SunChemical®
a member of the DIC group
Color & Comfort

Legislation – Food Packaging - India

The Indian **Food Safety and Standards (Packaging) Regulations 2018**, came into force on 1st July 2019, supported by mandatory Indian Standards covering specific materials, replacing the previous requirements from 2011 mainly using voluntary standards. The primary objective of packaging is to protect the food contents from microbiological, chemical, physical and atmospheric contamination, and preserve the food and thereby protect consumer health. Good packaging also ensures that there is no change in sensory properties or composition of food when packed. Packaging is essential and critical for promoting food safety, extended shelf-life and thereby enhancing food security. As well as general and specific requirements relating to packaging materials, the regulations also prescribe overall and specific migration limits for contaminants in plastic packaging materials.

The regulations address concerns identified from previous national surveys on food packaging materials. Packaging material, including carry bags for packaging, storing, carrying or dispensing articles of food, made of recycled plastics is prohibited, as is the use of newspaper and other such materials for packing or wrapping of food articles.

The Food Safety and Standards (Packaging) Regulations are supported by 17 Indian Standards covering specific materials. Amongst the general requirements, the regulations state that materials shall be of food grade quality and suitable for the type of product. Specific requirements relate to paper and board materials, glass containers, metal and metal alloys, and plastic materials, including conformity with the various Indian Standards specified in the schedules. Printing inks for use on food packages shall conform to IS 15495. Pigments or colourants for use in plastics in contact with food products and drinking water shall conform to IS 9833.

The revised **Indian Standard** (IS 15495) *Printing Ink for Food Packaging – Code of Practice* bans the use of certain plasticisers, phthalates, pigments or other compounds based on heavy metals and solvents, including toluene, in printing inks for food packaging. Toluene has been widely used in India, with almost 80% of printing ink used in food packaging containing the substance. The standard also contains a code of practice for using ink for printing food packaging. It establishes guidelines on how food contact packaging and wrappings are to be used, specifying the responsibilities of the printers of packaging materials and the food industry packing their products. The revised standard covers:

1. external packaging (additional to immediate food wrapping e.g. transport packaging)
2. immediate food wrappings (wrapping material in direct contact with food)
3. print in direct food contact (the printed side is in direct contact with food), and
4. disposables (plates, straws, napkins, etc., that might be used to wrap or hold food)

For printing inks in indirect contact with food, the code of practice lays out that industry must ensure (as far as possible) that the printed surface does not come into immediate contact with food. However, if the printed surface needs to be in direct contact with food, then the printing ink used on the surface of printed films – or material inserted for dry granular food – should be formulated in such a way that there is no reasonable risk of migration of the print onto the food. In the case of immediate food wrappings, the ink film applied on a wrapper is generally extremely thin and the total quantity involved very small, reducing the risk of migration. However, as a precaution, inks shall be formulated with materials other than those known to be toxic, and in accordance with the revised standards laid down in the draft.

Materials excluded from use in printing inks for food packaging according to IS 15495:2020

Category	Includes
Pigments and compounds based on antimony, arsenic, cadmium, chromium (VI), lead, mercury and selenium	
Dye colourants	auramine, chrysoidine, cresylene brown, fuchsine, induline, azo dyes which can decompose in the body to bioavailable aromatic amines that are classified as category 1A or 1B carcinogens, purity limits on heavy metals (As, Ba, Cd, Cr(vi), Hg, Pb, Sb)
Solvents	benzene, mono- & dichlorobenzene, methoxy- & ethoxy ethanol & their acetates, 2-nitropropane, toluene, volatile chlorinated & fluorochlorinated hydrocarbons
Plasticisers	chlorinated naphthalenes & paraffins, di-n-butyl & di-isononyl phthalates, cresyl phosphates, polychlorinated biphenyls & terphenyls
Various	Brominated flame retardants, dioxins, hexachlorocyclohexane, nitrosamines, pentachlorophenol, polychlorinated dibenzofurans, Michler's Ketone, toluene di-isocyanate, titanium acetylacetonate, vinyl chloride monomer

The Food Safety and Standards Authority of India (FSSAI) is to **introduce** a migration limit of 60 mg/kg for pigments and colourants used in food contact plastics included in Indian Standard IS 9833. Companies would be allowed to package drinking water in coloured bottles made from polyethylene, polyvinyl chloride or polyethylene terephthalate, if they conform to the food grade standards outlined in the Food Safety and Standards Act; currently, drinking water bottles must be colourless. Products are required to be tested in accordance with IS 9845, which covers the overall migration of constituents of plastic materials intended to come into contact with food.

The information contained herein is based on data believed to be up-to-date and correct at the time writing. It is provided to our customers in order that they are able to comply with all applicable health and safety laws, regulations, and orders. In particular, customers are under an obligation to carry out a risk assessment under relevant Good Manufacturing Practices (GMP) in line with legislation and as a result take adequate measures to protect consumers.