

TGL-29-00

Writing Instruments

The environmental impacts of chemical markers are caused by their chemical ink composition, which includes organic solvents that may be the cause of photochemical oxidant generation. These kinds of oxidants cause damage to rubber plastic plants and animals. In addition, when they combine with hydrocarbons and evaporated gasoline found in vehicle exhaust, secondary sources of pollutants are formed known as aldehydes. Some organic solvents effect the health of the human user when they evaporate into the atmosphere and are inhaled.

Black lead pencils, color lead pencils and wax crayons may be coated or formulated with paints that may consist of heavy metals, which can reach the user during application and affect their health.

Thus, to regulate writing instruments as green label products it must be required that .no hazardous substances or paints consisting of heavy metals should be added to the product to ensure safety to the customer and to reduce environmental contamination caused by chemical substances and heavy metals. .

Category Definition

This category includes ball-point pens, chemical markers, oil based marking pens, water based marking pens, refillable black lead pencils, black lead pencils, color lead pencils and wax crayons.

Green Label Requirements

To be authorized to carry the Green Label, a product must meet both the general requirements and the specific requirements listed below:

A. General Requirements

1. The product must be certified by Thai Industrial Standards or must pass the Thai Industrial Standard product quality test as follows ;
 - TISI 346 , Standard for ball-point pens;
 - TISI 650, Standard for black lead pencils;
 - TISI 822, Standard for oil based marking pens;
 - TISI 1147, Standard for color lead pencils;
 - TISI 1149, Standard for wax crayons;

Or the product must be certified by an acceptable international/national standard or must pass the international/national standardized test of product quality
2. It must be manufactured, transported and disposed of in manner as required by government act and regulations such as the Factory Act 1992.

B. Product Specific Requirements

Specific Requirement for pens;

1. The product must not consist of substances defined as follows;
 - A toxic, corrosive or other substance harmful to human health.
 - A carcinogenic agent as defined in-group 1 and 2a of the International Agency for Research on Cancer (IARC).
 - Halogenated organic compound such as 1,1,1 –trichloroethane.
2. The composition of ink used in the product must not consist of substances defined as follows;
 - Heavy metals including Antimony Arsenic Barium Cadmium Mercury Selenium Lead and hexavalent Chromium;
 - Aromatic substances including halogenated solvents and volatile organic solvents (except for ethanol used in chemical markers).
3. The product should be replaceable or refillable for leads or ink used in product when leads or ink used in case of replace or refill must be marking.
4. Packaging;
 - In the case of plastic material;
 - Must have symbols identifying the type of plastic according to the Thai Industrial Standard TISI 1310, Standard for Symbols for Recycling Plastics or ISO 1043.
 - Must not contain chlorine.
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 - In the case of paper material;
 - Must consist of recycled pulp, not less than 80% by weight.

Specific Requirement for pencils and wax crayons;

1. The product must not consisted of substances defined as follows;
 - A toxic substance, corrosive or harmful to human health.
 - A carcinogenic agent as defined in-group 1 and 2a of International Agency for Research on Cancer (IARC).
 - Halogenated organic compounds such as 1,1,1 –trichloroethane.
2. The composition of coating material and leads used in the product must not consist of substances defined as follows;
 - Heavy metals including Antimony Arsenic Barium Cadmium Mercury Selenium Lead hexavalent Chromium;
3. Packaging;
 - In the case of plastic material;
 - Must not consist of chlorine.
 - In the case of paper material;
 - Must consist of recycle pulp not less than 80% by weight.
 - In the case of wooden pencils they should be marked with the type of wood, the type of its original forest and the source of its origins applied in production.