

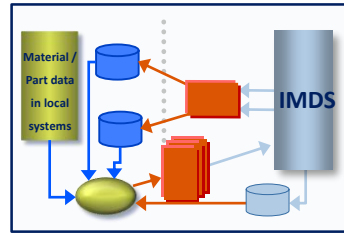
IMDS-a2 Analysis & Reporting

Webinar Series

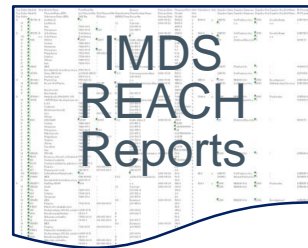
**Thomas Schaefer
DXC Technology**

mds-solutions@dxc.com

IMDS-a2 - Advanced Accelerator



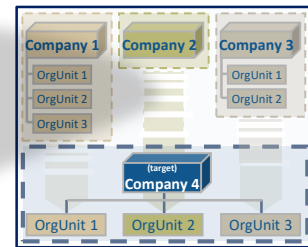
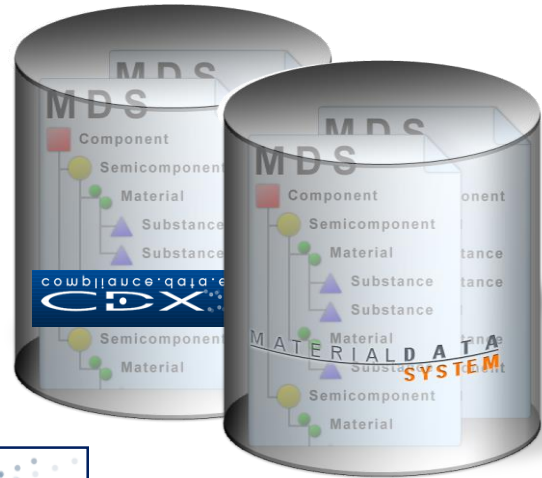
IMDS Advanced Interface (IMDS-AI)



IMDS REACH Reports



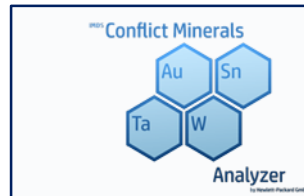
IMDS Advanced Accelerator (IMDS-a2)



Company Reorganization



Compliance Data Exchange (CDX-WSI)



IMDS Conflict Minerals (CM) Analyzer

IMDS-a2 Product Features

- Similar to IMDS Web but designed for IMDS “power users”
- Runs on local PC
- Features Windows “look and feel”
- Provides multiple windows support
- Delivers “drag and drop” capability
- Provides bookmarking of often-used MDSs, substances and companies
- Provides unlimited search results
- Enables faster access to existing MDSs
- Provides access to local data sources, such as part number lists

And much more powerful features ...

IMDS-a2 – Power User Features

IMDS-a2 Modules



IMDS-a2 – Analysis & Reporting

Analysis & Reporting

Story Board
Info text guiding the user through the process and explaining the options he currently has.

Analysis criteria - MDS Selection

Article Name
Part/Item No. Preliminary MDS MDS ID current version

Date
 published / accepted / internally released or created
from 03/02/2019 to 04/02/2019 (MM/DD/YYYY)

Supplier MDSs
 accepted MDSs published MDSs
 all
Supplier Org Unit Company - / Org.-ID
 save list

Own MDSs/Modules
 own MDSs own Modules
Assigned Org Unit last edited by me
Assigned Contact obsolete

Analysis criteria - Basic Substance Group

Basic Substance Group Cadmium or its compounds
Amount / Weight Range 1.0 2.0 %
Reference OSA Article - (Criteria can only be applied to Component MDSs and will filter out all non-Component MDS)
Aggregation type
 Pass MDSs fulfilling this criteria to the next stage / result of the analysis
 Remove MDSs fulfilling this criteria from the next stage / result of the analysis

Total records found: 0 Add more criterial Analyze

No.	Type	Article Name	Part/Item/Mat.-No.	ID / Version	Node ID	Supplier/Recipient
-----	------	--------------	--------------------	--------------	---------	--------------------

The add-on module Analysis & Reporting provides full use of your IMDS data

- Allows analysis of all your IMDS MDS data without limitation.
- Thresholds for percentages and weights can be considered in the analysis – not only the test for existence.
- Supported threshold options are <, <=, >, >= and ranges (from – to).
- Typical “reference” for percent or weight thresholds are Homogeneous Material and Article.
- Multiple Analysis can be combined – results can be input for succeeding Analysis options.
- Support of Combined Analysis e.g. one Analysis for REACH SVHC CL, REACH Annex XIV and REACH Annex XVII substances.

IMDS-a2 – Analysis & Reporting

MDS Selection

- Define what IMDS MDS data to analyze.
- Could be combinations of:
 - ✓ Own MDSs / Modules
 - ✓ Accepted MDSs
 - ✓ Published MDSs
- Story Board gives advise what options can be chosen.

Analysis & Reporting

Story Board
Info text guiding the user through the process and explaining the options he currently has.

Analysis criteria - MDS Selection

Article Name

Part/Item No. Preliminary MDS MDS ID current version

Date published / accepted / internally released or created
from 03/02/2019 to 04/02/2019 (MM/DD/YYYY)

Supplier MDSs accepted MDSs published MDSs
 all

Supplier	Org Unit	Company- / Org.-ID
----------	----------	--------------------

save list

Own MDSs/Modules own MDSs own Modules
Assigned Org Unit last edited by me
Assigned Contact obsolete

Analysis criteria - Basic Substance Group

Basic Substance Group Cadmium or its compounds

Amount / Weight Range 1.0 2.0 %

Reference OSA Article - (Criteria can only be applied to Component MDSs and will filter out all non-Component MDS)

Aggregation type Pass MDSs fulfilling this criteria to the next stage / result of the analysis
 Remove MDSs fulfilling this criteria from the next stage / result of the analysis

Total records found: 0

No.	Type	Article Name	Part/Item/Mat.-No.	ID / Version	Node ID	Supplier/Recipient
-----	------	--------------	--------------------	--------------	---------	--------------------

IMDS-a2 – Analysis & Reporting

Analysis criteria - Classification

Classification: 1.2.1 - Steel

Amounts and Weights: Range, 0.1, 10.0, g

Reference: O5A Article - (Criteria can only be applied to Component MDSs and will filter out all non-Component MDS)

Aggregation type: Pass MDSs fulfilling this criteria to the next stage / result of the analysis
 Remove MDSs fulfilling this criteria from the next stage / result of the analysis

Analysis Criteria I

- Define the Analysis Criteria used to search the previously defined MDS data.
- Substance related Analysis criteria:
 - ✓ Basic Substance
 - ✓ Basic Substance List
 - ✓ Basic Substance Group
 - ✓ Company-specific Basic Substance List
 - ✓ GADSL / SVHC Substances
 - ✓ Confidential GADSL / SVHC Substances
 - ✓ Substance Range Threshold
 - ✓ Deleted or hidden Basic Substances

IMDS-a2 – Analysis & Reporting

Analysis criteria - Classification

Classification: 1.2.1 - Steel

Amounts and Weights: Range, 0.1, 10.0, g

Reference: O5A Article - (Criteria can only be applied to Component MDSs and will filter out all non-Component MDS)

Aggregation type: Pass MDSs fulfilling this criteria to the next stage / result of the analysis
 Remove MDSs fulfilling this criteria from the next stage / result of the analysis

Analysis Criteria II

- MDS related Analysis criteria:

- ✓ MDS / Module
- ✓ Classification
- ✓ Application Code
- ✓ Deleted, hidden or obsolete MDS / modules

- Quick Access / Combined Analysis criteria:

- ✓ All REACH (consists of REACH SVHC CL, REACH Annex XIV, REACH Annex XVII)
- ✓ California Proposition 65
- ✓ Conflict Minerals

IMDS-a2 – Analysis & Reporting

Analysis criteria - Classification

Classification: 1.2.1 - Steel

Amounts and Weights: Range, 0.1, 10.0, g

Reference: O5A Article - (Criteria can only be applied to Component MDSs and will filter out all non-Component MDS)

Aggregation type: Pass MDSs fulfilling this criteria to the next stage / result of the analysis
 Remove MDSs fulfilling this criteria from the next stage / result of the analysis

Analysis Criteria III

- Search for percentage/weight thresholds, existence and ranges:
 - ✓ >, >=, <, <=
 - ✓ From / to ranges
 - ✓ Pure Existence
- Configurable References
 - ✓ Homogeneous Material
 - ✓ Article (lowest Component above Substance)
 - ✓ Availability of reference depends on selected Analysis Criteria

IMDS-a2 – Analysis & Reporting

Analysis criteria - Classification

Classification: 1.2.1 - Steel

Amounts and Weights: Range, 0.1, 10.0, g

Reference: O5A Article - (Criteria can only be applied to Component MDSs and will filter out all non-Component MDS)

Aggregation type:
 Pass MDSs fulfilling this criteria to the next stage / result of the analysis
 Remove MDSs fulfilling this criteria from the next stage / result of the analysis

Analysis Criteria IV

- Combination of multiple Analysis Criteria by Aggregation Type
 - ✓ Pass results to next stage
 - ✓ Subtract results and pass all remaining MDSs to next stage

IMDS-a2 – Analysis & Reporting

Use Case 1 – Simple Analysis

- In order to provide SCIP Reporting all own, sent and received MDSs are analyzed for usage of SVHC substances $\geq 0.1\%$ related to their Article.
- Investigate resulting MDSs where SVHC substance is referenced using the Reach Regulation Information in MDS Detail window.

-> Short overview of Reach Regulation Information before showing use case 1 in the a2

IMDS-a2 – REACH Regulation Information

The screenshot displays the 'Regulatory Information' tab for a component. The component details include:

- Type: Component (own MDS)
- ID / Version: 905588248 / 2 (Node ID 905948238)
- MDS Supplier: IMDS Service Team
- Description: TS REACH O5A Test Component
- Part/Item No.: 007
- Measured weight per item: 24.33946 kg
- Calculated weight per item: 24.33946 kg
- Deviation: 0 %
- Preliminary MDS:
- Create Date: 08/03/2018, Check Date: 08/03/2018
- Release Date: 08/03/2018, Show Recommendations button

Three tables are shown below, detailing REACH SVHC, Annex XIV, and Annex XVII substances:

Name	CAS No.	GADSL	% Article	g Article	Article Name	% MDS	g MDS
Asbestos, anthophyllite	77536-67-5	P	0.2	0.5	Heat shield	0.2	0.5
Diarsenic-trioxide	1327-53-3	DP	0.025	0.01	Reach Sample A...	0.05	0.02

Name	CAS No.	GADSL	% Article	g Article	Article Name	% MDS	g MDS
Diarsenic-trioxide	1327-53-3	DP	0.025	0.01	Reach Sample Ar...	0.05	0.02

Name	CAS No.	GADSL	% Article	g Article	Article Name	% MDS	g MDS
Asbestos, anthophyllite	77536-67-5	P	0.2	0.5	Heat shield	0.2	0.5

REACH Regulation information available in the MDS detail

- Gives an overview of contained REACH related substances on MDS level
- Considers REACH SVHC Candidate List as well as substances listed in REACH Annex XIV and REACH Annex XVII
- Aggregated overview of such substances on root node level
- Detailed view on Article level

IMDS-a2 – Analysis & Reporting

Use Case 1 – Simple Analysis

- In order to provide SCIP Reporting all own, sent and received MDSs are analyzed for usage of SVHC substances $\geq 0.1\%$ related to their Article.
- Investigate resulting MDSs where SVHC substance is referenced using the Reach Regulation Information in MDS Detail window.

IMDS-a2 – Analysis & Reporting

Use Case 2 – Combined Analysis

- A user wants to analyze all own, sent and received MDSs for the use of Biocide substances.
- Next, he uses output of 1st run to filter out MDSs referencing substances contained in the company-specific substance list “RoHS” exceeding 1% in homogeneous material.

-> Short overview of Company-specific Substance Lists before showing use case 2 in the a2

IMDS-a2 – Company-specific Substance Lists

Company-specific Basic Substance Lists

Total records found: 2

Name	Description
Rare Earth Elements and compounds (excerpt)	Excerpt of the CDX Rare Earth Substance list.
RoHS (excerpt)	Excerpt of CDX RoHS regulation.

Search Create

Name: Rare Earth Elements and compounds (excerpt)

Description: Excerpt of the CDX Rare Earth Substance list.

Total records found: 26

Name	CAS No.	EU-Index	EINECS-No.	Node ID	Synonym
Aluminum terbium oxide	12005-19-5			115243952	
Aluminum yttrium oxide	12005-21-9		234-465-8	90057036	Pentaaluminium tryttrium
Cadmium Hydroxide	21041-95-2		244-168-5	477844657	
Cerium	7440-45-1	-	231-154-9	10392	
Cerium hydroxide	37382-23-3		253-488-4	676152058	
Cerium lanthanum yttrium nitride silicide	1418209-79-6			517543925	
Cerium nitride	25764-08-3		247-243-0	495454708	
Cobalt, Compound with Gadolinium (3:1)	12017-50-4		234-621-5	477844964	
Cobalt, Compound with Gadolinium (5:1)	12017-61-7		234-622-0	477844966	
Cobalt, Compound with Gadolinium (7:2)	11139-24-5		234-395-8	477844968	
Cobalt, compound with lanthanum (3:1)	61419-68-9		262-781-6	171438696	

+ Add X Remove Save X Delete

Advantages of Company-specific Basic Substance Lists

- The IMDS-a2 allows you to create Company-specific Basic Substance lists
- Allows you to rebuild substance lists/groups which are not part of IMDS, e.g. RoHS, Batteries, ...
- These lists can be used by every a2 user of your company
- Full usage of those lists in the IMDS-a2 modules
 - ✓ MDS Detail (Substance filter)
 - ✓ Where-Used Analysis
 - ✓ Basic Substance module
 - ✓ Analysis & Reporting

IMDS-a2 – Analysis & Reporting

Use Case 2 – Combined Analysis

- A user wants to analyze all own, sent and received MDSs for the use of Biocide substances.
- Next, he uses output of 1st run to filter out MDSs referencing substances contained in the company-specific substance list “RoHS” exceeding 1% in homogeneous material.

IMDS-a2 – Potential future developments

Regulation Information Report

- Master / Detail Report shows resulting MDSs and contained Substances according to previously used analysis criteria
- Detailed weight and percent information on Article / Homogeneous Material level as well as on MDS level
- Considers REACH SVHC Candidate List as well as group/list membership (e.g. REACH Annex XIV, REACH Annex XVII, ...)
- Available as XLSX, PDF and CSV report download

No.	MDS Type	MDS Name	Part/Item/Mat.-No.	ID / Version	Node ID	Supplier/Recipient					
	Type	Substance Name	CAS No.	GADSL / SVHC Flags	Node ID	Article Name	g Article	% Article	g MDS	% MDS	Group / List Membership
1	Component	a2 Assembly	A	906068505 / 0.01	906068505	IMDS Service Team (0)					
	Substance	1,2-Benzenedicarboxylic acid, bis(3-me	605-50-5	-DS	10449447	New component 1	1,6	40	1,6	3,131115	
2	Material	ABAK	-	906428293 / 1	906428293	IMDS Service Team (0)					
	Substance	1-Bromopropane	106-94-5	--S	167	-	-	-	-	-	
3	Component	AM_test_tree	-	905468245 / 2	905468257	IMDS Service Team (0)					
	Substance	Arsenic-acid	7778-39-4	-DS	899	AM_test_tree	0,5	1	0,5	1	Reach Annex XIV
	Substance	Arsenic-acid	7778-39-4	-DS	899	node	0,5	2,5	1	2	Reach Annex XIV
	Substance	Ammonium-dichromate	7789-09-5	PDS	839	node	0,5	2,5	1	2	Reach Annex XIV
4	Component	TS O5A Reach Regulation Test MDS	-	906628265 / 1	906628265	IMDS Service Team (0)					
	Substance	Cadmium	7440-43-9	PDS	1182	Bolt	0,005	0,0005	0,025	0,000253	Reach Annex XVII
	Substance	Cadmium	7440-43-9	PDS	1182	Bolt	0,005	0,0005	0,01	0,000101	Reach Annex XVII
	Substance	Cadmium	7440-43-9	PDS	1182	Bolt	0,005	0,0005	0,01	0,000101	Reach Annex XVII
	Substance	Confidential Substances	*****	--S	-	TS O5A confidential SVHC Test Component 1	8	2,6667	16	0,161616	Reach Annex XIV
	Substance	1,2,5,6,9,10-Hexabromocyclododecane	3194-55-6	PDS	10983757	SB_ChMgr_REACH Component 001	0,1	0,47619	0,5	0,005051	Reach Annex XIV
	Substance	Lead	7439-92-1	PD-	1061	Bolt	0,05	0,005	0,25	0,002525	Reach Annex XIV



Thank you.

More information:

mds-solutions@dxc.com

www.mdsystem.com

www.cdxcsystem.com