

## NAMICS Green Procurement Standards Environmentally hazardous chemical substances list Ver. 17

No. 9740L024QA  
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**Table-1 Regulated substances**

| Reference No | Substances Name  | CAS No.  | Regulated Level    | Scope   | Allowable concentration  | Analyzed target                | Laws and regulations  |
|--------------|--|--|--------------------|---|--|--------------------------------|---|
| P1001        | Cadmium and its compounds  | -  | Level 1            | Parts composed of metals containing zinc (e.g. brass, hot dip galvanizing, etc.)                        | less than 100 ppm  | Raw materials, Other materials | EU RoHS Directive (EU)2015/863<br>Customer requirements                                   |
|              |  |  |                    | All uses other than the above column  | Less than 5ppm   | Raw materials, Other materials |   |
| P1002        | Lead and its compounds   | -  | Level 1            | Parts composed of metals containing tin (e.g. solder, etc.)   | Less than 500ppm   | Raw materials, Other materials | EU RoHS Directive (EU)2015/863<br>Customer requirements                                   |
|              |  |  |                    | All uses other than the above column, glass, and glass matrix compound.                                 | Less than 100ppm   |                                |   |
| M001         | Lead and its compounds   | -  | Managed Substances | Glass, glass matrix compound  | -  | Raw materials, Other materials |   |
| P1003        | Mercury and its compounds  | -  | Level 1            | All uses  | Less than 2ppm   | Raw materials, Other materials | EU RoHS Directive (EU)2015/863<br>Customer requirements                                   |
| P1004        | Hexavalent chromium compounds  | -  | Level 1            | All uses  | Less than 10ppm  | Raw materials, Other materials | EU RoHS Directive (EU)2015/863<br>Customer requirements                                   |
| P1005        | Total-concentration of four heavy metals (cadmium, lead, mercury, and hexavalent chromium) contained in packaging components and materials | -  | Level 1            | All indirect materials  | "Less than 50 ppm" is determined as the allowable total-concentration of four heavy metals (cadmium, lead, mercury, and hexavalent chromium) contained in each part, ink, or paint that constitutes a package. | Indirect materials             | EU Directive 94/62/EC on packing and packing waste and its amendments                     |
| P1006        | Polybrominated biphenyls (PBB)   | -  | Level 1            | All uses  | Less than 1000ppm  | All materials                  | EU RoHS Directive (EU)2015/863<br>Customer requirements                                   |
| P1007        | Polybrominated diphenylethers (PBDE) (including decabromodiphenyl ether (DecaBDE))   | -  | Level 1            | All uses  | Less than 1000ppm  | All materials                  | EU RoHS Directive (EU)2015/863<br>Customer requirements                                   |
| P1008        | Hexabromocyclododecane (HBCDD)   | 25367-99-4<br>3194-55-6<br>134237-50-6<br>134237-51-7<br>134237-52-8 | Level 1            | All uses  | Less than 50ppm  | -                              | EU REACH Regulation(EC) No.1907/2006<br>The Stockholm Convention on POPs (EC) No 850/2004 |
| P1009        | Polychlorinated biphenyls (PCB)  | -  | Level 1            | All uses  | Less than 50ppm  | -                              | Japan Chemical Substances Control Law   |
| P1010        | Polychlorinated naphthalenes (PCN)   | -  | Level 1            | All uses  | Less than 1000ppm  | -                              | Japan Chemical Substances Control Law   |
| P1011        | Polychlorinated terphenyls (PCT)   | -  | Level 1            | All uses  | Less than 50ppm  | -                              | EU REACH Regulation(EC) No.1907/2006 Annex X VII  |
| P1012        | Short-chain chlorinated paraffins (SCCP) (Short-chain chlorinated paraffins with carbon chain length;10-13)                                | -  | Level 1            | All uses  | Less than 1000ppm  | -                              | EU-POPs Regulation (EC) No 850/2004   |
| P1013        | Polyvinyl chloride (PVC) and PVC blends  | -  | Level 1            | All uses (Exemption-Insulating tapes)   | Less than 1000ppm  | -                              | EU REACH Regulation(EC) No.1907/2006 Annex X VII  |
| P1014        | Hydrofluorocarbon (HFC), Perfluorocarbon (PFC), Sulfur hexafluoride(SF6)   | -  | Level 1            | All uses  | Less than 1000ppm  | -                              | EU Regulation (EC) No.842/2006  |
| P1015        | Ozone depleting substances (ODS)   | -  | Level 1            | All uses  | Less than 1000ppm  | -                              | EU Regulation (EC) No.2037/2000   |
| P1016        | Hydrochlorofluorocarbon (HCFC)   | -  | Level 1            | All uses  | Less than 1000ppm  | -                              | EU Regulation (EC) No.1005/2009   |
| P1017        | Perfluorooctane sulfonates (PFOS)  | -  | Level 1            | All uses  | Less than 1000ppm  | -                              | EU REACH Regulation(EC) No.1907/2006 Annex X VII  |
| P1018        | Perfluorooctanoic Acid (PFOA) and individual salts and esters of PFOA  | refer to Appendix-1.1  | Level 1            | All uses  | Less than 1000ppm  | -                              | Norway Product regulations  |
| P1019        | Trisubstituted organotin compounds (including tributyltin (TBT) compounds and triphenyltin (TPT) compounds)                                | -  | Level 1            | All uses  | Less than 1000ppm  | -                              | EU REACH Regulation(EC) No.1907/2006 Annex X VII  |
| P1020        | Diocetyl tin (DOT) compounds   | -  | Level 1            | All uses  | Less than 1000ppm of the tin contained in materials  | -                              | EU REACH Regulation(EC) No.1907/2006 Annex X VII<br>Customer requirements                 |
| P1021        | Beryllium oxide  | -  | Level 1            | All uses  | Less than 1000ppm  | -                              | EU WEEE Directive 2002/96/EC  |
| P1022        | Cobalt dichloride  | 7646-79-9  | Level 1            | All uses  | Less than 1000ppm  | -                              | EU REACH Regulation(EC) No.1907/2006 Annex X VII  |
| P1023        | Arsenic and its compounds  | -  | Level 1            | Antifoam agents or fining agents for LCD panels (including cover glasses, touchscreens, and backlights) | Less than 1000ppm  | -                              | EU REACH Regulation(EC) No.1907/2006<br>Customer requirements                             |
| P2003        | Arsenic and its compounds  | -  | Level 2            | All uses other than the above column  | Less than 1000ppm  | -                              |   |

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**Table-1 Regulated substances**

| Reference No | Substances Name   | CAS No.                              | Regulated Level    | Scope   | Allowable concentration  | Analyzed target | Laws and regulations  |
|--------------|---|--------------------------------------|--------------------|---|--|-----------------|---|
| P1024        | Asbestos  | —                                    | Level 1            | All uses  | Less than 1000ppm  | —               | Germany Chemicals Prohibition Ordinance   |
| P1025        | Specific azo compounds (Azodyes that form specific amine compounds and specific amine compounds.)   | refer to Appendix-1.2                | Level 1            | All uses  | Less than 30ppm  | —               | EU REACH Regulation(EC) No.1907/2006 Annex X VII  |
| P1026        | Formaldehyde  | 50-00-0                              | Level 1            | The wooden products made from fiberboard, particleboard, or plywood, which are employed in products (e.g. speakers and racks) | [With a chamber method] Concentration in the air: Equal to or less than 0.1 ppm                            | —               | Germany Chemicals Prohibition Ordinance   |
| R001         | Formaldehyde  | 50-00-0                              | Reduced Substances | All uses other than the above column  | -  | —               |   |
| P1027        | Benzenamine, N-phenyl-, reaction products with styrene and 2,4,4-trimethylpentene (BNST)  | —                                    | Level 1            | All uses  | Less than 1000ppm  | —               | Canada Prohibition of Certain Toxic Substances Regulations                                  |
| P1028        | 2-benzotriazol-2-yl-4,6-di-tert-butylphenol (UV-320)  | 3846-71-7                            | Level 1            | All uses  | Less than 1000ppm  | —               | Japan Chemical Substances Control Law   |
| P1029        | Dimethyl fumarate (DMF)   | 624-49-7                             | Level 1            | All uses  | Less than 0.1ppm   | —               | EU REACH Regulation(EC) No.1907/2006  |
| P1030        | Specific Polycyclic aromatic hydrocarbons (PAHs)  | refer to Appendix-1.3                | Level 1            | All uses  | Less than 1ppm   | —               | EU REACH Regulation(EC) No.1907/2006 Annex X VII Customer requirements                      |
| P1031        | Benzene   | 71-43-2                              | Level 1            | All uses  | Less than 1000ppm  | —               | EU REACH Regulation(EC) No.1907/2006 Annex X VII  |
| P1032        | Hexachlorobenzene   | 118-74-1                             | Level 1            | All uses  | Less than 1000ppm  | —               | EU POPs Regulation Annex I  |
| P1033        | Conflict Minerals (Gold, Tin, Tantalum and Tungsten which are produced from the Democratic Republic of the Congo or any adjoining countries ("DRC Countries") )   | —                                    | Level 1            | All uses  | Not intentionally added  | —               | US Financial Regulatory Reform  |
| P1034        | Radioactive substances [Uranium (U), Plutonium (Pu), Radon (Rn),Americium (Am), Thorium(Th) , Cesium(Cs) , Strontium (Sr),etc]  | —                                    | Level 1            | All uses  | Less than 1000ppm  | —               | Japan Laws Concerning the Prevention from Radiation Hazards due to Radioisotopes and Others |
| P1035        | Red phosphorus / Yellow phosphorus  | —                                    | Level 1            | All uses  | Less than 1000ppm  | —               | Customer requirements   |
| P1036        | Specific phthalates (DEHP/DBP/BBP/DIBP)   | refer to Appendix-1.4                | Level 1            | All uses  | Less than 50ppm  | All materials   | EU RoHS Directive (EU)2015/863 Customer requirements  |
| P2001        | Tris(2-chloroethyl) phosphate (TCEP)<br>Tris (1-chloro-2-propyl) phosphate (TCPP)<br>Tris(1,3-dichloro-2-propyl)phosphate (TDCPP)   | 115-96-8<br>13674-84-5<br>13674-87-8 | Level 2            | All uses  | Less than 1000ppm  | —               | EU REACH Regulation(EC) No.1907/2006 Customer requirements                                  |
| P2002        | Dibutyltin (DBT) compounds  | —                                    | Level 2            | All uses  | Less than 1000ppm of the tin contained in materials  | —               | EU REACH Regulation(EC) No.1907/2006 Annex X VII  |
| P2003        | Perfluorooctanoic acid (PFOA) and its salts and related substances<br>The following substances are excluded:<br>· C <sub>8</sub> F <sub>17</sub> -X (X = F, Cl, Br)<br>· C <sub>8</sub> F <sub>17</sub> -C(=O)OH, C <sub>8</sub> F <sub>17</sub> -C(=O)O-X' 又 {±C <sub>8</sub> F <sub>17</sub> -CF <sub>2</sub> -X'<br>(X' = any group, including salts). | —                                    | Level 2            | All uses  | 25 ppb of PFOA including its salts or 1000 ppb (1 ppm) of one or a combination of PFOA-related substances. | —               | EU REACH Regulation(EC) No.1907/2006 Annex X VII  |

**Table-2 Reduced substances**
**\*R0010 : Please refer to Table-1.**

| Reference No | Substances Name  | CAS No.               | Regulated Level    | Scope    | Allowable concentration | Analyzed target | Laws and regulations                                    |
|--------------|--|-----------------------|--------------------|----------|-------------------------|-----------------|---|
| R002         | Beryllium copper   | —                     | Reduced Substances | All uses | 1000 ppm                | —               | Customer requirements                                   |
| R003         | Other phthalates (Exemption-Regulated Substances)  | refer to Appendix-2.1 | Reduced Substances | All uses | 1000 ppm                | —               | Customer requirements                                   |
| R004         | Boric acid, Specific sodium borates  | refer to Appendix-2.2 | Reduced Substances | All uses | 1000 ppm                | —               | EU REACH Regulation(EC) No.1907/2006                    |
| R005         | 4-(1,1,3,3-tetramethylbutyl) phenol  | 140-66-9              | Reduced Substances | All uses | 1000 ppm                | —               | EU REACH Regulation(EC) No.1907/2006                    |
| R006         | Bis(2-methoxyethyl) ether  | 111-96-6              | Reduced Substances | All uses | 1000 ppm                | —               | EU REACH Regulation(EC) Annex XIV                       |
| R007         | N,N-dimethylacetamide (DMAC)   | 127-19-5              | Reduced Substances | All uses | 1000 ppm                | —               | EU REACH Regulation(EC) No.1907/2006                    |
| R008         | Ethylene glycol dimethyl ether (EGDME)   | 110-71-4              | Reduced Substances | All uses | 1000 ppm                | —               | EU REACH Regulation(EC) No.1907/2006                    |
| R009         | Perchlorates   | —                     | Reduced Substances | All uses | 1000 ppm                | —               | California dtsc regulations                             |
| R010         | Trixylyl phosphate (TXP)   | 25155-23-1            | Reduced Substances | All uses | 1000 ppm                | —               | EU REACH Regulation(EC) No.1907/2006                    |
| R011         | 2-(2H-benzotriazol-2-yl)-4, 6-di-tert-pentylphenol (UV-328)  | 25973-55-1            | Reduced Substances | All uses | 1000 ppm                | —               | EU REACH Regulation(EC) No.1907/2006                    |
| R012         | 2-ethylhexyl 10-ethyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate (DOTE)   | 15571-58-1            | Reduced Substances | All uses | 1000 ppm                | —               | EU REACH Regulation(EC) No.1907/2006                    |
| R013         | Reaction mass of 2-ethylhexyl 10-ethyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate and 2-ethylhexyl 10-ethyl-4-[[2-[(2-ethylhexyl)oxy]-2-oxoethyl]thio]-4-octyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate (reaction mass of DOTE and MOTE) | —                     | Reduced Substances | All uses | 1000 ppm                | —               | EU REACH Regulation(EC) No.1907/2006                    |
| R014         | Bisphenol A  | 80-05-7               | Reduced Substances | All uses | 25 ppm                  | —               | EU REACH Regulation(EC) Annex XIV Customer requirements |
| R015         | REACH SVHC (Substances of Very High Concern)<br>*Follow the latest SVHC list<br><a href="https://echa.europa.eu/candidate-list-table">https://echa.europa.eu/candidate-list-table</a>  |                       | Reduced Substances | All uses | 1000 ppm                | —               | EU REACH Regulation(EC) Customer requirements           |

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**Table-3 Managed Substances**
**\*M001 : Please refer to Table-1. M002, M004: Missing number.**

| Reference No | Substances Name   | CAS No.               | Classification     | Scope    | Allowable concentration | Analyzed target | Laws and regulations                                 |
|--------------|---|-----------------------|--------------------|----------|-------------------------|-----------------|--|
| M003         | Other Polycyclic aromatic hydrocarbons (PAHs) (Exemption-Regulated Substances)  | refer to Appendix-3.1 | Managed Substances | All uses | —                       | —               | Customer requirements                                |
| M004         | Antimony and its compounds  | —                     | Managed Substances | All uses | —                       | —               | Customer requirements                                |
| M006         | Beryllium and its compounds (Exemption - Beryllium oxide and Beryllium copper)  | —                     | Managed Substances | All uses | —                       | —               | Customer requirements                                |
| M007         | Bismuth and its compounds   | —                     | Managed Substances | All uses | —                       | —               | Customer requirements                                |
| M008         | Other brominated organic compounds (Exemption - PBB,PBDE)   | —                     | Managed Substances | All uses | —                       | —               | Customer requirements                                |
| M009         | Other chlorinated organic compounds (Exemption-PCB, PCN,PCT,SCCP)   | —                     | Managed Substances | All uses | —                       | —               | Customer requirements                                |
| M010         | Cobalt and its compounds (Exemption - Cobalt dichloride)  | —                     | Managed Substances | All uses | —                       | —               | Customer requirements                                |
| M011         | Fluoride and its compounds excluding the regulated substances specified by these standards                            | —                     | Managed Substances | All uses | —                       | —               | Customer requirements                                |
| M012         | Iodine and its compounds excluding the regulated substances specified by these standards                              | —                     | Managed Substances | All uses | —                       | —               | Customer requirements                                |
| M013         | chemSHERPA Declarable Substance Ver. (latest Version) excluding the regulated substances specified by these standards | refer to Appendix-3.2 | Managed Substances | All uses | —                       | —               | Joint Article Management Promotion-consortium (JAMP) |
| M014         | Low molecular siloxane ( $\leq 20$ mer)   | —                     | Managed Substances | All uses | —                       | —               | Customer requirements                                |
| M015         | Nanomaterials (Particle size : 1~100nm)   | —                     | Managed Substances | All uses | —                       | —               | Customer requirements                                |
| M016         | Phosphorus and its compounds (Exemption-Red / Yellow phosphorus)  | —                     | Managed Substances | All uses | —                       | —               | Customer requirements                                |
| M017         | Cyan compounds  | —                     | Managed Substances | All uses | —                       | —               | Customer requirements                                |
| M018         | Sulfur and its compounds  | —                     | Managed Substances | All uses | —                       | —               | Customer requirements                                |
| M019         | Zinc and its compounds  | —                     | Managed Substances | All uses | —                       | —               | Customer requirements                                |
| M020         | Titanium and its compounds  | —                     | Managed Substances | All uses | —                       | —               | Customer requirements                                |
| M021         | Volatile organic compounds (VOCs)   | refer to Appendix-3.3 | Managed Substances | All uses | —                       | —               | Customer requirements                                |
| M022         | Rare earth metals   | refer to Appendix-3.4 | Managed Substances | All uses | —                       | —               | Customer requirements                                |

**Appendix-1.1 List of Perfluorooctanoic Acid (PFOA) and individual salts and esters of PFOA**

| Substances Name                   | CAS No.   |
|-----------------------------------|-----------|
| Pentadecafluorooctanoic acid      | 335-67-1  |
| Ammonium pentadecafluorooctanoate | 3825-26-1 |
| Sodium pentadecafluorooctanoate   | 335-95-5  |
| Potassium perfluorooctanoate      | 2395-00-8 |
| Silver(1+) perfluorooctanoate     | 335-93-3  |
| Pentadecafluorooctyl fluoride     | 335-66-0  |
| Methyl perfluorooctanoate         | 376-27-2  |
| Ethyl perfluorooctanoate          | 3108-24-5 |

**Appendix-1.2 Specific azo compounds (Azodyes that form specific amine compounds and specific amine compounds.)**

| Substances Name  | CAS No.  |
|--|----------|
| 4-aminodiphenyl  | 92-67-1  |
| benzidine  | 92-87-5  |
| 4-chloro-o-toluidine; 4-chloro-2-methylaniline                               | 95-69-2  |
| 2-naphthylamine  | 91-59-8  |
| o-aminoazotoluene  | 97-56-3  |
| 2-amino-4-nitrotoluene; 5-nitro-o-toluidine                                  | 99-55-8  |
| p-chloroaniline  | 106-47-8 |
| 2,4-diaminoanisole   | 615-05-4 |
| 4,4'-diaminodiphenylmethane; 4,4'-methylenedianiline                         | 101-77-9 |
| 3,3'-dichlorobenzidine   | 91-94-1  |
| 3,3'-dimethoxybenzidine  | 119-90-4 |
| 3,3'-dimethylbenzidine   | 119-93-7 |
| 3,3'-dimethyl-4,4'-diaminodiphenylmethane; 4,4'-diamino-3,3'-diphenylmethane | 838-88-0 |
| p-cresidine; 6-methoxy-m-toluidine   | 120-71-8 |
| 4,4'-methylene-bis-(2-chloroaniline)   | 101-14-4 |
| 4,4'-oxideaniline  | 101-80-4 |
| 4,4'-thiodianiline; 4,4'-diaminodiphenylsulfide                              | 139-65-1 |
| o-toluidine  | 95-53-4  |
| 2,4-toluylenediamine; 4-methyl-m-phenylenediamine                            | 95-80-7  |
| 2,4,5-trimethylaniline   | 137-17-7 |
| o-anisidine  | 90-04-0  |
| 4-aminoazobenzene  | 60-09-3  |

**Appendix-1.3 List of Specific Polycyclic aromatic hydrocarbons(PAHs)**

| Substances Name        | CAS No.               |
|------------------------|-----------------------|
| Benzo[a]pyrene         | 50-32-8               |
| Benzo[e]pyrene         | 192-97-2              |
| Benzo[a]anthracene     | 56-55-3,<br>1718-53-2 |
| Chrysene               | 218-01-9              |
| Benzo[b]fluoranthene   | 205-99-2              |
| Benzo[j]fluoranthene   | 205-82-3              |
| Benzo[k]fluoranthene   | 207-08-9              |
| Dibenzo[a,h]anthracene | 53-70-3               |

**Appendix-1.4 List of Specific phthalates (DEHP/DBP/BBP/DIBP)**

| Substances Name  | CAS No.  |
|--|----------|
| Bis (2-ethylhexyl)phthalate; Di (2-ethylhexyl) phthalate | 117-81-7 |
| Dibutyl phthalate; Di-n-butyl phthalate                  | 84-74-2  |
| Benzyl butyl phthalate; Butyl benzyl phthalate           | 85-68-7  |
| Diisobutyl phthalate; Di-i-butyl phthalate               | 84-69-5  |

**Appendix-2.1 List of Other phthalates**

| Substances Name   | CAS No.                  |
|---|--------------------------|
| Di-isononyl phthalate; Diisononyl phthalate                             | 28553-12-0<br>68515-48-0 |
| Di-isodecyl phthalate; Diisodecyl phthalate                             | 26761-40-0<br>68515-49-1 |
| Di-n-octyl phthalate  | 117-84-0                 |
| Di-n-hexyl phthalate  | 84-75-3                  |
| 1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich    | 71888-89-6               |
| 1,2-Benzenedicarboxylic acid, di-C7-11-branched and linear alkyl esters | 68515-42-4               |
| Bis(2-methoxyethyl) phthalate   | 117-82-8                 |
| Other phthalates  | -                        |

**Appendix-2.2 List of Boric acid, Specific sodium borates**

| Substances Name                         | CAS No.                  |
|---|--------------------------|
| Boric acid                              | 10043-35-3<br>11113-50-1 |
| Sodium tetraborate pentahydrate         | 12179-04-3               |
| Disodium tetraborate, anhydrous         | 1330-43-4                |
| Sodium tetraborate decahydrate          | 1303-96-4                |
| Tetraboron disodium heptaoxide, hydrate | 12267-73-1               |

**Appendix-3.1 List of Other Polycyclic aromatic hydrocarbons(PAHs)**

| Substances Name          | CAS No.                 |
|--------------------------|-------------------------|
| Acenaphthene             | 83-32-9                 |
| Acenaphthylene           | 208-96-8                |
| Naphthalene              | 91-20-3                 |
| Fluorene                 | 86-73-7                 |
| Phenanthrene             | 85-01-8                 |
| Anthracene               | 120-12-7                |
| Fluoranthene             | 206-44-0,<br>93951-69-0 |
| Pyrene                   | 129-00-0,<br>1718-52-1  |
| Indeno[1,2,3-c,d]pyrene  | 193-39-5                |
| Benzo[g,h,i]perylene     | 191-24-2                |
| Benzo[r,s,t]pentaphene   | 189-55-9                |
| Dibenz[a,h]acridine      | 226-36-8                |
| Dibenz[a,j]acridine      | 224-42-0                |
| Dibenzo[a,e]fluoranthene | 5385-75-1               |
| Dibenzo[a,e]pyrene       | 192-65-4                |
| Dibenzo[a,h]pyrene       | 189-64-0                |
| Dibenzo[a,l]pyrene       | 191-30-0                |
| 7H-Dibenzo(c,g)carbazole | 194-59-2                |
| 5-Methylchrysene         | 3697-24-3               |

**Appendix-3.2 chemSHERPA Declarable Substance Ver. (latest Version)**

| Substances Name   | U R L  |
|---|--|
| LR01: CSCL (Chemical Substances Control Law) :<br>Class I specified chemical substance              | <a href="http://www.meti.go.jp/policy/chemical_management/kasinhou/index.html">http://www.meti.go.jp/policy/chemical_management/kasinhou/index.html</a>  |
| LR02 : Toxic Substances Control Act (TSCA) Section 6  | <a href="https://www.epa.gov/assessing-and-managing-chemicals-under-tsca/regulation-chemicals-under-section-6a-toxic-substances">https://www.epa.gov/assessing-and-managing-chemicals-under-tsca/regulation-chemicals-under-section-6a-toxic-substances</a>          |
| LR03 : End-of Life Vehicles Directive (ELV) 2011/37/EU  | <a href="http://ec.europa.eu/environment/waste/elv/index.htm">http://ec.europa.eu/environment/waste/elv/index.htm</a>  |
| LR04 : EU RoHS Directive 2011/65/EU ANNEX II  | <a href="http://ec.europa.eu/environment/waste/rohs_eee/index_en.htm">http://ec.europa.eu/environment/waste/rohs_eee/index_en.htm</a>  |
| LR05 : EU P POPs Regulation (EC) No 850/2004 ANNEX I  | <a href="http://ec.europa.eu/environment/chemicals/international_conventions/index_en.htm">http://ec.europa.eu/environment/chemicals/international_conventions/index_en.htm</a>  |
| LR06 : EU REACH Regulation (EC) No 1907/2006 Candidate List of SVHC for Authorisation and ANNEX XIV | <a href="http://ec.europa.eu/environment/chemicals/reach/reach_en.htm">http://ec.europa.eu/environment/chemicals/reach/reach_en.htm</a><br><a href="https://echa.europa.eu/web/guest/candidate-list-table">https://echa.europa.eu/web/guest/candidate-list-table</a> |
| LR07 : EU REACH Regulation (EC) No 1907/2006 ANNEX XVII   | <a href="http://echa.europa.eu/addressing-chemicals-of-concern/restrictions/substances-restricted-under-reach">http://echa.europa.eu/addressing-chemicals-of-concern/restrictions/substances-restricted-under-reach</a>  |
| IC01 : Global Automotive Declarable Substance List (GADSL)  | <a href="http://www.gadsl.org/">http://www.gadsl.org/</a>  |
| IC02 : IEC 62474 DB Declarable substance groups and declarable substances                           | <a href="http://std.iec.ch/iec62474/iec62474.nsf/MainFrameset">http://std.iec.ch/iec62474/iec62474.nsf/MainFrameset</a>  |

**Appendix-3.3 Volatile organic compounds (VOCs)**

| Substances Name        | CAS No.   |
|------------------------|-----------|
| Propan-2-ol            | 67-63-0   |
| Acetone                | 67-64-1   |
| Butyl acetate          | 123-86-4  |
| Xylene                 | 1330-20-7 |
| Ethyl methyl ketone    | 78-93-3   |
| Ethanol                | 64-17-5   |
| Ethylbenzene           | 100-41-4  |
| Tetrahydrofuran        | 109-99-9  |
| 2-propanol, 1-methoxy- | 107-98-2  |
| 1-butanol              | 71-36-3   |
| Methyl isobutyl ketone | 108-10-1  |
| Heptane                | 142-82-5  |
| Ethyl acetate          | 141-78-6  |
| Cyclohexanone          | 108-94-1  |

**Appendix-3.4 Rare earth metals**

| Substances Name                     | CAS No. |
|-------------------------------------|---------|
| Sc (Scandium) and its compounds     | -       |
| Y (Yttrium) and its compounds       | -       |
| La (Lanthanum) and its compounds    | -       |
| Ce (Cerium) and its compounds       | -       |
| Pr (Praseodymium) and its compounds | -       |
| Nd (Neodymium) and its compounds    | -       |
| Pm (Promethium) and its compounds   | -       |
| Sm (Samarium) and its compounds     | -       |
| Eu (Europium) and its compounds     | -       |
| Gd (Gadolinium) and its compounds   | -       |
| Tb (Terbium) and its compounds      | -       |
| Dy (Dysprosium) and its compounds   | -       |
| Ho (Holmium) and its compounds      | -       |
| Er (Erbium) and its compounds       | -       |
| Tm (Thulium) and its compounds      | -       |
| Yb (Ytterbium) and its compounds    | -       |
| Lu (Lutetium) and its compounds     | -       |

NAMICS Green Procurement Standards Environmentally hazardous chemical substances list\_Revision Records

| Revision No. | Established/ Revised on | Revision  | Reason for revision  | Established/ Revised by |                                   |
|--------------|-------------------------|---|--|-------------------------|-----------------------------------|
| 13           | 2016/4/25               | Revise the document name "NAMICS Green Procurement Standards Regulated and Managed Substances list" → "NAMICS Green Procurement Standards Environmentally Hazardous Chemical Substances List" | In order to follow Definition of Terms in "NAMICS Green Procurement Standards Document". | QA Div.                 |                                   |
|              |                         | To add new regulated level: "Reduced Substances"  |  |                         |                                   |
|              |                         | Reallocate the Reference No.  |  |                         | To specify the requirements.      |
|              |                         | To add the Appendix 1~3   |  |                         |                                   |
|              |                         | Review the Regulated level and Scope. (No.P1020, P1030, P2001, M003)  |  |                         | To meet the customer requirements |
|              |                         | To Add the information of "Laws and regulations". (No.P1008)  | To follow the legal amendment.   |                         |                                   |
| 14           | 2017/6/16               | To add Managed substances (No. M017 ~M020).   | To meet the customer requirements  | QA Div.                 |                                   |
|              |                         | To review the scope of Regulated substances (No.P1023, P2003).  |  |                         |                                   |
|              |                         | To review the threshold limit of Regulated substances (No. P1036).  |  |                         |                                   |
|              |                         | Review the Regulated level and Scope. (No.P1036,R001,R014)  |  |                         | To specify the requirements.      |
|              |                         | To add the Appendix 3.2   |  |                         |                                   |
| 15           | 2018/6/29               | To add Managed substances (No. R015).   | To meet the customer requirements  | QA Div.                 |                                   |
|              |                         | To review the threshold limit of Regulated substances (Reduced substances).   |  |                         |                                   |
| 16           | 2019/6/28               | To add Level 2 substances (P2003)   | To meet the customer requirements  | QA Div.                 |                                   |
|              |                         | To add Managed substances (M003,M021,M022)  |  |                         |                                   |
|              |                         | Review the Laws and regulations   |  |                         |                                   |
|              |                         | To review the Analyzed target   |  |                         |                                   |
| 17           | 2020/6/30               | To review the Scope and Allowable concentration (P1002).  | To be compatible with the industry standards.  | QA Div.                 |                                   |
|              |                         |   |  |                         |                                   |