

VOLVO GROUP

Material and substances composition reporting instructions in IMDS

**Specific requirements
and guidelines**

Version 4.3

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1. Introduction

The Volvo Group core values, **quality, safety and environmental care**, is a commitment to meet the expectations of customers, business partners and society. Suppliers of components for production, equipment, services and consumer goods play a vital part in the development and production of Volvo Group products. A true holistic approach means that the Volvo commitment on environmental care must be reflected in the supplier network.

This manual is intended to explain Volvo's requirements for reporting material content of parts to Volvo's suppliers. It is an appendix to the Volvo group standard [STD 100-0006](#) MDS (Material Data Sheet) on reporting of substances and material composition.

The requirements set out in this manual shall be fulfilled for every part delivered to Volvo Truck Divisions: Volvo Trucks, Renault Trucks and Mack Trucks as well as the Volvo Business Areas: Volvo Buses, Volvo Penta and Volvo Construction Equipment. Volvo strongly recommends the Tier 1 suppliers to pass the information to Tier 2 suppliers.

The provisions contained herein do not limit in any way the Supplier's liability regarding notably the respect of all legal and regulatory provisions.

2. References

2.1. VOLVO standards and related processes

- [STD 100-0006](#) MDS (Material Data Sheet) reporting of substances and material composition
- STD 103-0002 Generic identification and marking of plastics and elastomer components - Marking of material type
- STD 103-0010 Marking of aluminum parts

2.2. VOLVO standards on restricted/declarable substances

- [STD 100-0005](#) Chemical substances which shall be declared and substances that must not be present in Volvo Group products placed on the market - **Volvo's red list**
- [STD 100-0002](#) Chemical substances which must not be present in processes or products within the Volvo Group – **Volvo's black list**
- [STD 100-0003](#) Chemical substances which should not be present in processes or products within the Volvo Group - **Volvo's grey list**

3.Terminology

3.1. Abbreviations

BOM	Bill of Material
EC	European Community
ELV	End of Life Vehicle
FAQ	Frequently Asked Questions
FBOM	Flat Bill of Material
FS	Functional specification
GADSL	Global Automotive Declarable Substance List
IDM	Identity Manager
IMDS	International Material Data System
PPAP	Production Part Approval Process
PPCN	Product / Process Notification Change
MDS	Material Data Sheet
OEM	Original Equipment Manufacturer
PVR	Part Version Report
REACH	Registration, Evaluation, Authorization and Restriction of Chemicals
RFI	Request for Information
RFQ	Request for Quotation
SQE	Supplier Quality Engineer
TR	Technical requirement

3.2. Definitions

3.2.1. Volvo Group Part number

The Volvo Group Part Number is an integer with up to 8 digits (1–99999999).

The number is represented with leading zeroes in IMDS. The item number is a random number that has been reserved to identify a unique item within the Volvo Group. The item number does not convey information. The item number is a Volvo Group part number registered in the Volvo Product Development system KOLA.

3.2.2. Part definition

A part is an item supplied directly to Volvo Group by Tier 1 supplier with an assigned Volvo group part number and item.

3.2.3. Stage

Definition of a stage: The Design Stages are defined levels in the part life cycle and are intended to support a gradual maturity. Each level allows some specific use of the parts and has established rules to be satisfied by the necessary activities.

There are four design stages defined as follows:

- Design stage – Stage A
- Verification stage – Stage B
- Tooling stage – Stage C
- Production stage – Stage P

3.2.4. MDS version

An MDS has a version number. This number is presented in the format 'XX.YY'.

The XX represents the 'Release' portion of the MDS version. Indicating how many times the MDS has been released or made non-editable.

The YY represents the 'Edit' portion of the MDS version. Indicating how many times the MDS has been changed since it was last released.

Some examples what can be determined from the MDS version number

1. Version 0.01 is the first draft of an editable MDS
2. Version 1.0 is the first released, un- editable version of an MDS
3. Version 3.05 is the fifth edit to the third released version of an MDS

Note that the MDS version is not directly connected to the design stage.

4. Requests to Volvo suppliers

4.1. Material and Substances composition Reporting

For each new & modified part, the supplier shall submit an MDS consisting of a declaration of all materials included and their weight. Compliance with this reporting requirement is mandatory and is part of your signed contract with Volvo.

4.2. Use information

Each Tier 1 supplier sending substances information to Volvo group acknowledges and agrees that such information can be used by Volvo for purposes related to the current legislations and regulations and Volvo's standard terms and conditions.

4.3. Forwarding

All MDS sent to Volvo shall be released with forwarding approved.

4.4. Recycled materials

Information on content of recycled material in materials should be added according to standard 100-0006.

4.5. Cascading of reporting to sub-tier Suppliers

Tier 1 supplier remains sole accountable of the fulfillment of those requirements by any of its Tier N suppliers

It is the responsibility of Tier 1 supplier:

- To cascade this information and all requirements to all their Tier N suppliers.
- To check that their Tier N suppliers comply with the same requirements.
- To make sure that submission of the requested material content is carried out.

The Tier 1 supplier can decide what method to use to collect the part/material/substance data from their Tier N suppliers.

4.6. Reporting Language

Volvo Group requires that English be the unique language used for fulfilling Material & Substances composition reporting in IMDS. It means that all the fields, including remarks shall be written in English. No other language is allowed.

5. Prerequisites

5.1. Registration in the supplier portal

If a Tier 1 supplier is not yet registered in the Volvo Supplier Portal, the supplier should contact the responsible Volvo Group Buyer to get guidelines for registration.

5.2. Person(s) in charge of substances reporting

If already registered in the Volvo Supplier Portal, it is important that the Tier 1 supplier communicate to the Volvo Group, the e-mail address of the person in charge of Substances reporting in the company (key user). This action will enable the Tier 1 supplier to automatically send out the MDS request(s) from the Volvo Group.

The Tier 1 supplier must add their IMDS ID and email address by logging into the Volvo Supplier Portal

> Business System > IMDS > click Open > Settings button



- IMDS Company ID: is a unique identification number which is generated when a company is registered in the IMDS tool.
- Environmental Contact's email: is the mail Id of a person who is responsible for creating the MDS in the IMDS tool (key user).
- For data privacy compliance refer to <https://www.volvogroup.com/en/tools/privacy.html>

5.3. Registration in IMDS

If the Tier 1 supplier is not yet an IMDS user, a registration in the IMDS system must be done. This can be done directly online. Below are the links to IMDS system and its user-manual to register in IMDS.

[IMDS system](#)

[Registration USER manual](#)

6. Material and Substance Composition Reporting



6.1. MDS process

When an MDS is requested, the Tier 1 supplier has to log in to IMDS to add the matching MDS to the request.

To help the Tier 1 supplier, the Part/Item No and Supplier code fields are automatically filled in the recipient chapter of the assigned MDS (New or reassigned MDS). This automatic action will only work if the Tier 1 supplier answers an MDS request.

Once the MDS is documented, assigned to the request and sent to Volvo, there are 3 possibilities:

The MDS is Accepted: It means that the MDS matches the current Volvo requirements. An updated MDS must be submitted before any part shall be delivered to Volvo, if any changes in the material content of the part are made after the MDS has been accepted and this change will affect the MDS specification

The MDS is accepted with Follow up: Follow the instruction(s) given in the comments field in the MDS response from the MDS checker.

The MDS is Rejected: Follow the instruction(s) given in the comments field in the MDS response from the MDS checker.

7. Process Timing

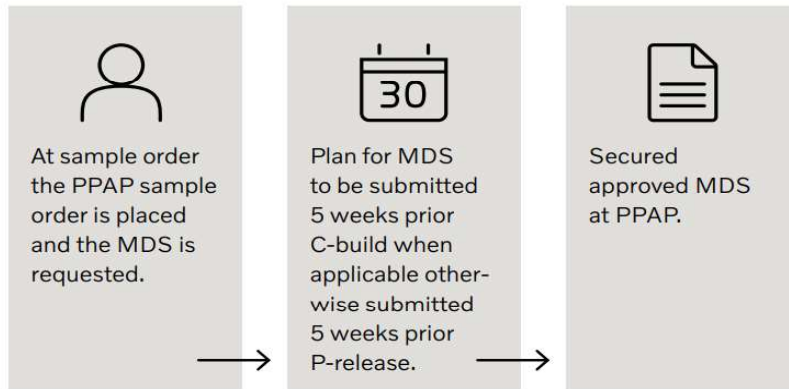
7.1. New part

The Material Data Sheet (MDS) is requested when the Sample Order is sent to supply partner and must be submitted by supply partner 5 weeks prior C-build (when applicable), in other cases 5 weeks prior P-release, this to secure MDS approval for PPAP.

This highlights the need to start collecting substances data as soon as possible (latest during C-stage) to be able to submit the MDS request in time. Material

reporting checking and validation by Volvo will be done within 2 weeks after receiving MDS.

PPAP and Material Datasheet MDS submission



7.2. Modified part

7.2.1. Modification initiated by the supplier

The Tier 1 supplier shall inform Volvo of any modification of the part content (might come from a Tier N Supplier). To contact Volvo Group concerning a proposed modification of a part, the **Product Process Change Notification (PPCN)** form can be downloaded from supplier portal. The form should be filled in and sent to the buyer to start an internal investigation at Volvo. When a modification is made, initiated by either Supplier or Volvo, the supplier shall submit a new MDS latest within 3 weeks after the modification or 4 weeks before new PPAP date.

7.3. Carry over part

Material & Substances composition reporting in IMDS is required for carry over parts.

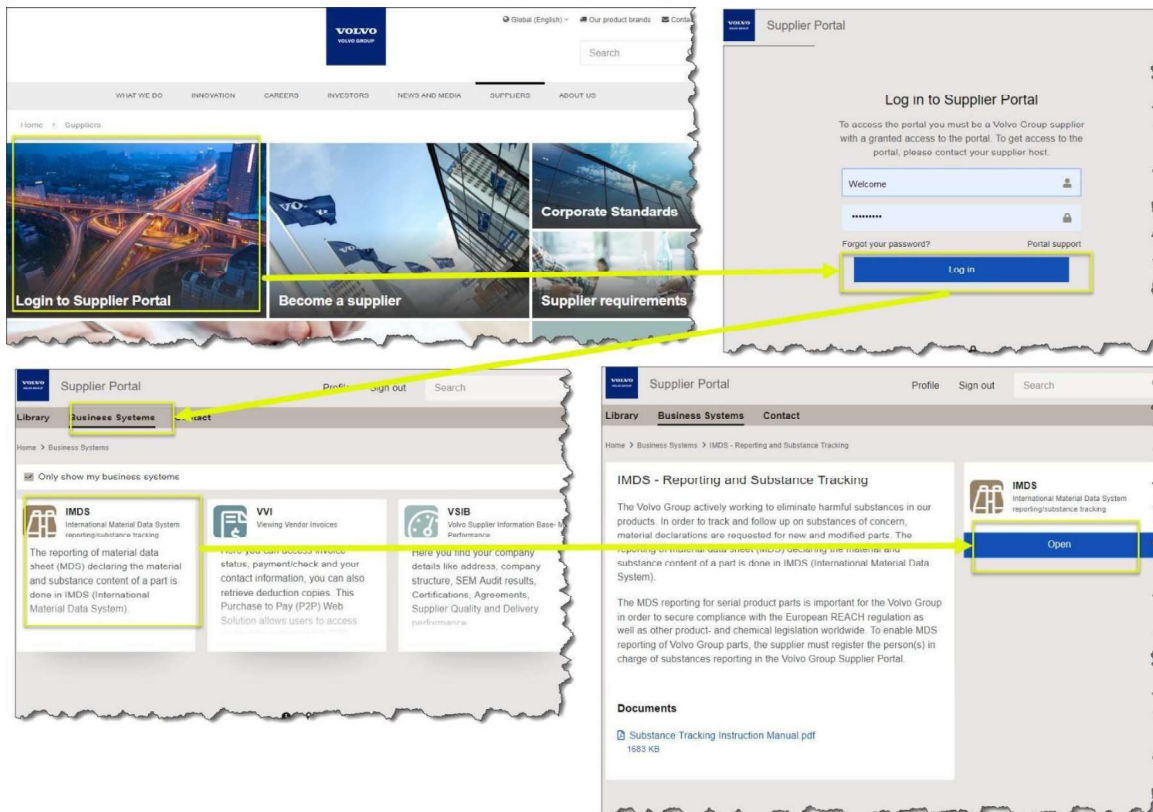
7.4. Aftermarket parts

Material & Substances composition reporting in IMDS is required for aftermarket parts.

8.Reporting on the Supplier Portal

8.1. Supplier portal interface

The supplier portal is to be used to check the type of material reporting requested as well as use the supplier portal to access and view the MDS requests and status.



9. Start reporting in IMDS

9.1. IMDS- International Material Data System

9.1.1. Access to IMDS, Registration, Password, training, user information

On the public pages of www.mdsystem.com you can find general information such as system requirements, training courses calendar, e-learning, online registration and automotive news etc. Going to the “Public IMDS Pages”, you will then get information on:

- The system requirements and the online registration (“System”)
- The training possibilities (“Training”)
- E-mail addresses and phone numbers to contact
- EDS in case of questions about IMDS (“Contact”)

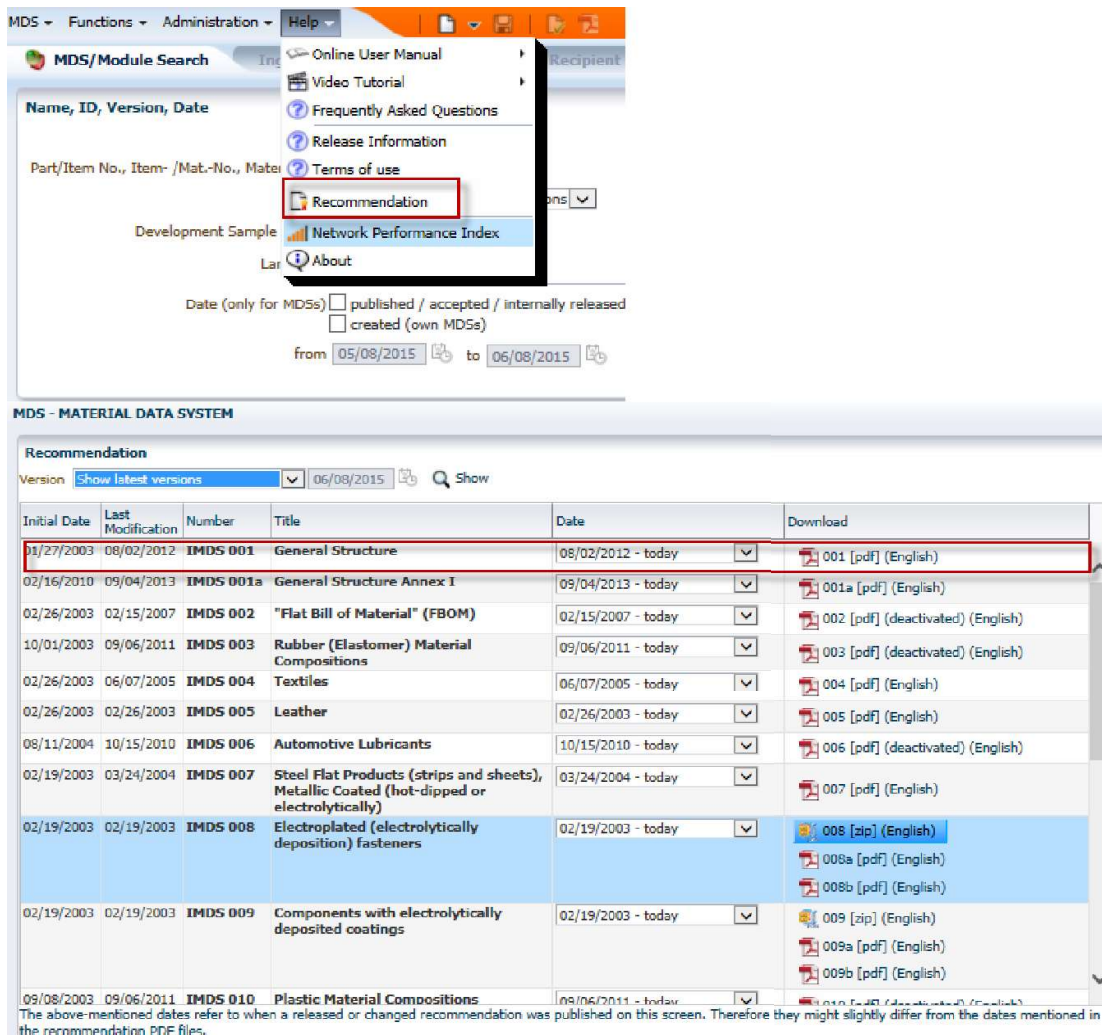
- Frequently asked questions (FAQ)

The IMDS help desks are also available to answer questions concerning the functionality of the IMDS.

9.1.2. MDS content requirements

The rules to follow for creating data are described in the IMDS Recommendations (available on the IMDS Website);

Recommendations in IMDS must be followed when declaring materials.



MDS - MATERIAL DATA SYSTEM

Recommendation

Version: Show latest versions 06/08/2015 Show

Initial Date	Last Modification	Number	Title	Date	Download
01/27/2003	08/02/2012	IMDS 001	General Structure	08/02/2012 - today	001 [pdf] (English)
02/16/2010	09/04/2013	IMDS 001a	General Structure Annex I	09/04/2013 - today	001a [pdf] (English)
02/26/2003	02/15/2007	IMDS 002	"Flat Bill of Material" (FBOM)	02/15/2007 - today	002 [pdf] (deactivated) (English)
10/01/2003	09/06/2011	IMDS 003	Rubber (Elastomer) Material Compositions	09/06/2011 - today	003 [pdf] (deactivated) (English)
02/26/2003	06/07/2005	IMDS 004	Textiles	06/07/2005 - today	004 [pdf] (English)
02/26/2003	02/26/2003	IMDS 005	Leather	02/26/2003 - today	005 [pdf] (English)
08/11/2004	10/15/2010	IMDS 006	Automotive Lubricants	10/15/2010 - today	006 [pdf] (deactivated) (English)
02/19/2003	03/24/2004	IMDS 007	Steel Flat Products (strips and sheets), Metallic Coated (hot-dipped or electrolytically)	03/24/2004 - today	007 [pdf] (English)
02/19/2003	02/19/2003	IMDS 008	Electroplated (electrolytically deposition) fasteners	02/19/2003 - today	008 [zip] (English) 008a [pdf] (English) 008b [pdf] (English)
02/19/2003	02/19/2003	IMDS 009	Components with electrolytically deposited coatings	02/19/2003 - today	009 [zip] (English) 009a [pdf] (English) 009b [pdf] (English)
09/08/2003	09/06/2011	IMDS 010	Plastic Material Compositions	09/06/2011 - today	010 [pdf] (deactivated) (English)

The above-mentioned dates refer to when a released or changed recommendation was published on this screen. Therefore they might slightly differ from the dates mentioned in the recommendation PDF files.

9.1.3. Component/Subcomponent requirements

Refer to IMDS Recommendation 001 §3.2

9.1.4. Component specific guidelines

Details

☒ **Common Information**

Type Component (received MDS)

ID / Version 540996048 / 0.01

Node ID 540996048

Node count 10

MDS Supplier Hydrosand Automotive AB

Description PIPE

Part/Item No. 22452890

Development Sample Report No

☒ **Dates**

Create Date 6/8/2015 ?

Release Date not available ?

Check Date 6/8/2015 ? ? Rev

☒ **Amounts and Weights**

Measured weight per item 1153.0 g

Tolerance +/- 5.0%

Calculated weight per item 1153.0 g

Deviation 0.0%

☒ **Parts Marking**

Polymeric part(s) marked Not Applicable (Parts do not require marking due to specifications of weight, geometric restriction or surface requirements.) ?

Development sample report should always be marked as "No".

9.1.5. Polymeric marking

The polymeric marking is mandatory. If polymeric marking information is not equal to Yes for a part that shall be polymeric marked regarding legal requirements, the MDS will be rejected.

9.1.6. Semi component requirements

cf. IMDS Recommendation 001 §3.

9.1.7. Material requirements

9.1.7.1. General

cf. IMDS Recommendation 001 §3.4

For each part a full declaration (100%) of all materials should be submitted in IMDS. If unspecified material (so called "jokers" or "wildcards") are used for material declaration, they must not exceed 10% of the homogenous material. Prohibited and declarable substances, according to STD-100-005 Volvo's red list, must always be declared and cannot be assigned as a "joker" or "wildcard".

9.1.7.2. Material specific guidelines

Reminder: All data should be reported in English

Example of the name and classification of the material

The screenshot displays the MDS - MATERIAL DATA SYSTEM interface within a Microsoft Internet Explorer browser. The main window is titled "MATERIALDATEN SYSTEM". On the left, a navigation menu includes "Menu", "Search", "MDS", "Ingredients", "Recycle information", "Supplier data", "Recipient data", and "Log off". The "Ingredients" section is active, showing a tree view of components: "Anti-interference 2 way MDK housing", "Secondary locking cassette", "Polyamide 66", "2 way housing", "Condensator receptable", "Strip", and "Capacitor". The "Polyamide 66" component is selected. The main panel shows the "Details" tab for this material. Fields include: "Type" (Material (MDS)), "ID / Version" (30857 / 2), "MDS Supplier" (BASF AG), "Name" (Polyamide 66), "Trade name" (Ultramid ASWG6 bla), "Material-No." (30857), "Symbol" (PA66 G 20), "Classification" (filled Thermoplastics), "Inhouse Norms/Standards" (empty), "Supplier" (BASF AG), "Remark" (empty), and "Weight" (100 g). Blue boxes highlight the "Name", "Classification", and "Weight" fields, each labeled "Mandatory field". Buttons at the bottom include "Tree search", "SearchResult", "Save", and "Next".

9.1.7.3. Recycled information

Mandatory to fill in.

9.1.7.4. Substance requirements

cf. IMDS Recommendation 001 §3.5

9.1.7.5. Applications

The application information is mandatory. If application information is not correctly documented in IMDS the MDS will be rejected. Supplier Tier1 shall document each "application" case to reflect the real use of the substance within a material for a component.

10. IMDS main activities

10.1. E-mail subscription in IMDS

In the “Settings” menu, the Tier 1 supplier can tick the relevant boxes to get an E-mail subscription.

10.2. Find/read MDS request & Assign MDS

Volvo uses the function MDS request in IMDS. It guarantees that the supplier is connecting his MDS with the right Part / item No and supplier code. Volvo strongly recommends that the supplier answers the request to ensure that the Part/Item No and Supplier code fields are automatically filled in in the recipient chapter in the IMDS portal (valid for both New or reassigned MDS).

If the supplier sends the MDS without answering the request, there is a risk that the information in the recipient chapter of the MDS may be incorrect due to e. g. typos. If this occurs, the MDS won't be recognized in Volvo's systems and the MDS might be rejected.

To sum up, suppliers should respond to MDS request.

10.2.1. Find / read MDS request

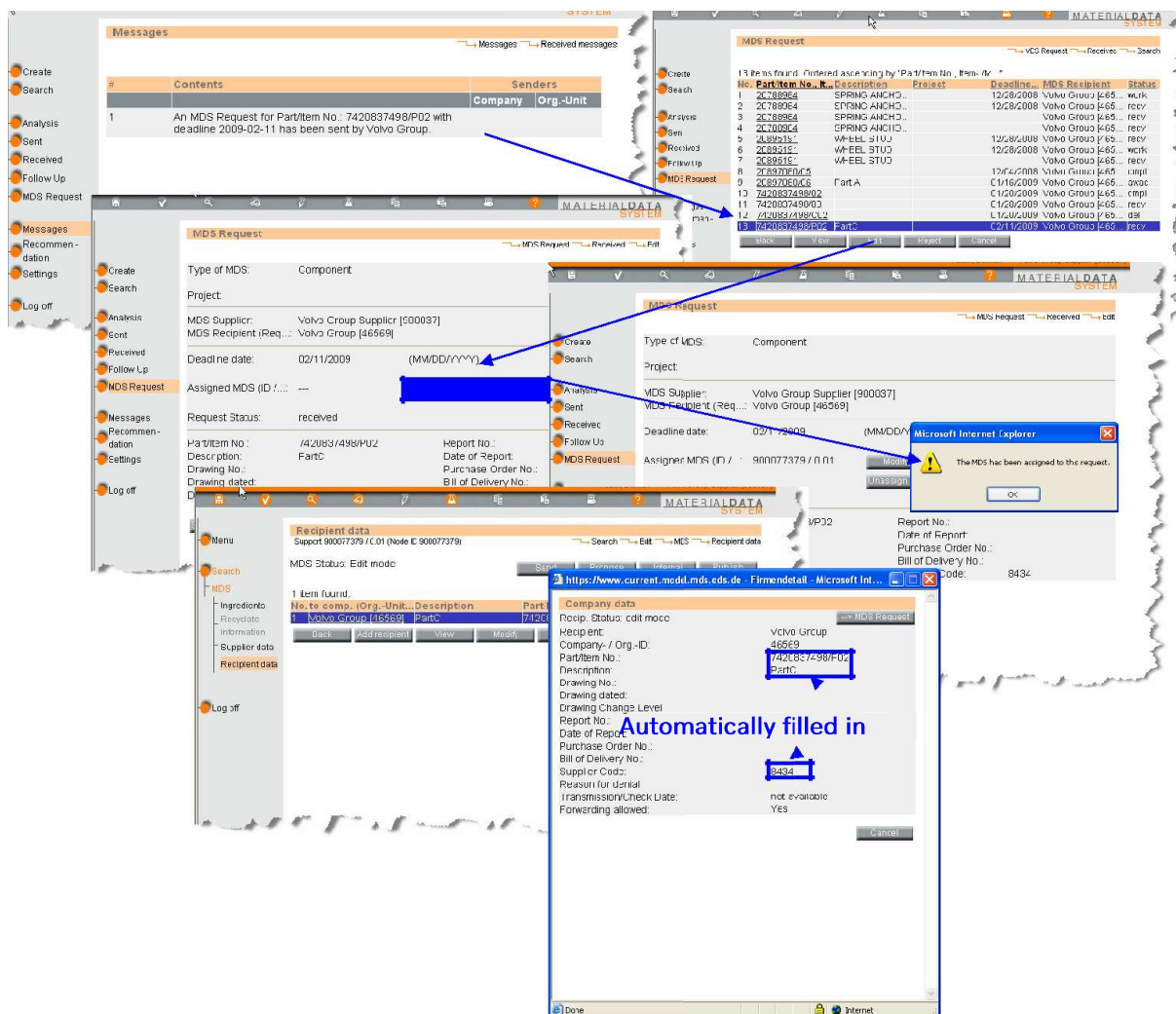
In the “MDS request” Menu, the search can be performed using different criteria.

10.2.2. Assign an MDS to an MDS request

There are 2 ways to assign an MDS to a request:

1. If the MDS already exists, the function “Assign MDS” should be used
2. If the MDS doesn't exist, the function “Create” should be used. This function will enable the supplier to both create the MDS and assign it to the request

Whatever the function chosen, the recipient chapter of the MDS will automatically be filled



10.3. MDS Sending

In IMDS, there are four possibilities to submit an MDS:

1. "send": the MDS will be sent to 1 recipient
2. "propose": the MDS can be sent to several recipients
3. "internal": the MDS will only be available for internal use only
4. "Publish": the MDS will be available for everybody.

Volvo requires that the supplier use send for each MDS (i.e.: "propose", "internal" and "publish" are not allowed for submitting an MDS to Volvo) to the recipient(s), even if the part concerned will be delivered to several companies of the Volvo group

Before sending the MDS, the supplier need to assign it to the request.

The MDS request status becomes "completed" when the MDS is accepted.

10.3.1. Volvo Group ID in IMDS

For common parts and all other parts created for the Volvo Group one company ID has been created for the whole Volvo Group in IMDS.

The Volvo Group company ID is 46569.

This is valid for all the Volvo Group companies, i.e. all MDS shall be sent to this Volvo Group ID except for Volvo CE parts.

The Volvo CE company ID is 221483

This should only be used when registering parts exclusively used by Volvo CE

10.4. MDS Update

10.4.1. Request coming from Volvo

In IMDS, it is not possible to reassign an MDS already attached to a previous request of the same customer.

An update of the MDS is necessary. There are 2 types of MDS update:

1. If the function Copy / Copy is used, a new MDS ID will be created.
2. If the function Copy / New version is used, no new MDS ID will be created. However, the version of the IMDS will increase.

As the demand comes from Volvo, the supplier has to answer the MDS request by either assigning a Copy / Copy or a Copy/version of the previous MDS. This will ensure that the recipient data is correctly filled in.

The supplier can choose the way that best fits to his internal way of working, but it must at least respect the warning(s) given in IMDS FAQ:

When assigning a copy / new version to a MDS request, the supplier has to overwrite the recipient data.

10.4.2. Request coming from the supplier

When the modification comes from the supplier, there are 2 possibilities:

1. The change doesn't imply an update of the Volvo part number. This means that the supplier has to use the Copy / New version data to ensure that the recipient data is correct. This is true only if the change requires an update of the accepted MDS connected to the part.
2. The change implies an update of the Volvo part number, which means that there will be a new PPAP order and MDS request coming from Volvo.

11. Report in IMDS

11.1. Access to IMDS – International Material Data System

On the public pages of www.mdsystem.com you can find general information such as system requirements, training courses calendar, e-learning, online registration, automotive news, etc. Going to the “Public IMDS Pages”, information on the following subjects will be found:

- The system requirements and the online registration (“System”)
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- E-mail addresses and phone numbers to contact
- EDS in case of questions about IMDS (“Contact”)
- Frequently asked questions (FAQ)
- The IMDS help desks are also available to answer questions concerning the functionality of the IMDS.

12. Volvo contacts and training

All questions related to substances and material reporting to any Volvo Group company and/or if need of IMDS training please contact third party in MDS checking, Intrinsic volvogroup_imdsreport@i-ntrinsic.com

These guidelines and other information, related to the material and substances composition reporting, are available in the section “Sustainability and Environmental Requirements” in **Library** on the [Volvo Group Supplier Portal](#).

Training videos are available for Volvo Group Suppliers on the Supplier Portal.

