TGL-26-R1-09

Correcting Agent

1. Rationale

Correcting agents are composed of various kinds of chemical substances such as organic solvents, which in some products exceed 40-50%. Some organic solvents may be the cause of photochemical oxidant generation such as ozone in the troposphere, which has a proven affect on human health. When it is combined with hydrocarbons found in vehicle exhaust, it becomes a secondary source of organic pollutants known as aldehydes. Some additives found in the product, including preservatives and residue monomers may cause allergies. Some surface elastomers such as DEHP are hazardous substances categorized as carcinogenic and impair fertility.

Development of green label for correcting agents will help in a reduction of emission of toxic chemical substances that may affect human health and environment. Prohibition of some types of plastic for packaging and supporting the use of recycled packaging paper will help in decreasing of natural resource consumption and environmental impacts.

2. Scope of category

This product criteria is applicable to correcting agent including correcting fluid and correcting tapes

3. Definition

"Correcting agent" refers to white or other color substances used for covering of correcting words on typing and writing paper

4. Green Label requirements

4.1 General requirements

4.1 The product shall be certified for Thai Industrial Standard No. 1023 (Printing and writing paper correction fluid) or tested and passed the requirements of the TIS

- 1023, <u>or</u> the product shall be certified, or tested and passed the requirements of the acceptable international/national standardized test of product quality.
- 4.2 The manufacturing, transportation, and waste disposal of the product shall comply with the relevant government laws and regulations.

5. Product specific requirements

- 5.1 The product shall not be a toxic substance, corrosive or harmful to human health.
- 5.2 The product shall not have an acute toxic threshold value (LD50: Single oral dosed for rats) exceed 5000 mg/kg of the experimental sample weight
- 5.3 The following substances shall not be used as components in the product;
- 5.3.1 Carcinogenic agents as defined in group 1 and 2a of the International Agency for Research on Cancer (IARC)
 - 5.3.2 Halogenated organic compounds such as 1,1,1-trichloroethane
 - 5.4 Residual monomers in the product shall not exceed 0.2% by weight of polymers
 - 5.5 Packaging
 - 5.5.1 Plastic packaging shall not contain chlorine and shall display a plastic symbol on the packaging according to TIS 1310 or ISO 1043 or ISO 11469
 - 5.5.2 Paper packaging shall consist of recycled pulp not less than 80% by weight
 - 5.6 In case of correcting tape or other dry correcting agents, refill product provided by the manufacturer or the distributor shall be available for sale.

6. Submission of quality test results

- 6.1 The applicant shall submit a certificate or a test result as required in TIS 1023 (Printing and writing paper correction fluid) or other equivalent test results.
- 6.2 The applicant shall submit a list of chemical substances used as components in the product, and a certifying document stating that no toxic chemicals, corrosive and irritating substances mentioned in the specific product requirement number 5.1 are used. Those two documents shall be signed by the recognized authorities within the company

6.3 The manufacturer shall an acute toxicity test result (LD_{50}) or a calculation of acute toxicity of the product (LD_{50} of the toxic product) according to the following formula

$$100/T_M = C_1/T_1 + C_2/T_2 + C_3/T_3 + \dots Cn/Tn$$

where,

 T_M = Acute toxicity value of product

C_n = Ratio of active substance

Tn = LD50 value of the active substance in rat

- 6.4 The applicant shall submit a certifying document, signed by the recognized authorities within the company, stating that the prohibited substances mentioned in the product specific requirement number 5.3 are not added into the product.
- 6.5 The applicant shall submit a test result of monomers in polymers that used as raw materials, or submit a declaration document that is issued and signed by the manufacturer of polymers, showing the amount monomers in polymers that used as raw material.
- 6.6 In case of plastic packaging, the applicant shall submit a certifying document stating that no polyvinyl chloride or chlorinated is used in the manufacturing. The document shall be signed by the recognized authorities in the manufacturing company of packaging. Examples of the plastic packing shall be submitted to the Green Label staff for consideration.
- 6.7 In case of paper packaging, the applicant shall submit a certifying document stating that the paper packaging consists of recycled pulp not less than 80% by weight. The document shall be signed by the recognized authorities of the manufacturing company of packaging.
- 6.8 In case of correcting tape, the applicant shall submit a refill product as evidence for a consideration

Remarks: All tests shall be conducted by the following laboratories.

- 1) Government laboratories, or
- 2) Private laboratory that is certified for its capability of testing following the requirement of Thai Industry Standard, or laboratory that is

certified for competence of testing and calibration according to ISO/IEC 17025.