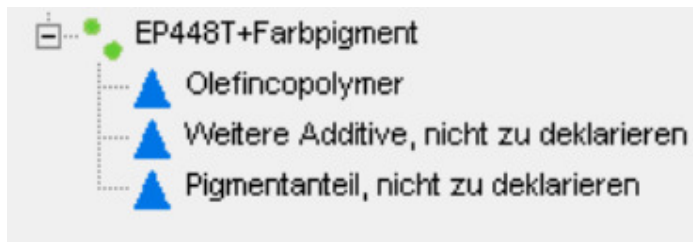
No entry currently required.

Material supplier missing (rejection code G006)

No entry currently required.

Checking the basic substance list (rejection code G008)

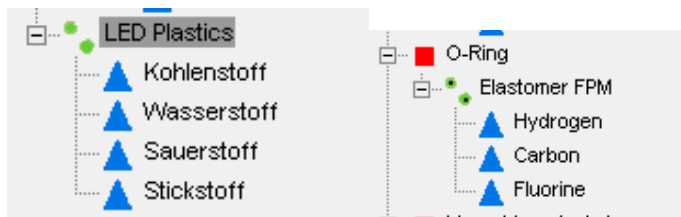
The content of the basic substance list given for the material is checked by a materials specialist. The result is transferred to a materials database and in the event of the same material being resubmitted, it will be automatically picked up. If the basic substances indicated do not correspond to the relevant material, the material will be rejected.



Material report in form of elementary analysis (rejection code G009)

Materials and their basic substances must be reported in accordance with their use in the component. The entry of the basic substance list as elementary analysis is therefore not permitted for any materials (except metals).

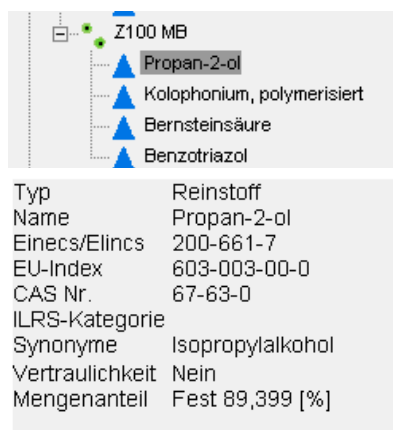
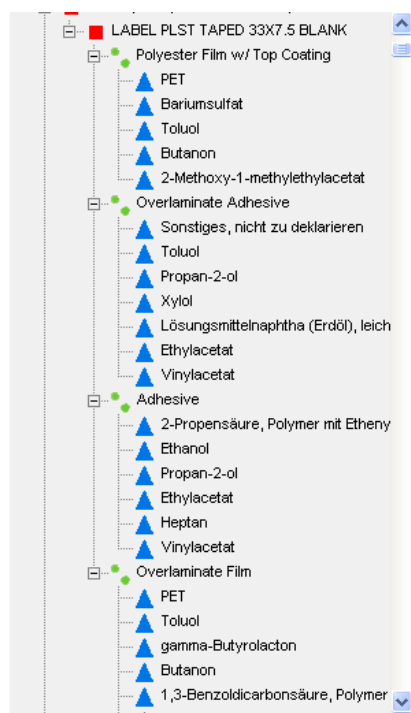
Negative example: specification of basic substances at element level (elementary analysis) is not permitted.



Solvent (rejection code G010)

Solvents are of great importance in the manufacture of various materials. As a rule, they are only found in small quantities or not at all in the finished vehicle. A material showing large quantities of solvents will therefore be rejected.

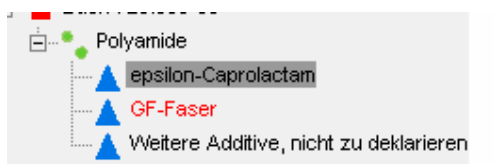
Negative examples:



Details of output or auxiliary production materials (rejection code G011)

The basic substances entered for the material should represent the actual condition of the material in the component. It is therefore not permissible to enter the output products used in the manufacture of the materials.

Negative example: polyamide in the component does not contain epsilon-Caprolactam, even though it is the base product for polyamide.



*Epsilon-Caprolactam may in small quantities influence the properties of the plastic and will therefore be accepted in these quantities.

Disclaimer (rejection code G014)

The use of disclaimers is not permitted in the MDS and will result in rejection. The comments field should only be used for additional information about the material.

Negative example:



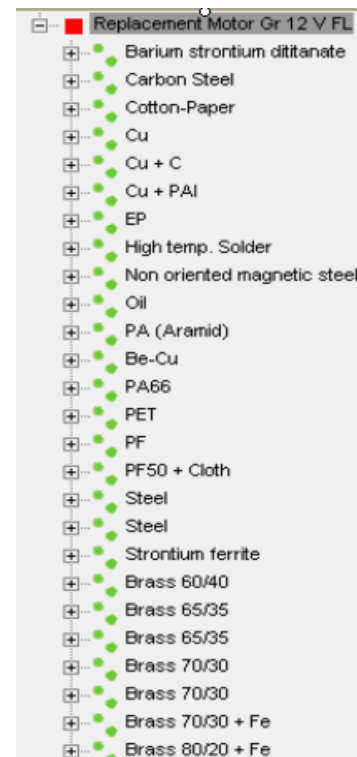
Flat Bill of Material (rejection code G015)

A flat structure is not synonymous with a non-existent structure or a summary of material classifications. Components may be represented in a flat structure. For this, all components must be named along with the relevant materials. These lower-level components can then be listed without being assigned to the higher-level components. However, it should always be possible to identify whether a specific material belongs to a specific component, e.g. to a screw or bracket, etc.

Flat structure → permitted



No structure → not permitted



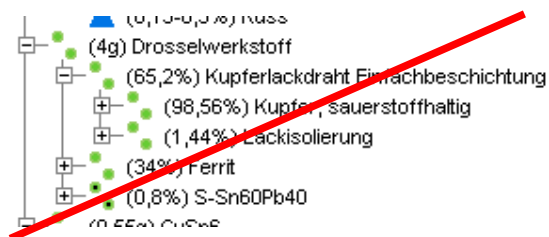
Other errors (rejection code G016)

Errors not covered by the rejection code list will be given rejection code G016. The problem will then be described in more detail (individual explanation).

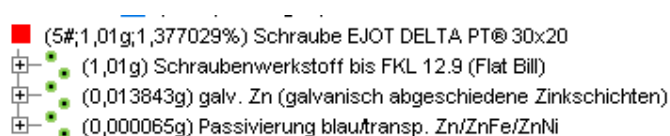
Unnecessary material levels (rejection code G017)

As the calculation for the automatic analysis is always based on the highest material level, unnecessary material levels that lead to errors in the data calculation are no longer accepted. Please use the semi-finished product or component level instead.

Negative example:



Positive example:



IMDS prototypes (rejection code G018)

MFTBC does not require any IMDS prototypes from its suppliers, so please do not submit any components with prototype materials or as MDS for the development PPAP.

Material symbol for plastics and elastomers (rejection code P001)

Material symbols must be entered into the "Symbol" field for filled and unfilled thermoplastics, thermosets, elastomers and thermoplastic elastomers, in accordance with the material standards for these classes of material.

Material standards:

Filled and unfilled thermoplastics, thermosets: ISO 1043 (Parts 1 to 4)

Elastomers: ISO 1629

Thermoplastic elastomers: ISO 18064

Thermoplastics, thermosets, elastomers and thermoplastic elastomers

The entry of plastics and elastomers has been significantly improved in the IMDS through the use of the scroll down menu.

Filled thermoplastics, thermosets, elastomers and thermoplastic elastomers

Specification of over 5% of e.g. lime, barium sulfate, titanium dioxide, etc. (see list in ISO 1043-2) is considered at MFTBC to be filling material. In this case, the material must be classified as a filled thermoplastic and the relevant symbol must be entered. Even basic substances such as carbon black and titanium dioxide used in low quantities as coloring pigments are considered filling materials when present in concentrations of higher than 5%.

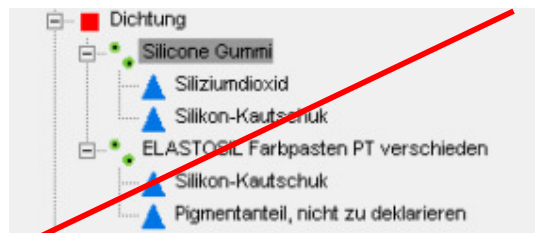
Colored thermoplastics, thermosets, elastomers and thermoplastic elastomers

Colored plastics and elastomers should either be shown as a material with pigments or, as shown in Rec. 010, as a material with two or more materials under it. Only the entries for the higher material level are checked. This means that, e.g. the amount of pigment in the master batch may be significantly higher than the usually applicable 10%, if the maximum values for the wild card are observed in the overall material.

Positive example: material consists of base material and master batch



Negative example:



Material number and material standards (rejection codes M001 and M002)

Material numbers must be given for all metals. The material number should always include the material standard from which the material number has been taken. The material standards from which the metal's chemical composition has been taken must also be specified.

Other standards, e.g. those that specify the physical quantities or test methods are not relevant here. The basic substance list is checked on the basis of the specified material number and material standard. It must be ensured that the latest internationally applicable material numbers and standards are used.

Materials set up by the IMDS Committee are preferred, as these are generally accepted. These materials can be found under the IMDS Org. IDs 313, 423 and 18986. For other search words, please refer to the file found under FAQs in the IMDS.

In the case of non-standardized materials, please enter a note to this effect in the comments fields (e.g. special goods). This material can then be accepted without a material number and standard.

Auxiliary materials and components

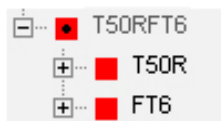
Materials and components that do not remain in the vehicle, e.g. waxes, protective foils used to protect components in the short term or during transport, or auxiliary production materials that do not form part of the finished component, are not regarded as an integral part of the vehicle and do not therefore have to be named.

Component and semi-finished product names

It is recommended that suppliers use a unique component name. Where possible, please refer back to the component name on the drawing.

In the case of declarable basic substances with application codes, feasibility checks cannot be carried out if the component names are not unique. This will result in the component being rejected.

Negative example: unsuitable component name



Materials set up by the IMDS Committee

We recommend that you use the materials set up by the IMDS Committee.

Materials set up by the IMDS Committee are generally accepted (materials that are not OK should be reported to the IMDS Committee, so that it can modify the entries), unless they are in breach of the stipulations of the ELV directive or other substance bans.

Materials entered by the IMDS Committee can be found under the Org. IDs 313 (steel and iron list), 423 (IMDS Committee) and 18986 (IMDS Committee/ILI). When you use these material entries, the scatter range of basic substances or the number of wild cards may be higher than the values specified in the input guidelines. If these MDS are copied and installed in the component under their own name, the IMDS recommendations must be observed.



Frequently Asked Questions:

[08.11.2005]

How can I find **standard materials** in IMDS published by the IMDS Steering Committee?

You can find the standard materials by using the Search for published material MDSs. Limiting the search results is possible by putting in the name of the Supplier "IMDS-Committee" (IMDS Comp. ID: 423) and/or the respective norm for the standard material. An overview on the materials and norms available can be found here for download: [Standard materials of the IMDS Steering Committee](#)

Completeness of the material declaration

All materials must be named.

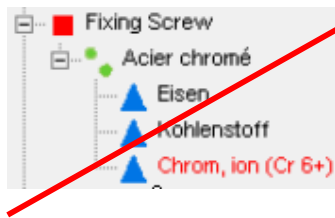
The suppliers are responsible for providing complete information about all of the materials used. If it is subsequently established that the information in the MDS is not complete, the supplier will have to provide the missing information, even if the MDS has already been accepted.

Combining materials

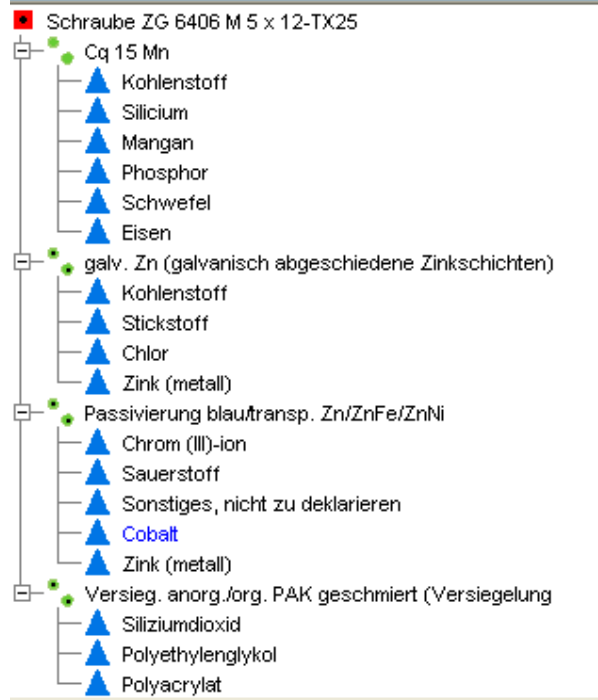
Different materials cannot be combined.

Example: E-plated surfaces cannot be combined to form one material along with the base material and the organic surface treatment.

Negative example:



Positive example:



Materials weighing ≤ 1 gram

Many materials have a low weight (often just a few milligrams). These materials are not checked for wild cards and tolerance ranges. All other criteria are checked and the material will still be rejected in the event of deviation.

Parts supplied by MFTBC

1. In a case that the supplier carried out heat treatment or machining for the parts supplied by MFTBC and delivered those parts back to MFTBC

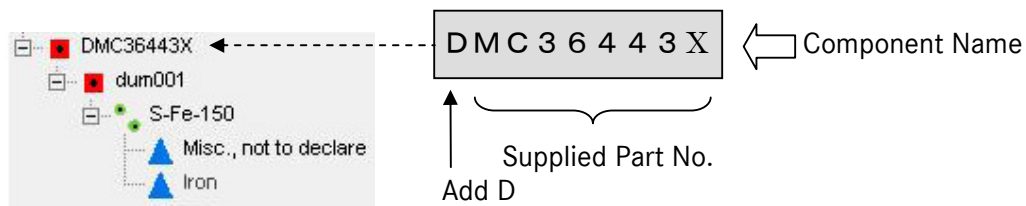
Below the parts name, select and add a material (S_Fe_150) that is publicized by the committee and input the parts weight after heat treatment/machining process.

(Please do not put "D" in front of the parts number like Item 2. mentioned below.)

2. In a case that MDS (parent parts) includes parts that are supplied by MFTBC as child parts

If the MDS (a parent part) contains MFTBC child part, create a component by the name of "D + Supplied Part No." considering it as a name of a child part. Then, place the dummy data (dum001) as an additional component under "D + Supplied Part No." Please refer to the example below.

If the MDS contains plural kinds of supplied parts, please set up "D + supplied Part No." respectively. (It is not necessary to change the dummy No. (dum001))



Additional dummy data is published as “Component” by the name of “dum001”. The mass of each dummy datum is 0.001mg (actually zero). It is lighter by the mass of the supplied part. However, please do not add the measured mass of the supplied part to the mass of MDS (parent part).

Carry-over Parts

Please update the information of carry-over parts. If there is no change on input data, it is not necessary to reenter.

Further information

To a first time user of IMDS

Trying to operate IMDS without prior knowledge would be too challenging. If you are trying to use the IMDS for the first time, please visit the official website of the IMDS to walk through the section “NEW TO IMDS?”.

The information can help you take your necessary actions (e.g.: Registering companies, checking basic operational procedures, and using the IMDS user’s manual).

- <https://www.mdssystem.com/magnoliaPublic/en/public/New2IMDS.html>

Help with IMDS-specific questions

The IMDS recommendations can be found on the left under "Recommendations" when you log onto the system. Please make sure that you are always working with the latest versions.

The HP training documents can also be found at the top of the page under the question mark (help) when you log onto the system. The manual will be displayed in the same language as the language setting for your browser.

You can also attend one of the IMDS training courses on how to use the system or material-specific themes.

- IMDS Homepage: <http://www.mdssystem.com/>

Help with general material-specific questions

If you have any queries about materials, please contact the HP Enterprise Services materials specialist via the relevant User Help Desk. You can also contact the User Help Desk to set up standard materials that are not already in the IMDS. If you have identified an error in the IMDS Committee materials, please also inform the HP Enterprise Services User Help Desk.

- IMDS Service Center (English & German)

TEL: +36-1-778-9821

E-mail: imds-helpdesk-emea@hp.com

Help with MFTBC-specific questions

- MFTBC IMDS Office
E-mail: mftbc_imds@daimler.com

For all queries, please state the MDS-ID of the MDS concerned along with your personal contact details.

The Daimler Rejection Code List can be found on the public pages of the IMDS website under "FAQ". Please select the "OEM Specific Info" category and press "Go". Please always make sure you are using the latest version. Use the further information in the FAQ section and under other headings on the IMDS website.

Help with MFTE-specific questions

- General Legislation
Rita Santos
TEL: +351- 241 899 800 E-mail: rita.santos@daimler.com
- Technical
Antonio Saraiva
TEL: +351- 241 899 800 E-mail: antonio.saraiva@daimler.com