

# EVALUATION OF LABELING'S INFORMATION IN PACKAGING OF SANITIZING PRODUCTS

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*Labeling, Sanitation, Standardization.*

## 1. Context

The design of a package is not only restricted to containing the product, or aesthetically attracting the consumer. In addition to these functions, it should primarily serve as a vehicle that conveys technical and safety information about the product. However, it is common for packaging to present problems regarding the comprehensibility of information and perception of risk, which can cause discomfort and / or accidents, which have more serious consequences when the product is a dangerous substance (ACIOLY et al., 2014).

When such interaction is everyday in the workplace or when handling chemical substances, communicational problems become more critical as such products have a wide range of potentially adverse effects, ranging from health hazards such as carcinogenicity, physical, such as flammability, to environmental hazards, in the form of widespread contamination and toxicity (ILO, 2014).

According to studies presented by the World Health Organization (WHO) in 2012, the number of deaths around the world attributed to environmental exposure and the handling of a selected set of chemicals reached 4.9 million people (OIT, 2014).

Information is also one of the areas of study of ergonomics, (DUL; WEERDMEESTER, 2012). Because of this, chemical packaging design must take into account informational ergonomics precepts in its projects, such as equating syntactic, semantic and pragmatic aspects involving information systems through contextualization, planning, production and graphic information interface together with its target audience, as defined by the

Brazilian Information Society - SBDI (NEGRÃO E CAMARGO, 2008, SBDI, 2006).

In this way, the present study evaluated in a qualitative way the compliance with the labeling standards for sanitizing products (cleaning products), grouped by categories, commercialized in the city of. Using NBR ABNT 14725-3 (2012), and the Resolutions of the National Agency of Sanitary Surveillance - ANVISA.

It should be emphasized that this paper is part of the master's thesis: O uso de embalagens de produtos químicos e a percepção de risco; o caso de pessoas idosas, and that composes the research project " A influência do formato e da cor das embalagens de produto químicos na percepção de risco: estudo de casos em São Luís – MA ", carried out by the Núcleo de Ergonomia em Processos e Produtos (NEPP), Federal University of Maranhão (approved by Resolution No. 1672 CONSEPE, of December 20, 2017), funded by the Foundation for Research Support and Scientific and Technological Development of the State of Maranhão (FAPEMA), under protocol no. 23115.005983 / 2016-54, approved by public notice no. 40/2015.

## 2. Method

The present research consists of an analysis of the informational content present in the labeling of household sanitizing products (cleaning products), in the largest supermarkets and garment stores in São Luís, MA, which was carried out during May 30th to July 6th. 2017.

According to the Maranhense Supermarket Association, in São Luís, MA, there are 5 major

wholesale and / or wholesale supermarket chains in the city, where the leader holds more than 52% of the market. (AMASP, 2016). In total, 202 products were evaluated, from 24 different categories.

For the analysis of the information on the labels, a protocol was elaborated, which evaluated the compliance with Law No. 6,360 and ANVISA resolutions; the variables of NBR ABNT 14725-3 (2008), and variables Wogalter et al. (2002).

With the images of the labels, the frequency, in percentage of the information, grouping the results according to the categories of the products.

### 3. Results

For the variables of standard ABNT 14725-3 (2012), the identification of the product and provide a telephone emergency of the supplier, did not have significant problems. The second variable evaluated, corresponding to the need to present the chemical composition of the product, only soap labels that presented problems.

For the variable pictogram, the toxicity's symbol, represented by the skull, was the symbol more violated, with none of the products presenting the official symbolism of the GHS. The symbols found are creations or variations of the old European system, replaced in the year 2011 by the GHS.

Of the 202 investigated products, only 11.4% (23) had a hazard pictogram, of which only 4% (4) of the products were products of Risk I.

For the use of the word of warning, verified that 51.5% of the labels had some word, while 48.5% did not present any.

The result of the variable "danger phrase" showed that 53% of the analyzed labels have no danger phrase, while 47% present them.

There were 5 categories that did not present the use of danger phrases: soap, soap, floor detergent, ironing / ironing facilitator and dishwasher drier; all of which represent products of Risk I.

For the variables of Wogalter et al. (2002), the results for the variable "presence of hazard

identification" were more significant, in which the results showed that 67.8% of the labels presented this information. For "presence of the consequences if exposed to danger", the labels presented this information in 26.7% of the total.

As the most significant results for ANVISA, the percentage of the variable "precaution and care in the event of accidents" was 69.8% of the total labels, with the worst results for the food disinfectant, metals polisher, stain remover and dishwasher safe.

The active component, active substance or active principle, was presented in 69.8% of the analyzed labels, the categories being: remover, with 42.7%; bleach, glass cleaner and rust remover, with 33.3%; soap with 20%; and secant, without punctuation, with the worst results.

For the variable "number of CEATOX", the presence percentage was 74.3% for all labels analyzed.

### 4. Conclusion

The results showed that sanitizing product's labeling presented, in general, an adequacy to what the standards ABNT 14725-3 (2012), and the ANVISA Resolutions, however present problems when adopting different "alternative" danger pictograms with unofficial colors second to the norm, and problems related to the precepts of informational ergonomics, with absence of textual information such as the word sign, in 47% of analyzed labels; on the consequences of exposure to danger, which is not present in 73.3% of the labeling; and a percentage of 27% that does not have the poison center number.

This research has shown that there is a difference in the concern that manufacturers of sanitizing products present risk / hazard information, depending on the type of product: risk I, risk II, and compliance with the standards.

In a global analysis, it is noticed that in informational terms, soap and wash clothes products have presented more problems in informing the risks and dangers to which users are exposed.

The results obtained in this exploratory study will serve for investigation on informational and graphic design aspects, of the labels, in which the intention is to investigate the adequacy to the content, the readability and the distance visualization, using metrics; simplicity and clarity and contrast figure-ground.

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