



International Material Data System

12th June 2014
 (Go-live of the Release was 8th May 2014)

Please note changes under 5. New version rule (error becomes warning, will be productive June 23rd 2014)

IMDS Release 9.0 Information

In order to comply with the feedback and suggestions from the representatives of AIAG, CLEPA, JAPIA and other stakeholders participating in the IMDS Release 9.0 tests, the IMDS Steering Committee decided to implement several changes to the already announced IMDS Release 9.0 Enhancements.

The following changes will be implemented to improve the MDS communication process between all automobile supply chain participants:

Chapter in this document	Change	Impact on IMDS Release 9.0	Impact IMDS-AI
9.0/4. a)	Change IMDS 9.0 check for deleted MDSs depending on active/inactive companies	Remove implemented check related to active/inactive company	No impact on IMDS-AI Interface Definitions, but depending on the In-house solution, checks needs to be adapted
		Leave Warning Message in case a foreign MDS is referenced and deleted - <u>no change compared to IMDS 8.0</u>	
		Modify existing check for own referenced and deleted MDSs now returning an error. Own MDSs can be updated easily - <u>stronger check than IMDS 8.0 (Warning becomes an Error)</u>	
9.0/4. a)	Rework existing IMDS 9.0 check for Material MDSs (MMDSs) with reference to inactive Basic Substances (BS)		No impact on IMDS-AI Interface Definitions, but depending on the In-house solution, checks needs to be adapted
	i. For inactive BS: Error if company is MMDS Creator	Own MMDS contains inactive BS. Own MDSs can be updated easily - <u>Stronger Check than IMDS 8.0 (Warning becomes an Error)</u>	
	ii. For inactive BS: Warning if company is not owner	<u>No change compared to IMDS 8.0</u>	
9.0/4. d)	GADSL substances in a Material MDS must be declared	Adapt wording of current text for the check box to: "I have declared all GADSL substances."	No impact on IMDS-AI Interface Definitions



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1. Allow faster MDS updates

This IMDS Release 9.0 enhancement provides quicker capability for IMDS users to identify supplier MDS updates when the supplier MDS is used within the user company's MDSs. This feature lists supplier updated MDSs and names the specific owned or published MDSs which reference an older version of the supplier updated MDS. This operates similar to a "Where-used" analysis, except IMDS automatically generates this content and it is displayed immediately when a user enters this screen and executes this search (default: search for all new supplier entries).

In the update screen, the user may search for specific IDs or names of parts, or filter the list for the MDS type (own/published/accepted). The search result is limited to 500 entries.

Please note: Updates to this list are processed asynchronously (similar to the Where-used analysis). Therefore, changes are not immediately visible.

The update process is done in two steps. In the first step the update itself is done by replacing the old references with the new ones and executing a check afterwards. If the check result does not contain error messages, the MDS can then be released. Otherwise, the MDS can be processed manually to correct the errors. For convenience, multiple MDSs can be processed (updated and released) at once.

- The old version for published or owned MDSs is the previous version number
- The old version for accepted MDSs is the previously accepted version number

Every company can use the update search without running an analysis. Processing the list entries can be disrupted and continued later at any time until all entries are processed. The update list will only be generated for new updates which occur after this design has been implemented. There will be no retroactive analysis for legacy data updated in the past.

When using the new MDS update functionality to create new versions of MDSs, the updated references will be replaced accordingly. However, a new version can still be created with the existing IMDS functionality. The check procedure will check if relevant updates of referenced MDSs are available. If this is the case, a warning message for the relevant referenced MDS will be displayed. When the system detects an old version and the user wants to replace it, the replace button will automatically locate the current and replace the old version with the current version.

The new MDS update screen is integrated into IMDS in the Functions menu.

After the user selects the Functions -> MDS updates menu option, the new MDS Updates screen is shown, providing information about the old and new version of an



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MDS and in which MDS(s) it is referenced. As with other IMDS screens, from the update list an MDS can be viewed and edited in different tabs.

Multiple release is possible: To update several MDSs at once, select several rows in the table by holding the control or the shift key during clicking. This multiple selection is then relevant for the update, release and remove actions. For all other actions (View current, Edit updated, view new/old reference), only one entry should be selected. If more than one is selected, the first entry will be used for the action.

Also, the old and new versions of the referenced MDS are displayed to permit user verification of the pending update. If the user decides that the change is not relevant and does not want to create a new version, he can remove the entry from the update list.

IMDS AI (Advanced Interface)-relevance? NO

2. Restriction of Material MDSs containing GADSL or REACH-SVHC substances being flagged as confidential

While creating a Material MDS (MMDS) a substance can be added and flagged as confidential as long it is not part of GADSL or REACH-SVHC (substances of concern). However, if a substance being marked as confidential in a MMDS is added to one of these lists at a later point of time, the MMDSs must not be sent or referenced anymore, because substances of concern must be disclosed.

While for own MMDSs the current IMDS check procedure already prevents using such an MDS, it will be enhanced to return an Error message for all MDSs containing confidential substances of concern.

Furthermore the existing information process for substances being flagged as GADSL and already used before in a MMDS as confidential substance will be enhanced to cover as well REACH-SVHC. Hence users will be informed by Email in case IMDS substances were flagged as REACH-SVHC (... and GADSL) and used before as confidential in a MMDS. This implies that the user has registered accordingly for this Email notification in the IMDS User Settings screen.

IMDS AI (Advanced Interface)-relevance? NO



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3. Additional update options available for MDSs with OEM companies as recipient

This IMDS 9.0 enhancement will accelerate the change process for an MDS through the supply chain. The communication between Tier 1 supplier and OEM is accelerated by optionally modifying the following attributes as recipient-specific data:

- Norms
- Recyclate Information
- Parts Marking
- Applications

Modify Norms

A Material MDS (MMDS) may contain public norms or OEM company norms. Company norms are visible only for the company the norm belongs to and are not visible along the supply chain. Recipient Data for an MMDS will now copy the MMDS creator originally selected norms for the MMDS. The Tier1 supplier may overwrite the norms as recipient-specific data. These entries exist in parallel to the original values which are part of the (referenced) MMDS. For each MMDS occurrence (based on IMDS-ID/Version) one entry exists. IF more than one (company-) norm for an MMDS exists, these are comma-separated and listed as the 'Norm/Norm Code'. For those MMDSs without norms assigned, norms can be added.

Norms can be modified or added via a pop-up. A reset function will allow resetting to the original values from the MMDS reference in the tree. An 'Apply to all recipient OEMs' function will be available in this screen, so the changes may be added to the company-specific data of all OEMs in the recipient list of that MDS.

There currently exists a company specific WARNING-check for Toyota in-house norms. This check procedure is extended as part of this enhancement to check if a norm has been added in the recipient specific area by the Tier1 supplier.

Modify Recyclate information

Recyclate information may be entered for MMDSs of classification 1, 2, 3, 4, 5, 7.1 and 7.2 being referenced in a semi-component or component. In Recipient Data a Modify Recyclate Information section will be available. The values in this section are pre-populated with the values of the MMDS in the context of its parent MDS (component or semi-component) in the tree. The Tier1 supplier may overwrite the recyclate values as recipient-specific data via pop-up menu. A reset will allow resetting to the original values from the MMDS reference in the tree. An 'Apply to all recipient OEMs' will be available



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in this screen so changes may be added to the company-specific data of all OEMs in the recipient list of this MDS.

These values exist in parallel to the original values in the (referenced) MMDS. One entry is permitted for each recycle-relevant MMDS occurrence in the MDS. This option will be available even when the MMDS provider indicates no recycle is used. There exist three ERROR-checks on recycle. The check procedure is enhanced to see if the recycle entries being made in the recipient-specific area by the Tier1 supplier comply with the existing rules. For a reference in the MDS with an ERROR, the entry in the recipient-specific screen can be overwritten and corrected.

Modify Parts Marking

For components referencing an MMDS of classification 5.x Parts Marking information is required. The Recipient Data tab contains a new Modify Parts Marking section. The values in this section are pre-populated with the values of the Component MDS inside the tree. The Tier1 supplier may overwrite the Parts Marking values as recipient-specific data. This data exists in parallel to the original values being part of the (referenced) Component MDS. One entry is permitted for each relevant Component MDS occurrence in the MDS.

The parts marking settings can be changed with a pop-up menu. A reset function allows resetting to the original values from the MMDS reference in the tree. An 'Apply to all recipient OEMs' is available to apply the changes to the company-specific data of all OEMs in the recipient list of this MDS.

The check procedure is enhanced to see if the parts marking entries being made in the recipient-specific area by the tier1-supplier comply with the rules. For those references which produce a WARNING or ERROR message, the parts marking entries can be overwritten in the recipient specific screen.

Modify Applications

Currently, application entries depend on the material classification of the MMDS being referenced in a Component MDS, the MMDS's referenced substances (Application Relevant Substances) and %-portion thresholds of the referenced Application Relevant Substance. Applications are maintained on material level for the referencing component by the MDS owner.

Exception: For legacy data prior to IMDS Rel. 3.0, the Tier1 supplier having selected an OEM as MDS-recipient may complete missing applications inside the MDS tree. These application additions are saved as part of the own MDS so data ownership and change management principle of IMDS is fulfilled as well as current IMDS versioning handling.



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The Recipient Data tab displays a Modify Applications section. Entries are pre-populated with the application values of the MMDS with its parent Component MDS inside the tree. The Tier1 supplier may overwrite the application value with other applications available for this MMDS/AppReIBS combination as recipient-specific data. This data exists in parallel to the original values being part of the MMDS. An entry exists for each relevant MMDS/ AppReIBS combination.

For each entry, the application selection can be changed using a pop-up. A reset function will allow resetting to the original values from the MMDS reference in the tree (not displayed in the screen). An 'Apply to all recipient OEMs' is available to apply the changes to the company-specific data of all OEMs in the recipient list of this MDS.

The check procedure is enhanced to see if the application entries being made in the recipient-specific area by the Tier1 supplier comply with these checks. In addition, applications inside the MDS tree with a WARNING or ERROR message can get overwritten as recipient-specific data.

IMDS AI (Advanced Interface)-relevance? YES

Changes in Upload

The Element Chap4 in the DTD will be extended by a subpart element "ChangeChap1" which will contain a list of attributes to be changed sub-divided by their type: Substance Applications, Parts Marking, Norms and Recyclates. These elements will additionally contain the position in the tree as additional attributes:

1. Norms - the position of a norm in the tree is determined by the Node_ID of the corresponding parent material.
2. Recyclate - is valid for a material in context of a superior component or semi-component. So the position in the tree is determined by the Node_ID of the appropriate material and the Node_ID of the material parent (either component or semi-component).
3. Polymeric Parts Marking - its tree position is determined by the Node_ID of the appropriate component.
4. Substance Applications - its tree position is determined by the Node_ID of the substance, Node_ID of parent material and the Node_ID of parent component (= parent of material).

Error messages and warnings:

Existing error messages 10, 108 and 109 will be extended:

Error message No. 10: "Referenced datasheet/module <ID> does not exist or is not visible to your company"

Existing error messages 108 and 109 will be extended:

Error message No. 108: "Referenced node <NODE> does not contain <TYPE> <ID>"

Error message No. 109: "Referenced node <NODE> does not contain substance <ID>"

New error messages:

Error message No. 218: "Specified norm <NORM> to be removed not present at node <NODE>"

There will be a warning in case some change-element has to be ignored:

Warning message No. 1: "Element <CHANGEELEMENT> ignored. Reason: <REASON>"



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Important Notice:

These changes are only effective if Tier1 needs to change some attributes from the MDS tree and send this MDS to an OEM with changes. Outside of this process there is no need to use these DTD-extensions. You can still create new MDS trees as you did before.

Changes in Download

Download File (CA) for OEMs only

Existing MS- and CMS-files will not be changed. There will be a new company file type introduced which will contain all cumulated change attributes of all 4 types (Norms, Recyclates, Parts Marking, Substance Applications) behind one another. For that purpose the existing download file which currently contains the updated substance applications will be adapted. This file will be generated only for the OEM companies.

Optional Additional Download File (COA) – Changed and Original Attributes

Due to the CMS file of the OEM (received MDSs) only contains the additionally changed attributes and the CMS file of the tier 1 suppliers (sent MDSs) only contains the original attributes – not the changed attributes and not the information for which OEM the changes were made - a new file (**COA**) will be implemented which contains both views (receiver and sender), both attributes types (changed and original) and the recipient Org-Unit ID.

This file will automatically be generated every day for all AI companies. For AI companies that are not acting as Tier 1 or OEM the file is empty.

This file is only an option for OEMs and tier 1 suppliers that want to use these data for their in-house system.

4. New or Updated IMDS Checks

a) Deleted MDSs or containing deactivated substances shall not be transacted in existing MDS ID

MDSs and substances can be deactivated/deleted in IMDS. Continued processing of deleted MDSs and their references degrade IMDS data quality. MDSs containing deactivated substances shall be excluded from further use.

The following checks apply for deleted MDSs:

A Warning Message appears in case a foreign MDS is deleted as in IMDS 8.0.
The Check for own deleted MDSs results in an Error (Warning in Rel. 8.0).

The following checks/rules apply for MMDSs containing references to inactive substances:

For MMDSs containing inactive substances an Error appears if the company is the MMDS Creator. For MMDSs containing inactive substances a Warning appears if the company is not the owner.



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b) Identify correct material classification to propose the correct material category

An IMDS user defines the material category early in the create MMDS process. Ingredients added during the material definition can change the composition to a different material category. To ensure correct category selection, added ingredients cause the IMDS check routine to use the existing SC90 checks to verify the category. If the enhanced check suspects a different material category, IMDS will issue a warning and suggest possible material categories.

c) A substance marked as confidential it MUST have a valid CAS or EINECS #

Basic substances without valid identifiers (CAS or EINECS numbers) may no longer be hidden as confidential substances. A new IMDS check routine will issue an error if a substance marked confidential does not have a valid CAS or EINECS number.

d) Users must explicitly confirm for an MMDS that all GADSL substances are declared

When releasing an MMDS, the user must confirm that all GADSL substances in the MMDS are declared by selecting a check box. The text is "I have declared all GADSL substances." This implies that GADSL substances must not be included as part of a Wildcard.

e) 10%-rule applied on top-material for all 5.x material classifications

Currently IMDS calculates for material classifications 5.2 and 5.3 the 10% rule for (highly) confidential substances based on sub-material level. This will be changed in line with IMDS Recommendation 001 to be calculated on top-material level as for all other 5.x material classifications.

f) Check for Material MDSs containing GADSL / REACH-SVHC substances being flagged as confidential

The check procedure returns an Error message for all MDSs containing confidential substances of concern. (also see above 2. Restriction of Material MDSs containing GADSL or REACH-SVHC substances being flagged as confidential)

IMDS AI (Advanced Interface)-relevance? YES**Changes in Upload**

There will be an extension to the existing DTD: the material element gets a new attribute (flag) "NoJokerForGads!" (yes/no). The flag must be answered with "Yes" and means that all GADSL substances are declared.

Furthermore there will an additional error message:



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Error No. 216: " Wrong value of attribute 'NoJokerForGadsl': 'Yes' or 'No' expected".

Changes in Download

The Material (M) Record will be extended by a new attribute "NoJokerForGadsl" (yes=1/no=0/-1=does not apply). The new attribute will be placed backmost. This will affect the MS-, CMS- and MP-files.

5. New version rule for identical part numbers

When a company sends an MDS to a recipient company, IMDS will check whether the sending Org.-unit has previously provided any MDS with the same recipient part number and supplier code to the receiving Org.-unit. If the sending Org.-unit has previously done so, new MDSs for the same recipient part number and supplier code must have the same MDS ID as the previous submission for that recipient.

Sending and proposing a MDS to a customer

When sending/proposing, the IMDS check routine will compare

- The type, MDS ID and version of the current MDS
- All the recipients for the MDS
- All the recipient specific part numbers and supplier codes
- The MDS ID and version of all previous MDSs sent by this supplier Org.-unit for this recipient part number and supplier code to these recipient Org. units

The check routine will compare and determine whether the supplier has send the recipient part numbers for these recipients previously. If there is a match, a Warning will be issued indicating a Recommendation 001 Rule 3.2.2.B violation, and the ID of the previous MDS(s) with the same recipient part number(s) will be listed.

If the check routine does not find a match of the combination 'recipient org. unit', 'recipient part number' and 'supplier code', and the version ID of the MDS is greater than 1.0 the system generates a warning indicating a new part number or supplier code is required to comply to rule 3.2.2.A.

Forwarding a MDS to a customer

Forwarding is often used by companies which act as distributors between recipients and a multitude of suppliers manufacturing similar products. The distributor can forward MDSs from different sources but add identical part numbers to the recipient-specific fields.



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When a supplier attempts to forward a MDS to a recipient, the check routine will scan the outbox for the MDSs already sent to this recipient and collect the recipient part numbers, supplier codes and MDS IDs.

If there are not identical MDS IDs but a matching combination of supplier code and part number, the check routine informs the user that the recipient has already received one or more MDSs matching the customer part number and same supplier code with different MDS IDs.

Because the forwarding concept in IMDS supports version handling, the system will provide the user with the list of MDSs for the same recipient part numbers and offer one of them for selection (rule 3.2.2.B). After the user selected one of the suggested MDSs the IMDS will change the MDS ID and version of the forwarded MDS that it fits to the version concept.

If there is no match of part number, supplier code and MDS ID, the IMDS 9.0 check verifies the version of the MDS to be forwarded is less or equal to 1.0, thus satisfying rule 3.2.2.A.

If the version ID is greater than 1.0 a warning will be issued indicating a new MDS ID needs to be provided for a new part number or supplier code.

IMDS AI (Advanced Interface)-relevance? YES

Changes in Upload

The IMDS Check Procedure (which is not part of Upload) will be enhanced to ensure the required behavior described in the above mentioned Specification.

There will be an extension to the existing DTD: there will be a new attribute: Forward_Module_ID (which will be the requested target Module_ID in the case of proposing a forward-copy).

Furthermore there will be a new error message:

Error No. 217: "An inappropriate Forward_Module_ID provided. Propose could not be executed".

Error No. 220: "Datasheet to be proposed is not a forward copy. Remove Forward_Module_ID to process normal propose".

Changes in Download

There will be no changes in download.

6. Restrict MDS copies

MDS copies make it harder to maintain and provide updates for the original data. Material MDSs should not be copied, but created and updated only by the material manufacturers.



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IMDS Release 9.0 implements the following changes in copy capabilities:

- Material copies are only allowed for the owner/creator of a material
- Accepted or published materials cannot be copied
- Accepted or published components and semi-components may still be copied
- Accepted materials cannot be forwarded
- In a copy of an accepted or published (semi-)component all references are maintained
- For components and semi-components, users may copy a foreign (not accessible) reference in the ingredients tree to permit changes.

IMDS AI (Advanced Interface)-relevance? YES

Changes in Upload

There will be additional error messages. Existing error messages will not be changed.

- Error No. 214: "Materials cannot be forwarded".
Explanation: Foreign (Accepted and Published) materials cannot be copied in any possible way, thus neither forwarded.
- Error No. 215: "You can copy only your own materials".
Explanation: It is not allowed to copy foreign (Accepted and Published) materials in any possible way.
Own, Accepted and Published components and semi-components can be still copied.

Changes in Download

There will be no changes in download.

7. Visibility of Own Confidential Substances

Some companies creating material data sheets of type materials (MMDSs) do not want all the employees within their company accessing confidential substance information, so the visibility of confidential substances in owned MMDSs must be managed at the user level.

In the IMDS Admin -> User screen, the Company Administrators have a new 'Confidential Substances Visible' checkbox by which they may authorize Users within the company to search confidential substances. For new and existing users the default setting will be 'OFF'. The setting for visibility of confidential substances is displayed on the User Settings screen as a Read-Only view option. Additionally, Company Administrators can authorize users to see confidential substances from their own company in the Trust User screen.



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The visibility for confidential substances is no longer granted at the company level. A user without this access right is no longer able to add or edit confidential substances in MMDSs within their own company. The same applies to copied MMDS: If a user without access rights to confidential substances copies an MMDS with confidential substances, the confidential substances are not part of the copied MMDS. Hence, the user is not able to add confidential substances. Place holders for the confidential substances are tagged in the MMDS tree.

Visibility granted from another company to a user without access to own confidential substances is not affected.

IMDS AI (Advanced Interface)-relevance? NO
No change to AI as such, but AI-User profile must be handled in the web application screens (under Trust User -> Own company).

8. Removal of some of the Renault-specific fields

The following company-specific fields when sending MDSs to Renault will not be used any more:

1. Engineering
2. Concerned project (incl. related Error Message)
3. Parts for which the MDS is valid

IMDS AI (Advanced Interface)-relevance? NO

Suppliers that send the data via the Upload function to Renault must not change their upload syntax. There will not be an error if these attributes are still used, the contents are simply ignored.

9. Usability feature Context menu

In the result list you can right-click to see further options for the respective entry depending on the screen and in which IMDS context this result list is displayed. Alternatively, you can use the "Menu" option above the result list or at the bottom right below the result list to display this context menu.

