

## **TGL-17-98**

### **Laundry services and dry cleaning services**

Laundry services use a large volume of water thus discharging wastewater to the environment. Additionally, some chemicals and nutrients from slow or non-biodegradable detergents accumulate in the environment causing water and soil pollution. In dry cleaning, solvent is used to remove soils and stains from fabrics. The main solvents consist of perchloroethylene and hydrocarbon which may contaminate the water resources or accumulate in soil. Hydrocarbon solvent causes the low atmospheric level ozone which is dangerous to health and agriculture productivity. Perchloroethylene is a carcinogenic substance which is dangerous to human health. In addition, the delivery service to consumer still use plastic bag and hangers thus wasting natural resources and generating low biodegradable plastic waste.

The criteria for laundry services require to have limited water consumption and use high quality detergents which will reduce wastewater load to the environment. The criteria for dry cleaning services focus on closed system and use lower solvent content which will limit the solvent released to the environment and also conserve natural resources.

#### Category Definition

This category includes only laundry service and dry cleaning service in registered shop, hotels and hospitals.

#### Green Label Requirements

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

##### *A. General Requirements*

The service process, transportation and disposal must follow to the requirements of all applicable governmental acts and regulation such as Public Health Act, Factory Act etc.

##### *B. Product Specific Requirements*

#### 1. Laundry Services

- 1.1 must not use water exceeding 30 litres per washing cycle per 1 kg dry cloth.
- 1.2 must have a plan to reuse hangers.
- 1.3 In industrial service, the chemical used must have a suitable storage and handling system.
- 1.4 Must use Green Label laundry detergent or detergent that meet the requirement of Green Label laundry detergent as follows:
  - 1.4.1 the detergent must be aerobically biodegradable and/or anaerobically biodegradable at least 90 percent
  - 1.4.2 pH values

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- 1) pH values of standard and concentrated laundry powder detergents for hand wash must not exceed 10.5.
- 2) pH values of standard and concentrated laundry powder detergents for both hand and machine wash must not exceed 10.5.
- 3) pH values of standard and concentrated laundry powder detergents for machine wash not exceed 11.
- 4) pH values of laundry liquid detergent must not exceed 10.5

#### 1.4.3 Unused chemical

The product must not contain:

- 1) carcinogen, genotoxic, mutagen, teratogen and the substances toxic to reproduction according to Hazardous Substance Act B.E. 2535.
- 2) reactive chlorine compounds such as sodium hypochlorite, organic chlorine compounds.
- 3) ethylene diamine tetraacetic acid (EDTA) or other EDTA salts.
- 4) alkyl phenol ethoxylates (APEO).
- 5) nitrilotriacetic acid (NTA) or other NTA salts.
- 6) halogenated hydrocarbon.
- 7) formalin.

#### 1.4.4 Acceptable chemicals

- 1) Phosphate content as  $P_2O_5$  of standard laundry powder detergents for hand wash and for both hand and machine wash must not exceed 18 percent by weight.
- 2) Phosphate content as  $P_2O_5$  of standard laundry powder detergents for machine wash must not exceed 25 percent by weight.
- 3) Phosphate content as  $P_2O_5$  of concentrated laundry powder detergents for hand wash and for both hand and machine wash must not exceed 20 percent by weight.
- 4) Phosphate content as  $P_2O_5$  of concentrated laundry powder detergents for machine wash must not exceed 28 percent by weight.
- 5) Phosphate content as  $P_2O_5$  of laundry liquid detergents must not exceed 18 percent by weight.

## 2. Dry cleaning Services

- 2.1 must be closed system and have a good ventilation in working area.
- 2.2 Dry cleaning solvent
  - 2.2.1 must use perchloroethylene not exceeding 25 kg/1,000 kg cloth weight, in case of perchloroethylene is used as dry cleaning solvent.
  - 2.2.2 must use hydrocarbon solvent not exceeding 65 kg/1,000 kg cloth weight, in case of hydrocarbon is used as dry cleaning solvent.
- 2.3 Cloth bag must be cleanable and reusable. The plastic bag must be photo-or bio-degradable and marked with the symbol for recycling plastic, according to the Standard of Thai Industrial Standard TISI 1310, Standard for Symbol for recycling plastic or ISO 1043.
- 2.4 must have a plan to reuse hangers.
- 2.5 must have a cooling water recirculation system.

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