

## Other services

### Cleaning appliances and machineries

- Performances tests of household appliances and professional cleaning machineries
- Comparative tests

### Textiles, garments and cleaning

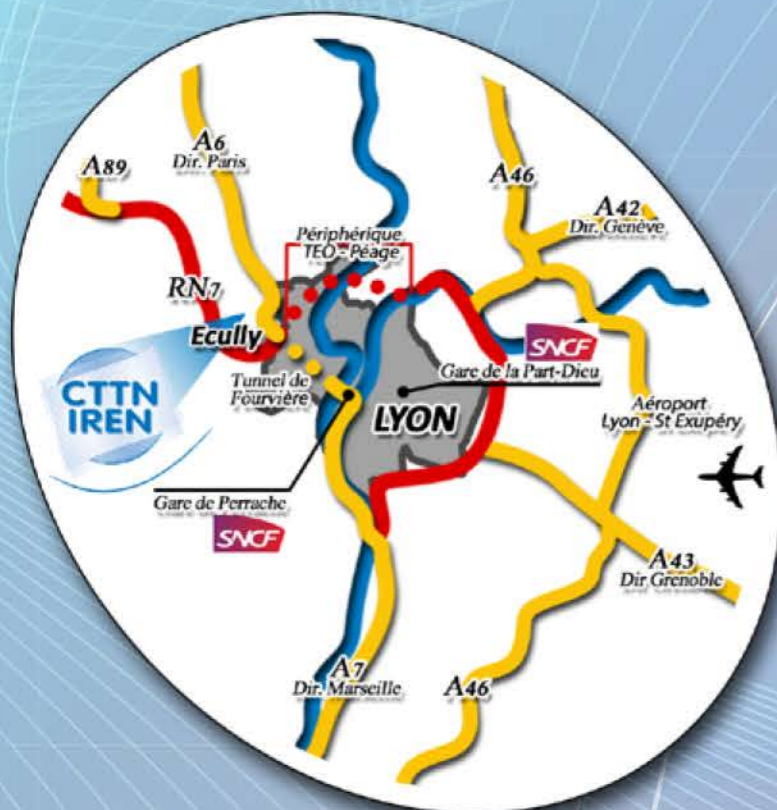
- Damaged textile items (origin and responsibility)
- Performances of the textile structures subject to various cleaning processes, recommendations, technical data checking, ...

### Professional training

- Industrial laundry (private, health sector, associations, ...)
- Professional cleaning, dry cleaning, small size laundries, ...
- Cleaning and hygiene of housing

To complete these activities, CTTN provides the following works :

Applied researches and innovations, technology survey, standardization, dedicated to the dry cleaning and laundry operators.



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## Household products department

# Cleanliness and textile care Tests and analysis of cleaning products and detergents



The technological institute CTTN is a non-profit organization, independent and neutral, specialized in the scope of the **textile care**.

CTTN is a singular structure dedicated to the textile care industry and to the consumers.

Its skill is based on three main expertizing : **textile / cleaning product / cleaning equipment and processes**, completed by the cleaning of the dishes, hard surfaces, housing and by hygiene in health houses.



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CTTN has then a precise and complete vision of the "cleaning world", continuously renewed, and offers it to its customers and to other actors.

## Capacity and performances : cleaning products and detergents

The test and research services offered by CTTN in this field allow for every type of products the determination of their characteristics at different levels. These working programs are achieved using standard methods, internal CTTN methods, agreed methods or specific methods, depending on the customer requirements. The testing programs to perform can be designed as comparative tests in order to obtain a classification of the products to investigate.



### Laundry cleaning

Primary characteristics : soil removal for a laundry detergent, softness or perfume for a softener ;  
Secondary characteristics : colour fastness, pilling, ironing facility, ...  
Examples of agreed methods applied : AISE, Eco Label, ...

#### Type of products to be investigated

- Laundry detergents (liquid, powder, tablet, ...)
- Specialized laundry detergents (wool, coloured fabrics, 2 in 1, ...)
- Stain removers (spray, aerosols, ...)
- Wash additives (tablet, liquid, ...)
- Water softeners (tablet, powder, gel, ...)
- Textile softener (standard, concentrated, doses, ...)
- Ironing aids
- Textile deodorants

#### Equipments

- Variety of 40 washing machines
- production of water with hardness and temperature regulation
- Water pressure control
- Computerized recording system of the washing parameters
- Spectrophotometers
- Conditioned rooms (temperature, humidity)
- Gliding test bench (ironing)

### Cleaning of housing

Primary characteristics : detergency and degreasing power, scaling, ...  
Secondary characteristics : brightness, action of anti redeposition, traces, compatibility with material.

#### Type of products to be investigated

- Bath room products : scaling products (sprays, foams, ...), disinfecting products (spray, cream, ...)
- Water closet products (gels, tablets, ...)
- Kitchen products : degreasers (sprays, wipes, ...), strippers (sprays, aerosol, ...), All purpose cleaners (liquids, sprays, ...)
- Floor products : All purpose cleaners, liquid detergents, ...
- Other cleaning products : windows (sprays), carpets (aerosol, spray), dust suppressant (aerosol, wipes, ...), inox surfaces (spray, liquid, ...)

#### Equipments

- Cleaning robot simulator
- Spectrophotometer
- Brightness meter

### Dish washing

Primary characteristics : soil removal for a detergent, rinsing efficiency for a rinsing agent, ...  
Secondary characteristics : filming effect, drying efficiency, impact on the dishes, ...  
Examples of agreed methods applied : IKW, ...

#### Type of products to be investigated

- Washing up liquids
- Separate automatic dishwashing products (powder, tablet, gel, ...)
- "All in 1" automatic dishwashing products
- Rinse aids
- Dishwashers cleaner (liquid, powder, ...)
- Dishwashers deodorant
- Odour neutralizer

#### Equipments

- Hand dish washing simulator
- Variety of 20 dishwashers
- Water hardness and temperature regulation plant
- Computerized recording system of the washing parameters
- Conditioned rooms (temperature, humidity) for soil preparing
- Ovens with regulated temperature
- Assessment under controlled light



### Physico chemical analysis

The physico chemical analysis realized on all detergents as laundry detergents, softeners, washing up liquid, cleaners, ... aim to control the specifications mentioned on technical data sheets or to check the composition, ...  
The analytical technics used by CTTN have been developed from standards and from national or european regulations, in connection with the stakeholders.

#### Type of products to be analyzed

- Surfactants : dry extracts, extractibles, anionics, cationics, soap
- Bleaching agents : active oxygen, TAED, active chlorine
- Alkaline agents : carbonate, silicate, ...
- Sequestering agents : phosphate, phosphonate, citrate, zeolite, ...
- Various analysis as water content, perfume profile, enzyme searching, allergen, aerosol pressure, wipes resistance, pH, density, viscosity, mechanical hardness, ...
- Environmental analysis : biodegradability, eco toxicity, ...

#### Equipments

- Ionic chromatography - liquid and gas
- Densitometer, pH meter, viscosimeter
- Hardness meter
- Potentiometer
- Karl Fisher

From its triple skill CTTN is placed to the center of the cleanliness and of the textile and garments cleaning. This thematic is in connection with the industrial laundry and health sectors, the dry cleaning sector, the household cleaning including producers, manufacturers, distributors and consumers, and the textile and garment industry. CTTN also with acts in the field of the dishes and hard surfaces cleaning and of the hygiene of housing.

All these aspects of the cleaning industry are integrated in the service offering of CTTN which performs currently researches, tests, expertizing, training, consultancy and audit for all the actors of these above mentioned activities.

Beyond the processing management, productivity, performances and convenience, CTTN develops a transverse offer on scopes as sustainability, environment, quality and hygiene management, specifically in the industrial and professional textile cleaning sectors.

