

## Prohibited and Restricted Substances

The substances listed below are prohibited completely or prohibited only in certain application with threshold limit. It is mandatory to exclude the prohibited substances listed below from all BARGA GROUP materials supplied to and / or manufactured by BARGA GROUP or intended for use in BARGA GROUP products.

| Sl. No | Substance category   | Affected product and application  | Threshold (percentage)                     | Effective date               |
|--------|--|---|--|------------------------------|
| 0.1    | List of Persistent Organic Pollutants (POPs) according to Stockholm Convention ( <i>Ref01</i> )  | ( <i>Ref01</i> )  | ( <i>Ref01</i> )                           | ( <i>Ref01</i> )             |
| 0.2    | List of Banned or Restricted Chemicals according to the Rotterdam Convention ( <i>Ref02</i> )  | ( <i>Ref02</i> )  | ( <i>Ref02</i> )                           | ( <i>Ref02</i> )             |
| 0.3    | List of Substances included in Annex XIV of REACH (Authorisation List)<br><a href="https://echa.europa.eu/authorisation-list">https://echa.europa.eu/authorisation-list</a>  | All products  | 0%   | Immediate                    |
| 1      | Aromatic amines or their salts<br>a) Benzidine, its derivatives and salts.<br>b) 2-Naphthylamine and its salt<br>c) 4-Nitrobiphenyl and its salt<br>d) 4-Aminobiphenyl xenylamine and its salt                     | All products<br><br>For (b,c,d): All Products   | 0% ( <i>Ref03</i> )<br><br>0.1%            | Immediate<br><br>Immediate   |
| 2      | Arsenic and its compounds<br><a href="https://www.ncbi.nlm.nih.gov/books/NBK304380/table/a006.T001.001/?report=objectonly">https://www.ncbi.nlm.nih.gov/books/NBK304380/table/a006.T001.001/?report=objectonly</a> | All Products  | 0.1  | Immediate                    |
| 3      | a) Asbestos forms-fibres<br>b) Asbestos forms – Minerals ( <i>Ref04</i> )  | a) All Products (e.g. including Dry Friction Materials, etc.)<br>b) All Products with potential to form Asbestos Fibers (e.g. including Dry Friction Materials, etc.)                         | 0% ( <i>Ref04</i> )<br>0% ( <i>Ref04</i> ) | Immediate<br>Immediate       |
| 4      | a) Benzene - Non-Fuel products other than after-market cleaning and textile products   | a) All non-fuel products except when present in textiles with skin contact or when present in aftermarket consumer cleaning products.   | a) 0.1%                                    | Immediate (for both section) |
|        | b) Benzene – Fuel products   | b) All fuels ( <i>Ref05</i> )   | b) Various ( <i>Ref05</i> )                |                              |
| 5      | Biocidal products ( <i>Ref06</i> )   | Products for use in the EU containing biocidal substances that are not approved for one or more product type specified in Annex-V of the BPR or where approvals have expired ( <i>Ref06</i> ) | 0% ( <i>Ref07</i> )                        | Immediate                    |

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| 6  | Biologically Active Materials<br>(A compound that exerts a direct physiological effect on a plant, animal or another microorganism)   | All Product   | 0.1%                         | Immediate                                   |
| 7  | Cadmium and its compounds<br><br>Cadmium (expressed as Cd metal)  | a) plastic materials (such as PVC, PUR, PE, PET, PBT, PP), brazing fillers, metal beads.<br><br>b) In Paints<br><br>c) cadmium plating metallic articles or components of the articles.<br>For exemption, refer Annex III of EU RoHS exempted application list. | 0.01%<br><br>0.01%<br><br>0% | Immediate<br><br>Immediate<br><br>Immediate |
| 8  | Chlorinated Alkanes/Alkenes<br>(a) Short-Chain Chlorinated Alkanes/Alkenes (SCCA)<br><br>(b) Mid-Chain Chlorinated Alkanes (MCCA: C14- C17) and Long-Chain Chlorinated Alkanes (LCCA: C18- C20).<br><br>(c) Very Long-Chain Chlorinated Alkanes (vLCCA: C>20)<br>(d) Chlorinated Alkanes of an Unspecified Chain Length<br>(e) Substances related to chlorinated alkanes that might contain Short Chain Chlorinated Alkanes/Alkenes (SCCAs) | All products  | 0%<br>(Ref07)                | Immediate                                   |
| 9  | Chlorinated Hydrocarbons<br><br>(Chemical compounds of chlorine, hydrogen, and carbon atoms only)   | a) All products including Cleaning Products (Ref08)<br><br>b) Paint strippers   | 0%<br><br>0.1%               | Immediate<br><br>Immediate                  |
| 10 | Chlorinated Naphthalene   | All products  | 0%<br>(Ref07)                | Immediate                                   |
| 11 | Chlorinated or brominated Dioxins or Furans   | All products  | 0%<br>(Ref07)                | Immediate                                   |
| 12 | Chloroform and its related substances<br>1,1,2-Trichloroethane<br>1,1,2,2-Tetrachloroethane<br>1,1,1,2-Tetrachloroethane<br>Penta chloroethane<br>1,1-Dichloroethene  | All Products  | 0.1%                         | Immediate                                   |
| 13 | Chromium (VI)<br>(Cr+6; Hexavalent) and its compounds (Ref09)   | All Products except cement additives and leather articles   | 0.1%<br>(Ref09)              | Immediate                                   |
| 14 | Dichloro-diphenyl-trichloro- ethane (DDT)   | All products  | 0%<br>(Ref07)                | Immediate                                   |
| 15 | Dichloromethane   | In Paint Strippers  | 0.1%                         | Immediate                                   |
| 16 | 1,4-Dichlorobenzene   | In air freshener or deodoriser in toilets, offices or other indoor public areas   | 0.1%                         | Immediate                                   |

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| 17 | Dimethyl fumarate (DMF)  | All Products  | 0.1 (mg/kg)  | Immediate |           |
| 18 | Dibutyltin hydrogen borate C <sub>8</sub> H <sub>19</sub> BO <sub>3</sub> Sn (DBB)   | All products  | 0.1%         | Immediate |           |
| 19 | Diphenylether, octabromo derivative C <sub>12</sub> H <sub>2</sub> Br <sub>8</sub> O | All Products  | 0.1%         | Immediate |           |
| 20 | Fluorinated Green House Gases (Ref10)  | All products<br>For exemption (Ref11)   | 0%           | Immediate |           |
| 21 | a) Formaldehyde  | a) Textiles (PPE) under normal or reasonably foreseeable conditions of use, that meet human skin to an extent like clothing.                        | 0.003%       | Immediate |           |
|    |  | b) Textiles that do not meet skin.  | 0.03%        | Immediate |           |
|    |  | c) Any preservative or biocidal applications except for use as a disinfectant and algacide not intended for direct application to humans in the EU. | 0%           | Immediate |           |
|    |  | All Products  | 0.1%         | Immediate |           |
|    | b) Formaldehyde reaction   |   |              |           |           |
| 22 | Glycol and Glycol Ethers   | a) All Products   | 0.1%         | Immediate |           |
|    |  | b) All Products except semiconductors. In semiconductors 0.5% is allowed.   | 0%           | Immediate |           |
| 23 | Halogenated polyphenyls, diphenyl ethers and phosphates.                             | a) Hexabromo-cyclododecane (HBCDD).   | All products | 0%        | Immediate |
|    |  | b) Polybrominated biphenyls (PBB)   | All products | 0%        | Immediate |
|    |  | c) Polybrominated diphenyl ethers (PBDE)  | All Products | 0%        | Immediate |
|    |  | d) Bis(pentabromophenyl) ether decabromodiphenyl ether; decaBDE)  | All Products | 0%        | Immediate |
|    |  | e) Polychlorinated biphenyls (PCB)  | All Products | 0%        | Immediate |
|    |  | f) Polychlorinated terphenyls (PCT)   | All Products | 0.005%    | Immediate |
|    |  | g) Tris(2,3-dibromopropyl) phosphate [TRIS]   | All Products | 0%        | Immediate |
|    |  | h) Tris(2-chloroethyl) phosphate  | All Products | 0%        | Immediate |
| 24 | Hexachloroethane   | Manufacturing & Processing of non-ferrous metals  | 0%           | Immediate |           |
| 25 | Tris(aziridinyl) Phosphin oxide  | All products  | 0%           | Immediate |           |
| 26 | Lead and its compounds   | a) All products (Ref12)   | 0.1%         | Immediate |           |

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|----|--|--|--|-----------|
|    |  | b) Paints and products intended for use in paint   | 0%   | Immediate |
| 27 | Mercury and its compounds  | All products (Ref12)   | 0%   | Immediate |
| 28 | Methylcyclopentadienyl manganese tricarbonyl (MMT)   | Fuel in EU According to EU's fuel quality law-2014   | 0.002% Mn/L  | Immediate |
| 29 | Monomethyl-dichloro- diphenyl methane (Ugilec 121)   | All products   | 0%   | Immediate |
| 30 | Monomethyl-dibromo- diphenyl methane bromobenzylbromotoluenem ixture of isomers (DBBT)   | All products   | 0%   | Immediate |
| 31 | Monomethyl – tetrachlorodiphenyl methane (Ugilec 141)  | All products   | 0%   | Immediate |
| 32 | Methylenediphenyl diisocyanate (MDI) and its specific isomers. <a href="https://echa.europa.eu/substance-information/-/substanceinfo/100.239.193">https://echa.europa.eu/substance-information/-/substanceinfo/100.239.193</a> | Refer REACH Annex XVII entry 56.   | Refer REACH Annex XVII entry 56.                     | Immediate |
| 33 | N,N-dimethylacetamide (DMAC)   | Textiles (including PPE) that meet human Skin  | 0.3%   | Immediate |
| 34 | Nickel and its compounds   | Articles coming into direct and prolonged contact with the skin or Component surfaces likely to be routinely touched, e.g., handles and buckles (Ref13)  | 0.5 ug/cm2/ week (Ni release rate threshold) (Ref14) | Immediate |
| 35 | N-Nitrosamines/N- Nitrosamides and Nitrosating agents. (Ref15)   | a) Corrosion inhibitors, anticorrosion greases, waxes and other agents, metal working fluids, and water-miscible or water- mixed cooling lubricants, containing mixtures of nitrites and amines/ amides that may form NNitrosamines / Nitrosamides | 0%   | Immediate |
|    | a) N-Nitrosamines/N- Nitrosamides  |  |  |           |
|    | b) Nitrosating Agents  | b) Corrosion inhibitors, anticorrosion greases,waxes and other agents, metal working fluids, and water-miscible or water-mixed cooling lubricants, containing mixtures of nitrites and amines/ amides that may form NNitrosamines / Nitrosamides.  | 0%   | Immediate |
|    | c) N-Nitrosodimethylamine which has the molecular formula C2H6N2O  | c) All Products  | 0% (Ref07)   | Immediate |
| 36 | Nonylphenol & Nonylphenol ethoxylates (NPE)  | Detergent (surfactants) and cleaners, metal working products, co-formulants of pesticides and biocides, Cooling Tower Chemicals and WWTP chemicals, and any products added to waters that enter surface waters, cooling towers,                    | 0.1%   | Immediate |
| 37 | Octyl phenols and their ethoxylates  | All Products (Subject to future REACH authorization)   | 0.1%   | Immediate |
| 38 | Organostannic compounds  | The substance or mixture mentioned in this section (a to d) are prohibited to use as acting as biocide in free association paint or when used to treat industrial waters.  | 0% (Ref16)   | Immediate |

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|----|---|---|--|---|
|    | <p>a) Tri-substituted organostannic compounds such as tributyltin (TBT) compounds and triphenyltin (TPT) compounds.</p> <p>b) Dibutyltin (DBT) compounds</p> <p>c) Dioctyltin (DOT) compound</p> <p>d) Other triorganotin compounds (not tributyl tins)</p>   | <p>a) All Products</p> <p>b) All Products</p> <p>c) Textile articles intended to meet the skin. [Gloves, footwear, wall and floor covering, two-component room temperature vulcanization molding kits]</p> <p>d) All products</p> | <p>0.1%<br/>(Ref16)</p> <p>0.1%<br/>(Ref16)</p> <p>0.1%<br/>(Ref16)</p> <p>0%<br/>(Ref16)</p>      | <p>Immediate</p> <p>Immediate</p> <p>Immediate</p> <p>Immediate</p>               |
| 39 | <p>Ozone Depleting Substance</p> <p>Ozone Depleting Substances (Class I), Montreal Protocol:<br/>Annex A: All,<br/>Annex B: All,<br/>Annex C: Groups II and III,<br/>Annex E: All</p> <p>Ozone Depleting Substances (Class II): Montreal Protocol<br/>Annex C<br/>Group I (HCECs). (Ref17)</p>  | All Products - except those used to service existing equipment where legally permitted  | 0%<br>(Ref07)  | Immediate   |
| 40 | Pentachlorophenol (PCP) its salts and esters  | All Products  | 0.1%   | Immediate   |
| 41 | <p>Perfluoroalkyl compounds<br/>(Includes: Perfluoroalkyl sulfonates e.g., PFAS, fluorotelomers, and telomere-based polymeric substances)</p> <p>a) Perfluoro-octanoic acids (PFOA), its salts, precursors and higher homologues</p> <p>b) Perfluorooctane sulfonic acid (PFOS) and its derivatives C<sub>8</sub>F<sub>17</sub>SO<sub>2</sub>X (X = OH, Metal salt (O-M<sup>+</sup>), halide, amide, and other derivatives including</p> <p>c) Long-chain (C<sub>8</sub>-C<sub>21</sub>) PFCAs, their salts, and their precursors</p> | <p>All products</p> <p>i. All non-dimensional products<br/>ii. All products (subject to future prohibition, see effective date)</p> <p>b) All products</p> <p>All Non-Dimensional Products</p>                                    | <p>0%<br/>(Ref07)</p> <p>0% (Ref07)<br/>0% (Ref07)</p> <p>0%<br/>(Ref07)</p> <p>0%<br/>(Ref07)</p> | <p>Immediate</p> <p>Immediate<br/>Immediate</p> <p>Immediate</p> <p>Immediate</p> |
| 42 | <p>Phthalates:<br/>Bis(2-ethylhexyl) phthalate (DEHP)<br/>Dibutyl phthalate (DBP) Benzyl butyl phthalate (BBP) Diisobutyl phthalate (DIBP) Di-isononyl phthalate (DINP)<br/>Di-isodecyl phthalate (DIDP)<br/>Di-n-octyl phthalate (DNOP)<br/>(Ref20)</p>  | All Products  | 0.1%   | Immediate   |
| 43 | <p>Polycyclic aromatic hydrocarbons (PAH; PCAH)<br/><br/>(Ref21)</p>  | <p>a) Paints and varnishes.</p> <p>b) Accessible Plastic or rubber parts for industrial uses and supply to the</p>  | <p>0.01%<br/>total listed<br/>PAHs</p> <p>0.0001%<br/>BaP and</p>                                  | <p>Immediate</p> <p>Immediate</p>   |

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|----|--|--|---|-------------|
|    |  | aftermarket (Ref22-i, ii)  | 0.001% total listed PAHs                                      |             |
|    |  | c) Accessible parts with direct access to the human body (Ref22-i, ii)   | 0.0001% BaP and 0.001% total listed PAHs                      | Immediate   |
|    |  | d) Deadner pads supplied to the APAC region (Ref22-ii)   | 00.002% BaP and 0.02% the sum of other listed PAH (Ref22-iii) | Immediate   |
|    |  | e) All Products (Upcoming REACH Authorization)   | 0.1%  | Immediate   |
|    |  | f) Extender oil  | 0.0001% BaP and 0.001% total listed PAH                       | Immediate   |
| 44 | Products of Endangered Species. (Endangered species) (Ref23) | All Products   | 0% (Ref07)  | Immediate   |
| 45 | n-propyl bromide   | All Products (upcoming REACH authorization)  | 0.1%  | Immediate   |
| 46 | 2-Pyrrolidinone, 1-methyl- (NMP)                             | a) All non-dimensional products in the EU except for use as a solvent or reactant in the process of coating wires.                         | 0.3%  | Immediate   |
|    |  | b) Textiles (PPE) under normal or reasonably foreseeable conditions of use, that meet human skin to an extent like clothing in the EU only | 0.3%  | Immediate   |
|    |  | c) Solvents or reactants used in the EU for the process of coating wires   | 0.3%  | 9-May- 2024 |
|    |  | d) Paint strippers used in the EU for the removal of PAH containing coatings.  | 0%  | Immediate   |
| 47 | Radioactive isotopes and substances, all members             | All Products, including scrap metal contaminants. Excludes substances and devices used in the manufacturing process.                       | (Ref24)   | Immediate   |
| 48 | Silica, Crystalline - Quartz (Ref 25)                        | Materials used in abrasive blasting (Ref 25)   | 1%  | Immediate   |
| 49 | 5-tert-butyl-2,4,6-trinitro- m-xylene (Musk xylene)          | All products   | 0.1%  | Immediate   |
| 50 | Trichlorobenzene   | All Products except the usage in intermediate synthesis/process.   | 0.1%  | Immediate   |
| 51 | Vinyl chloride (Chloroethene)                                | a) Aerosol   | 0%  | Immediate   |
|    |  | b) All products-Thailand and Australia only  | 0%  | Immediate   |
|    |  | c) Vinyl chloride monomer content in the polyvinyl chloride layer of artificial leather  | 0.0005% (5ppm as monomer)                                     | Immediate   |