SUPPLIER REJECTION GUIDE

INTRINSIC CONSULTANCY AND TECHNOLOGY SOLUTIONS INC.

COMMON REJECTIONS FOR MDS SUBMISSIONS TO VOLVO GROUP:

1. MATERIAL CLASSIFICATION
2. PART DESCRIPTION
3. APPLICATION CODES
4. SUBSTANCE PORTION RANGE
5. PART STRUCTURE
6. RECIPIENT-SPECIFIC INFO
7. MATERIAL BREAKDOWN
8. MATERIAL NAME
9. PRESENCE OF SVHC
10. PRELIMINARY DATASHEET

ADDITIONAL INFORMATION: UPDATING BPR (BIOCIDAL PRODUCT REGULATION)

1. MATERIAL CLASSIFICATION

1.1 Plastics

1.2 Metals

RULE 4.4.2.G

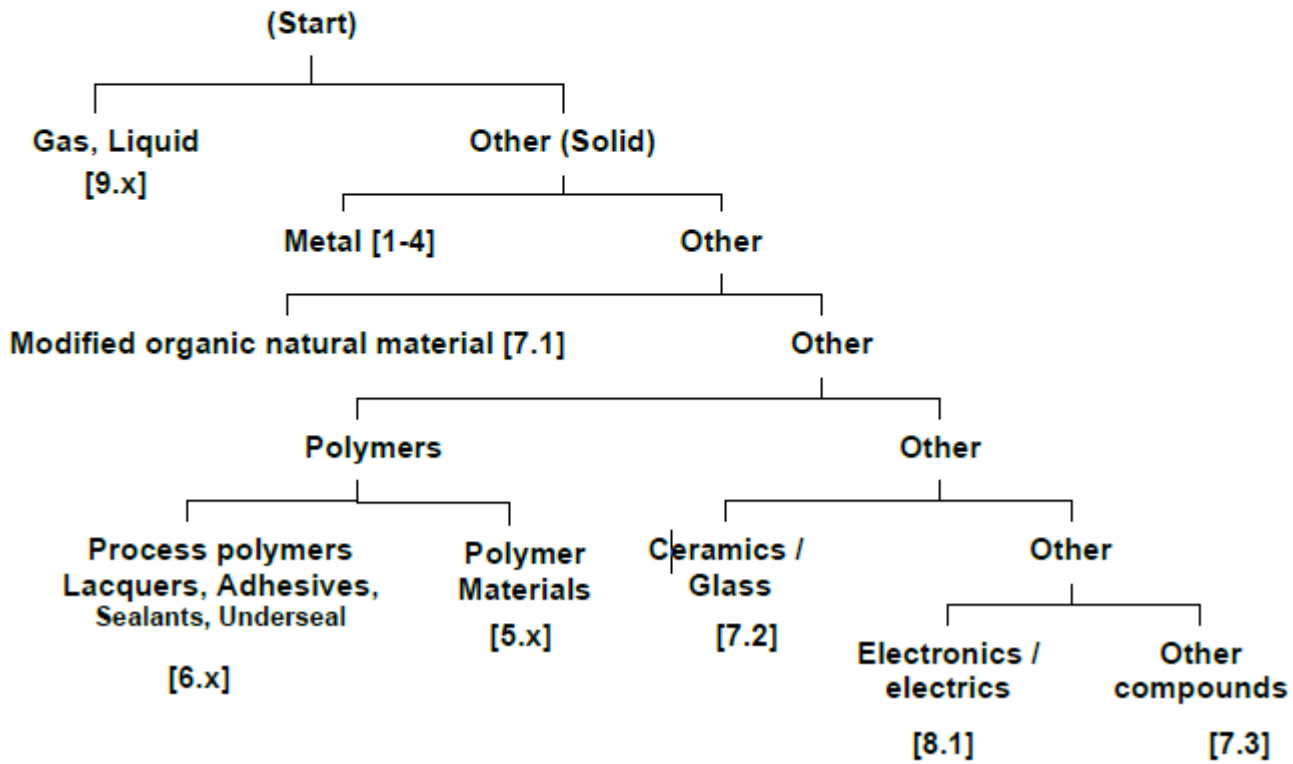
For all materials a correct classification must be assigned independent of the material weight in the part.

The flow chart on the right is a guide from the IMDS Recommendation 001a on how to classify materials accordingly.

Annex I to the IMDS001 Recommendation **IMDS 001a**

1.2 Flow chart for selecting classification

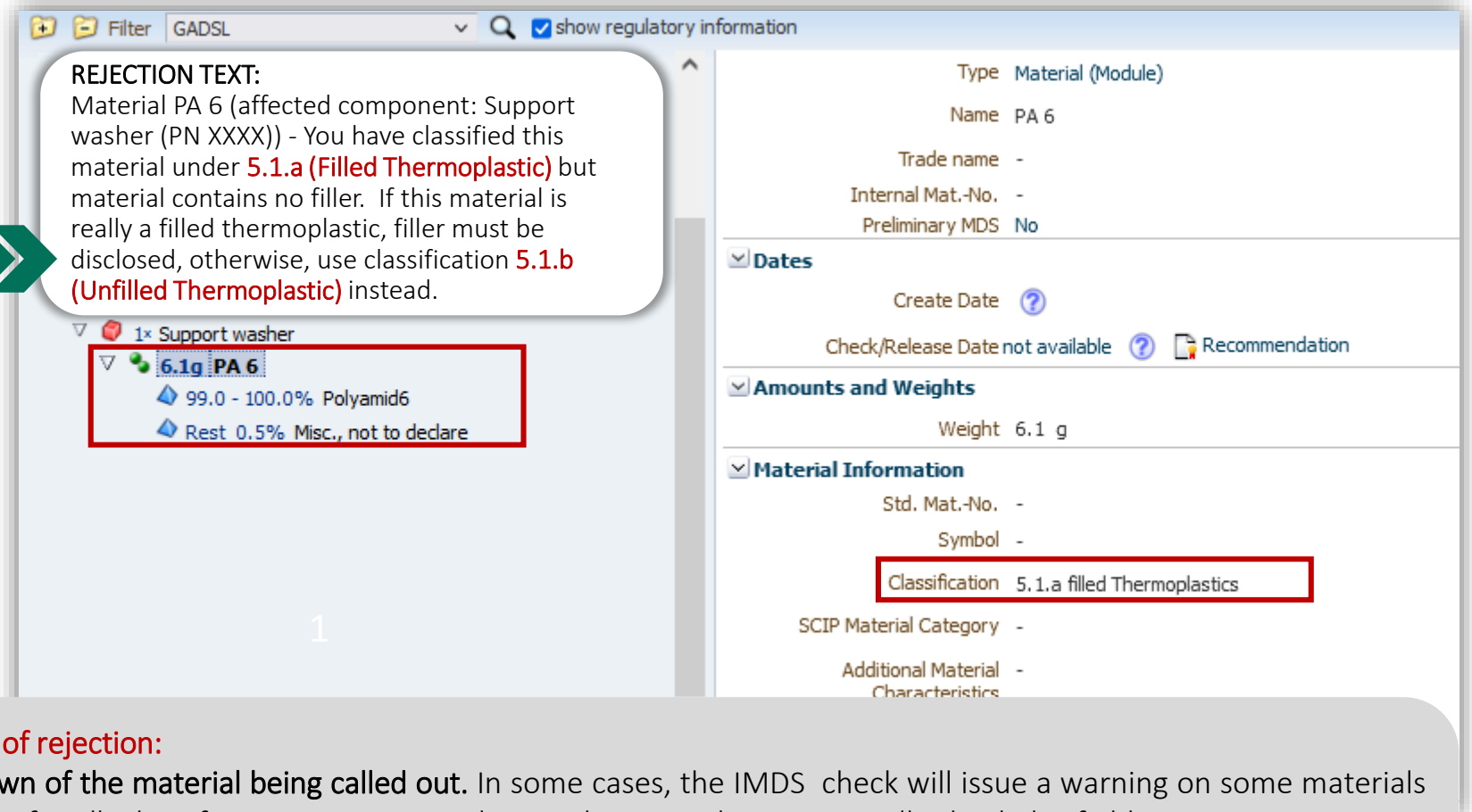
For reducing variation in selecting VDA classification, the order of judgement is introduced below.



1. MATERIAL CLASSIFICATION

1.1 Plastics

This type of error can only be partially detected by the system through its checking functionality. Therefore, it is very important that "manual checking" must be done to avoid this type of rejection.



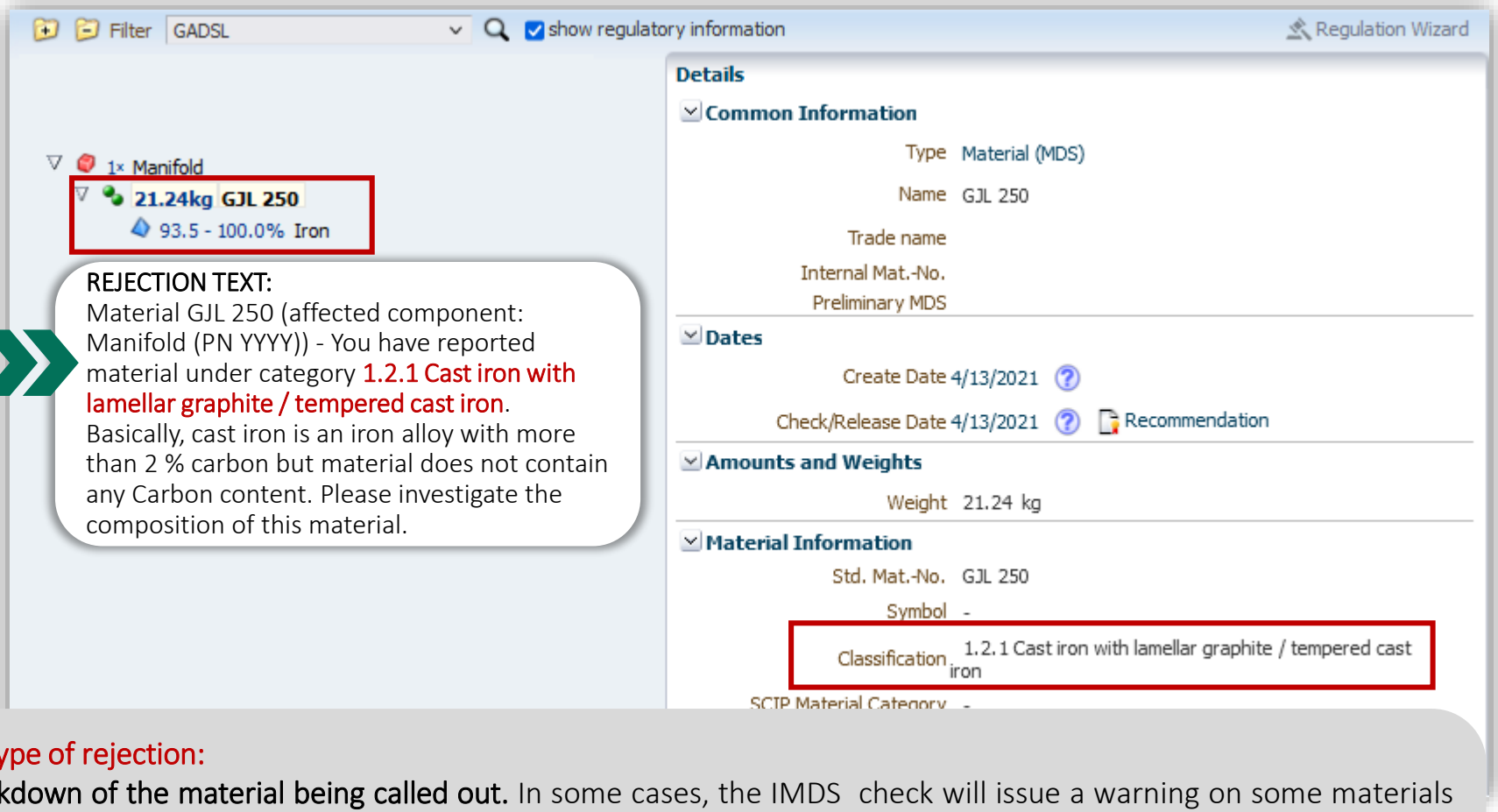
To identify, correct and avoid this type of rejection:

1. **Check the basic substance breakdown of the material being called out.** In some cases, the IMDS check will issue a warning on some materials with suspicious classification but not for all. Therefore, to ensure compliance, the owner has to manually check this field.
2. **Use the IMDS Recommendation Annex 001a document** for guidance in checking if the classification used is appropriate against the basic substance breakdown of the material.
3. **Correct the "Classification" of the affected material as necessary.** If the material datasheet used came from your supplier, ask your supplier to make the necessary changes to the material data sheet and use the revised version to resubmit.

1. MATERIAL CLASSIFICATION

1.2 Metals

This type of error can only be partially detected by the system through its checking functionality. Therefore, it is very important that "manual checking" must be done to avoid this type of rejection.



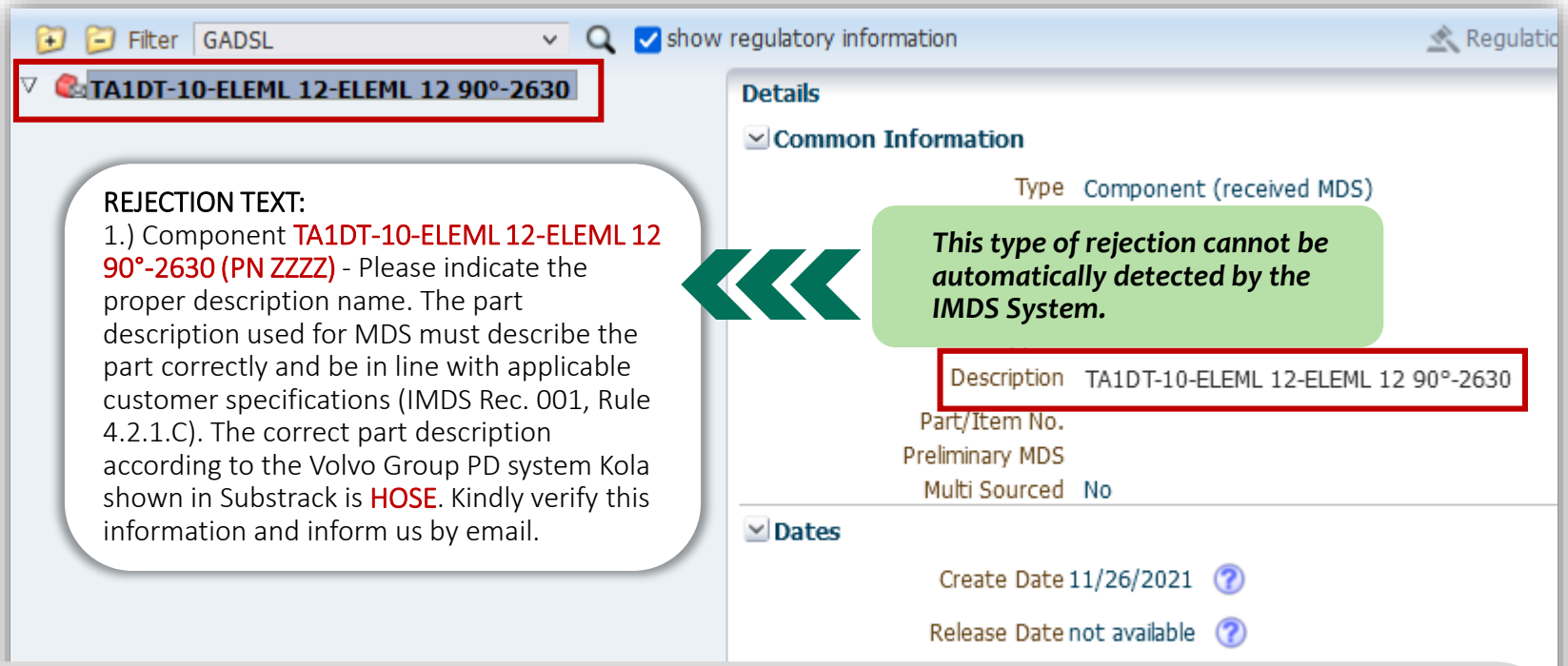
To identify, correct and avoid this type of rejection:

1. **Check the basic substance breakdown of the material being called out.** In some cases, the IMDS check will issue a warning on some materials with suspicious classification but not for all. Therefore, to ensure compliance, the owner has to manually check this field.
2. **Use the IMDS Recommendation Annex 001a document** for guidance in checking if the classification used is appropriate against the basic substance breakdown of the material.
3. **Correct the "Classification" of the affected material as necessary.** If the material datasheet used came from your supplier, ask your supplier to make the necessary changes to the material data sheet and use the revised version to resubmit.

2. PART DESCRIPTION

RULE 4.2.1.C

The top node component name must be descriptive and be in line with applicable customer specifications. If the component is a top node and will be sent to a customer, the recipient information controls the name the customer will see.



REJECTION TEXT:
1.) Component TA1DT-10-ELEML 12-ELEML 12 90°-2630 (PN ZZZZ) - Please indicate the proper description name. The part description used for MDS must describe the part correctly and be in line with applicable customer specifications (IMDS Rec. 001, Rule 4.2.1.C). The correct part description according to the Volvo Group PD system Kola shown in Substrack is HOSE. Kindly verify this information and inform us by email.

This type of rejection cannot be automatically detected by the IMDS System.

To identify, correct and avoid this type of rejection:

1. To identify this error, manually **double-check** the "Part name/description" using the Part Drawing (for single components) and **Bill of Materials** (for assemblies) as basis.

2. **Create a new version of the datasheet and edit the Part Description** according to what is in the Part Drawing or the Bill of Materials.

Important Note: This type of error is not detectable by the system through its checking functionality. Therefore, it is very important that "manual checking" must be done to avoid this type of rejection

3. APPLICATION CODES

RULE 4.4.5.A

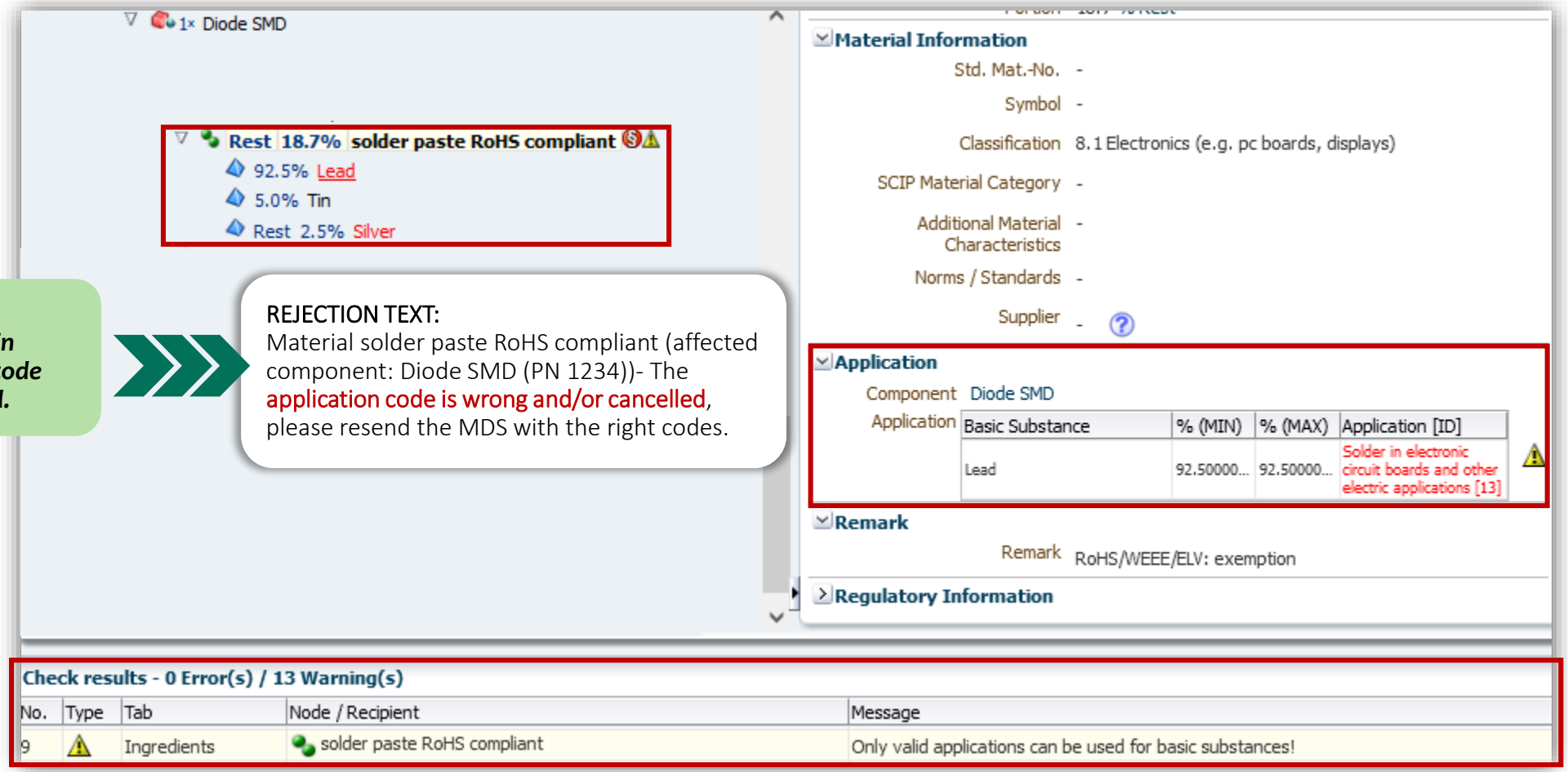
If a substance in a material MDS is application-relevant, the correct application code must be assigned when the material MDS is referenced in a component MDS.

RULE 4.4.5.B

The application code must reflect the real use of the material within the component.

This type of error can be automatically detected in IMDS if the application code used is already cancelled.

REJECTION TEXT:
Material solder paste RoHS compliant (affected component: Diode SMD (PN 1234))- The application code is wrong and/or cancelled, please resend the MDS with the right codes.



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RULE 4.4.5.A

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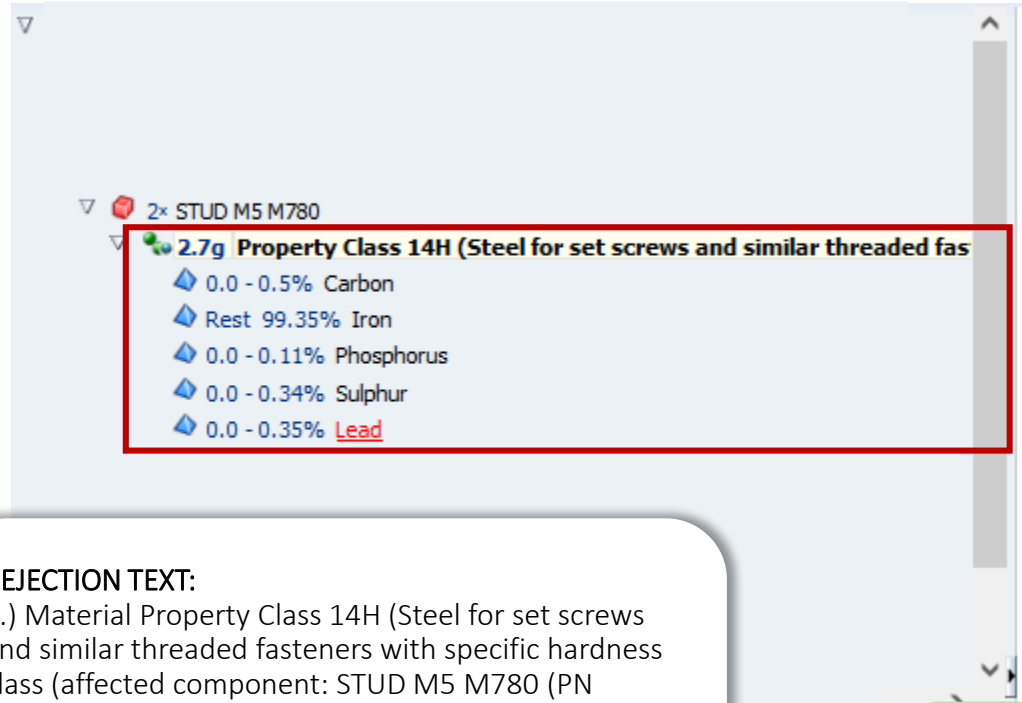
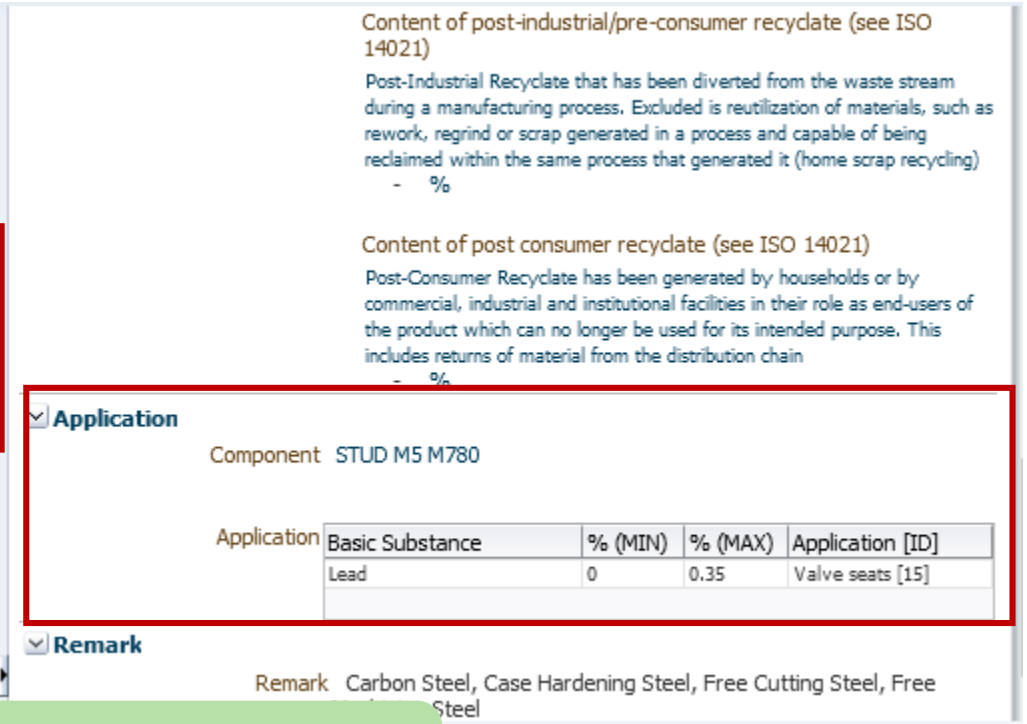
The application code must reflect the real use of the material within the component.





REJECTION TEXT:
1.) Material Property Class 14H (Steel for set screws and similar threaded fasteners with specific hardness class (affected component: STUD M5 M780 (PN XXXX))- The part contains Lead which in this application is restricted according to Volvo STD 100-0005. Volvo requests you to contact your responsible buyer to initiate the phase out plan for this content.

This type of rejection cannot be automatically detected by the IMDS System.

3. APPLICATION CODES

RULE 4.4.5.A

If a substance in a material MDS is application-relevant, the correct application code must be assigned when the material MDS is referenced in a component MDS.

RULE 4.4.5.B

The application code must reflect the real use of the material within the component.

To identify, correct and avoid this type of rejection:

1. During checking, the Application Code will be used as the basis to determine if the "Use / Presence" of the said Prohibited substance is currently "Exempted or Not". For some basic substances (e.g. 4 Heavy Metals (Lead, Cadmium Hex Chrome, Mercury), an Application Code must be selected when the material containing one of these substances is first attached to a component type parent node. The substances requiring an application code are generally substances whose use in automotive products is limited to certain applications.
2. To correct this rejection, when choosing the appropriate application code, ensure that it must correspond with the type of "Part" and "Classification" of the material where the basic substance is present.
3. If you created the datasheet, investigate the material and consult the buyer for the appropriate application code. If the material was sent to you by a supplier ask them to investigate and change if necessary.

Important Note: There are some cases wherein this type of error is not detectable by the system through its checking functionality. Therefore, it is very important that "manual checking" must be done to avoid this type of rejection.

4. BASIC SUBSTANCE PORTION RANGE

RULE 4.5.4.B

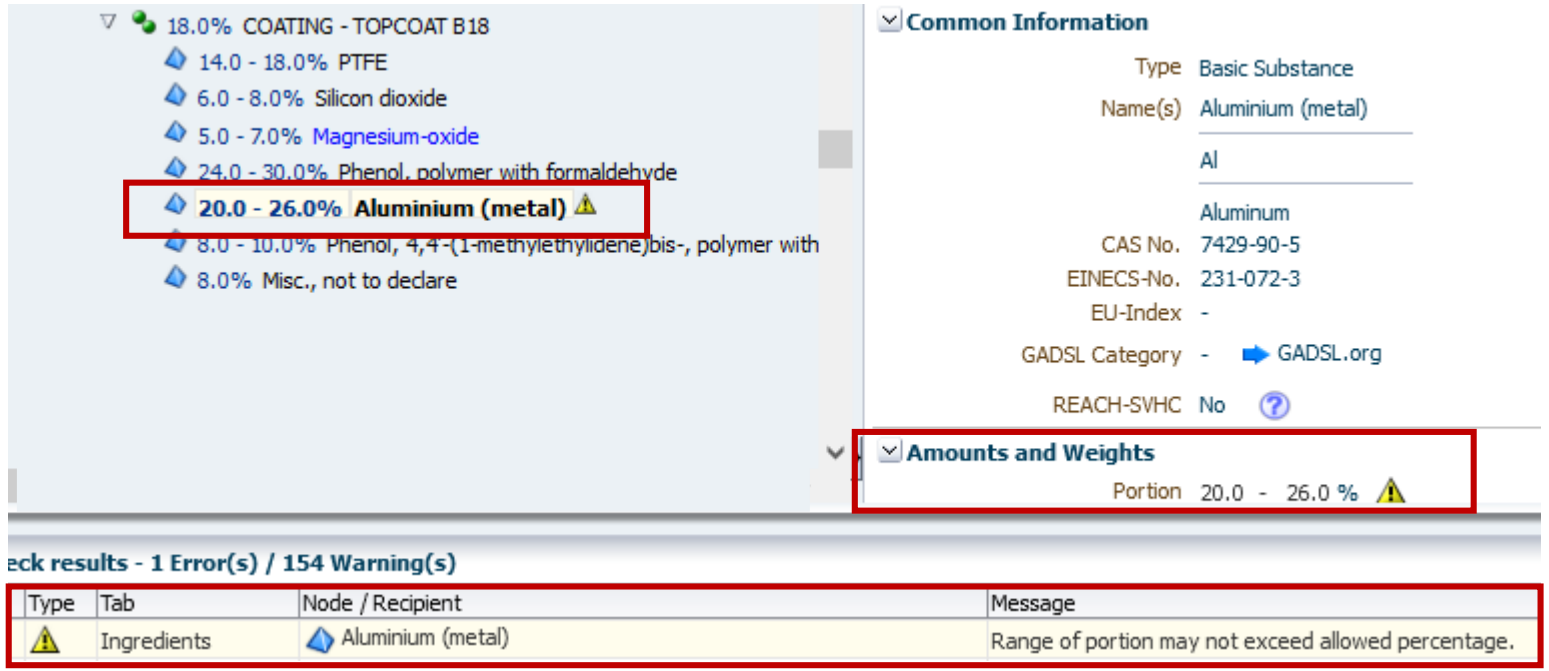
If the portion type "range" is selected, the following maximum portion ranges apply:

Portion: from X % to Y %	Maximum M = Y % – X %
0 ≤ X ≤ 7.5	M ≤ 3
7.5 < X ≤ 20	M ≤ 5
20 < X ≤ 100	M ≤ 10

If ranges are used (example: 2 % – 8 %), the smaller number defines the row and M value in the table to be used. Consequently, the range 2 % – 8 % is not allowed because for the lower limit 2 %, the maximum Y value is 5 (2 + 3 = 5).

This type of error can be automatically detected in IMDS when the "execute check" is done.

REJECTION TEXT:
Basic Substance Aluminum (attached under Material COATING – TOPCOAT (affected component: XXXX(PN YYYY))) - The reported substance content is not within the allowed range. The range 20% - 26% is not allowed because for the lower limit 20%, the maximum limit should be 25% (20 + 5 = 25) and not 26%. The maximum range value should be ≤ 5. Please refer to IMDS Recommendation 001 for guidance (Rule 4.5.4.B). I suggest that you report the portion to a fixed percentage (e.g. P%).



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RULE 4.5.4.B

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$7.5 < X \leq 20$	$M \leq 5$
$20 < X \leq 100$	$M \leq 10$

If ranges are used (example: 2 % – 8 %), the smaller number defines the row and M value in the table to be used. Consequently, the range 2 % – 8 % is not allowed because for the lower limit 2 %, the maximum Y value is 5 (2 + 3 = 5).

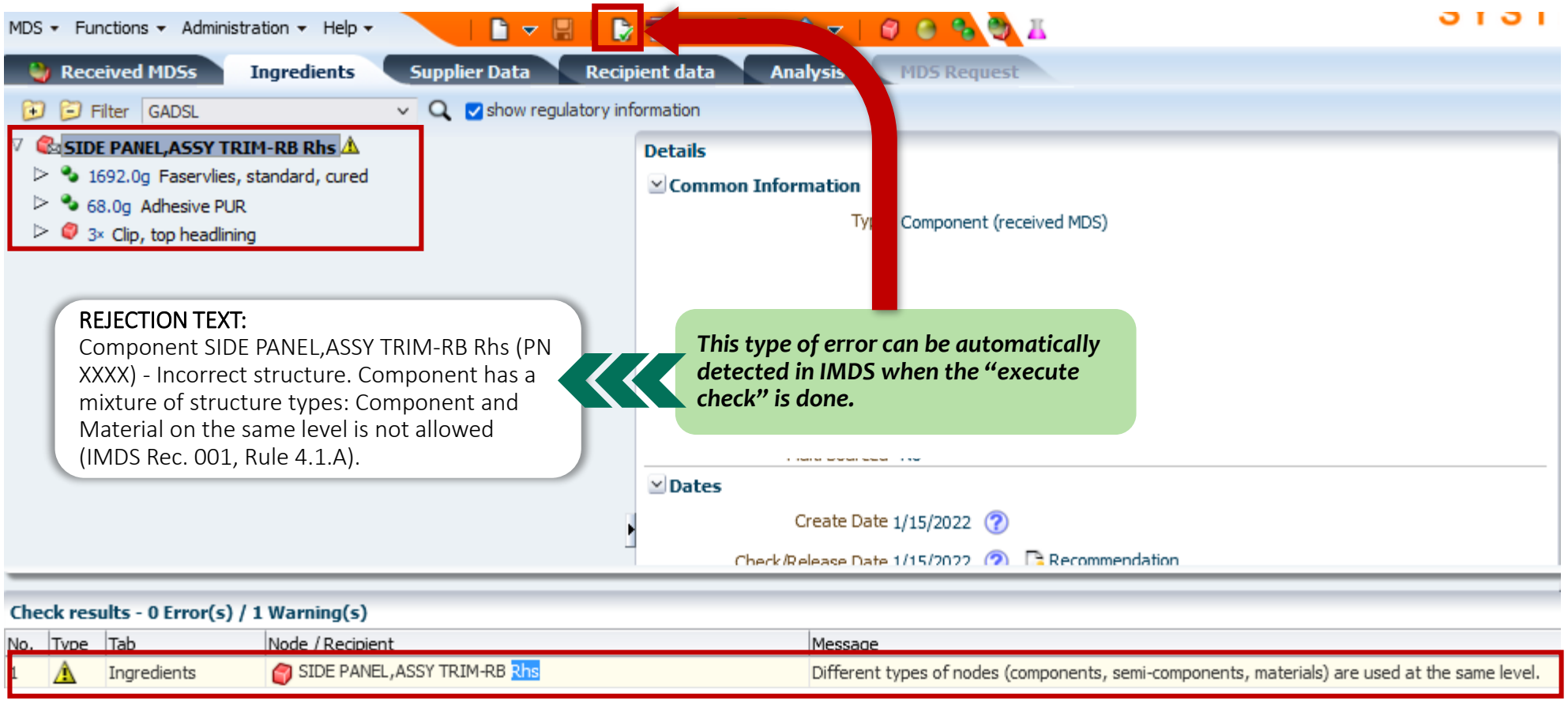
To identify, correct and avoid this type of rejection:

1. To identify this error, click the "Execute Check" functionality in IMDS.
2. A "warning message" about the presence of substances with incorrect portion range in the material will appear in the "Check results" window. Double-click on the warning message to get to the affected basic substance.
3. Correct the reported portion range by referring to the IMDS Recommendation 001.

5. PART STRUCTURE

RULE 4.1.A

Child nodes of the same parent node must be of the same type (ex. a component parent node may consist of all component child nodes or all material child nodes, but not a mixture of component and material child nodes).



5. PART STRUCTURE

RULE 4.1.A

Child nodes of the same parent node must be of the same type (ex. a component parent node may consist of all component child nodes or all material child nodes, but not a mixture of component and material child nodes).

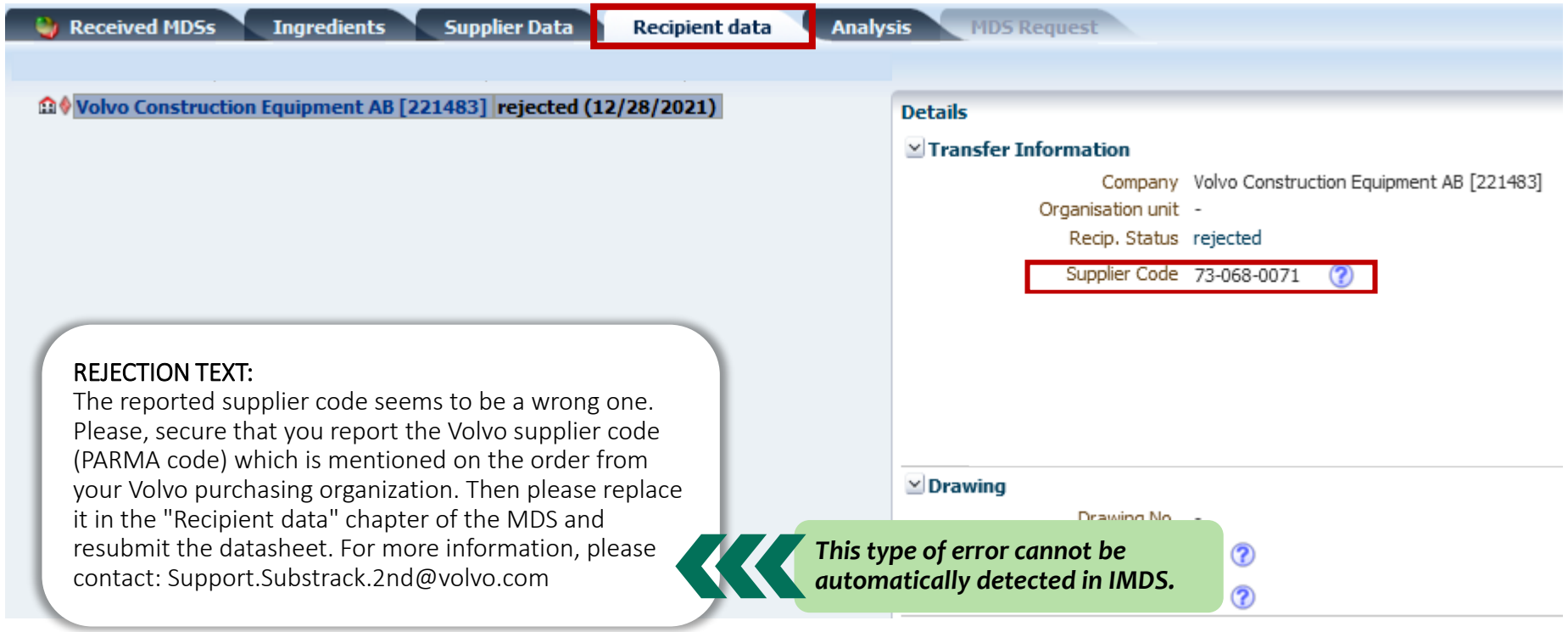
To identify, correct and avoid this type of rejection:

1. To identify this error, click the "**Execute Check**" functionality in IMDS.
2. A "**warning message**" about the mixture of different types of nodes will appear in the "Check results" window. Double-click on the warning message to get to the affected component.
3. Correct the error on the Part Structure. This may require restructuring the datasheet, making sure that the same type of child nodes are attached at the affected parent node. Refer to the **IMDS Recommendation 001** document for guidance in the proper creation of datasheet structures. Perform the "**Execute Check**" functionality in IMDS. The "**warning message**" should disappear after making the correction.

6. RECIPIENT-SPECIFIC INFORMATION

VOLVO GROUP AND VCE SPECIFIC GUIDELINE

There may be additional customer-specific requirements that cannot be harmonized, example: requirements concerning the recipient-specific information. For Volvo Group and VCE, a correct PARMA ID must be assigned in the Supplier code field in the Recipient Data tab.



6. RECIPIENT-SPECIFIC INFORMATION

VOLVO GROUP AND VCE SPECIFIC GUIDELINE

There may be additional customer-specific requirements that cannot be harmonized, example: requirements concerning the recipient-specific information. For Volvo Group and VCE, a correct PARMA ID must be assigned in the Supplier code field and the Volvo Part Number must be entered in the Part number field in the Recipient Data tab.

To identify, correct and avoid this type of rejection:

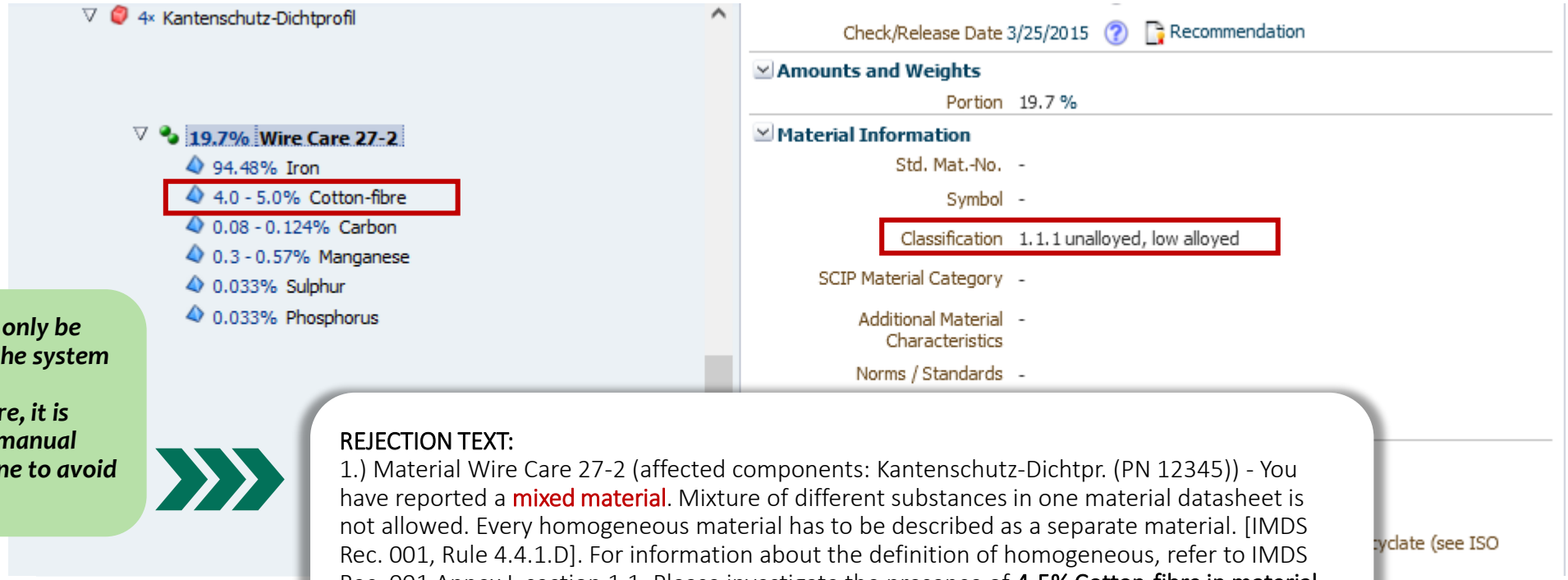
1. Go to the Recipient Data Tab.
2. Edit the Supplier Code information by typing in your assigned Parma ID in the “Supplier code” field and the Volvo Part Number in the “Part Number field. **You can contact Volvo Purchasing if you do not have these information.**

7. MATERIAL BREAKDOWN

7.1 Mixed Materials

RULE 4.4.2.G

Every homogeneous material has to be described as a separate material. For information about the definition of "homogeneous", refer to IMDS 001 Annex I, section 1.1. If a material parent node has material child nodes, the material represented by the parent node must be homogeneous. Two or more materials forming layers cannot be regarded as homogeneous. **Example: Zinc coating on steel or paint layers cannot be reported as a material with sub-materials, as the top material is not homogeneous.**



This type of error can only be partially detected by the system through its checking functionality. Therefore, it is very important that "manual checking" must be done to avoid this type of rejection.

REJECTION TEXT:
1.) Material Wire Care 27-2 (affected components: Kantenschutz-Dichtpr. (PN 12345)) - You have reported a mixed material. Mixture of different substances in one material datasheet is not allowed. Every homogeneous material has to be described as a separate material. [IMDS Rec. 001, Rule 4.4.1.D]. For information about the definition of homogeneous, refer to IMDS Rec. 001 Annex I, section 1.1. Please investigate the presence of **4-5% Cotton-fibre in material reported as steel** and classify this accordingly as well.

7. MATERIAL BREAKDOWN

7.1 Mixed Materials

RULE 4.4.2.G

Every homogeneous material has to be described as a separate material. For information about the definition of "homogeneous", refer to IMDS 001 Annex I, section 1.1. If a material parent node has material child nodes, the material represented by the parent node must be homogeneous. Two or more materials forming layers cannot be regarded as homogeneous. Example: Zinc coating on steel or paint layers cannot be reported as a material with sub-materials, as the top material is not homogeneous.

To identify, correct and avoid this type of rejection:

1. **Check the basic substance breakdown** of the material being called out. In some cases, the IMDS check will issue a warning on some materials with incorrect material breakdown(i.e. wildcards/jokers exceeding 10%). Therefore, to ensure compliance, the owner has to manually check this field.
2. **Use the IMDS Recommendation 001a document for guidance** in checking if the material breakdown is reported properly .
3. **Correct the datasheet** of the affected material as necessary. If the material datasheet used came from your supplier, ask your supplier to make the necessary changes to the material data sheet and use the revised version to resubmit.

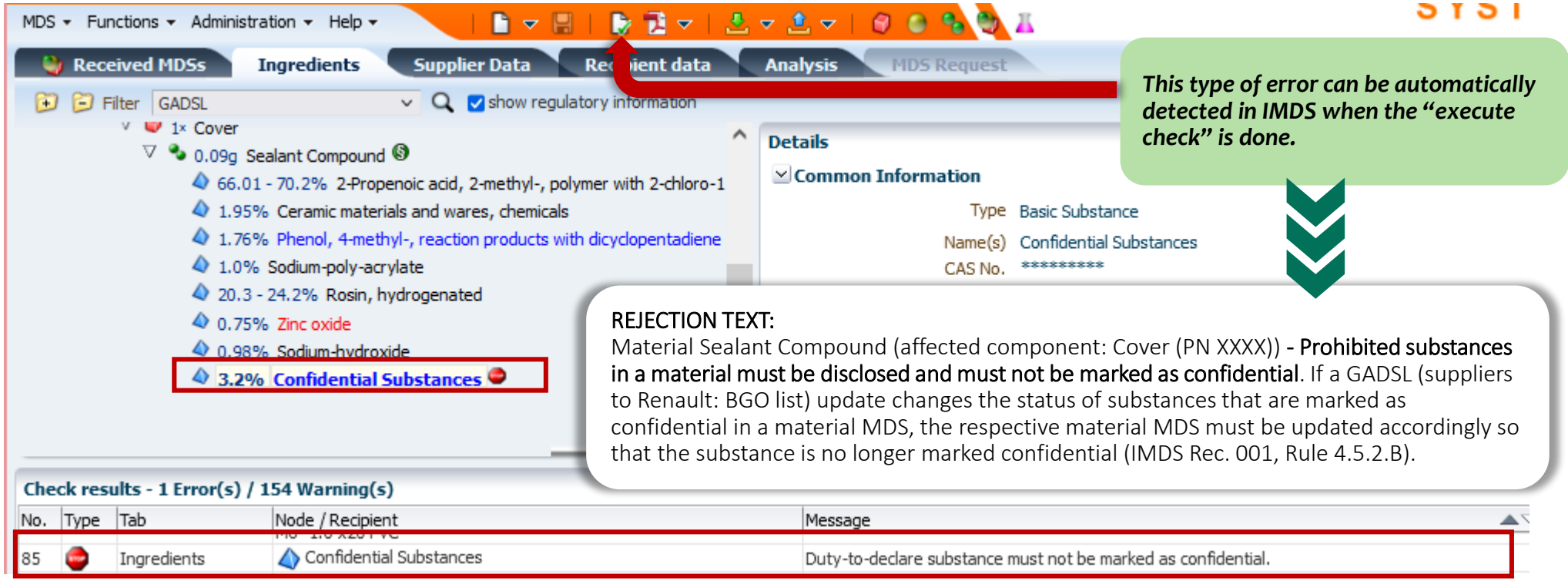
Important Note: Material Breakdown errors can only be partially detected by the system through its checking functionality. Therefore, it is very important that **"manual checking"** must be done to avoid this type of rejection.

7. MATERIAL BREAKDOWN

7.2 Confidential Substances

RULE 4.5.2.B

If a GADSL update changes the status of substances that are marked as confidential in a material MDS, the respective material MDS must be updated accordingly so that the substance is no longer marked confidential. MDSs containing this material MDS also must be up-dated along the supply chain.



This type of error can be automatically detected in IMDS when the "execute check" is done.

REJECTION TEXT:
Material Sealant Compound (affected component: Cover (PN XXXX)) - **Prohibited substances in a material must be disclosed and must not be marked as confidential**. If a GADSL (suppliers to Renault: BGO list) update changes the status of substances that are marked as confidential in a material MDS, the respective material MDS must be updated accordingly so that the substance is no longer marked confidential (IMDS Rec. 001, Rule 4.5.2.B).

7. MATERIAL BREAKDOWN

7.2 Confidential Substances

RULE 4.5.2.B

If a GADSL update changes the status of substances that are marked as confidential in a material MDS, the respective material MDS must be updated accordingly so that the substance is no longer marked confidential. MDSs containing this material MDS also must be up-dated along the supply chain (see section 3.2).

To identify, correct and avoid this type of rejection:

1. **Check the basic substance breakdown** of the material being called out. In some cases, the IMDS check will issue a warning on some materials with incorrect material breakdown(i.e. wildcards/jokers exceeding 10%). Therefore, to ensure compliance, the owner has to manually check this field.
2. **To fix this issue, mark the confidential substance as unclassified.**
3. **Correct the datasheet of the affected material** as necessary. If the material datasheet used came from your supplier, ask your supplier to make the necessary changes to the material data sheet and use the revised version to resubmit.

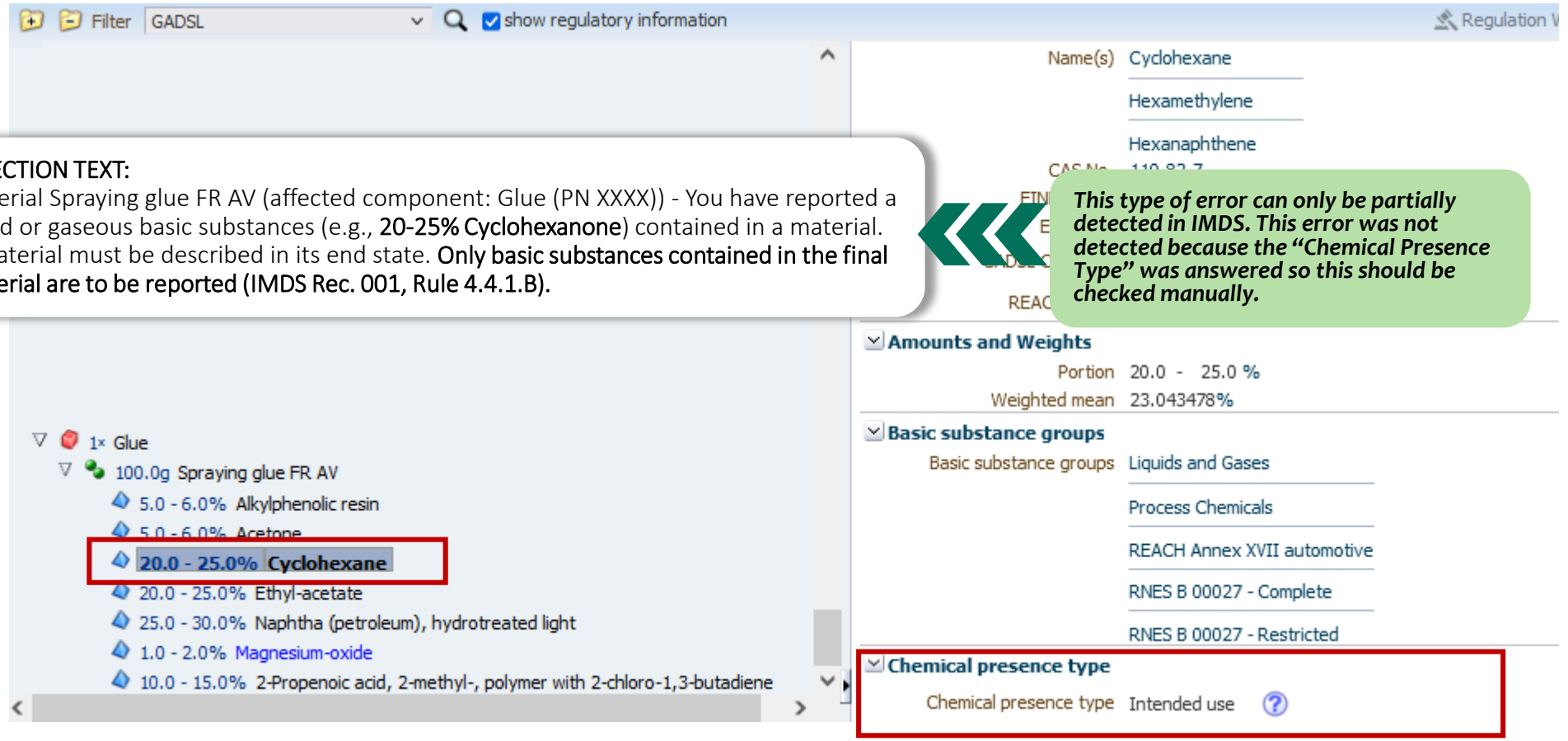
Important Note: Material Breakdown errors can only be partially detected by the system through its checking functionality. Therefore, it is very important that **“manual checking”** must be done to avoid this type of rejection.

7. MATERIAL BREAKDOWN

7.3 Liquids and Gases, Reactive Substances and Ions

RULE 4.4.1.B

A material must be described in its end state. Only basic substances contained in the final material are to be reported (example: cured adhesives or paint coatings are entered **without the evaporating solvents**).



REJECTION TEXT:
Material Spraying glue FR AV (affected component: Glue (PN XXXX)) - You have reported a liquid or gaseous basic substances (e.g., **20-25% Cyclohexanone**) contained in a material. A material must be described in its end state. **Only basic substances contained in the final material are to be reported (IMDS Rec. 001, Rule 4.4.1.B).**

This type of error can only be partially detected in IMDS. This error was not detected because the "Chemical Presence Type" was answered so this should be checked manually.

7. MATERIAL BREAKDOWN

7.3 Liquids and Gases, Reactive Substances and Ions

RULE 4.4.1.B

A material must be described in its end state. Only basic substances contained in the final material are to be reported (example: cured adhesives or paint coatings are entered **without the evaporating solvents**).

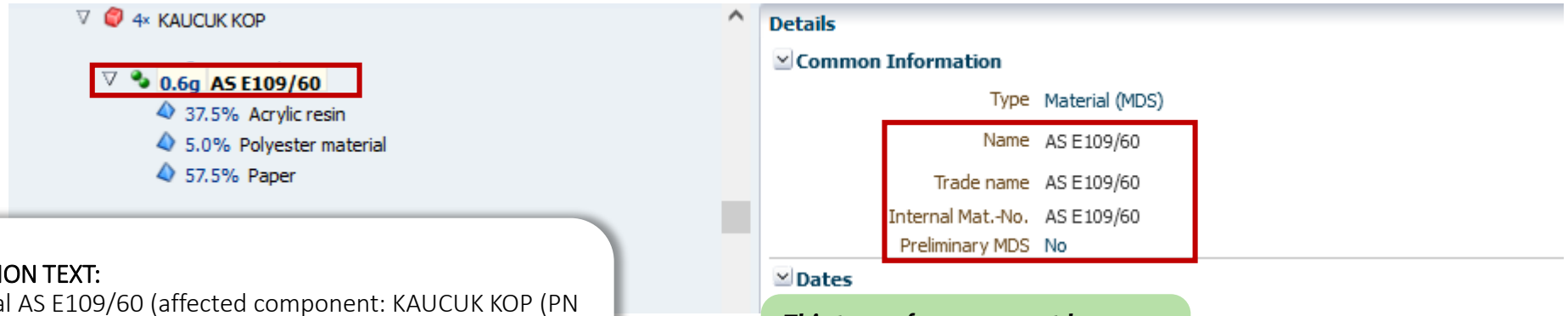
To identify, correct and avoid this type of rejection:

1. **Check the basic substance breakdown** of the material being called out. Investigate the presence of the substance(s) and whether or not the material is reported in its final form in the vehicle. In some cases, the IMDS check will issue a warning on some materials with the presence of liquids and gases, reactive substances or ions if contained to more than 1% in a material (excluding classification 9.x).
2. **Use the IMDS Recommendation 001a document** for guidance in checking if the material breakdown is reported properly .
3. **Correct the datasheet of the affected material** as necessary. If the material datasheet used came from your supplier, ask your supplier to make the necessary changes to the material data sheet and use the revised version to resubmit.

Important Note: Material Breakdown errors can only be partially detected by the system through its checking functionality. Therefore, it is very important that **"manual checking"** must be done to avoid this type of rejection.

8. MATERIAL NAME

RULE 4.4.2.A	The material name must be entered in English in the EN field. The added name translation in other languages is optional.
RULE 4.4.2.B	The material name must not be a trade name. Trade names can be entered in the field “Trade name” .
RULE 4.4.2.C	If the material is described in a public standard, or if the nomenclature for materials of a certain type is described in a public standard (example: ISO 1043-1 and 2 for plastics, ISO 1629 for Elastomers or ISO 18064 for thermoplastic Elastomers), then the material name according to this public standard must be entered.
RULE 4.4.2.D	If no name is available which is described in a public standard, then the name must be descriptive.



REJECTION TEXT:
Material AS E109/60 (affected component: KAUCUK KOP (PN YYYY))- **Material names should be descriptive** and should be closely related to the basic substance breakdown compliant with the public norms/standards you reported (MDS Rec. 001, Rule 4.4.2.C). Please indicate the **proper material name**.

This type of error cannot be automatically detected in IMDS and must be manually checked.

8. MATERIAL NAME

To identify, correct and avoid this type of rejection:

1.To identify this error**, "**manually**" double-check the Material Names** used in every part present in the datasheet. It must correspond to the Basic Substance Breakdown and Classification used in the material.

For Steels – EN 10027, JIS norms, example: STM-C 540
For Aluminum Alloys – EN 573, JIS norms, example: Al-Si12
For Copper Alloys – ISO norms, example: CuAl5
For Plastics – ISO 1043-1 and ISO 1043-2, example: PE-LD
For Elastomers – ISO 1629, example: ACM
For Thermoplastic Elastomers – ISO 18064, example: TPA-ES

2. If no name is available which is described in a public standard, then the name must be descriptive. Examples are:
   - Aluminum alloy
   - Adhesive layer
   - Basecoat, clear coat
   - Glass
   - Propellant, airbag
   - Lubricant

3.For a (non-standard) descriptive name, the material name should identify the category **(example: metal, polymer, mineral, propellant, organic, lubricant).**

4.To correct this rejection, If the material datasheet used came from your supplier, asked your supplier to make the necessary changes to the material name and used the revised version to resubmit.

Important Note: This type of error is not detectable by the system through its checking functionality. Therefore, it is very important that "manual checking" must be done to avoid this type of rejection

9. PRESENCE OF SVHC

VOLVO SPECIFIC REQUIREMENTS

IMDS helps both supplier and manufacturer to monitor and identify the presence of Substances of Very High Concern (SVHC) such as GADSL substances, REACH substances, ELV substances and many more.

Aside from legislations concerning REACH, ELV and etc., Volvo Group has published different Standards concerning restrictions with respect to the use of certain chemical substances.

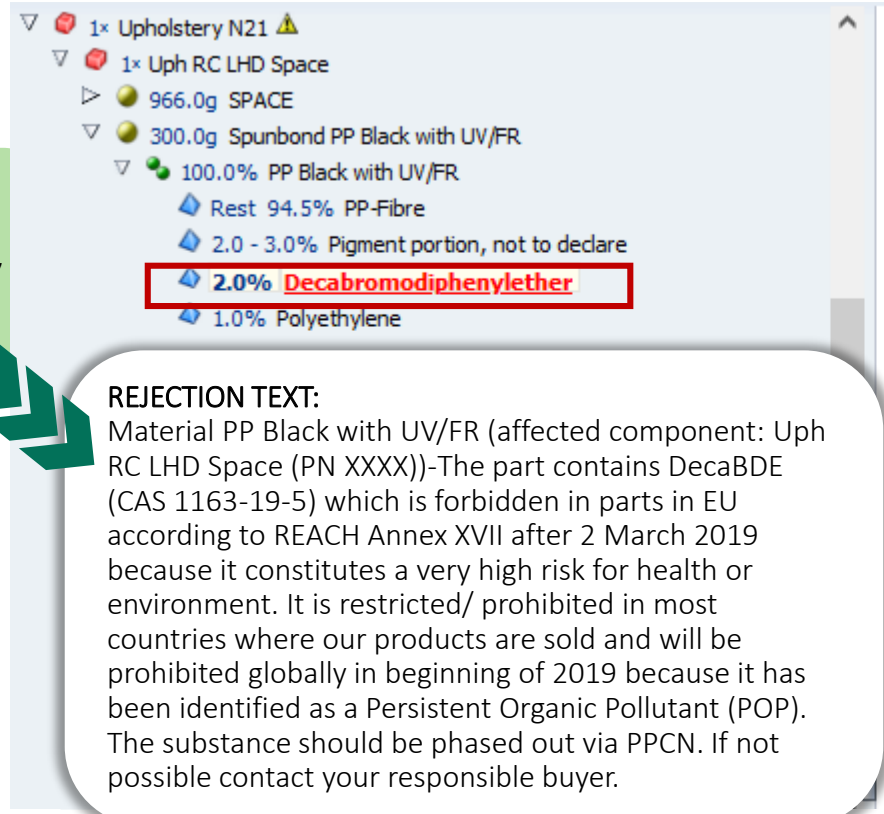
Some of these Standards are:

- 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)
- STD 100-0005 – Chemical Substances which must not be present in Volvo Group products placed on the market (VOLVO'S RED LIST)

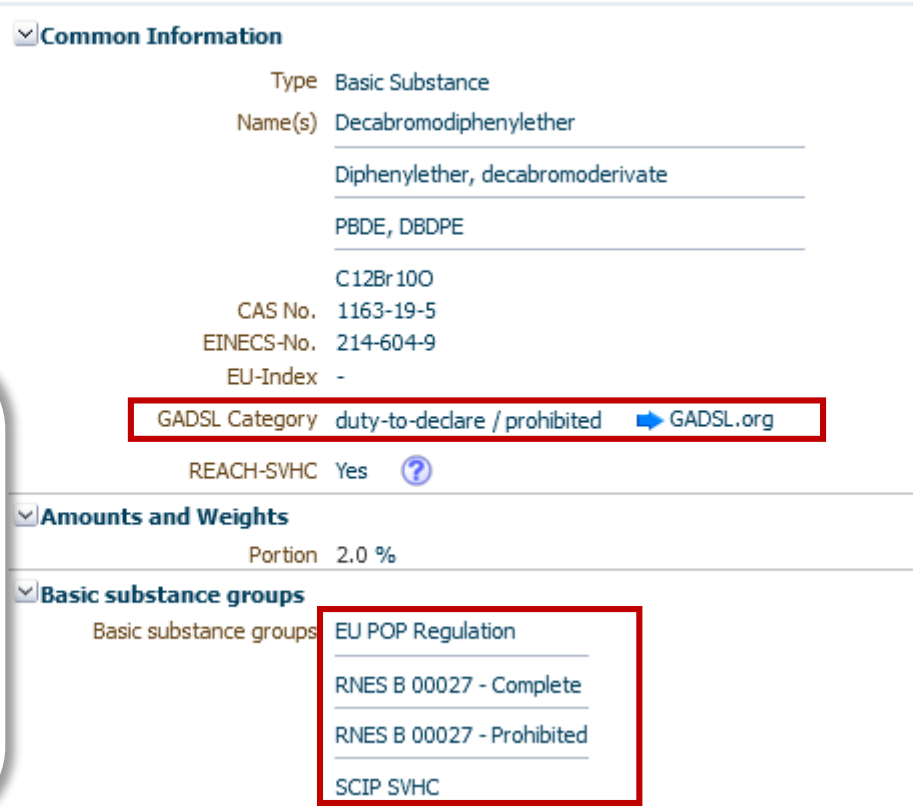
These standards are available at: https://bit.ly/35DCLaz

9. PRESENCE OF SVHC

This type of error cannot be automatically detected in IMDS and must be manually checked. However, most SVHCs are in red in IMDS.



REJECTION TEXT:
Material PP Black with UV/FR (affected component: Uph RC LHD Space (PN XXXX))-The part contains DecaBDE (CAS 1163-19-5) which is forbidden in parts in EU according to REACH Annex XVII after 2 March 2019 because it constitutes a very high risk for health or environment. It is restricted/ prohibited in most countries where our products are sold and will be prohibited globally in beginning of 2019 because it has been identified as a Persistent Organic Pollutant (POP). The substance should be phased out via PPCN. If not possible contact your responsible buyer.



To identify, correct and avoid this type of rejection:

1.To identify this error**, "manually " double-check the basic substances** used in every material present in the datasheet.
-For Application Relevant SVHCs, make sure that the appropriate application ID is used**.**
-For SVHCs with no application code, consult, coordinate, or **communicate** with your **assigned buyer** in **Volvo Group** for the best course of action.

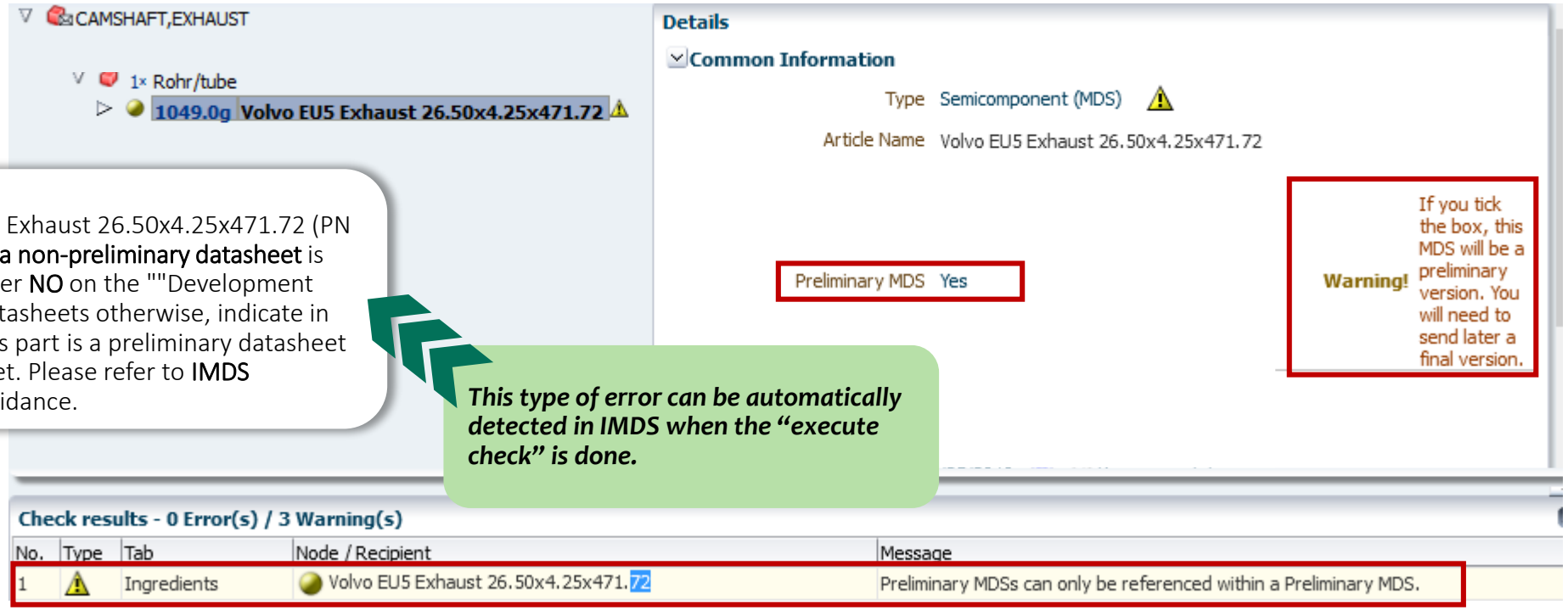
Important Note: This type of error is not detectable by the system through its checking functionality. Therefore, it is very important that "manual checking" must be done to avoid this type of rejection

10. PRELIMINARY DATASHEETS

RULE 4.4.4.A If the material is marked as “Preliminary” (shown by checking the box, Development Sample Report), whatever parent node it is attached to must also be marked “Preliminary”.

RULE 4.4.4.B The use of “Preliminary” material MDSs (including the ProtMats published by the IMDS Steering Committee) is allowed solely in “Preliminary” MDSs, provided there are no GADSL (suppliers to Renault: BGO list) substances contained in the material.

RULE 4.4.4.C The use of “Preliminary” material MDSs in final MDSs (representing production parts) is forbidden. In a final MDS (during PPAP/Initial Sample Report), the material composition must be known and has to be declared in accordance with this document. entered.



REJECTION TEXT:
Semi-Component Volvo EU5 Exhaust 26.50x4.25x471.72 (PN 609230)-**Preliminary data in a non-preliminary datasheet** is not acceptable. Please answer **NO** on the ""Development Sample Report"" for final datasheets otherwise, indicate in the description field that this part is a preliminary datasheet if it is a preliminary datasheet. Please refer to **IMDS Recommendation 023** for guidance.

This type of error can be automatically detected in IMDS when the “execute check” is done.

10. PRELIMINARY DATASHEETS

RULE 4.4.4.A	If the material is marked as “Preliminary” (shown by checking the box, Development Sample Report), whatever parent node it is attached to must also be marked “Preliminary”.
RULE 4.4.4.B	The use of “Preliminary” material MDSs (including the ProtMats published by the IMDS Steering Committee) is allowed solely in “Preliminary” MDSs, provided there are no GADSL (suppliers to Renault: BGO list) substances contained in the material.
RULE 4.4.4.C	The use of “Preliminary” material MDSs in final MDSs (representing production parts) is forbidden. In a final MDS (during PPAP/Initial Sample Report), the material composition must be known and has to be declared in accordance with this document. entered.

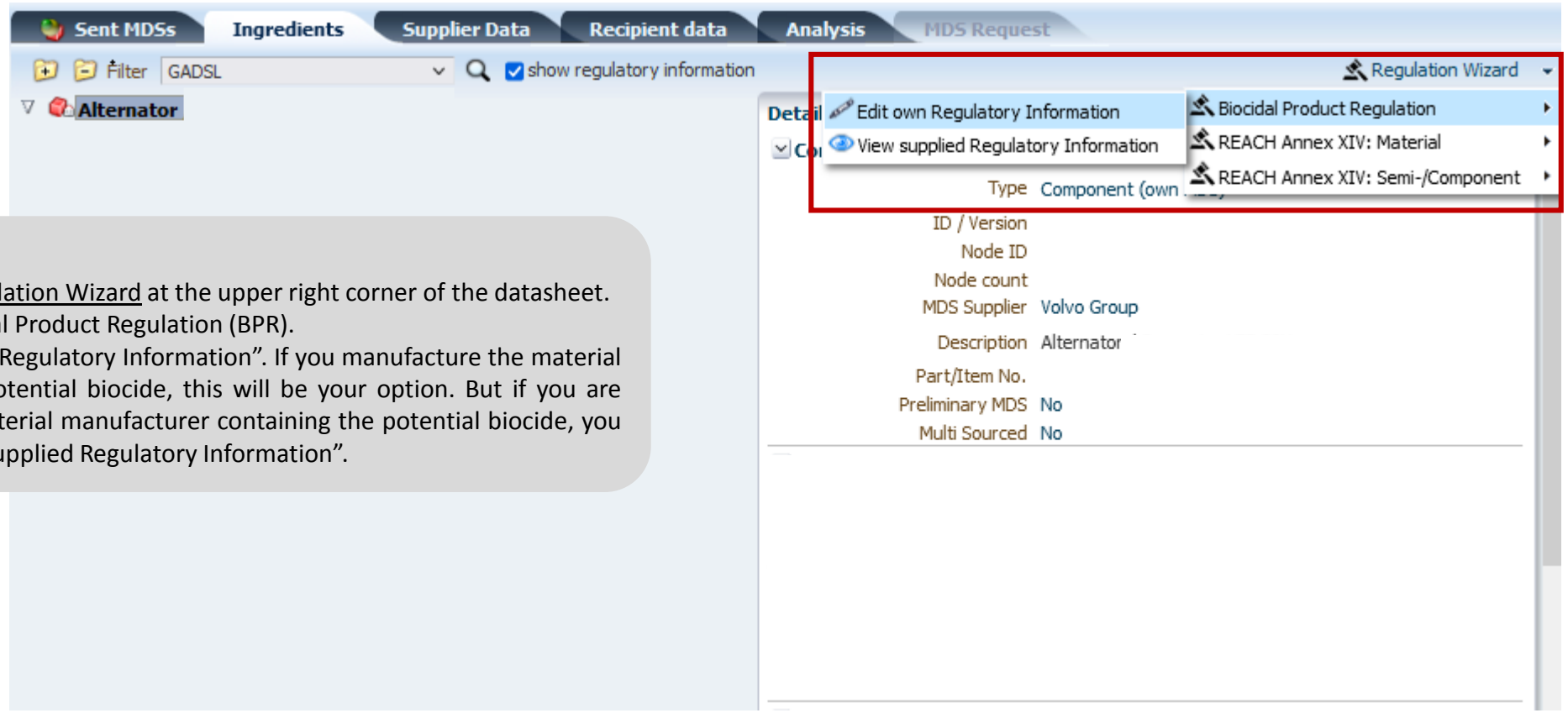
To identify, correct and avoid this type of rejection:

1. To identify this error, click the “Execute Check” functionality in IMDS.

2.A “warning message” about the presence of “Development Sample datasheet” will appear in the “Check results” window. Double-click on the warning message to get to the affected datasheet.

3. Correct the affected material as necessary. Ensure that the “Development Sample Report” field is answered “NO”. Perform the “Execute Check” functionality in IMDS. The “warning message” should disappear after making the correction.

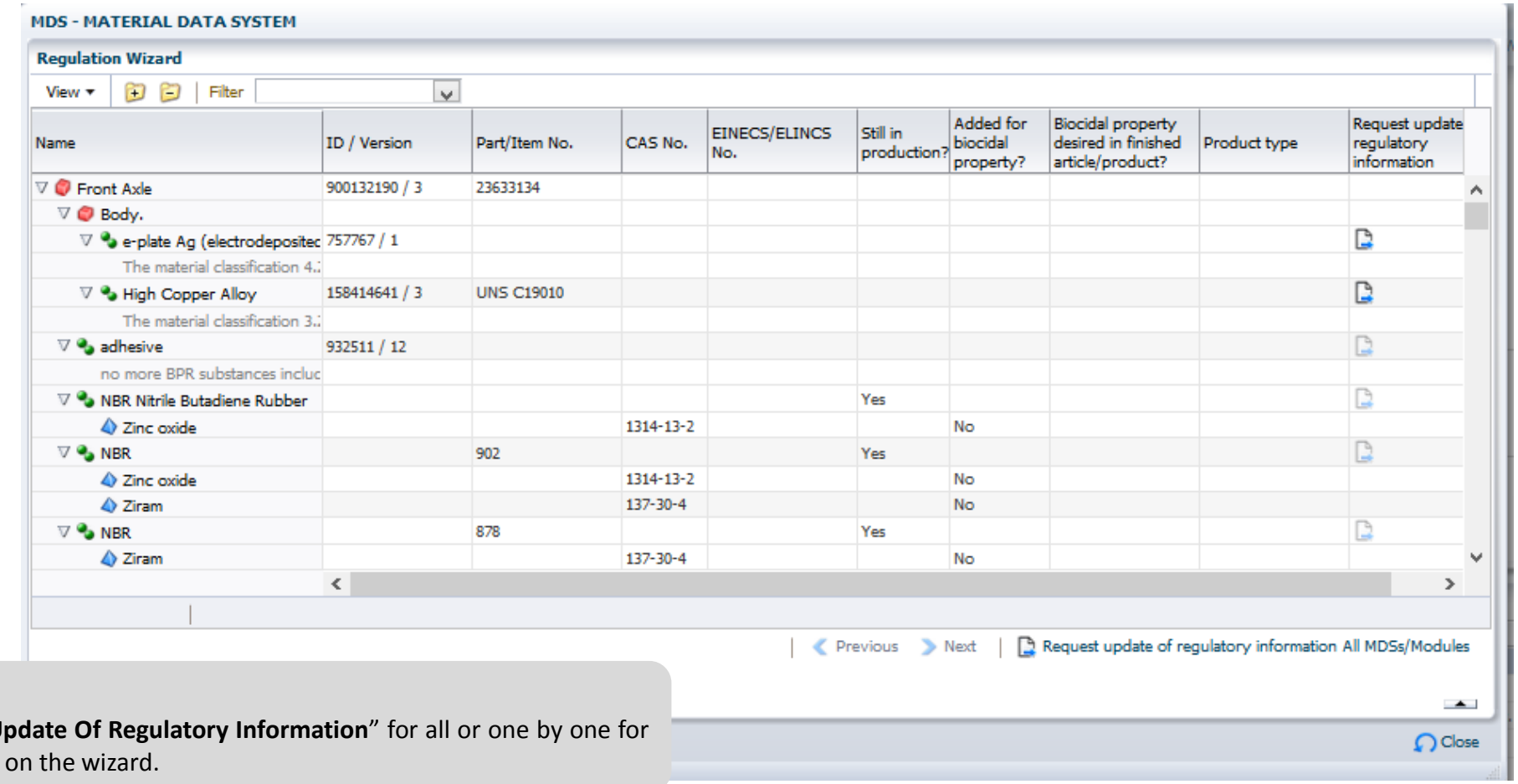
ADDITIONAL INFORMATION: UPDATING BPR (BIOCIDAL PRODUCT REGULATION)



To update BPR:

1. Click on the Regulation Wizard at the upper right corner of the datasheet.
2. 2. Choose Biocidal Product Regulation (BPR).
3. Select “Edit Own Regulatory Information”. If you manufacture the material containing the potential biocide, this will be your option. But if you are supplied by a material manufacturer containing the potential biocide, you can click “View Supplied Regulatory Information”.

ADDITIONAL INFORMATION: UPDATING BPR (BIOCIDAL PRODUCT REGULATION)



To update BPR:

4. Click "**Request Update Of Regulatory Information**" for all or one by one for each material listed on the wizard.

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