



## International Material Data System

<b>IMDS Recommendation</b>	<b>IMDS 023</b>
----------------------------	-----------------

**“Preliminary” MDS during the Prototype Phase****1 Purpose**

This standard describes the general requirements for creation of “preliminary” Material Data Sheets (MDS) within IMDS during the Prototype Phase (also called e.g. Design Phase, Pre-Production...). The purpose of these “preliminary” MDS during Prototype Phase is to enable the requesting car manufacturer to receive material information on the used parts in an early stage of the vehicle development process. This will support the calculation of e.g. Quotas of Recyclability as legally demanded with the Type Approval Directive be 2005/64/EC.

For specific timing to deliver MDS get in contact with your customer.

**2 References**

IMDS 001, VDA 231-106, ISO 22628, 70/156/EEC, 2005/64/EC, GADSL

**3 Definitions****3.1 Prototype Phase**

At the beginning of the Prototype Phase, the supplier is requested to submit parts and corresponding papers to document them. Together with these documents, material information and any known GADSL Substance should be electronically reported in IMDS.

The MDS should describe the part as it will be for serial production. The material variants used exclusively for the prototypes that will not go into final production do not need to be documented.

The marking as “preliminary” MDS is performed in the IMDS in the field: “Preliminary MDS” (see Figure 1 and 2)

# International Material Data System

The screenshot shows the IMDS interface with the 'test for preliminary mds' form. The 'Preliminary MDS' checkbox is circled in red. The form includes sections for Common Information, Dates, Amounts and Weights, and Parts Marking.

Common Information	
Type	Component (own MDS)
ID / Version	904486498 / 0.01
Node ID	904486498
Node count	4
MDS Supplier	F.A. TEST
Description	test for preliminary mds
Part/Item No.	
Preliminary MDS	<input type="checkbox"/>

Dates	
Create Date	10/16/2015
Check/Release Date	not available

Amounts and Weights	
Measured weight per item	50.0 g
Calculated weight per item	0.0 g
Deviation	-100.0%

Parts Marking	
Polymeric part(s) marked	

Figure 1

The screenshot shows the IMDS interface with the 'test for preliminary mds' form. The 'Preliminary MDS' checkbox is checked and circled in red. A warning message is displayed: 'Warning! If you tick the box, this MDS will be a preliminary version. You will need to send later a final version.'

Common Information	
Type	Component (own MDS)
ID / Version	904486498 / 0.01
Node ID	904486498
Node count	4
MDS Supplier	F.A. TEST
Description	test for preliminary mds
Part/Item No.	
Preliminary MDS	<input checked="" type="checkbox"/>

Dates	
Create Date	10/16/2015
Check/Release Date	not available

Amounts and Weights	
Measured weight per item	50.0 g
Calculated weight per item	0.0 g
Deviation	-100.0%

Parts Marking	
Polymeric part(s) marked	

Figure 2

## IMDS Recommendation

## IMDS 023

### 3.2 Degree of Details

#### 3.2.1 General

The degree of details to be given on the requested MDS in the Prototype Phase can be limited to the Material Classification according to VDA 231-106 (currently used as the classification list in IMDS), the material weight and the total part weight, and any known GADSL substance. The Material Classification is the basis to be able to calculate recyclability according to ISO 22628.

The part weight information has to be given in such a tolerance range as the production process tolerances of the part.

If the supplier can inform the customer about any known GADSL substance in the "preliminary" MDS during the Prototype Phase, it will resolve potential non-compliance issues much earlier in the vehicle development process to avoid late changes.

It is not necessary to enter data in the Chapter >Recyclate information<.

#### 3.2.2 "Preliminary" MDS

Requested information for a "preliminary" MDS:

- Part Level
  - Part number
  - Part name
  - Part weight
  - Mark "Preliminary MDS"
- Material Level:
  - Material Classification acc. to VDA 231-106
  - Material weight
  - Mark "Preliminary MDS"
- Substance Level:
  - Wild card „not yet specified, not to declare“ with a percentage of 100% can be used
  - GADSL substances, if known in this early stage

To create "preliminary" MDS there are available published MDS on Material Level in IMDS. This MDS are called "ProtMat..." (see Paragraph 4.1)

#### 3.2.3 "Final" MDS

Requested information for a "final version" MDS:

- All information according to the Recommendation IMDS001 (and further relevant Recommendations)

The published MDS on Material Level in IMDS (see Paragraph 3.2.2) including the Wild card „not yet specified, not to declare“ will not be accepted for "final" MDS.

#### 3.2.4 MDS Structure

It is recommended to use the final structure of the part in "preliminary" MDS. By updating the MDS the "preliminary" MDS will become the "final" MDS.

For carry over-parts and their relevant existing MDS used in a new assembly, a reference to this existing "final" MDS is recommended.

## IMDS Recommendation

## IMDS 023

### Timing

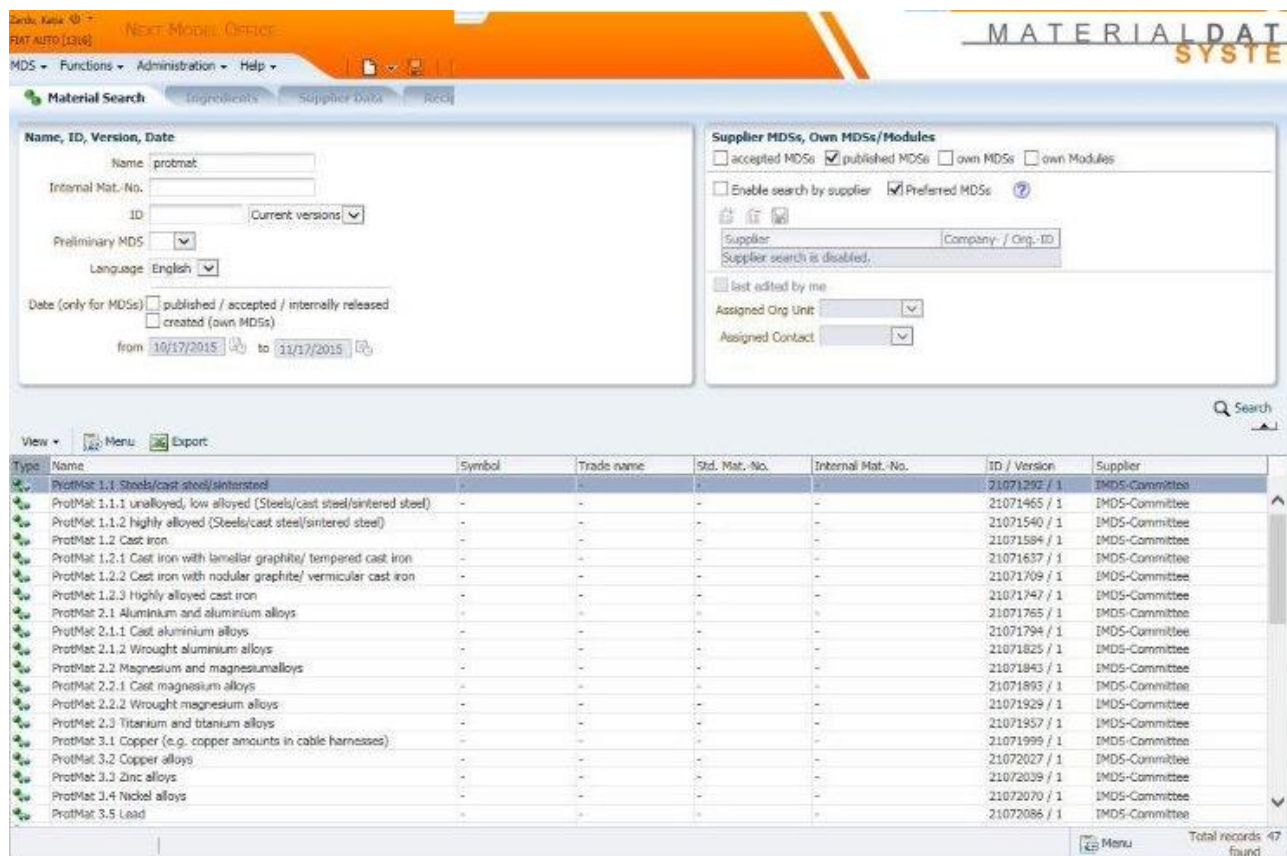
To comply with the new Type Approval Directive be 2005/64/EC, the “preliminary” MDS must be transmitted earlier than the “final” MDS is requested.

After a supplier is nominated, the supplier may send the data through IMDS, but when first prototype parts are delivered together with the quality documentation, the supplier must send MDS electronically according to the timing agreed with the customer.

A “final” MDS is to be made available in the IMDS together with the Initial Sample Test Report. According to the vehicle development process there is a starting point for the Initial Sample Report, all “preliminary” MDS are to be completed by the supplier in this time frame and transmitted as “final” MDS for evaluation.

## 4 Examples

### 4.1 Published “preliminary” MDS



The screenshot shows the IMDS Material Search interface. The top navigation bar includes 'MDS', 'Functions', 'Administration', and 'Help'. The main search area is titled 'Material Search' and includes filters for Name, ID, Version, Date, and Language. The 'Name' filter is set to 'protmat'. The 'Date' filter is set to 'published / accepted / internally released'. The 'Language' filter is set to 'English'. The 'Supplier MDSs, Own MDSs/Modules' section includes checkboxes for 'accepted MDSs', 'published MDSs', 'own MDSs', and 'own Modules'. The 'published MDSs' checkbox is checked. The 'Supplier search is disabled' message is displayed. The 'Assigned Org Unit' and 'Assigned Contact' fields are also visible.

Type	Name	Symbol	Trade name	Std. Mat. No.	Internal Mat. No.	ID / Version	Supplier
ProtMat 1.1	Steels/cast steel/sintersteel	-	-	-	-	21071292 / 1	IMDS-Committee
ProtMat 1.1.1	unalloyed, low alloyed (Steels/cast steel/sintered steel)	-	-	-	-	21071465 / 1	IMDS-Committee
ProtMat 1.1.2	highly alloyed (Steels/cast steel/sintered steel)	-	-	-	-	21071540 / 1	IMDS-Committee
ProtMat 1.2	Cast iron	-	-	-	-	21071584 / 1	IMDS-Committee
ProtMat 1.2.1	Cast iron with lamellar graphite/ tempered cast iron	-	-	-	-	21071637 / 1	IMDS-Committee
ProtMat 1.2.2	Cast iron with nodular graphite/ vermicular cast iron	-	-	-	-	21071709 / 1	IMDS-Committee
ProtMat 1.2.3	Highly alloyed cast iron	-	-	-	-	21071747 / 1	IMDS-Committee
ProtMat 2.1	Aluminium and aluminium alloys	-	-	-	-	21071765 / 1	IMDS-Committee
ProtMat 2.1.1	Cast aluminium alloys	-	-	-	-	21071794 / 1	IMDS-Committee
ProtMat 2.1.2	Wrought aluminium alloys	-	-	-	-	21071825 / 1	IMDS-Committee
ProtMat 2.2	Magnesium and magnesiumalloys	-	-	-	-	21071943 / 1	IMDS-Committee
ProtMat 2.2.1	Cast magnesium alloys	-	-	-	-	21071893 / 1	IMDS-Committee
ProtMat 2.2.2	Wrought magnesium alloys	-	-	-	-	21071929 / 1	IMDS-Committee
ProtMat 2.3	Titanium and titanium alloys	-	-	-	-	21071957 / 1	IMDS-Committee
ProtMat 3.1	Copper (e.g. copper amounts in cable harnesses)	-	-	-	-	21071999 / 1	IMDS-Committee
ProtMat 3.2	Copper alloys	-	-	-	-	21072027 / 1	IMDS-Committee
ProtMat 3.3	Zinc alloys	-	-	-	-	21072039 / 1	IMDS-Committee
ProtMat 3.4	Nickel alloys	-	-	-	-	21072070 / 1	IMDS-Committee
ProtMat 3.5	Lead	-	-	-	-	21072086 / 1	IMDS-Committee

Figure 3

## 4.2 Overview on different Phases

- timings are different between the OEM's
- timings are depending on the specific projects (e.g. complete new car, major changes etc.)
- For specific timing requirements, please refer to your customer documentation

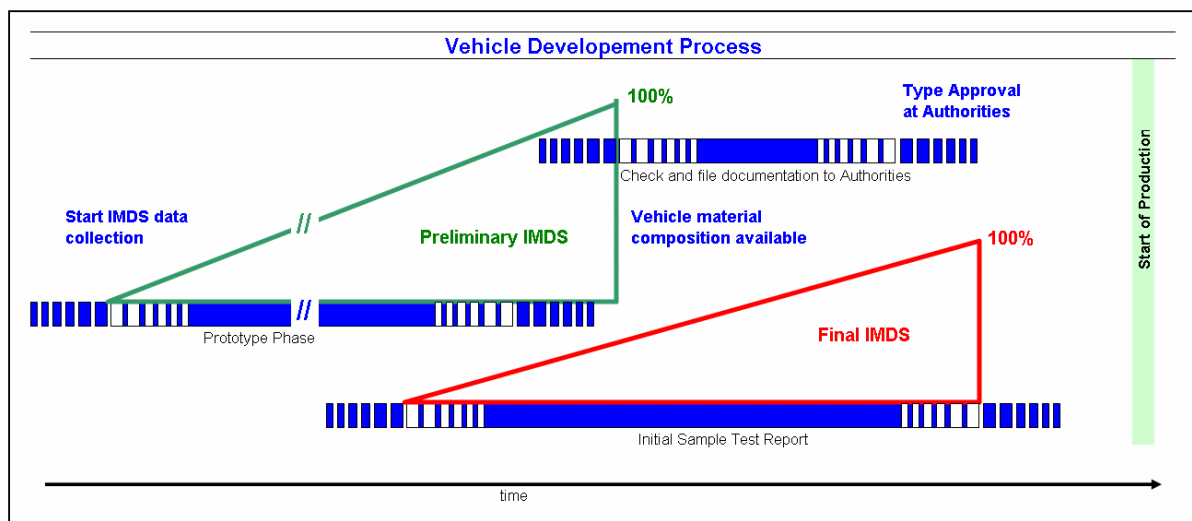


Figure 4: Showing an example



## 5 Release and Revisions

### 5.1 Release

The recommendation was first approved and released on February 15<sup>th</sup> 2007.

### 5.2 Revision

Rev.	Date	Description / Reason	Originating Organization / Committee
	Nov.2017	IMDS Release 10	IMDS SC