IMDS Recommendation

Automotive Sealer and Adhesive Products

1 Purpose

This recommendation outlines the general requirements for the creation of Material Data Sheets (MDS) for Sealer and / or Adhesive Products. The MDS shall describe the chemical composition of the <u>product in</u> its *cured state*. It is also recommended to use the *MDS module* technique, allowing a virtual "assembling" of prepared MDS modules. A product's composition description shall comprise of the material base, the contained functional additives, and possibly contained substance residues (uncured reactants, monomer substances), which are displayed in the structure tree branches. The benefit of this data disclosure technique is that product composition changes can easily be reported using the (originator controlled) semi-finished product or material datasheet modules.

2 References

IMDS 001 (General Structure) and Annex I to the IMDS 001 Recommendation

Global Automotive Declarable Substance List (GADSL)

3 Definitions

3.1 Sealers / Adhesives described as Semi-Components

A sealer / adhesive product can be described as a semi-component. The material of this semi-component (see 3.2) can be the same for different types of bundles. A special adhesive e.g. can be sent in tubes, plastic-bottles, barrels, or containers. All these bundles can have the same content (material) but they can be described by the supplier with different applications and sent/proposed to the customer with customer-specific information (e.g. different design numbers for different kinds of bundles). The supplier can create one **material** data sheet for the same product in different bundles.

3.2 Sealers / Adhesives described as Materials

For systematic product classification reasons it makes sense to describe a material mixture (resins, additives, residues) forming the product by using available basic substance descriptions.

3.3 Resin Bases described as Basic Substances

A sealer or adhesive product's base material in a cured state is the polymer base. Definitions concerning the base material's chemical type are either laid down in a part drawing, the appropriate material specification, or in the automobile manufacturer's delivery requirements.

Many generically described polymer base materials are disclosed to the basic IMDS substance database (as *Pseudo-substances*) and are available for referencing (for more details see IMDS 001).

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3.4 Functional additives and residues described as Basic Substances

The sealer or adhesive product in its cured state furthermore is a compound (a mixture) comprising of additional chemicals being responsible for the product's performance. These additives, remaining in the cured product, must be shown in the MDS structure tree. It is possible to save MDS modules describing the additive package to the originators own database and thus make them available for further and multiple usage. By this different base material / additive ratios can be reported in a convenient way.

3.5 Residual Substances described as Basic Substances

Data on residual (educt) substances can be disclosed in the same branch of the MDS structure tree. Concentration values on residue-contaminated products, being characteristically for a current composition status, shall be disclosed by directly inputting the (analytically) generated data.

4 Examples

For many Automotive Sealer and Adhesive Products standard material data sheets have been created by the IMDS Steering Committee in co-operation with experts from the chemical industry, the OEMs, and suppliers. These standard MDSs can be used if the composition of the used materials is in the range of the materials described in the MDSs of the IMDS Committee. Each supplier using this standard adhesive must verify that the standard material data from his sub-tier supplier levels complies with this standard adhesive before utilization. Standard materials must not be used to cover any substance that does not comply with current legal or OEM requirements, or where no sub-supplier material information is available.

Materials containing prohibited and/or declarable substances according to GADSL (reference: www.gadsl.org) have to be reported separately and in detail. In this case standard entries are not allowed. The structure of such materials has to be built up according to those of standard materials. IMDS change management rules shall be considered.

4.1 Standard adhesives (as materials)

To facilitate the search function, the names of the materials start with "St-adhesive". Current list of standard adhesives: Search Criteria: Name "St-adhesive", Supplier: IMDS Committee, p published MDS

Type	Name	ID / Version	Supplier	
	St-adhesive acrylate light	23138754 / 1	IMDS-Committee	
0	St-adhesive acrylate plast. black	23140585 / 2	IMDS-Committee	
0	St-adhesive acrylate plast. light	23140330 / 2	IMDS-Committee	
0	St-adhesive APAO-based light	23146593 / 1	IMDS-Committee	
-	St-adhesive Bitumen/Asphalt	23193653 / 2	IMDS-Committee	
0	St-adhesive COPA-based black	23146253 / 2	IMDS-Committee	
	St-adhesive COPA-based light	23146157 / 2	IMDS-Committee	
0	St-adhesive CR-based black	23144563 / 3	IMDS-Committee	
0	St-adhesive CR-based light	23144717 / 2	IMDS-Committee	
0	St-adhesive EP-based black	23145523 / 2	IMDS-Committee	
20	St-adhesive EP-based light	23145410 / 2	IMDS-Committee	
20	St-adhesive EVAC-based black	23145804 / 2	IMDS-Committee	
0.0	St-adhesive EVAC-based light	23145677 / 2	IMDS-Committee	
-	St-adhesive IIR-based black	23149264 / 3	IMDS-Committee	
0	St-adhesive IIR-based light	23149514 / 4	IMDS-Committee	
200	St-adhesive MQ-based light	23150619/1	IMDS-Committee	
0	St-adhesive PA-based black	23146487 / 2	IMDS-Committee	
0.0	St-adhesive PA-based light	23146410/2	IMDS-Committee	
-	St-adhesive PE-Si-based black	23150490 / 2	IMDS-Committee	
20	St-adhesive PE-Si-based light	23150312/2	IMDS-Committee	
0	St-adhesive Phenol-based	25052293 / 2	IMDS-Committee	
0	St-adhesive Phenol-NBR-modified	25052459 / 2	IMDS-Committee	
0	St-adhesive PUR-based black	23146634 / 2	IMDS-Committee	
0	St-adhesive PUR-based light	23146727 / 2	IMDS-Committee	
20	St-adhesive PUR-hotmelt black	23147393 / 1	IMDS-Committee	
-	St-adhesive PUR-hotmelt light	23147333 / 1	IMDS-Committee	
0	St-adhesive PUR-primer black	23148622 / 3	IMDS-Committee	
0	St-adhesive PVC-plastisol black	23149022 / 2	IMDS-Committee	
0	St-adhesive PVC-plastisol light	23149181 / 2	IMDS-Committee	
0	St-adhesive SIBR-based light	23144828 / 3	IMDS-Committee	

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4.2 Standard pre-formed materials (as semi-components) for components which get their final shape in an additional thermal process (e.g. in a painting process)

To facilitate the search function, the names of the semi-components start with "Preformed". Current list of standard preformed materials:

Search Criteria: Article Name "Preformed"	', Supplier: IMDS Committee, b published MDS

Туре	Article Name	ID / Version	Supplier
@	Preformed EP black	44527374 / 5	IMDS-Committee
@	Preformed EP black + PA6-GF30	44526669 / 6	IMDS-Committee
@	Preformed EP light	44529160 / 4	IMDS-Committee
@ 0	Preformed EP light + PA6-GF30	44529632 / 5	IMDS-Committee
@	Preformed EVA black	44530042 / 4	IMDS-Committee
@	Preformed EVA black + PA6-GF15	44532836 / 5	IMDS-Committee
@ 0	Preformed EVA light	44532790 / 4	IMDS-Committee
@	Preformed EVA light + PA6-GF15	44532905 / 5	IMDS-Committee
@ o	Preformed IIR black	44599151 / 4	IMDS-Committee
@ 0	Preformed IIR light	44599152 / 3	IMDS-Committee
@	Preformed PVC black	44534172 / 3	IMDS-Committee
@	Preformed PVC light	44534191 / 3	IMDS-Committee

In order to avoid a decline of the data quality it is taken for granted that all sealer and adhesive materials which do not comply to these standards are entered into IMDS as individual data entries.

4.3 Standard Tapes (as semi-components)

To facilitate the search function, the names of the standard tapes start with "Tape". Current list of standard tapes:

Search Criteria: Article Name "Tape", Supplier: IMDS Committee, p published MDS

Туре	Article Name	ID / Version	Supplier
€.	Tape Paper / NR	46938982 / 2	IMDS-Committee
2.	Tape PET / NR	46937804 / 1	IMDS-Committee
2.	Tape PET / PAK	46938730 / 2	IMDS-Committee
2.	Tape PP / PAK	46938855 / 1	IMDS-Committee
2.	Tape PVC / NR	46939063 / 1	IMDS-Committee
2.	Tape PVC / PAK	46936631 / 1	IMDS-Committee
2.	Tape PVC / PAK FR	46936917 / 1	IMDS-Committee
2.	Tape Wool / NR	46938065 / 1	IMDS-Committee

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5 Release and Revisions

5.1 Release

This recommendation was agreed during the anniversary meeting of the Industrial Adhesive Manufacturer Meeting June 2004.

<u>J.Z</u>			
Rev.	Date	Description/ Reason	Released by
01	June 20, 2003	Editorial review	IMDS SC
02	June 01, 2006	Standard adhesives, tapes, preformed materials added, editorial review	IMDS SC
03	July 2007	Editorial review	IMDS SC
04	Nov.2017	Editorial review	IMDS SC

5.2 Revisions