



HMC/KIA IMDS Guidance

Version 13

Revision	Korean	English	Changes
IMDS 3.1	2005.07.15	2006.02.21	
IMDS 4.0	2006.06.01	2006.05.17	
			
IMDS 8.1	2013.05.27	2013.05.27	Recipient, IMDS service center
IMDS 8.2	2014.05.14	2014.05.14	Applied plant, Recipient, Change terms
IMDS 8.3	2015.06.15	-	Recipient, Preliminary MDS, Norm/standard
IMDS 8.4	2017.05.24	2018.03.09	Recipient, weight allowance, EO information, etc.
IMDS 8.5	2018.07.23	2018.07.23	Add recipient (HMI)
IMDS 8.6	2018.12.04	2018.12.04	Add recipient (HMB)
IMDS 8.7	2019.01.10	2019.01.10	Add recipient (KMI)
IMDS 9.0	2020.02.26	2020.02.26	Add recipient (Subsidiary materials) etc.
IMDS 10.0	2021.06.07	-	Add recipient, Recycling Information, etc..
IMDS 10.1	2022.04.15	2022.04.15	Input thebase chemical substance_CRM substance
IMDS 10.2	2022.09.30	2022.09.30	Input material classification of polymer material, Material marking required input, etc.
IMDS 11.0	2023.05.01	2023.05.01	Add recipient (HMGICS), Material input criteria
IMDS 11.1	2023.09.05	2023.09.05	Input recycled materials
IMDS 12	2024.04.30	2024.04.30	Add/change recipient, match part composition BOM, input of purchased parts
IMDS 13	2025.09.01	2025.09.01	Change of recipient, change of material classification criteria

HMC/KIA IMDS(International Material Data System) Guidance is the minimum requirement when MDS (Material Data Sheet) is created and submitted by suppliers. It is used as the acceptance criteria for supplier MDS. Suppliers sending MDS are responsible for disadvantage caused from noncompliance with this guidance. The current version of this guidance can be downloaded in [IMDS public page](#) and is prohibited to distribute this guide with arbitrary modification.

Summary

1. Please be well-informed of basic IMDS instructions from following documents before reading this guidance

- 1) Information supplied from DXC company

- General system instruction

: <http://mdsystem.com> → See '[Online user manual](#)' in System Login screen

- How to create a material MDS

: <http://mdsystem.com> → See '[How to create a material MDS](#)' in System Login screen

- How to create a component MDS

: <http://mdsystem.com> → See '[How to create a component MDS](#)' in System Login screen

- IMDS Recommendations

: <http://mdsystem.com> → System Login → See 'Recommendation' of the 'Help' in main screen

- 2) IMDS training course

- The offline training curriculum is conducted by MDS Korea Inc., the domestic training partner of DXC, the operator of IMDS. The require training course can be purchased and attended through the [company's website](#). (Conducted monthly)

- 3) See the training movies provided by HMC/KIA in order to do basic instruction during

very short time : <http://mdsystem.com> → IMDS Information Pages → Help →

OEM Specific Info. → [Hyundai Motor and KIA](#)

2. This guidance is written based on IMDS Recommendations. If guidance and IMDS Recommendations are mismatched, please follow this guidance.

3. When submitting IMDS data, it shall be submitted based on the applicable plant of the relevant part. Any data submitted to an incorrect recipient shall be invalid, even if it has been approved. ([refer to 3.1.1 of this guidance](#)).

Company	Plant	Recipient [Org. unit ID]
HMC (passenger car)	- All parts produced in Korean plants - All parts produced domestically and exported as complete vehicles	HYUNDAI MOTOR COMPANY KOREA (HMC) [71405]
	Parts applied to Czech plant (HMMC)	HYUNDAI MOTOR MANUFACTURING CZECH (HMMC) [119672]
	Parts applied to Türkiye plant (HAOS)	HYUNDAI ASSAN OTOMOTIVE SANAY (HAOS) [271300]
	Parts applied to India plant (HMI)	HYUNDAI MOTOR INDIA (HMI) [192766]
	- Parts applied to American plants (HMMA, HMGMA)	HYUNDAI MOTOR ALABAMA (HMMA) [119671]
	Parts applied to Brazil plant (HMB)	HYUNDAI MOTOR BRAZIL (HMB) [128948]
	Parts applied to Vietnam plant (HTMV)	HYUNDAI MOTOR VIETNAM (HTMV) [271301]
	Parts applied to Indonesia plant (HMMI)	HYUNDAI MOTOR MANUFACTURING INDONESIA (HMMI) [225598]
	Parts applied to Singapore plant (HMGICS)	HYUNDAI MOTOR GROUP INNOVATION CENTER IN SINGAPORE (HMGICS) [248237]
KIA (passenger car)	- All parts produced in Korean plants - All parts produced domestically and exported as complete vehicles	KIA CORPORATION KOREA [71406]
	Parts applied to Slovakia plant (KaSK)	KIA MOTORS SLOVAKIA S.R.O (KaSK) [271299]
	Parts applied to Georgia plant (KaGA)	KIA GEORGIA, INC.(KaGA) [119673]
	Parts applied to Mexico plant (KMX)	KIA MÉXICO, S.A. DE C.V.(KMX) [175429]
	Parts applied to India plant (KIN)	KIA INDIA PRIVATE LIMITED (KIN) [198329]
Commercial Vehicle	All parts applied to commercial vehicles	HMC/KIA COMMERCIAL VEHICLE [155405]
	EU ELV proactive response	HMC/KIA COMMERCIAL VEHICLE(ELV) [250068]
Special Vehicle (Military exclusion)	All parts for passenger special-purpose vehicle	SPECIAL VEHICLE [155406]
	All parts for commercial special-purpose vehicle	COMMERCIAL SPECIAL VEHICLE [156364]
-	PBV models and batteries	PBV & BATTERY [279519]
-	Raw and subsidiary materials applicable to vehicles (all regions)	HMC/KIA SUBSIDIARY MATERIALS [205676]

※ Any recipients other than those listed above shall be deemed invalid.

4. Please call to followings for any questions about system

- HMC/KIA (Request for explanation of rejection; HMC/KIA data approval standards, etc.)

Work	Contact person	Phone Number	E-mail
IMDS General	Park, Hye Young	+82-31-596-9936	phy1024@hyundai.com
IMDS Training	Kim, Young Chul	+82-31-596-9932	ofe@hyundai.com

- ISIR system regarding IMDS

Work	Contact person	Phone Number	E-mail
ISIR	Kim, SungUk	+82-2-801-4321	boguss@hyundai-autoever.com

- IMDS Service Center (access authority / instructions / IMDS Recommendations etc)

Region	Service Hour (Mon~Fri, local time)	Phone Number	E-mail
Korea	9:00 am ~ 05:00 pm (GMT+9)	+82-2-6138-3661	imdsk-helpdesk@dx.com
Europe (English support)	8:00 am ~ 4:30 pm (GMT+1)	+36-1-778-9821	imds-helpdesk-emea@dx.com
Europe (French, Germany support)	8:00 am ~ 4:30 pm (GMT+1)	+33-1-57-32-4856 or +36-1-778-9821	imds-helpdesk-emea@dx.com
North America	8:00 am ~ 5:00 pm (CST)	+1-844-650-4217	imds-helpdesk-english@dx.com
Japan	9:00 am ~ 5:00 pm (GMT+9)	+81-3-4530-9270	jpimds-helpdesk@dx.com
China	9:30 am ~ 5:00 pm BST (GMT+8)	+86-027-59180129	imds-helpdesk-china@dx.com

※ Basic Compliance

1. Legal requirements

The IMDS (International Material Data System) entry guideline of Hyundai Motor and KIA defines the minimum input requirements for the preparation of Material Data Sheet (MDS) submitted by suppliers. Any disadvantages resulting from failure to comply with this guideline shall be borne by the respective supplier.

The latest version of this guideline can be downloaded from the [IMDS website](#), and distribution by unauthorized modification is prohibited.

2. Conditions for Preparing MDS

- 1) When entering MDS, all legal requirements and conditions of environmental regulations shall be satisfied.
※ MS201-02 shall be fulfilled.
- 2) All part numbers of HMC/KIA's full range of parts and raw materials included in vehicles shall be approved.
- 3) As the regulations differ by recipient, the correct recipient must be designated and transmitted according to the conditions of production/sales of the part.
- 4) All MDS shall be approved within 1 to 3 months according to the requested timing. (Same-day processing is not possible.)
- 5) Polymers shall not be entered without a material symbol.
※ Applicable to material classifications 5.1x, 5.2, 5.3
- 6) Preliminary MDS entries shall not be approved.
- 7) Substances used/deleted/hidden in the process shall not be entered.
※ Modification of existing in-house data is required.
- 8) For parts using recycled materials, the recycled content ratio must be entered (From~to values).
※ Applicable to material classifications 1~5, 7.1, 7.2 (Error occurs if input range exceeds 20%)

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※ References

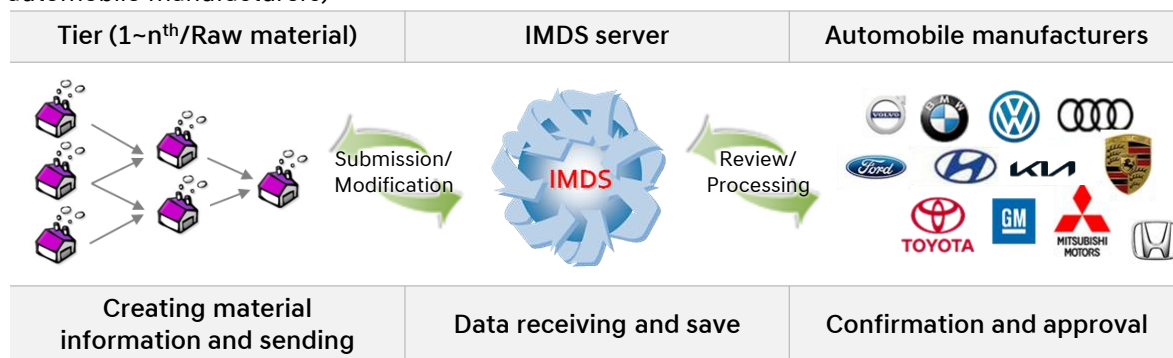
1. Resubmission of Approved MDS with Version Upgrade and Recipient Change

2. Inactive Contact Person

Check Point before Creating MDS

1.1 Backgrounds of IMDS (International Material Data System)

It is developed and operated by automobile manufacturer and solution company, DXC in order to comply with global chemical regulations, and it secures and controls chemicals as well as weight information of automobile parts through supply chain (raw material supplier → tier 2nd → tier 1st → automobile manufacturers)



1.2 IMDS Access Authority Request

- If your company access to IMDS for the first time,
 - : You can take the access authority through the online registration in web-page below.
 - ※ <http://mdsystem.com> → New to IMDS → ‘Company Registration’ → follow registration procedure after click ‘[Online Registration](#)’
- If Your company already registered to IMDS, request access authority to your client manager
 - ※ Please contact with IMDS Service Center for your company registration
(IMDS Service Center : refer to ‘[Summary](#)’ of this guidance for inquiry)

1.3 How to access IMDS

<http://mdsystem.com> → click ‘[Login](#)’ → Input User ID and Password → After change password (8~12 digits combining alphabet and number), the service is available

1.4 Timing of Sending MDS and Application Scope

- Parts and raw materials included in vehicles : The MDS shall be submitted and approved no later than one month prior to the M phase. For parts whose specifications are determined after the M phase due to their characteristics, the MDS shall be entered immediately after the specification is confirmed.
- Submitted MDS availability : An MDS can be viewed by HMC/KIA on day after submission; MDS submitted on the same day cannot be reviewed.
- MDS approval procedure : The MDS approval procedure generally requires 2 to 4 days. As it is processed on a first-in, first-out (FIFO) basis, no separate approval request is required. If approval request is not completed within 4 days, the supplier shall request confirmation by e-mail to the HMC/KIA IMDS contact.

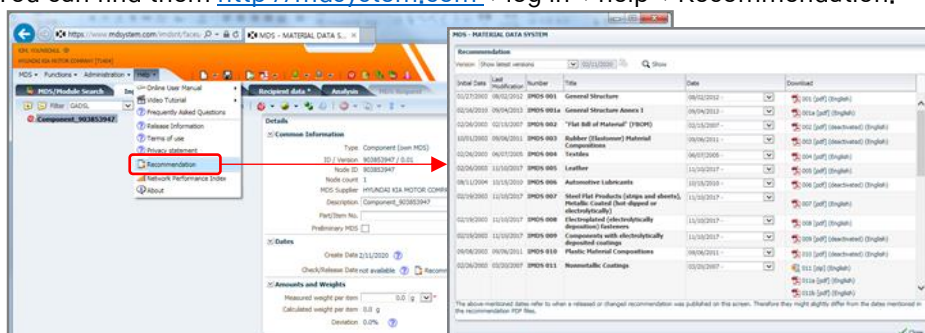
1.5 Application Scope

Category	Application Scope
Vehicle Type and Plants	- All vehicle types produced in HMC/KIA (passenger cars and commercial vehicles) - HMC : All plants in Korea, HAOS, HMI, HMMA, HMGMA, HMB, HTMV, HMMI, HMGICS - KIA : All plants in Korea, KaSK, KaGA, KMX, KIN - Commercial Vehicle : All parts applied to commercial vehicle, EU ELV proactive response - Raw/subsidiary materials attached to complete vehicles (excluding raw materials that do not remain after processing) - Domestic vehicle types produced in the China plants are excluded (for export parts produced in China, the MDS shall be entered to the respective plant).
Unit of Input	Based on the end-item supplied to HMC/KIA plants
Target Parts	- All the parts and subsidiary materials applied to vehicles. - When there are change of material, chemicals and its contents, and weight of part (over 3% of total weight), approved MDS should be revised and re-approved. - When HMC/KIA request MDS additionally to comply with various environmental regulations.
Supplier	- Raw material supplier : send MDS to tier n - Tier 2/3/4/..n : send MDS to upper level through supply chain - Tier 1 : Creating MDS after collecting from lower level supply chain → send it to HMC/KIA - How to input Assembly part including direct purchased part - Input all the data except direct purchased part, but follows our rule regarding direct purchased part (refer to 2.8.2)

1.6 Input Conformity

1.6.1 IMDS Recommendations

- Since IMDS recommendations were written by mutual agreement between IMDS Steering Committee and members and are common operation standards for all automobile manufacturers worldwide who are operating IMDS, users should conform to them with fully understanding when writing MDS in order not to cause any disadvantage due to input error.
- You can find them <http://mdsystem.com> → log in → help → Recommendation.



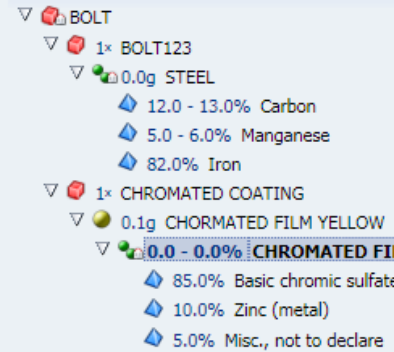
1.6.2 HMC/KIA IMDS Guidance

- Each car manufacturer can request different rules in the Recommendations or additional rules besides these Recommendations depending on their internal situation. All of the suppliers sending MDS to HMC/KIA should follow 'HMC/KIA IMDS Guidance'.
- Guidance of all automobile manufacturers including Hyundai, KIA can be inquired from <http://mdsystem.com> > IMDS Information pages > Help > OEM Specific Information

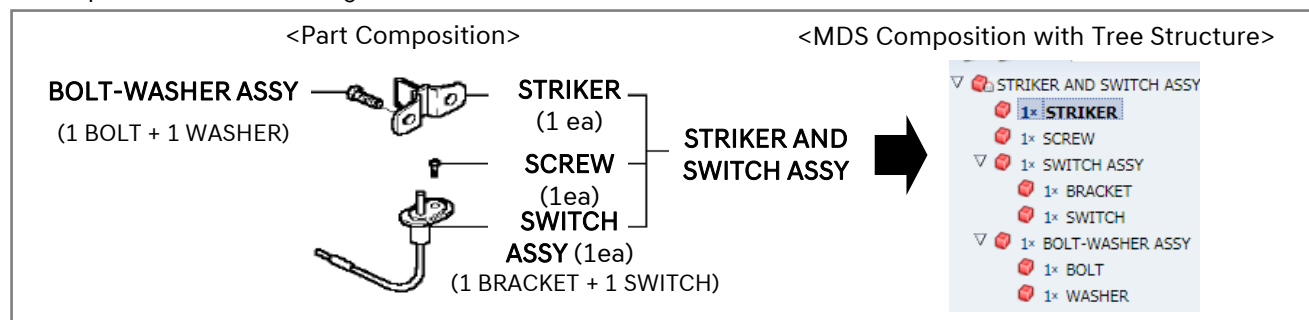
1.7 Understanding Basic Property of MDS

1.7.1 How to Express Elements of Part as Characters and Tree Structure

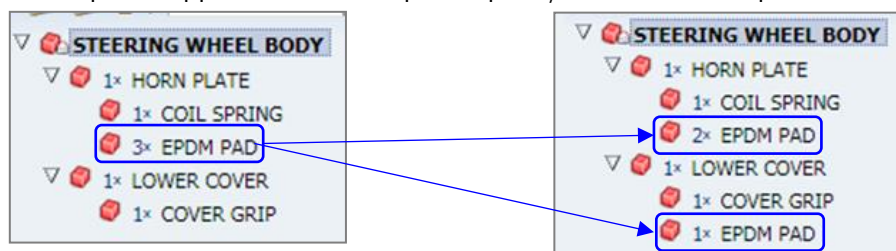
① Parts in IMDS are expressed as icon as following and should be observed when creating MDS

Category	Term Description	Icon	Sample
Component	Define assembly part or sub-part consisting assembly part		
Semi-component	Used in semi-product need to proceed additional process step (cutting, stamping). The addition of dimensional data (kg/m3, kg/m, kg/m2) is possible.		
Material	Material composing components and is consisted of basic substances		
Basic substance	Chemicals composing materials and minimum unit with material characteristics		

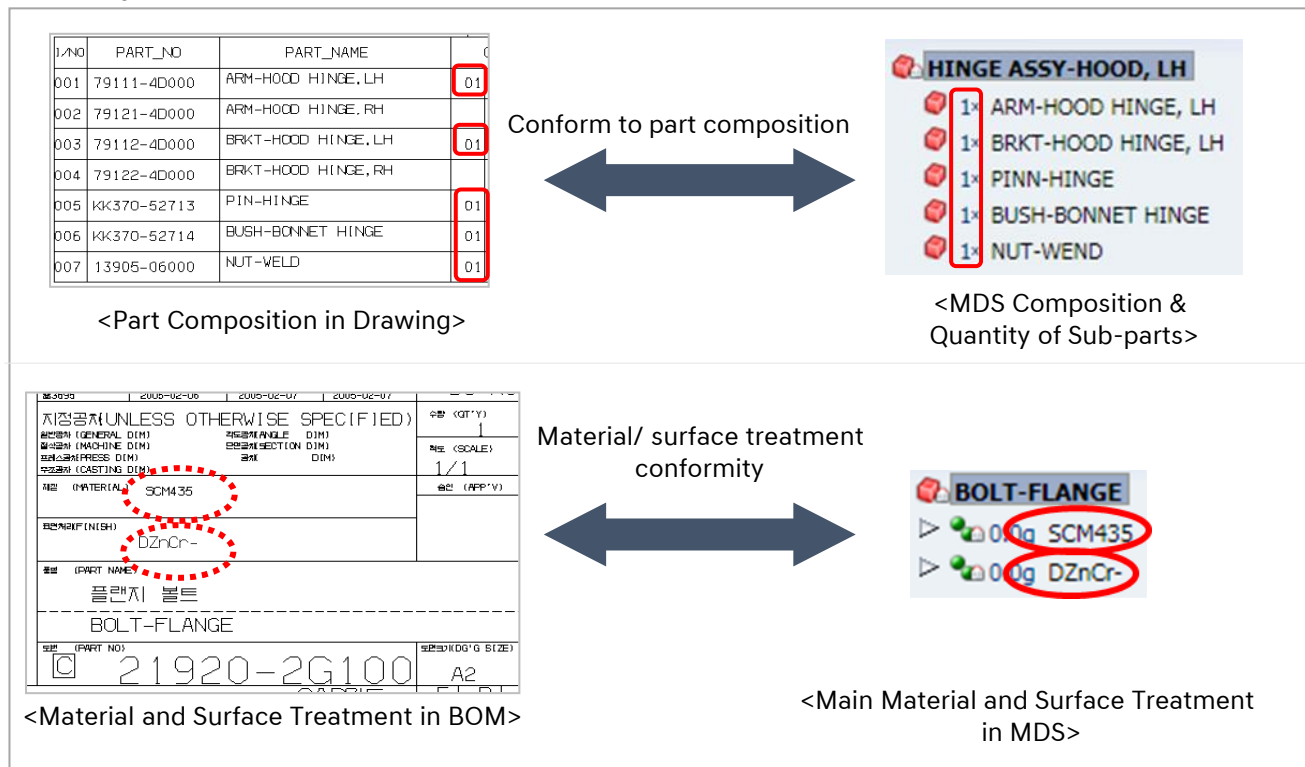
② Part assembly structure is expressed as tree structure in IMDS and should be conform to the actual part composition when creating MDS.



③ If the same sub part is applied to different parent parts, it should be composed to its parent part.



- ④ MDS should be created in conforming with part composition, quantity, material and surface treatment in drawing



1.7.2 Understanding Part and Data Flow Through Supplier Chains

Check part and data flow through tier 1/2/3/4

- Classifying as own parts and direct purchased parts
- Figuring out responsible person of each suppliers and data trasmission and reception path

1.7.3 Measuring Part Weight and Analysis of Substances in Material

- Figure out the weight of assembly and sub-parts and reflect them to data sheet.
- Figure out all materials composing parts (major material, additives, other fillers and stiffners etc) and reflecting results to data sheet after analyzing substances at each material through authorized analysis agency or own analysis.
- Published data in IMDS can be used, but material composition in published data should be conform to your material composition.

※ Reliable data published from : IMDS Committee (company ID : 423),

IMDS-Committee/ILI Metals (company ID : 18986), Stahl und Eisen Liste (company ID : 313)

1.8 Threshold of Prohibited Substances/Material Marking

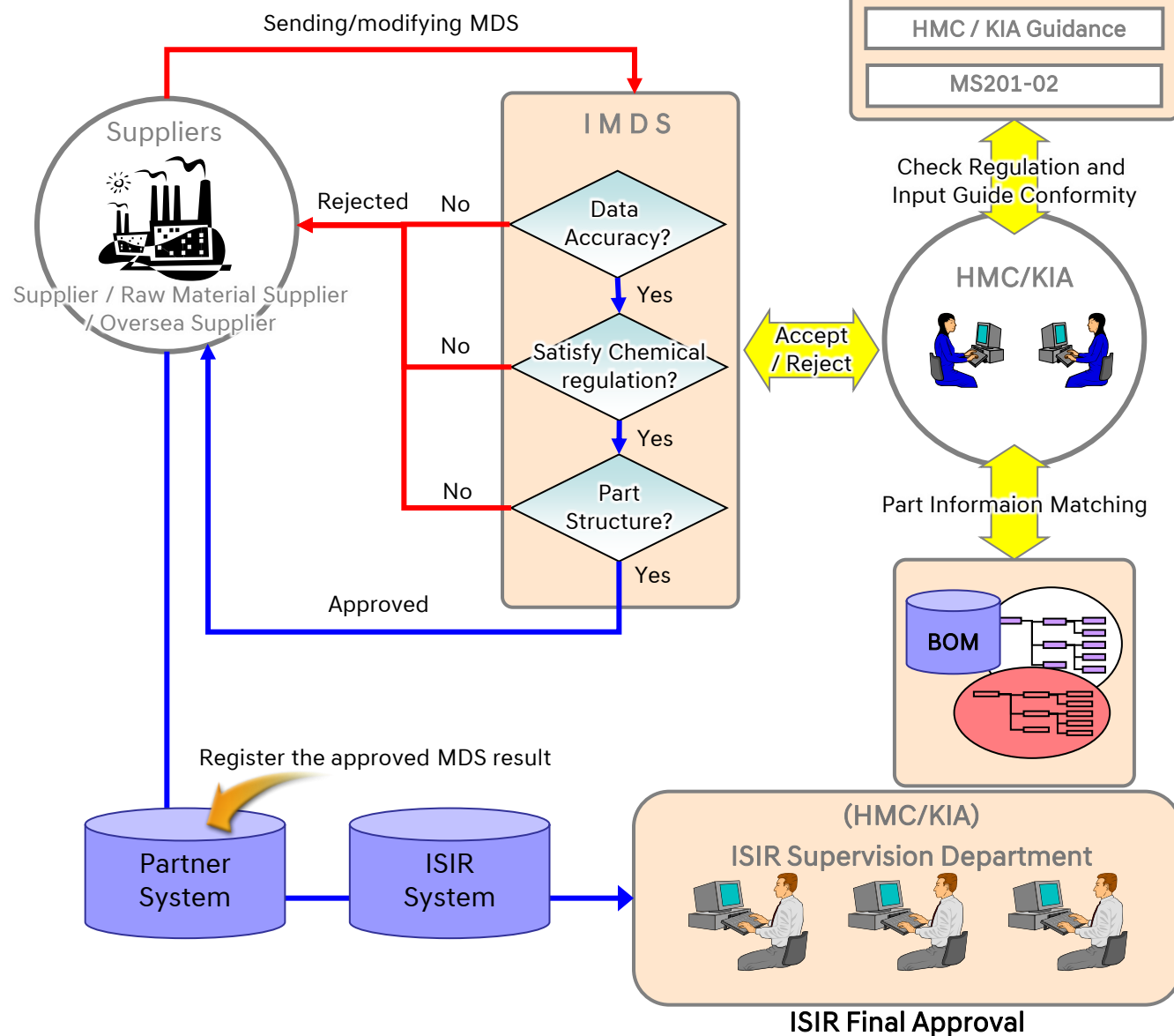
- Substances prohibited or restricted by MS201-02 are not allowed to use.
If they are existed, check whether it is below the threshold or allowed followed by exceptional use in MS201-02
- Check material marking for plastic and rubber materials followed by MS201-01.

1.9 IMDS – ISIR Workflow

MDS for ISIR target parts (developed part or changed part) should be approved according to following workflow and registered to Partner system.

※ MDS which is sent to wrong recipient or not approved is not valid

(Please see how to select recipient refer to [3.1.1](#))



How to Create MDS

2.1 ID/Version Management

- What is ID/Version?

ID is the number created automatically when creating MDS and Version means change history of data sheet. The same ID should be used for the same part number.

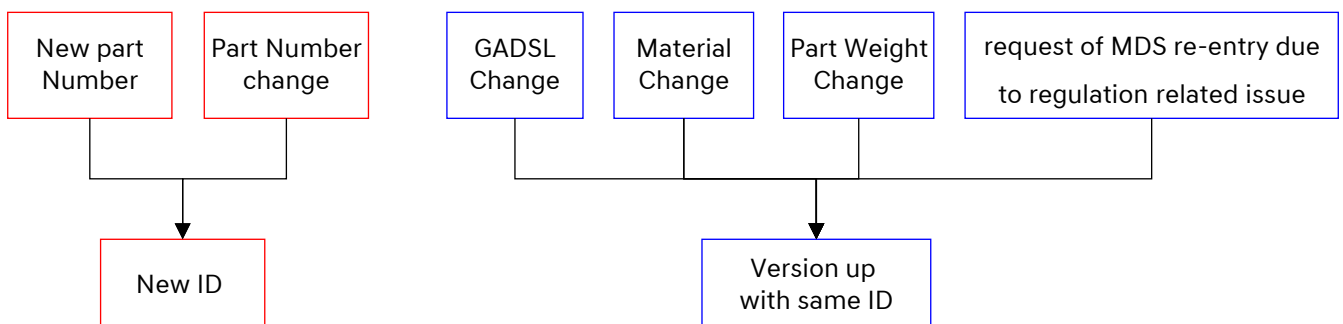
Type	Name	ID / Version	Part/Item No., Item-/Mat.-No., Material No.	transmitted	from comp. (Org Unit) [ID-No.]	Status	last status changed
2a	THERMAL MANAGEMENT SYSTEM-MODL	710595129 6	25800-M5000	2/23/2018	INZI CONTROLS CO.,LTD. [25001]	accepted	2/26/2018
2a	THERMAL MANAGEMENT SYSTEM-MODL	710595129 5	25800-M5000	2/21/2018	INZI CONTROLS CO.,LTD. [25001]	rejected	2/23/2018
2a	THERMAL MANAGEMENT SYSTEM-MODL	710595129 4	25800-M5000	1/17/2018	INZI CONTROLS CO.,LTD. [25001]	accepted	1/18/2018
2a	THERMAL MANAGEMENT SYSTEM-MODL	710595129 3	25800-M5000	1/15/2018	INZI CONTROLS CO.,LTD. [25001]	rejected	1/16/2018
2a	THERMAL MANAGEMENT SYSTEM-MODL	710595129 2	25800-M5000	1/10/2018	INZI CONTROLS CO.,LTD. [25001]	rejected	1/11/2018
2a	THERMAL MANAGEMENT SYSTEM-MODL	710595129 1	25800-M5000	1/4/2018	INZI CONTROLS CO.,LTD. [25001]	cancelled by sender	1/10/2018

ID Version

[ID/Version]

- MDS sent to HMC / KIA should be conformed to following rules.

- Creating data sheet with new ID (Example : 114918315/0.01 → 114918316/0.01)
: In case of the first IMDS input part, new developed part, changed part number of part
- Creating data sheet with the same ID with already accepted MDS
(Example : 114918315/0.01 → 114918315/0.02)
: When already created MDS is changed (sub part added/deleted, material change, substance or substance content change, color change, total weight change of +-3%)
※ Even approved MDS should be reapproved after reflecting changes in case of the above changes.
- See 'References' in this guidance about how to create data sheet related to ID / Version.



[ID/Version management rules when creating data sheet]

2.2 Description and Part/Item No.

- The part name/item number must match the Hyundai/Kia BOM exactly (Note: This may differ from the supplier's BOM).
- Uppercase and lowercase letters are distinguished; entries must be in uppercase only.
- For assembly parts, the names and item numbers of sub-components must be entered according to the part names and numbers specified in our company's BOM. However, if not listed in the company BOM, the supplier's own part name and number may be used.

• Description

- Use the same or similar part name to HMC/KIA BOM
- Part name should be written with English capital letter

Description	Part Name in HMC/KIA BOM
ASM-KIA-MG	SEAT BELT ASSY-FR P/T 3PT, LH
I.S.C ACTUATOR	IDLE SPEED CTL ACTUATOR

• Part/Item No.

- Should be followed to the typical format of HMC/KIA BOM [Part No. format : 12345-67890]
 - ※ Insert '-' between number 5 digit and 5 digit and no spacing between numbers.
- If same part number but different color only, adding color mark with alphabet combination or alphabet-number combination after part number is possible.
 - Example) 56900-3L100**WK** , 37160-2G000**T3**
- If part number is different for the same part name , each part number should be transmitted separately.
 - Example) 88870/88880-1E000 → 88870-1E000 (transmit), 88880-1E000 (transmit)
- For the directly supplied materials such as lubricant, fuel, paint, sealant, etc, Vaatz code of product as Part /Item No. can be available.

Details

☒ **Common Information**

Type: Component (received MDS)
ID / Version: 725614714 / 0.01
Node ID: 725614714
Node count: 24
MDS Supplier: ASUNG PLATECH CO.LTD
Description: CLAMP SPARE TIRE
Part/Item No. 62850-3X000
Preliminary MDS: No

☒ **Dates**

Create Date: 3/2/2018 ?
Release Date: not available ?
Check Date: 3/2/2018 ? Recommendation

☒ **Amounts and Weights**

Measured weight per item: 46.4 g
Calculated weight per item: 46.4 g
Deviation: 0.0% ?

2.3 Match Part Sub-configuration BOM

- Must match the substructure of the HMC/KIA BOM.

[Weight]

RAIL&STRIKER ASSY-HOOD (986g) RAIL ASSY-HOOD OTR (1 EA) STRIKER ASSY-HOOD (1 EA) RAIL-HOOD OTR SIDE,LH (1 EA) RAIL-HOOD OTR SIDE,RH (1 EA)	<table border="1"> <tr> <td>GROUP CODE</td> <td>BM</td> </tr> <tr> <td>SOURCE (E/P)</td> <td>V V</td> </tr> <tr> <td>단위</td> <td>EA</td> </tr> <tr> <td>설계 중량</td> <td>1230</td> </tr> <tr> <td>설계 원가</td> <td>0</td> </tr> <tr> <td>조립공차</td> <td></td> </tr> </table>	GROUP CODE	BM	SOURCE (E/P)	V V	단위	EA	설계 중량	1230	설계 원가	0	조립공차	
GROUP CODE	BM												
SOURCE (E/P)	V V												
단위	EA												
설계 중량	1230												
설계 원가	0												
조립공차													

[Part structure]

GRILLE ASSY-RADIATOR GRILLE-RADIATOR MESH COVER-OUT UPR PIECE (1 EA) COVER-OUT LWR PIECE (1 EA) T/SCREW RWHL (10 EA)	<table border="1"> <tr> <th>PART NAME</th> <th>QTY</th> </tr> <tr> <td>GRILLE-RADIATOR</td> <td>01</td> </tr> <tr> <td>PIECE-RADIATOR GRILLE UPR</td> <td>01</td> </tr> <tr> <td>PIECE-RADIATOR GRILLE FR</td> <td>01</td> </tr> <tr> <td>T/SCREW-COUNTERSINK HEAD</td> <td>10</td> </tr> <tr> <td>RAD-RAD GRL UPR GARN SEALG</td> <td>19</td> </tr> </table>	PART NAME	QTY	GRILLE-RADIATOR	01	PIECE-RADIATOR GRILLE UPR	01	PIECE-RADIATOR GRILLE FR	01	T/SCREW-COUNTERSINK HEAD	10	RAD-RAD GRL UPR GARN SEALG	19
PART NAME	QTY												
GRILLE-RADIATOR	01												
PIECE-RADIATOR GRILLE UPR	01												
PIECE-RADIATOR GRILLE FR	01												
T/SCREW-COUNTERSINK HEAD	10												
RAD-RAD GRL UPR GARN SEALG	19												

[Material / Surface treatment]

BRKT ASSY TM SUPT BRKT TM SUPT (1 EA) PLATE - STOPPER (1 EA) PLATE - STOPPER (10 g) SPCC (100 %) NUT - SQUARE (2 EA) FLANGE - BOLT (2 EA)	- 볼트 체결 시, ㉠ 표시부 볼트를 체결 한 후 ㉡ 표시부 볼트를 체결 할 것. 2번 부품의 표시되지 않은 공차는 프레스 가공을 참조할 것. 2번 부품 표면처리, 규격 : FPO-5M (MS630-01)
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The final ASS'Y as well as the sub-components must match

2.4 Deviation Between Measured Weight and Calculated Weight

- Weight deviation of component should be satisfied with the below table for component.

$$\text{Deviation} = \left(\frac{\text{Measured weight per item} - \text{Calculated weight per item}}{\text{Measured weight per item}} \right) \times 100$$

Component Weight (X)	Max Deviation (%)
$X < 1\text{g}$	100
$1\text{g} \leq X < 100\text{g}$	10
$100\text{g} \leq X < 1\text{kg}$	5
$1\text{kg} \leq X < 10\text{kg}$	2
$10\text{kg} \leq X < 100\text{kg}$	1
$X \geq 100\text{kg}$	0.5

Details

☒ **Common Information**

Type Component (own MDS)
 ID / Version 722410467 / 0.01
 Node ID 722410467
 Node count 1
 MDS Supplier HYUNDAI KIA MOTOR COMPANY
 Description Component_722410467 *
 Part/Item No.
 Preliminary MDS ☐

☒ **Dates**

Create Date 2/19/2018 ?
 Check/Release Date not available ? Recommendation

☒ **Amounts and Weights**

Measured weight per item g *
 Calculated weight per item 0.0 g
 Deviation 0.0% ?

2.5 Preliminary MDS

- HMC/KIA does not use 'Preliminary MDS' and it does not need to be checked.

※ Preliminary MDS : MDS created before detailed development stage in order to calculate a recyclability.

Normally it does not have the detailed information of chemical composition.

KIM, YOUNGCHUL
 HYUNDAI KIA MOTOR COMPANY [71494]

MDS ▾ Functions ▾ Administration ▾ Help ▾

MDS/Module Search Ingredients * Supplier Data * Recipient data * Analysis MDS Request

Filter GADSL show regulatory information

test MDS

Details

☒ **Common Information**

Type Component (own MDS)
 ID / Version 722410467 / 0.01
 Node ID 722410467
 Node count 1
 MDS Supplier HYUNDAI KIA MOTOR COMPANY
 Description test MDS *
 Part/Item No.
 Preliminary MDS ☐ Do not check this box

☒ **Dates**

Create Date 2/19/2018 ?
 Check/Release Date not available ? Recommendation

☒ **Amounts and Weights**

Measured weight per item g *
 Calculated weight per item 0.0 g
 Deviation 0.0% ?

2.6 Material Classification Selection

Material classification serves as a key criterion when indicating material marking, the application code for heavy metals, and information on recyclability (recycled material). Therefore, it is essential to select an appropriate material classification.

2.6.1 Chemical Substance Containment/Non-Containment Conditions by Material Classification

- When preparing data, if one of the material classifications below is selected, the material must meet the corresponding chemical substance conditions specified below.
- For material classification chemical substance content conditions entered as a range value, the minimum value serves as the reference standard.

No.	Classification Name	Containment Condition	CAS-No & Group	Non-Containment Condition	CAS-No & Group
1	Steel and iron materials				
1.1	Steels / cast steel / sintered steel	Fe ≥ 50%	7439-89-6	C ≥ 2%	7440-44-0
1.1.1	unalloyed, low alloyed	Fe ≥ 95%	7439-89-6	C ≥ 2%	7440-44-0
1.1.2	highly alloyed	Fe ≥ 50%	7439-89-6	Fe ≥ 95% C ≥ 2%	7439-89-6 7440-44-0
1.2	Cast iron	Fe ≥ 50%	7439-89-6	-	
1.2.1	Cast iron with lamellar graphite / tempered cast iron	Fe ≥ 70% C ≥ 2%	7439-89-6 7440-44-0	-	
1.2.2	Cast iron with nodular graphite / vermicular cast iron	Fe ≥ 55% C ≥ 2%	7439-89-6 7440-44-0	-	
1.2.3	Highly alloyed cast iron	Fe ≥ 14% C ≥ 2%	7439-89-6 7440-44-0	-	
2	Light alloys, cast and wrought alloys				
2.1	Aluminum and aluminum alloys	Sum of Aluminium + Aluminum nickel (AlNi) + Aluminum alloy, no base, Al, Be ≥ 50%	Chk: Aluminium (7429-90-5, 12003-78-0, 12770-50-2)	-	
2.1.1	Cast aluminum alloys	Sum of Aluminium + Aluminum nickel (AlNi) + Aluminum alloy, no base, Al, Be ≥ 50%	Chk: Aluminium (7429-90-5, 12003-78-0, 12770-50-2)	-	
2.1.2	Wrought aluminum alloys	Sum of Aluminium + Aluminum nickel (AlNi) + Aluminum alloy, no base, Al, Be ≥ 50%	Chk: Aluminium (7429-90-5, 12003-78-0, 12770-50-2)	-	
2.2	Magnesium and magnesium alloys	Mg ≥ 50%	7439-95-4	-	
2.2.1	Cast magnesium alloys	Mg ≥ 50%	7439-95-4	-	
2.2.2	Wrought magnesium alloys	Mg ≥ 50%	7439-95-4	-	
2.3	Titanium and titanium alloys	Ti ≥ 50%	7440-32-6	-	
3	Heavy metals, cast and wrought alloys				
3.1	Copper (e.g. copper amounts in cable harnesses)	Cu ≥ 99%	7440-50-8	-	
3.2	Copper alloys	Cu ≥ 48%	7440-50-8	-	
3.3	Zinc alloys	Sum of Zinc and Zinc dimer ≥ 70%	Chk: Zinc (7440-66-6, 12597-63-6)	-	
3.4	Nickel alloys	Ni ≥ 38%	7440-02-0	-	
3.5	Lead	Sum of Lead or its compounds ≥ 50%	Lead or its compounds	-	

2. How to Create MDS

<Continue>

No.	Classification Name	Containment Condition	CAS-No & Group	Non-Containment Condition	CAS-No & Group
4	Special metals				
4.1	Platinum / rhodium	Sum of Platinum and Rhodium $\geq 50\%$	Chk: Platinum / Rhodium (7440-06-4, 7440-16-6)	-	
4.2	Other special metals	Other metals or their sum, w/o Fe, Al, Mg, Ti, Cu, Zn, Ni, Pb, Pt, Rh $\geq 50\%$	Chk: Spec.metals w/o Fe,Al,Mg,Ti,Cu,Zn,Ni,Pb,Pt,Rh	-	
5	Polymer materials				
5.1	Thermoplastics				
5.1.a	filled Thermoplastics	Sum of substances containing ...poly... in their names excluding sum of Basic Duromers $\geq 10\%$ Sum of fillers/reinforcing materials and dual use substances used as fillers $\geq 5\%$	Chk: Named *poly* w/o duromers Fillers/reinforcing materials + Filler (dual use)	-	
5.1.b	unfilled Thermoplastics	Sum of substances containing ...poly... in their names excluding sum of Basic Duromers $\geq 10\%$	Chk: Named *poly* w/o duromers	Sum of fillers/reinforcing materials $\geq 5\%$	Fillers/reinforcing materials
5.2	Thermoplastic elastomers	Sum of substances containing ...poly... in their names excluding sum of Basic Duromers $\geq 5\%$	Chk: Named *poly* w/o duromers	-	
5.3	Elastomers / elastomeric compounds	Sum of Basic Rubbers or substances containing ...poly... in their names excluding Basic Polymers and Basic Duromers and $\geq 5\%$	Chk: Named *poly* + elastomer w/o polym./durom.	-	
5.4	Duromers	Sum of substances containing ...poly... in their names excluding sum of Basic Polymers $\geq 5\%$	Chk: Named *poly* w/o polymers	-	
5.4.1	Polyurethane	Sum of substances containing ...poly... in their names $\geq 5\%$	Chk: Named *poly*	-	
5.4.2	Unsaturated polyester	Sum of substances containing ...poly... in their names excluding sum of Basic Polymers $\geq 5\%$	Chk: Named *poly* w/o polymers	-	
5.4.3	Other duromers	Sum of substances containing ...poly... in their names excluding sum of Basic Polymers $\geq 5\%$	Chk: Named *poly* w/o polymers	-	
5.5	Polymeric compounds (e.g. inseparable laminated trim parts)	-			
5.5.1	Plastics (in polymeric compounds)	Sum of substances containing ...poly... in their names $\geq 5\%$	Chk: Named *poly*	-	
5.5.2	Textiles (in polymeric compounds)	-		Sum of basic substances as listed in this table for class 1. - 4. $\geq 95\%$	Chk: Classification 1-4
6	Process polymers				
6.1	Lacquers	Sum of Basic Duromer, ...poly... or shellac $\geq 5\%$	Chk: Named *poly*, duromers and shellac	-	
6.2	Adhesives, sealants	-		Sum of basic substances as listed in this table for class. 1. - 4. $\geq 95\%$	Chk: Classification 1-4
6.3	Underseal	-		Sum of basic substances as listed in this table for class. 1. - 4. $\geq 95\%$	Chk: Classification 1-4

2. How to Create MDS

<Continue>

No.	Classification Name	Containment Condition	CAS-No & Group	Non-Containment Condition	CAS-No & Group
7	Other materials and material compounds (scope of mixture)				
7.1	Modified organic natural materials (e.g. leather, wood, cardboard, c...	-		Sum of basic substances as listed in this table for class, 1. - 6, $\geq 50\%$	Chk: Classification 1-6
7.2	Ceramics / glass	-		Sum of basic substances as listed in this table for class, 1. - 4, (excluding silver and gold) $\geq 80\%$	Chk: Classification 1-4 w/o silver, gold
7.3	Other compounds (e.g. friction linings)	-			
8	Electronics / electrics				
8.1	Electronics (e.g. pc boards, displays)	-			
8.2	Electrics	-			
9	Fuels and auxiliary means				
9.1	Fuels	-		Sum of basic substances as listed in this table for class, 1. - 6, $\geq 50\%$	Chk: Classification 1-6
9.2	Lubricants	-		Sum of basic substances as listed in this table for class, 1. - 4, $\geq 50\%$	Chk: Classification 1-4
9.3	Brake fluid	-		Sum of basic substances as listed in this table for class, 1. - 4, $\geq 50\%$	Chk: Classification 1-4
9.4	Coolant / other glycols	-		Sum of basic substances as listed in this table for class, 1. - 4, $\geq 50\%$	Chk: Classification 1-4
9.5	Refrigerant	-		Sum of basic substances as listed in this table for class, 1. - 6, $\geq 50\%$	Chk: Classification 1-6
9.6	Washing water, battery acids	-		Sum of basic substances as listed in this table for class, 1. - 6, $\geq 50\%$	Chk: Classification 1-6
9.7	Preservative	-		Sum of basic substances as listed in this table for class, 1. - 4, $\geq 50\%$	Chk: Classification 1-4
9.8	Other fuels and auxiliary means	-		Sum of basic substances as listed in this table for class, 1. - 4, $\geq 50\%$	Chk: Classification 1-4

2.7 Create Material Data

2.7.1 Material Name (Precautions)

- The name of the material shall be written in English.
- Hyundai/KIA MS material symbol input is the basis.
예) PA6-(GF15+MD25), C18665-1/2H, FCD450N.....
Search for material symbols by referring to MS SPAC and enter
- If MS material symbol is not correct, enter international standard
(Product name shall be entered in the 'Product name' column, and product name shall not be entered in the name)
- : Material name writing should follow below standards
 - ① Steel : EN10027, JIS Standard (ex. STM-C 540)
 - ② Aluminum Alloy : EN 573, JIS Standard (ex. Al-Si12)
 - ③ Copper Alloy : ISO Standard (ex. CuAl5)
 - ④ Plastic : ISO 1043-1~4 (ex. PE-LD)
 - ⑤ Rubber : ISO 1629 (ex. ACM)
 - ⑥ Thermoplastic elastomers : ISO 18064
(ex. TPA-ES)
- Besides of above standard, material name should be expressed which can identify the properties of material.
(ex. : Aluminum alloy, adhesive layer, Glass, Basecoat, Lubricant, etc.)

Common Information

Type: Material (own MDS)

ID / Version: 722413023 / 0.01

Node ID: 722413023

Node count: 1

MDS Supplier: HYUNDAI KIA MOTOR COMPANY

Name: ABS

Trade name:

Internal Mat.-No.:

Preliminary MDS: ☐

Dates

Create Date: 2/19/2018

Check/Release Date: not available

Material Information

Std. Mat.-No.:

Symbol: ABS*

Classification: 5.1.a filled Thermoplastics*

Norms / Standards:

Company	Norm	Norm Code
HYUNDAI KIA MOTOR COMPANY	ms	184-09
HYUNDAI KIA MOTOR COMPANY	ms	210-05

Supplier:

Remark

Do not put confidential information in this field, because it will be visible in the supply chain.

Remark:

2.7.2 Preliminary MDS

- HMC/KIA does not use 'Preliminary MDS' and it does not need to be checked.
- ※ Preliminary MDS : MDS created before detailed development stage in order to calculate a recyclability. Normally it does not have the detailed information of chemical composition.

2.7.3 Material Symbols

- This item is a newly added mandatory entry and must be entered using the correct material symbol (product names are not allowed).
- Polymers cannot be entered without a material symbol.
→ This applies to cases corresponding to material classifications 5.1x, 5.2, and 5.3.

Common Information

Type: Material (own MDS)
 ID / Version: 722413023 / 0.01
 Node ID: 722413023
 Node count: 1
 MDS Supplier: HYUNDAI KIA MOTOR COMPANY
 Name: ABS
 Trade name:
 Internal Mat.-No.:
 Preliminary MDS: ☐ **Do not check this box**

Dates

Create Date: 2/19/2018
 Check/Release Date: not available
 Recommendation:

Material Information

Std. Mat.-No.:
 Symbol: ABS*
 Classification: 5.1.a filled Thermoplastics
 Norms / Standards

Company	Norm	Norm Code
HYUNDAI KIA MOTOR COMPANY	ms	184-09
HYUNDAI KIA MOTOR COMPANY	ms	210-05

Supplier:
 Remark: Do not put confidential information in this field, because it will be visible in the supply chain.

2.7.4 Standard/Norm

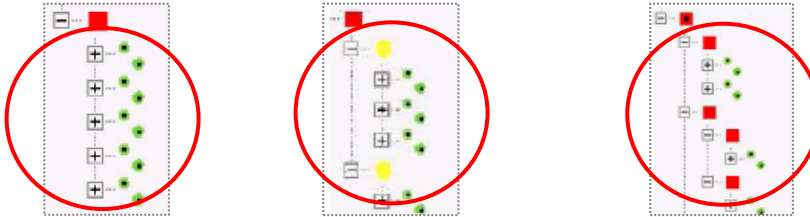
- Enter HMC/KIA MS number for material requirement.
- ① If there are two or more MS for a material, each MS number should be entered.
- ※ Only your company and HMC/KIA can see MS information of material which is entered.
- ② ES is not mandatory.

2.8 Parts Composition

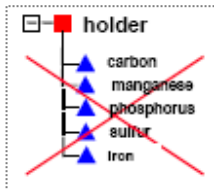
2.8.1 Creating Tree Structure

- MDS should be created with tree type by combination of component, semi-component, material and basic substance. See the correct examples as reference.

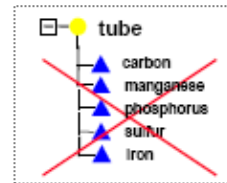
• Correct Tree Structure (example)



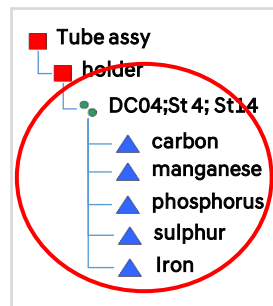
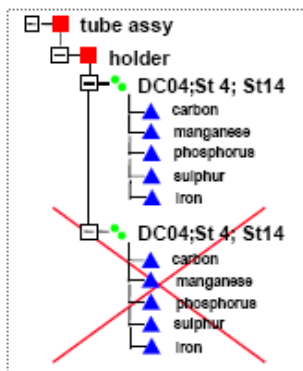
• Incorrect Tree Structure (example)



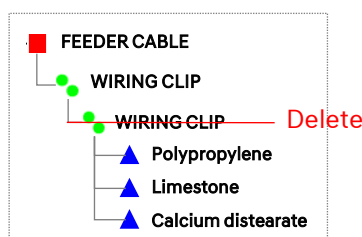
- ① Material (●●) must be located between component and substances



- ② Material (●●) must be located between semi-component and substances



- ③ Same materials (●●) should be composed by integration with one material



- ④ Single material (●●) should not exist below to upper material

2.8.2 Part Composition including Direct- Purchasing parts

- If sub-components include parts (parts purchased directly by our company and requested to our supplier for assembly), Enter only the remaining data except for the parts/direct sales, but the sub-materials of the parts are disclosed data (dummy materials) Use.

[Example] Assembly having Direct-Purchasing parts

Level	Part Name	Part No.	Qty	Remark
1	MODULE-WHEEL & TPMS	52909-2S320	-	-
2	WHEEL-ALUMINUM	52910-2S200	1	-
2	NUT-TPMS	52930-2F000	2	-
2	VALVE-TPMS	57000-1X000	2	Direct Purchasing part

→ If the VALVE-TPMS is a Purchasing parts, the item number is written in accordance with the BOM.

• How to Make Purchasing Parts

- For details of component, input below values for all the dummy part
 - ▶ Part/Item No. : Entry of part number for purchased/direct transaction items
 - ▶ Description : Part number of BOM
 - ▶ Measured weight per Item : 1g
 - ▶ Quantity : Entry of number of parts

The screenshot displays the MDS/Module Search application. The 'Ingredients' tab is active, showing a list of components on the left. The 'VALVE-TPMS' component is selected, and its details are shown on the right. The 'Common Information' section includes the component type, description, and part number. The 'Amounts and Weights' section shows the quantity, measured weight per item, and calculated weight per item.

• How to Add Dummy Materials

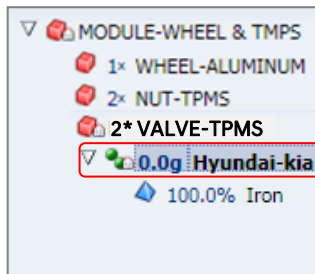
- ① Add dummy materials to the listed purchased parts: Apply the data published by HMC/KIA.
(ID : 251168843)

Search with ID '251168843' or name 'Hyundai-KIA' in published search field.

Type	Name	Symbol	Trade name	Std. Mat.-No.	Internal Mat.-No.	ID / Version	Supplier	Received req.	Date of first request
Hyundai-kia	-	-	-	-	-	251168843 / 1	HYUNDAI KIA MOTOR COMPANY	-	-

search result

- ② Input weight '1g'



Details

Common Information

Type Material (own MDS)

ID / Version 251168843 / 1

Node ID 251168843

MDS Supplier HYUNDAI KIA MOTOR COMPANY

Name Hyundai-kia

Trade name -

Internal Mat.-No. -

Preliminary MDS No

Dates

Create Date 4/24/2012

Check/Release Date 4/24/2012

Recommendation

Amounts and Weights

Weight 1 g

Material Information

Std. Mat.-No. -

Symbol -

Classification 7.3 Other compounds (e.g. friction linings)

Norms / Standards -

Supplier

Weight : '1g'

2.8.3 Creating Material Data at Each Material Characteristics

- General method to create material data sheet follows IMDS Recommendation 001. In addition, the material data sheet data according to each material characteristics follows MDS Recommendation 002~023.
- However next cases should follow below rule

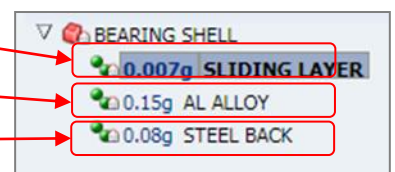
- ① Each material data sheet should be created separately for layer with consisted of two or more different materials



Sliding layer

Al alloy

Steel back



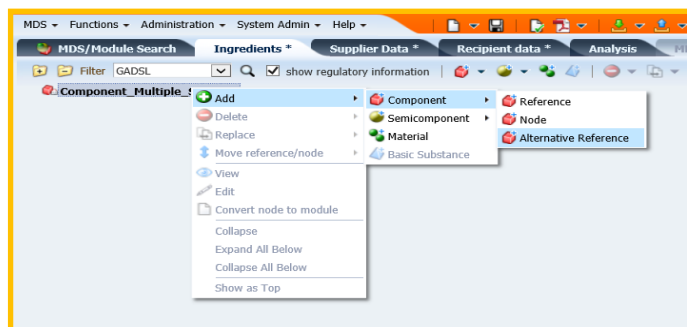
[[Ex) Part composed with layer type by 3 different materials]

3 kinds of materials should be composed separately

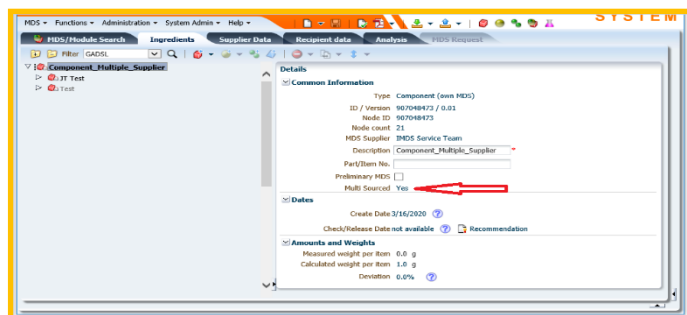
- ② Since plastics are composed of polymer and subordinate materials (pigment, filler, flame retardant, other additives), it can not be composed with single substance only and particularly for PVC (polyvinylchloride), all contained substances should be written.
- ③ Basic substances in material should be input for materials remained at final product stage and exclude basic substances not remained at final products (Ex : when solvents contained in paint, ink are evaporated at final product)

2.8.4 Support for Multi-sourcing (If the same part is supplied from more than one subcontractor)

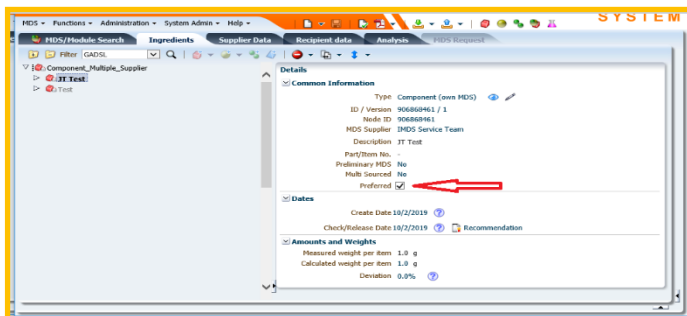
- Multi-sourcing function is applied to components only.
- It will be possible to reference alternative MDSs for one component from different suppliers in a new MDS.
- One of the alternatives will need to be defined as the preferred alternative, which will be used e.g. for weight calculations.
- All other alternatives will also be part of the MDS's ingredients allowing their content to be also found by the where-used-analysis.



Add to
component>Component>
Alternative Reference



Constructing multi-sourcing
parts of supplier 1, supplier 2



Check "Preferred" only for the
multi-sourcing supplier that
actually supplied the parts.

2.9 Ranged Values

- Allowable ranges of component, Component, Semi-component/Material and Basic substance
 - weight or content can be input selectively with range, Fix, Rest and when choose 'range', below allowable range values are applied according to 'IMDS Recommendation 001'

[Allowable Range Values]

Item	Content Rate (From X % to Y %)	Tolerance (M = Y % - X %)
Semicomponent/ Material	$0 < x \leq 100 \%$	$M \leq 20 \%$
Basic substance	$0 \leq x \leq 7.5 \%$	$M \leq 3 \%$
	$7.5 \% < x \leq 20 \%$	$M \leq 5 \%$
	$20 \% < x \leq 100 \%$	$M \leq 10 \%$

Details

Material language English

Common Information

Type Material (Module)

ID / Version 459822606 / 1

Node ID 459822606

Name 1

Trade name 1

Internal Mat.-No. 1

Preliminary MDS No

Dates

Create Date 11/13/2013

Check/Release Date 11/13/2013 Recommendation

Amounts and Weights

Portion from - to

0.0 - 0.0 %

Weighted mean 0.0%

Material Information

Std. Mat.-No. -

Symbol -

Classification 2.1 Aluminium and aluminium alloys

Norms / Standards -

Supplier -

Remark

Remark -

[Ranged Value of Material]

Details

Common Information

Type Basic Substance

Name(s) Chromium lead oxide

Lead Chromate Yellow

CAS No. 11119-70-3

EINECS-No. -

EU-Index -

GADSL Category duty-to-declare / prohibited

REACH-SVHC No

Confidential

Amounts and Weights

Portion from - to

0.0 - 0.0 %

Weighted mean 0.0%

Basic substance groups

Basic substance groups Appl. rel. subst.

Chromium(VI)-salts

Lead or its compounds

Renault Black

Renault Complete

[Ranged Value of Basic Substance]

- Other exceptional tolerance of ranges should follow 'IMDS Recommendations'
- Semi-components or materials published by IMDS committee can be allowable even if they exceed tolerance

2.10 Weight Tolerance of MDS

- Weight tolerance (deviation between measured weight and automatically calculated weight per item) of the top-level component (total weight of MDS) can not exceed 5%

2.11 Basic Substance Information

- Only basic substances contained in the final product are to be reported (example: cured adhesives or paint coatings are entered without the evaporating solvents).
- Basic substances registered to GADSL* should be input. In addition, since GADSL is continuously updated due to related regulation revision, the latest GADSL should be checked before creating or modifying data sheet (<http://www.gadsl.org>)

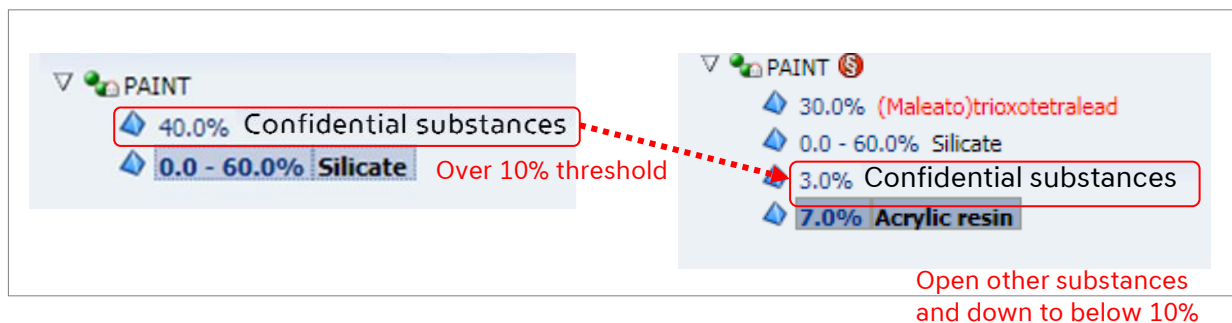
*GADSL : Global Automotive Declarable Substance List

※ If SVHC** not included to GADSL are used, they should be input and not allowed to use wild cards or confidential for it.

** SVHC : Substance of Very High Concern

• Use of Confidential Substances

- For reasons of trade secrecy, chemical substance data may be concealed so that others cannot access it, and may be used up to 10% within a homogeneous material.
- Substances designated as GADSL or SVHC cannot be used as confidential substances. If a chemical substance previously entered as confidential is later added to the GADSL or SVHC lists, it must be disclosed and the data resubmitted reflecting this change.



- If it is unavoidable to use confidential substances exceeding 10%, a “trust user” may be designated when submitting the MDS. In this case, only the designated trust user and the data author can view the substance information.
- ※ Trust User: A recipient designated to allow viewing of the composition of a chemical substance that cannot be disclosed due to business confidentiality. The trust user may only use the data for evaluation purposes and not for any other purpose.

- Wild cards

- It is used for very high confidential and can not be exceeded over 10% in homogeneous material. (refer to 'IMDS Recommendation 001' for the kinds of wild card and how to use them)

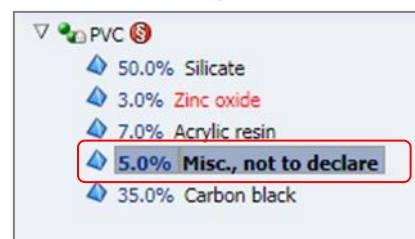
However, reliable published material data ([refer to 1.7.3 Measuring Part Weight and Analysis of Substances in Material](#)) containing wild cards is allowed even though over 10% of wild cards are used in homogeneous material.

- Basic substances included in GADSL should not allowed as wild cards. If substance is processed as wild cards and it is included in GADSL due to revision of GADSL, data sheet should be revised without wild cards and reapproved within 6 months after GADSL revision.

※ Since GADSL is continuously changed due to new regulation or revision about chemical regulations, Confidential substance is rather recommended than wild cards for better history control.

<Wild Cards List>

1. Flame retardant, not to declare
2. Further additives, not to declare
3. Impact modifier, not to declare
4. Inorganic ingredient, not to declare
5. Misc. not to declare
6. ~~not yet specified, not to declare~~ (Not available)
7. Organic ingredient, not to declare
8. Pigment portion, not to declare
9. Plasticizer, not to declare



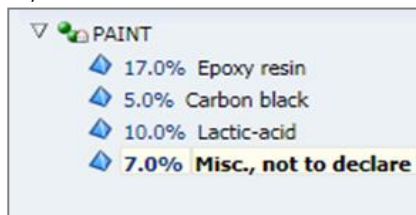
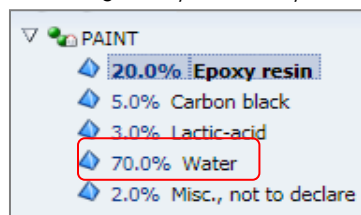
[Wild cards allowed within 10% in homogeneous material]

★ CRM (Critical Raw Materials) must not be treated as confidential or with wild cards if used at 0.1w% or higher. The exact chemical substance must be specified. (This is a mandatory reporting requirement from 2022 onward)

→ CRM list

• Gas/Liquid

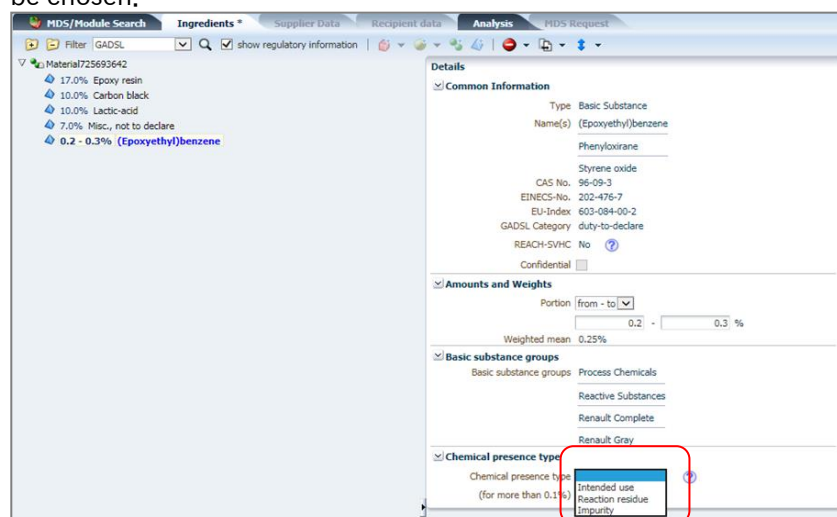
Gas/liquid not existed in final product (Ex: plating solvent, paint solvent, preprocessing cleaner) are excluded when creating MDS. If gas / liquid are included in final product, input data as selecting material classification 9.x (refrigerant, brake oil, lubricant, battery liquid, etc)



Exclude water not included in final product

• Process chemicals

Process chemicals used in the production of a material/part that are not contained in the end material/part must not be reported. But if they remain more than 0.1wt% in final materials, application of chemical should be chosen.



If process chemicals contained over 0.1wt%, choose one of 'Intended use', 'Reaction residue', 'Impurity'.

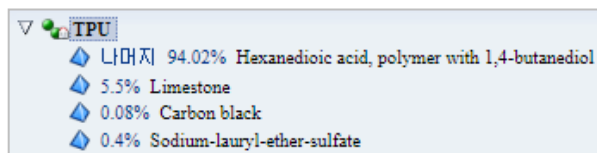
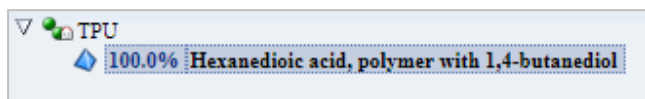
• 'Hidden and delete' material unavailable

Substances used in all parts are constantly updated and 'hidden and deleted' substances are no longer available. It is not found in the newly constructed material.

If you enter using existing data, you must modify it if it contains a 'hidden and deleted' material, which automatically it is excluded and not entered.

• Number of basic substances consisting material

Material should be consisted of two or more basic substances.



Single basic substance consisting material does NOT allowed to use.

Material should be consisted of two or more basic substances.

2.12 4 Heavy Metals and Their Application

- Lead (Pb), Cadmium (Cd), Mercury (Hg), Hexavalent Chrome (Cr6+) and their compounds should not be used exceeding defined allowable value. And even small content of them should be input in data sheet. There is the threshold and exceptional permission of Heavy metals in HMC/KMC Material Specification 'MS 201-02' (refer to 1.5 of this manual for heavy metal allowable value)
- Exceptionally, in some applications those heavy metals are still tolerated (refer to MS201-02 for exceptional allowance). In this case proper application code should be chosen
- ※ Application code per material inquiry : <http://mdsystem.com> → IMDS Information Pages → Help → FAQ → ['Is there any further explanation as to how to select an Application ID?'](#) in 'MDS Ingredient Screen'

(Ex)

When prohibited material "Lead" is included, application is created automatically in material information

Basic Substance	% (MAX)	Application [ID]
Lead chromate molybdate sulfate red	10.0	8(c) - Lead in finishes on terminals of electrolyte aluminium capacitors [55]
Cadmium-zinc-sulphide	90.0	Thick film pastes [28]

Application

Component: NUT ASSY
Material: ap-3
Basic Substance: Lead chromate molybdate sulfate red
Portion: 10.0 % (MAX)

ID	Application
7	5 - Battery
12	Carbon brushes for electric motors
17	Glass in bulbs and glaze of spark plugs
20	Other application (potentially prohibited)
53	8(a) - Lead in solder used in electronic circuit board applications
54	8(b) - Lead in solders in electrical applications other than soldering on electronic circuit boards or on glass
55	8(c) - Lead in finishes on terminals of electrolyte aluminium capacitors
56	8(d) - Lead used in soldering on glass in mass airflow sensors
57	8(e) - Lead in high melting temperature type solders (i.e. lead-based alloys containing 85 % by weight or more lead)
59	8(g) - Lead in solders to complete a viable electrical connection between semiconductor die and carrier within integrated circuit flip chip packages
60	8(h) - Lead in solder to attach heat spreaders to the heat sink in power semiconductor assemblies

Arbitrary application code is automatically designated in the system. Creator should check and revise it to the proper code with reference to MS201-02 if wrong application code is selected.

2.13 Material Marking: Mandatory entry if plastic $\geq 100\text{g}$ or rubber $\geq 200\text{g}$

- When materials composing component fall under material classification 5.x, material marking information should be written to component details
- ✳ It should be written after checking whether material is marked in actual component according to HMC/KIA Material Specification 'MS201-01 Marking of materials for automotive parts'

MDS - MATERIAL DATA SYSTEM

Classification	
Classification	Description
3.3	Zinc alloys
3.4	Nickel alloys
3.5	Lead
4	Special
4.1	Platinum
4.2	Other precious metals
5	Polymer materials
5.1	Thermoplastics
5.1.a	filled Thermoplastics
5.1.b	unfilled Thermoplastics
5.2	Thermoplastic elastomers
5.3	Elastomers / elastomeric compounds
5.4	Duromers
5.4.1	Polyurethane
5.4.2	Unsaturated polyester
5.4.3	Other duromers
5.5	Polymeric compounds (e.g. inseparable laminated trim parts)
5.5.1	Plastics (in polymeric compounds)
5.5.2	Textiles (in polymeric compounds)
6	Process polymers
6.1	Lacquers
6.2	Adhesives, sealants
6.3	Underseal
7	Other materials and material compounds (scope of mixture)
7.1	Modified organic natural materials (e.g. leather, wood, cardboard, cotton f...
7.2	Ceramics / glass
7.3	Other compounds (e.g. friction linings)
8	Electronics / electronics
9.1	Electronics (e.g. electronic components)

[Material Classification 5.x]



[Check whether material is actually marked]

MDS/Module Search

Ingredients * Supplier Data Recipient data Analysis MDS Request

Filter GADSL

CRASH PAD ASSY

200.0g PP

Details

Common Information

Type Component (Module)

ID / Version 725706386 / 0.01

Node ID 725706386

Node count 3

Description CRASH PAD ASSY *

Part/Item No.

Preliminary MDS ☐

Dates

Create Date 3/2/2018 ?

Check/Release Date not available ? Recommendation

Amounts and Weights

Measured weight per item 200 g *

Calculated weight per item 200.0 g

Deviation 0.0% ?

Parts Marking

Polymeric part(s) marked

Yes (Parts marked as required by law.)

No (Parts not marked as required.)

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

Select 'Yes' if material marking is present.

Select 'No' if material marking is not present.

Select 'N/A' if material marking is not possible due to shape constraints or surface characteristics.

2.14 Recycled Material/Reuse information Input

- The range of input of recycled materials (PCR*/PIR**) shall not exceed 20%.
- The range of commonly used recycled materials is in the ISO14021 definition

* Post-consumer recycle : materials recycled from consumer waste

** Post Industrial recycle: Recycled materials from industry

1. Input criteria for recycled materials for material classification 1,2,3,4,7.1 and 7.2

: Activate the input screen when configuring components other than the material unit

→ **Input by the supplier**

2. Material Classification 5.x (Plastics) Recycling Material Input Criteria

: Input in material unit → **Material supplier must enter recycling information directly**

1) Recycled material information entered by the material supplier cannot be edited by the supplier (read only)

2) If the recycling information of the existing material MDS is not entered, it can be edited at the upper node. → In this case, it is recognized as non-plastic material, so only general recycling contents can be inserted.

MDS - MATERIAL DATA SYSTEM

Source of material, including circular materials

Content of inorganic or fossil-based material

100.0 ~ 100.0 %

Does the material contain recycle?

not yet answered

Yes

No

Apply Cancel

Must be selected from YES or NO

MDS - MATERIAL DATA SYSTEM

Source of material, including circular materials

Content of inorganic or fossil-based material

100.0 ~ 100.0 %

재료가 재생재를 포함하고 있습니까?

Yes

Content of primary inorganic or fossil-based material

75.0 ~ 80.0 %

Content of recycle

20.0 ~ 25.0 %

Content of mechanical recycle thereof

100.0 ~ 100.0 %

Content of pre-consumer recycle thereof

0.0 ~ 0.0 %

Content of post-consumer recycle thereof

100.0 ~ 100.0 %

Content of chemical recycle thereof

0.0 ~ 0.0 %

적용 취소

Details

Common Information

Type Material (own MDS)

ID / Version 1251766897 / 0.01

Node ID 1251766897

MDS Supplier HYUNDAI MOTOR AND KIA

Name Material1251766897

Trade name -

Internal Mat.No. -

Preliminary MDS No

Dates

Create Date 8/28/2023

Check/Release Date not available

Recommendation

Amounts and Weights

Weight 0.0 g

Material Information

Std. Mat.No. -

Symbol -

Classification 2.1 Aluminum and aluminum alloys

SCP Material Category

Identifier Type Descriptions Levels 1 - 3

00300 Material categ. meta > aluminum (and alloys of)

Material Material Characteristics

Norms / Standards -

Supplier -

SVHC/GADSL Content

Source of material, including circular materials

Does the material contain recycle?

Mechanical (pre-consumer) -

Mechanical (post-consumer) -

Chemical (pre-consumer) -

Chemical (post-consumer) -

Certified according to -

Remark

Remark -

Activate the input window when selecting 'YES'

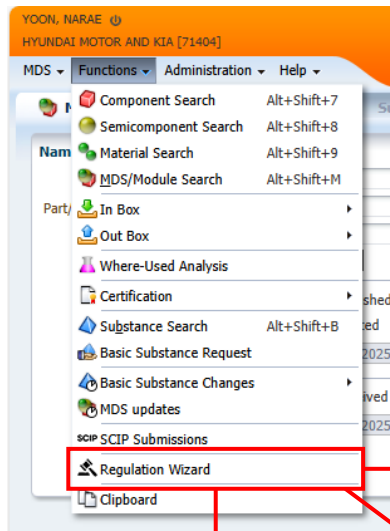
- (*) All required input values must be entered
→ Error when not entering
- PIR is automatically calculated when entering PCR
→ (PCR + PIR = 100%)

2.15 Battery Entry Method

- Target: All batteries without a Hyundai/Kia part number (e.g., coin cell batteries [general-purpose portable batteries], parking battery modules [portable batteries], etc.)
- Entry Method: Enter using the designated naming format (regardless of part number; can use Tier 1 supplier part number). After entry, notify the Regulatory Certification Team 2.
 - ↳ Naming Format: Battery Manufacturer_Battery Specification (e.g., Panasonic_CR2032, etc.)
- IMDS Recipient: 279519 [PBV & BATTERY]

2.16 Regulatory Wizard Entry

- Detailed information must be disclosed for substances subject to REACH/BPR/MCCP regulations. If regulatory information for a target substance is not entered, further processing cannot proceed.



Regulatory Information

Regulation * REACH Semi-/Component

Produced in / imported into EEA?

Material imported?

Authorization status

Annex XIV Material ☐ ☐

Annex XIV Substance ☐ ☐

Ownership own

State of information

Last version released ☐

from 08/05/2025 to 09/05/2025

[Entry of Information for REACH Authorized Substances]

Regulatory Information

Regulation * BPR

Still in production?

Added for biocidal property?

Biocidal property desired

Product type all selected

BPR Substance ☐ ☐

Ownership own

State of information

Last version released ☐

from 08/05/2025 to 09/05/2025

[Entry of Information for BPR Substances]

Regulatory Information

Regulation * MCCP

The Substance contains all selected

Hazard Statements all selected

MCCP Substance ☐ ☐

Ownership own

State of information

Last version released ☐

from 08/05/2025 to 09/05/2025

[Entry of Information for MCCP Substances]

2.17 Contact Person Assignment

- Contact person of supplier should be assigned before transmitting MDS. Contact person should be assigned to the personnel who is responsible all business related to IMDS and can communicate with HMC/KIA.
 - When existing contact person is resigned / transferred, new personnel should be assigned among employees presently involved with IMDS.
- ※ Please see '[References](#)' in this guidance for changing contact person.

The screenshot displays the MDS - MATERIAL DATA SYSTEM web interface. The browser address bar shows the URL <https://www.mdssystem.com/imsnt/>. The page header includes the text "MATERIAL DATA SYSTEM" and a navigation menu with options: MDS, Functions, Administration, and Help. Below the header, there are tabs for MDS/Module Search, Ingredients, Supplier Data, Recipient data, Analysis, and MDS Request. The main content area shows the "Company" information for HYUNDAI KIA MOTOR COMPANY, including Company ID 71404, DUNS Number -, and Company Address 104, Mabuk-Dong Giheung-Gu, yongin-Si 449912 Gyeonggi-Do KR (Korea, Republic of). The "Contact Person" section is highlighted with a red box, showing the "Contact Person" dropdown menu set to "PARK, HYE YOUNG". To the right of the dropdown, a red text annotation reads: "Assign personnel who can be communication window related to IMDS with HMC/KIA."

Company

Company HYUNDAI KIA MOTOR COMPANY Organisation unit HYUNDAI KIA MOTOR COMPANY

Company ID 71404 Company ID 71404

DUNS Number - DUNS Number -

Company Address 104, Mabuk-Dong Giheung-Gu, yongin-Si 449912 Gyeonggi-Do KR (Korea, Republic of) Company Address 104, Mabuk-Dong Giheung-Gu, yongin-Si 449912 Gyeonggi-Do KR (Korea, Republic of)

Contact Person

Contact Person PARK, HYE YOUNG

E-mail phy1024@hyundai.com

Telephone No. +82-31-5172-3579

Fax No. -

Assign personnel who can be communication window related to IMDS with HMC/KIA.

Sending MDS and Subsequent Actions

3.1 Sending MDS

3.1.1 Entry of Recipient Information

- Method for Specifying MDS Recipient

The screenshot displays the MATERIAL DATA SYSTEM interface. The 'add Addressee' dialog box is open, showing a form for entering recipient information. The 'Company ID' field contains the value '71405'. A search button is visible on the right side of the dialog. Below the form, a table lists the search results. The 'Apply' button is highlighted at the bottom right.

Company Name	Org Unit	ID	Zip Code	City
HYUNDAI KIA MOTOR COMPANY	HYUNDAI MOTOR COMPANY	71405	445-706	WHASUNG-SI, GYUNGGI-DO

(Continue to next page)

3.1.2 Entry of Transmission Information

- When sending the MDS to our company, the following transmission information must be entered for the completed MDS:
 - Supplier Code: Enter the Vaatz code.
 - Part/Item Number: Enter the part number identical to Hyundai/Kia BOM. For part number format, refer to Section 2.2 of this guideline.
 - Name: Enter the part name identical or similar to that in the Hyundai/Kia BOM. Refer to [Section 2.2](#) of this guideline.
 - Design Change Number: Enter the latest EO number as indicated on the design drawing.

KIM, YOUNGSCHUL
HYUNDAI KIA MOTOR COMPANY [71404]

MATERIAL DATA SYSTEM

MDS ▾ Functions ▾ Administration ▾ Help ▾

Sent MDSs Ingredients * Supplier Data * Recipient data * Analysis MDS Request

Name COVER RR-BUMPER | ID version 711884813 / 1.01 | Node ID 726687630 | Status Edit mode

Send Propose Release Internal Publish

DAE HA CO., LTD. [37125] edit mode (03/07/2018)

Propose MDS to recipient

Details

Transfer Information

Company DAE HA CO., LTD. [37125]
 Organisation unit -
 Recip. Status edit mode **Mandatory field**

Supplier Code R780 ?
 Name COVER RR-BUMPER
 Part/Item No. 86611-M6000 ?

Transmission/Check Date not available
 Forwarding allowed ☒

Drawing

Drawing No.
 Drawing dated ?
 Drawing Change Level KC5G0457 ?

Purchase Order

Purchase Order No. **Mandatory field**
 Bill of Delivery No.

Report

Report No.
 Date of Report

3.2 Feedback after Sending MDS

3.2.1 How to Modify a Rejected MDS

- MDS should be revised and re-transmitted after modifying the reject reason.
- If any further question about reject reason, please contact HMC / KIA contact person (refer to 'Summary' of this guidance)

The screenshot shows the MDS - MATERIAL DATA SYSTEM web interface. The browser address bar displays <https://www.mdssystem.com/mdsnt/faces/sentR>. The user is logged in as KIM, YOUNGSCHUL, HYUNDAI KIA MOTOR COMPANY [71404].

① Choose 'MDS' in Out box: The 'MDS' button in the top navigation bar is highlighted with a red box.

② Input search value and click Search': The 'General / Date' section on the left contains input fields for Name, Internal number, External number, ID, and Preliminary MDS. A red box highlights these fields.

③ Click right button of mouse and choose 'Show rejection reason'.: A right-click context menu is open over the table, with the 'Show rejection reason' option highlighted by a red box.

④ Rejection reason is displayed: A pop-up window titled 'MDS - MATERIAL DATA SYSTEM' displays the rejection reason for the selected MDS. The reason is: 'Reason for denial: dear supplier, your MDS was rejected. Please amend following. Please use valid Mann+Hummel part number. In another case I cannot identify your product.'

Type	Name	ID / Version	Internal number	External number	transmitted	to comp. (Org Unit) [ID-No.]	Legacy Spare Part	Status	last status changed
HOSE ASSY-BREA		8 / 1	26710-03100	26710-03100	7/17/2014	MANN+HUMMEL GmbH [1126]	-	rejected	7/25/2014
H/F AIR FLOW SE		5 / 1	28164-2A500	28164-2A500	7/15/2014	MANN+HUMMEL GmbH [1126]	-	rejected	7/25/2014
TPMS ASSY		8 / 1	12345-A1000	12345-A1123	8/7/2013	IDEA SERVICE [104402]	-	rejected	8/7/2013
COVER-FR BUMPE		9 / 0.01	86511-1Q000						
Dream service-test		1 / 1	33333-000						
TD ISR COVER FR		9 / 0.01	86511-1M100						
TD ISR COVER FR		7 / 0.01	86511-1M100						
FR MONITOR ASS		0 / 1	96563-3N000						
demo part 111		/ 0.01	demo111						

[How to see the rejection reason]

3.2.2 When Part Changes Occur

- When part change occurs in already approved MDS (EO change, material or basic substance change, addition / deletion of sub-part, weight change (over 3% of total weight), color change, etc), MDS should be revised (version-up with same ID) and approved again

References

- 1. How to Re-send Accepted MDS with the Same ID and Version-up to the Different Recipient**

- IMDS Log-in and go to Outbox> choose 'MDS' (①)
- Input search option (②) and in search screen and click 'Search' (③)

HYUNDAI KIA MOTOR COMPANY [71404]

MDS Functions Administration Help

Sent MDSs Ingredients Supplier Data Recipient data Analysis MDS MDS Request

General / Date

Name:

Internal number:

External number: 37000-8K150

ID: All versions:

Preliminary MDS:

Date: ☐ transmitted (sent/proposed)
☐ last status changed

from: 02/20/2020 to: 02/25/2020

Status

Combined Reach Download: ☒ all ☒ open MDSs ☐ none

Single: ☒ not yet browsed
☒ browsed
☒ accepted
☒ rejected
☒ modified
☒ cancelled by sender
☒ in process at recipient
☐ forwarded only ☐ obsolete

Recipient

Org Unit:

Recipient: ☐ Enable search by recipient

Recipient search is disabled.
☒ Include all Org Units

Export as CSV file (.csv) ... Search

Type	Name	ID / Version	Internal number	External number	transmitted	to comp. (Org Unit) [ID-No.]	Legacy Spare Part	Status	last status changed
COVER RR-BUMPER		711884813 / 2	86611-M6000	37000-8K150	3/22/2019	DAE HA CO., LTD. [37125]	-	browsed	12/17/2019

- Choose target MDS (④) and click right button of mouse
- Choose 'Copy' and 'new version' (⑤)

MDS Functions Administration Help

Sent MDSs Ingredients Supplier Data Recipient data Analysis MDS Request

General / Date

Name:

Internal number:

External number: 37000-8K150

ID: All versions:

Preliminary MDS:

Date: ☐ transmitted (sent/proposed)
☐ last status changed

from: 02/20/2020 to: 02/25/2020

Status

Combined Reach Download: ☒ all ☒ open MDSs ☐ none

Single: ☒ not yet browsed
☒ browsed
☒ accepted
☒ rejected
☒ modified
☒ cancelled by sender
☒ in process at recipient
☐ forwarded only ☐ obsolete

Recipient

Org Unit:

Recipient: ☐ Enable search by recipient

Recipient search is disabled.
☒ Include all Org Units

Export as CSV file (.csv) ... Search

Type	Name	ID / Version	Internal number	External number	transmitted	to comp. (Org Unit) [ID-No.]	Legacy Spare Part	Status	last status changed
COVER RR-BUMPER		711884813 / 2	86611-M6000	37000-8K150	3/22/2019	DAE HA CO., LTD. [37125]	-	browsed	12/17/2019

- Modify MDS if needed (part composition, material, basic substance etc.)

The screenshot shows the MDS system interface with the 'Details' tab selected. The left sidebar lists ingredients: 'COVER RR-BUMPER', '2.5g DUFLEX K Evony BLACK (EB)', and '3150.0g M7392T'. The main panel displays the following details:

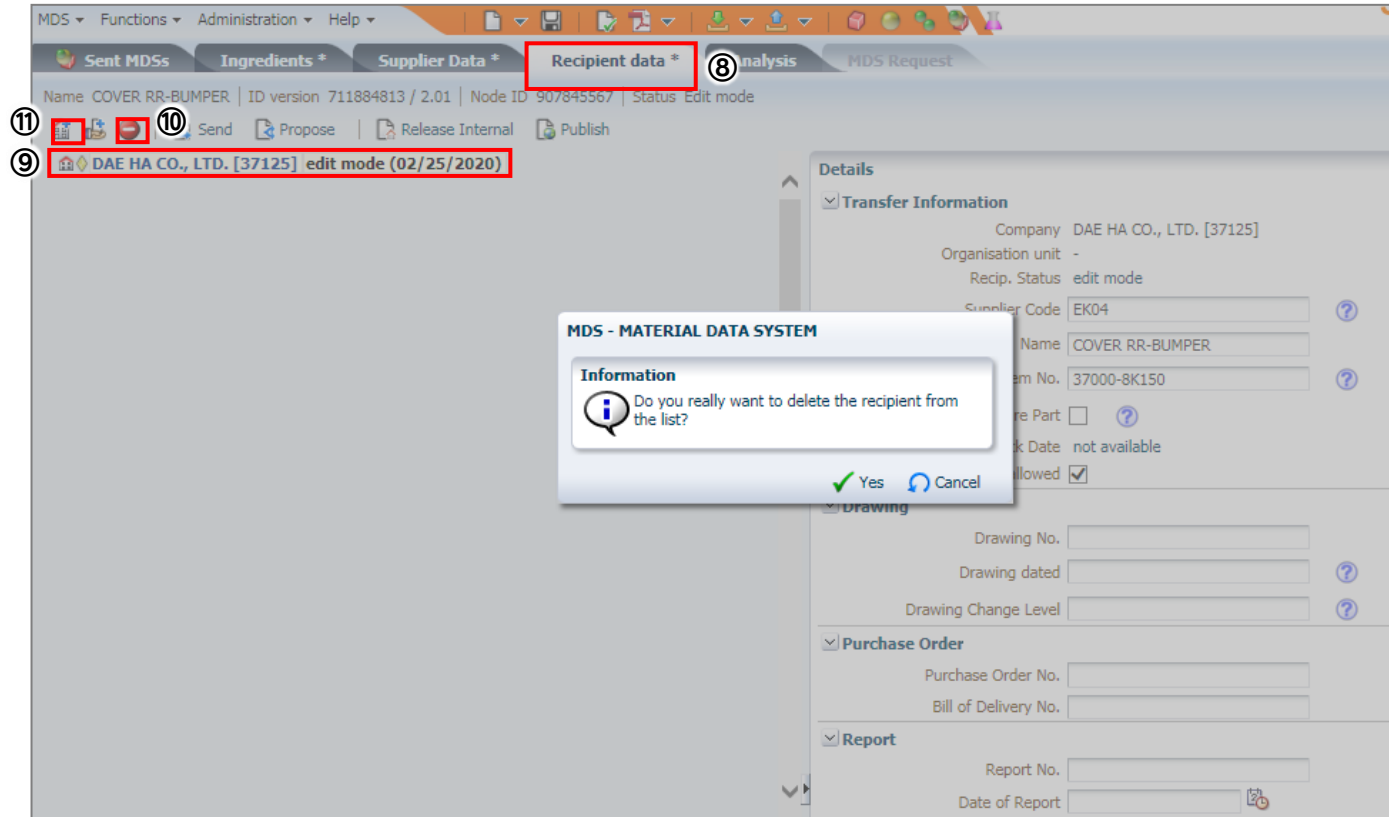
- Common Information:**
 - Type: Component (own MDS)
 - ID / Version: 711884813 / 2.01
 - Node ID: 907844940
 - Node count: 12
 - MDS Supplier: HYUNDAI KIA MOTOR COMPANY
 - Description: COVER RR-BUMPER
 - Part/Item No.: 86611-M6000
 - Preliminary MDS: ☐
- Dates:**
 - Create Date: 2/25/2020
 - Check/Release Date: not available
 - Recommendation:
- Amounts and Weights:**
 - Measured weight per item: 3152.0 g
 - Calculated weight per item: 3152.5 g
 - Deviation: 0.015863%
- Parts Marking:**
 - Polymeric part(s) marked: Yes (Parts marked as required by law.)

- Go to 'Supplier Data*' (⑥)
- Choose your 'Contact person' (⑦)

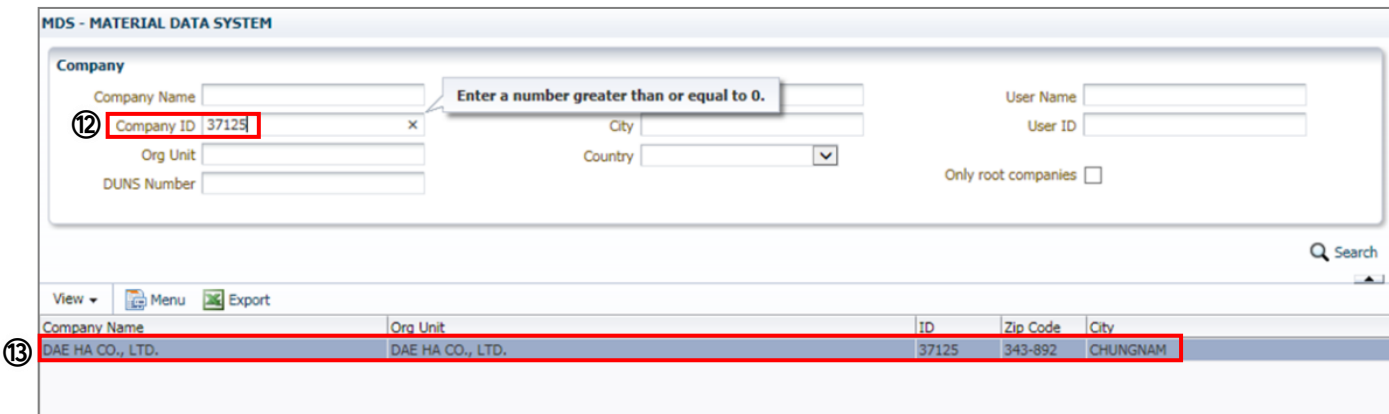
The screenshot shows the MDS system interface with the 'Supplier Data*' tab selected. The top bar indicates the current record: 'Name COVER RR-BUMPER | ID version 711884813 | Node ID 817471597 | Status Edit mode'. The main panel displays the following information:

- Company:**
 - Company: HYUNDAI KIA MOTOR COMPANY
 - Company ID: 71404
 - DUNS Number: -
 - Company Address: 104, Mabuk-Dong Giheung-Gu, yongin-Si 449912 Gyeonggi-Do KR (Korea, Republic of)
 - Organisation unit: HYUNDAI KIA MOTOR COMPANY
 - Company ID: 71404
 - DUNS Number: -
 - Company Address: 104, Mabuk-Dong Giheung-Gu, yongin-Si 449912 Gyeonggi-Do KR (Korea, Republic of)
- Contact Person:**
 - Contact Person: PARK, HYE YOUNG
 - E-Mail: phy1024@hyundai.com
 - Telephone No.: +82-31-5172-3579
 - Fax No.: -

- Go to 'Recipient data*' (⑧)
- Choose recipient (⑨) and delete it (⑩)
- Recipient is deleted if you click 'Yes'
- Click the "Add Recipient" button (⑪)



- Enter the recipient information in the search criteria (⑫) and search
- Double-click the recipient found in the search results (⑬)



- Enter the transfer information (14), then click [Propose] (15) to complete.

KIM, YOUNGCHUL
HYUNDAI KIA MOTOR COMPANY [71404]

MDS ▾ Functions ▾ Administration ▾ Help ▾

MATERIAL DATA SYSTEM

Sent MDSs Ingredients * Supplier Data * Recipient data * Analysis MDS Request

Name COVER RR-BUMPER | ID version 711884813 / 1.01 | Node ID 817471597 | Status Edit mode

15 Propose Release Internal Publish

DAE HA CO., LTD. [37125] edit mode (03/22/2019)

Details 14

Transfer Information

Company DAE HA CO., LTD. [37125]
Organisation unit -
Recip. Status edit mode
Supplier Code EK04 ?
Name COVER RR-BUMPER
Part/Item No. 37000-8K150 ?
Transmission/Check Date not available
Forwarding allowed ☒

Drawing

Drawing No.
Drawing dated ?
Drawing Change Level ?

Purchase Order

Purchase Order No.
Bill of Delivery No.

Report

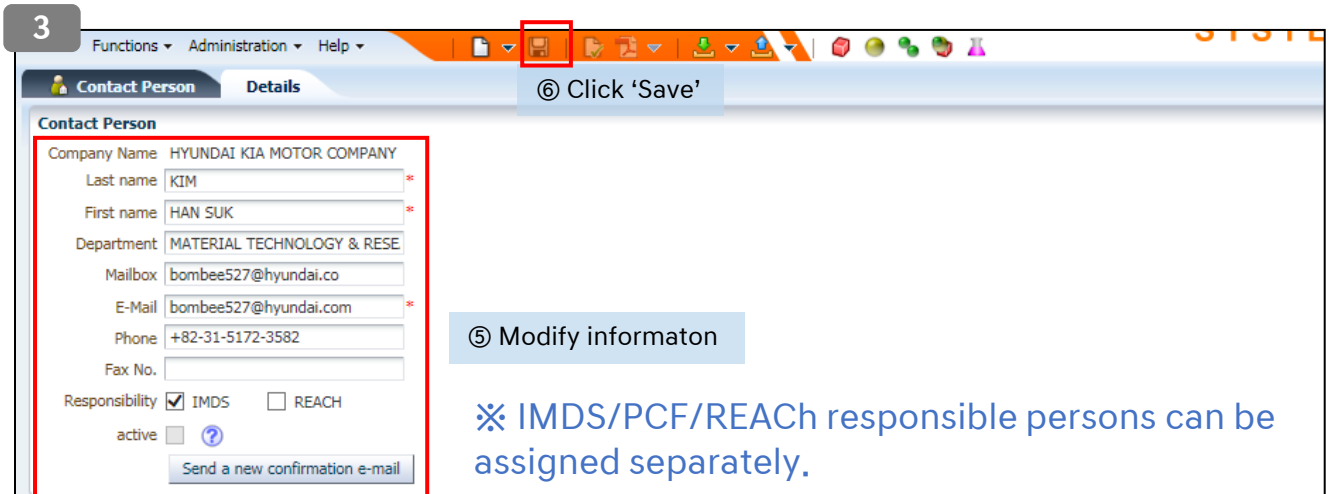
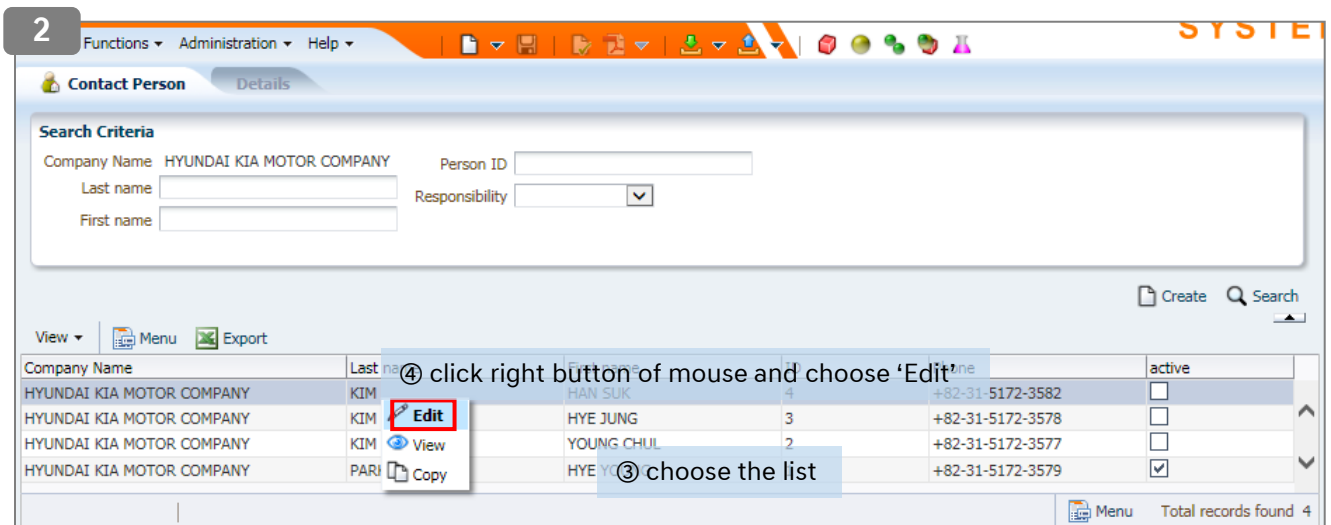
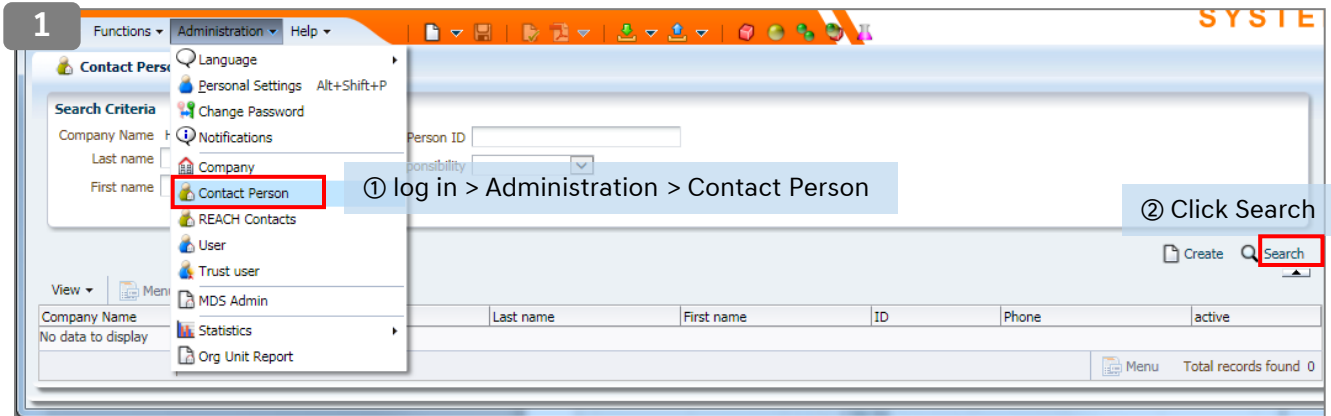
Report No.
Date of Report ?

References

2. How to Change Contact Person

Case 1. Change Information of Contact Person

[caution] In order to change or create contact person information, Administration authority is needed



Case 2. Inactive Contact person

MDS - MATERIAL DATA SYSTEM

https://www.mdsystem.com/imdsnt/faces/contactAdmin?Adif-Window-Id=w11teerjtc&Adif-Page-Id=2

MATERIAL DATA SYSTEM

MDS • Functions • Administration • Help

CONTACT PERSON

Details

Search Criteria

Company NameHYUNDAI MOTOR AND KIA

Person ID

Default Contact☐IMDS☐PCF

Last namepark

Responsibility

First namehyeyoung

State

Create

Search

View

Menu

Export

Company Name	Last name	First name	ID	Phone	active	Default IMDS Contact	Default PCF Contact
HYUNDAI MOTOR AND KIA	park	hyeyoung	5	44518047	☐	☐	☐

Click in the Active/Inactive field