

IMDS International list of reportable substances (ILRS-list)

1 Purpose

This standard lists those substances that, when contained or released from finished materials and components for the automotive industry, are of concern to human health, environmental safety and/or recycling. Therefore they are either prohibited, restricted or monitored by the automotive industry, and these restrictions are based on existing legislation or self-imposed regulations.

The purpose of this standard is to help the automotive industry to monitor the usage of these substances and to facilitate compliance with current and future regulations.

2 References

IMDS Recommendation 001

3 Requirements

This standard requires every user of the International Material Data System (IMDS) to always report on the occurrence of any substance listed in section 4 when either present above its threshold limit in the material or component described. The substance should always be connected to a material and reported according to the rules in IMDS Recommendation 001.

3.1 General

The list contained in this IMDS standard is based on International legal requirements as well as known risks to human health, environmental safety and recycling. All substances listed as "Declarable" (D) or D / P, in this standard, that exist in the product above the threshold limit must always be declared when creating a material data sheet. For substances ONLY designated as "Prohibited" any intentionally introduced content must be reported.

Unless otherwise specified the lowest limit that must be reported is 0.1 % by mass for the listed substances. Any deviation from this is mentioned for each substance in section 4. The percentage is to be calculated based on the content of each substance in its homogeneous material, not on the total content in the component or assembly. Any reportable substance below the threshold (0.1% unless otherwise mentioned) does not have to be reported in IMDS.

Substances are classified as being either Prohibited (P) or Declarable (D). All substances in the list marked with a "P" are prohibited above the specified reporting limit (0.1% unless otherwise listed). These substances may be forbidden for all uses or for specific applications due to legal or internal regulations. Any deviation from this standard concerning the usage of prohibited substances must be agreed upon between the supplier and the OEM receiving the part.

All substances in the list marked with "D" must be declared at levels above the reporting limit (0.1% unless otherwise listed). All influences of their use for the specific application shall be evaluated to achieve the highest possible level of safety and environmental compatibility.

Some substances are marked with "D/P". This means that the substance is declarable but also prohibited by some OEMs. To see which car manufacturer prohibits the usage of the substance, you have to refer to the specific OEM standards.

3.2 Requirements on delivery

This standard only dictates which substances and thresholds are required to be reported to automobile manufacturers. Please refer to each manufacturers appropriate standard for their specific substance prohibitions.

The requirements defined in this standard apply to all materials and components supplied. These requirements also apply to re-sourced or re-designed materials and components.

4 Reportable Substances

The following table of prohibited and declarable substances must always be reported, when present above the threshold limits, when creating a material data sheet. For a detailed listing of each CAS number that must be reported, please refer to the detailed list of reportable substances available from the FAQ in the IMDS public pages.

4.1 Definitions

Each column has the following purpose:

- **Substance**
Gives the name of the actual substance or the substance family.
- **EU-Index**
If the substance has been given an EU-Index number it will be listed here.
- **Cas-No**
CAS Registry Numbers are unique identifiers for chemical substances.
- **Classification**
Used to determine whether the substance is prohibited by all OEMs ("P"), prohibited by some OEMs but declarable for all OEMs ("D/P") or just declarable for all OEMs ("D").
- **Source**
Legal or other reference to why the substance is included in the list.
- **Danger/Risks**
Codes describing the properties and risks related to the substance.
- **Threshold**
The given lower limit, above which a substance always must be declared when creating a material datasheet.

Every substance indexed with a "*" after the substance name has a more detailed listing in the long list.

4.2 List in Alphabetical Order

Please see the following pages:

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IMDS Standard

IMDS STD101

	Substance	EU-INDEX- No.:	CAS-No.	Classi- fication	Source (Legal requirements, regulations)	Danger/ Risk	Threshold (0,1% unless stated otherwise)
1	1-Chloro-2,3-epoxy-propane	603-026-00-6	106-89-8	D	EU-D 67/548/EEC	C2	
2	2,4,6-tri-tert-butylphenol		732-26-3	D	Japan (Chemical Substances control Law)		
3	Acetaldehyde	605-003-00-6	75-07-0	D	EU-D 67/548/EEC	C3	
4	Acetamide	616-022-00-4	60-35-5	D	EU-D 67/548/EEC	C3	
5	Acrylamide	616-003-00-0	79-06-1	D	EU-D 67/548/EEC	C2,M2	
6	Acrylonitrile	608-001-00-3	107-13-1	D	EU-D 67/548/EEC	C2	
7	Alkylphenol ethoxylates:			D/P	EU-D 2003/53/EC		
8	Aniline and its salts			D	EU-D 67/548/EEC	T,C3	
9	Antimonytrioxide (Diantimonytrioxide)	051-001-00-X	1309-64-4	D	EU-D 67/548/EEC	C3	
10	Aromatic amines or their salts: 4-Aminobiphenyl or its salts Benzidine or its salts 2-Naphthylamine or its salts 4-Nitrobiphenyl or its salts	(612-072-00-6) (612-042-00-2) (612-022-00-3) (609-039-00-3)	(92-67-1) (92-87-5) (91-59-8) (92-93-3)	P	EU-D 67/548/EEC EU-D 76/769/EEC ChemVerbotsV GefStoffV incl. Annex IV Nr. 2	C1	0,01%
11	Arsenic or its compounds	033-001-00-X	(7440-38-2)	D/P	EU-D 67/548/EEC EU-D 76/769/EEC ChemVerbotsV GefStoffV incl. Annex IV Nr. 3	T, C1	0.01% (unless present in metals & alloys, then the declaration limit is 0,05%).

	Substance	EU-INDEX- No.:	CAS-No.	Classi- fication	Source (Legal requirements, regulations)	Danger/ Risk	Threshold (0,1% unless stated otherwise)
12	Asbestos	650-013-00-6	(1332-21-4) (12001-29-5) (12001-28-4) (12172-73-5)	P	EU-D 76/769/EEC, ChemVerbotsV GefStoffV incl. Appendix IV Nr. 1	C1	
13	Azo-dyes which can release carcinogenic amines	-		P	EU-D 2002/61/EC	C 1 - 2	30 ppm
14	Barium compounds (organic or water soluble)	-	(7440-39-3)	D	EU-D 67/548/EEC	X _n	1%
15	Benzene	601-020-00-8	71-43-2	P	EU-D 76/769/EEC ChemVerbotsV GefStoffV incl. Appendix IV Nr. 4	C1, M2	0,01%
16	Beryllium or its compounds	(004-001-00-7)	(7440-41-7)	D	EU-D 67/548/EEC	C2	
17	Biocidal coatings / biocidal additives	-	-	D	GefStoffV incl. Annex IV Nr. 5		
18	Brominated flame retardants:			D/P	EU-D 2003/11/EEC EU-D 76/769/EEC		0.1% (10ppm for PolyBrominated Biphenyls)
19	Butadiene (1,3 - Butadiene)	601-013-00-X	106-99-0	D	EU-D 67/548/EEC	C1, M2	
20	Cadmium or it's compounds		(7440-43-9)	D/P	EU-D 2000/53/EEC EU-D 67/548/EEC EU-D 76/769/EEC	(C2)	0,01% any intentionally introduced content must be reported
21	Carbondisulfide		75-15-0	P	EU-D 67/548/EEC	R _{F3} , R _{E3}	
22	Ceramic Fibers (Mineral, Natural or Synthetic)			D	EU-D 67/548/EEC	C2	
23	Chlorinated hydrocarbons:			D/P	EU-D 67/548/EEC		
24	Chlorinated or brominated Dioxins or Furans			P	ChemVerbotsV	T	Content above 10 ppb
25	Chloroaniline	612-010-00-8	106-47-8	D	EU-D 67/548/EEC	(C2)	

	Substance	EU-INDEX- No.:	CAS-No.	Classi- fication	Source (Legal requirements, regulations)	Danger/ Risk	Threshold (0,1% unless stated otherwise)
26	Chloro-fluoro-carbons (CFC) or other Ozone depleting substances	-	-	P	EU-R 594/91/EEC		
27	Chloroparaffines, unbranched (C ₁₀ -H _{22n} Cl _n to C ₃₀ -H _{62n} Cl _n ; n = 1-28)			P	EU-D 76/769/EEC		
28	Chromium(VI)-salts	(024-005-00-2)	(14977- 61-8)	D/P	EU-D 67/548/EEC EU-D 2000/53/EEC	C2, N	0,1% any intentionally introduced content must be reported
29	Cobalt or its compounds	(027-001-00-9)	7440-48-4	D	EU-D 67/548/EEC	Sens, N	Cobalt compounds and alloys, excluding cobalt in steels"
30	Colophony (Rosin)		8050-09-7	D	Solders, adhesives, sealants	Sens	
31	Copper, metallic		7440-50-8	D	No current regulations but SoC in dispersive friction material applications due to environmental impact potential ; could be subject to future regulation		
32	Diamino-diphenyl-methane (4,4'-Diaminodi- phenylmethane)	612-051-00-1	101-77-9	D	EU-D 67/548/EEC	C2	
33	Dichloropropanole (1,3-Dichloro-2-propanole)	602-064-00-0	96-23-1	D	EU-D 67/548/EEC	C2	
34	Diorganotin compounds (e.g. dialkyltin compounds)			D	EU-D 67/548/EEC	T, N	
35	Ethanol, 2,2',2"-nitrilotris-		102-71-6	D	Norway Bestillingsnr. 463 (Risk of N-nitroso compound formation in coolant admixtures)		
36	Ethyl-/ Methyl-Glycols or their Acetates:			D			
37	Formaldehyde	605-001-00-5	50-00-0	D/P	EU-D 67/548/EEC ChemVerbotsV	C3	10 ppm. (Test method is according to VDA 275)

	Substance	EU-INDEX- No.:	CAS-No.	Classi- fication	Source (Legal requirements, regulations)	Danger/ Risk	Threshold (0,1% unless stated otherwise)
38	Halons:			P			
39	Hexachlorocyclohexane	602-043-00-6	58-89-9	P	GefStoffV with Annex IV Nr. 5		
40	Hexamines:			D	Not currently regulated but releasable hexamines are relevant to vehicle interior air quality		
41	Hydrazine	007-008-00-3	302-01-2	P	EU-D 67/548/EEC	C2	
42	Hydrobromofluorocarbons; HBFC's:			P	Montreal Protocol; EU Regulation (EC Regulation 2037/2000); US EPA Class I ODS		
43	Hydrochlorofluorocarbons; HCFC's			D/P	Montreal Protocol; EU Regulation (EC Regulation 2037/2000); US EPA Class II ODS		
44	Hydrofluorocarbons; HFC's:			D/P			
45	Hydrogen Sulphide	016-001-00-4	7783-06-4	D		T+	
46	Lead or it's compounds	-	(7439-92-1)	D/P	EU-D 2000/53/EEC EU-D 67/548/EEC	(R _{F3} , R _{E1}), N	0,1% any intentionally introduced content must be reported
47	Mercury or its compounds	080-001-00-0	(7439-97-6)	D/P	EU-D 2000/53/EEC EU-D 67/548/EEC EU-D 76/769/EEC ChemVerbotsV GefStoffV incl. Annex IV Nr. 7	T+	0,1% any intentionally introduced content must be reported
48	Methanol		67-56-1	D	Norway, Sweden (SFS 1985:840; SFS 1986:8), Denmark, Finland	T	
49	Methylacrylamidomethoxy-acetate	607-190-00-X	77402-03-0	D	EU-D 67/548/EEC	C2, M2	
50	Monomethyldibromodiphenylmethane	602-071-00-9	99688-47-8	P	EU Directive 76/769/EEC	N	
51	Monomethyldichlorodiphenylmethane	607-204-00-4	81161-70-8	P	EU Directive 76/769/EEC	N	

	Substance	EU-INDEX- No.:	CAS-No.	Classi- fication	Source (Legal requirements, regulations)	Danger/ Risk	Threshold (0,1% unless stated otherwise)
52	Monomethyltetrachlorodiphenylmethane	602-072-00-4	76253-60-6	P	EU Directive 76/769/EEC	N	
53	N,N-Dimethylformamide	616-001-00-X	68-12-2	D	1999/137/EC 91/689/EEC	R _{E2}	
54	N,N'-ditolyl-p-phenylenediamine		27417-40-9	D	Japan (Chemical Substances control Law)		
55	N,N'-dixylyl-p-phenylenediamine		28726-30-9	D	Japan (Chemical Substances control Law)		
56	Nickel or its compounds	028-002-00-7	(7440-02-0)	D	EU-D 76/769/EEC GefStoffV	CX	
57	Nitrites			D	EU-D 67/548/EEC GefStoffV with Annex IV Nr. 19		
58	Nitroso amines			P	EU-D 67/5487EEC TRGS 552	C2	
59	N-toly-n'-xylyl-p-phenylenediamine		70290-05-0	D	Japan (Chemical Substances control Law)		
60	Organotin compounds (see Diorganotins and Triorganotins)			D/P	EU-D 76/769/EEC ChemVerbotsV GefStoffV incl. Annex IV Nr. 5 + 8		
61	Pentachlorophenol (PCP) or its salts	604-002-00-8	(87-86-5)	P	EU-D 67/548/EEC EU-D 76/769/EEC ChemVerbotsV GefStoffV with Annex IV Nr. 12	T, C3, N	5 ppm

	Substance	EU-INDEX- No.:	CAS-No.	Classi- fication	Source (Legal requirements, regulations)	Danger/ Risk	Threshold (0,1% unless stated otherwise)
62	Perfluoroalkyl compounds, includes: Perfluoroalkyl sulfonates (e.g. PFOS), fluorotelomers, and telomer-based polymeric substances			D	Certain perfluoroalkyl compounds are increasingly recognised as potentially persistent, bioaccumulative, and toxic chemicals. Since EU and N.American regions are requesting usage data, these compounds are included at this time in order for the automotive industry to gather data/respond to regulatory inquiries.		
63	Phenol	604-001-00-2	108-95-2	D	EU-D 67/548/EEC	T	
64	Phenylendiamines or its salts	612-028-00-6	-	D		T, Sens N	
65	Phthalates:		-	D			
66	Polycyclic aromatic hydrocarbons (PAH; PCAH)	(601-032-00-3)	-	D/P			see individual thresholds
67	Polybrominated diphenyl ethers (PBDE)			D/P	EU-D 2003/11/EC		
68	Polybrominated Terphenyls (PBT)			D/P			CHECK!
69	Polychlorinated Biphenyls (PCB)	602-039-00-4	(1336-36- 3)	P	EU-D 76/769/EEC ChemVerbotsV GefStoffV incl. Annex IV Nr. 14		50 ppm
70	Polychlorinated Naphthalenes		38289-27- 9	D	Japan (Chemical Substances control Law)		
71	Polychlorinated Terphenyls (PCT)		(61788- 33-8)	P	EU-D 76/769/EEC ChemVerbotsV GefStoffV incl. Annex IV Nr. 14		10ppm
72	Pyrotechnical compounds:			D	Required to be reported for the purposes of workplace safety compliance and occupant protection		
73	Radioactive substances (including scrap metal contaminants)			D	Strahlenschutzverordnung (StrSchV)		
74	Styrene (Vinyl benzene)	601-026-00-0	100-42-5	D	EU-D 67/548/EEC	Xn	

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	Substance	EU-INDEX- No.:	CAS-No.	Classi- fication	Source (Legal requirements, regulations)	Danger/ Risk	Threshold (0,1% unless stated otherwise)
75	Styrene oxide (Epoxy styrene)	603-084-00-2	96-09-3	D	EU-D 67/548/EEC	C2	
76	Sulfur Hexafluoride		2551-62-4	P	Substance of concern due to global warming potential		
77	Thallium or it's compounds	081-001-00-3	(7440-28-0)	D	EU-D 67/548/EEC	T+	
78	Thioperoxydicarbonic diamide ([(H2N)C(S)]2S2), tetramethyl-		137-26-8	D	Japan:(Waste Disposal and Cleaning Law)	M3, Sens	
79	Tri(2-chloroethyl)phosphate	604-018-00-5	115-96-8	D/P	EU-D 67/548/EEC	C3, N	
80	Trichlorophenol or it's salts	(604-017-00-X)	(95-95-4)	D	EU-D 67/548/EEC	(C3)	
81	Trichloropropane (1,2,3 - Trichloropropane)	602-062-00-X	96-18-4	D	EU-D 67/548/EEC	Xn	
82	Trimethylphosphate		512-56-1	P	(EU-D 76/769/EEC)		
83	Triorganotin compounds (trialkyl- and triaryltin compounds)			D/P	EU-D 76/769/EEC EU-D 67/548/EEC ChemVerbotsV GefStoffV incl. Annex IV Nr. 5 + 8 Japanese regulation Law concerning the Examination and Regulation of Manufacture etc. of Chemical Substances	T,N	
84	Triphenylphosphate		115-86-6	D	Flame retardant under review		
85	Tris-(1-aziridinyl) phosphine oxide		545-55-1	P	EU-D 83/264/EEC		
86	Tris(2,3-dibromopropyl)phosphate [TRIS]		126-72-7	P	EU-D 79/663/EEC		
87	Vinyl chloride	602-023-00-7	75-01-4	D	EU-D 67/548/EEC TGRS 420	C1	5 ppm (vinyl chloride monomer in materials)



5 Administration

The IMDS standard 101, IMDS International list of Reportable Substances is owned by the IMDS Steering Committee. They will conduct at least an annual review of the standard and update according to the agreed work process. New regulations or business situations may require additional updates.

Any proposals for changes to this standard from either end users (suppliers and other interested parties) or OEMs shall be given to the IMDS Steering Committee for further evaluation and implementation.

6 This document is accepted by

Bayerische Motoren Werke AG
DaimlerChrysler AG
Dr. Ing. h.c.F. Porsche AG
Fiat Auto
Ford Motor Company
General Motors
Toyota Motor Corporation
Volkswagen Group
Volvo Car Corporation

7 Release and Revisions

7.1 Release

The standard was first approved and released in February 2004.

7.2 Revision

Rev.	Date	Description / Reason	Originating Organization / Committee
1	2004-06-03	First update session	IMDS Steering Committee

7 Cooperation and Assistance

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