

# Everlux® news



## Signing extinguishers



## Maritime signs



## stimulation of the photoluminescent

## Signing extinguishers

The correct signing of an extinguisher is composed of two signs: one to indicate its exact location and the other to indicate the extinguishing agent, or the "type of extinguisher" (extinguishing agent is the product it contains, e.g.: water, a chemical powder or CO2).

According to the norms and legislation in force, the sign indicating the place where an extinguisher is located, must have the symbol of the equipment (extinguisher), have a square or rectangular shape and be red in colour. As it is a location sign it must be placed at a high level (between 1.8 and 2.5 metres – see [Everlux® news No. 1](#)) so that even if there is an obstacle near the extinguisher obstructing its visibility, the sign will still be visible to the people who are close by.

The objective of this sign is, therefore, to show the location of the extinguisher at any distance, even if it is not directly visible.

If it becomes necessary to use the extinguisher, after being located with the help of the sign above (location sign), is then need to know its contents and if it is appropriate for the



## editorial

This edition of [Everlux® news](#) 2008 concludes the first year of our Newsletter.

A year ago we committed ourselves to prepare high quality technical content that would promote the best practices and would raise the quality in the safety market.

We also committed ourselves to promulgate the most up-to-date knowledge and solutions in the area of Photoluminescent Safety Signs.

We think we have taken the first steps towards these objectives and we continue to be dedicated and motivated to follow them:

- we aim to contribute towards the promulgation of innovative ideas and solutions for better signing;
- we aim to share the best knowledge in the areas of Photoluminescent Safety Signs.

We aim for a market that is demanding and knowledgeable and for this reason it becomes more and more essential to have a highly professional approach in the marketing and installation of safety signs. Qualified professionals are essential, but equally important are the quality of the products installed and the choice of the best solutions for every case.

This will only be possible with a joint cooperation amongst all those who operate in this area: from manufacturers, to those who do the installation, the planning or those who carry out inspection, and obviously the consumers, owners and users

# Photoluminescent maritime safety signs according to IMO (International Maritime Organization)

In order to respond to the most recent maritime disasters, several Commissions that form the International Maritime Organization - IMO (SOLAS, MARPOL, ISPS), have published specific legislation and have encouraged all members of this organization to adopt this legislation.

Everlux, aware of this legislation and aiming to meet its customers' demands, and also bearing in mind that:

- these signs are mandatory for all kinds of vessels, regardless of their flag;

- there is a large quantity and variety of Everlux signs that meet the requirements published by the IMO Commissions;



## > Signing extinguishers

materials that are in combustion.

To this effect, Everlux has another type of sign which identifies the extinguishing agent and which has information on the efficacy of that extinguisher in terms of the various types of fire.

In order for it to be clearly seen, it has to be located directly above the extinguisher and within sight, that is, between 1 and 1.2 metres, so as to guarantee that any person can read it correctly (see picture 1). If it is installed at a higher level and in case there is

no light, it will not be possible to see it clearly (see incorrect situation in picture 3). As with the sign showing the location of the fire extinguisher, if it is installed lower than 1.8 metres it does not show clearly where it is located (see picture 2). However it is a common mistake to see signs showing the "location of a fire extinguisher" and the "identification of the extinguishing agent" used



Picture 1



Picture 2



Picture 3

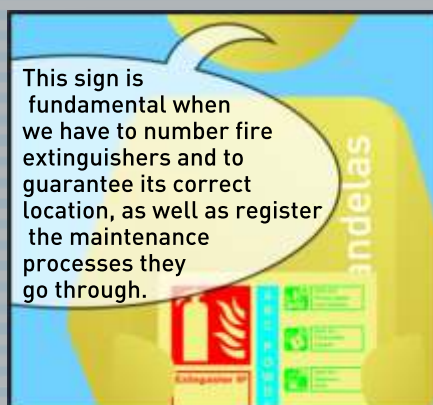
together, making it difficult - if not impossible- to either see the location of an extinguisher or read the instructions for its use (see incorrect situations on pictures 2 and 3).

Therefore, the ideal height to install the sign showing the "identification of the extinguishing agent" is up to 15cm above the extinguisher. In this way, apart from showing the instructions on the efficacy of the extinguisher the sign can also illuminate the upper part of the extinguisher with the light emanating from it (see pictures 4 and 5).

The objective of this sign is to complement the information on the fire extinguisher, so as to guarantee its correct use in relation to the different materials in combustion.

The former extinguishing agent signs used to mention some materials where that agent would be efficient were exclusively text (see picture 6). However since this kind of information has to be interpreted by nationals and foreigners alike, the only language that enables a message to be transmitted in such a wide manner is a symbolic language – pictorial. At the same time, it became necessary to emphasize the technical information on the types of fire and the types of extinguishing agents. This information was already present in previous fire extinguishers but in very small print. They were rarely read and in case of darkness following a fire they were impossible to see. >

## millicandelas

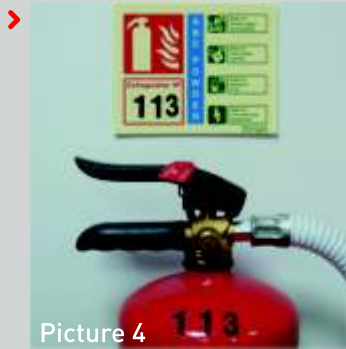
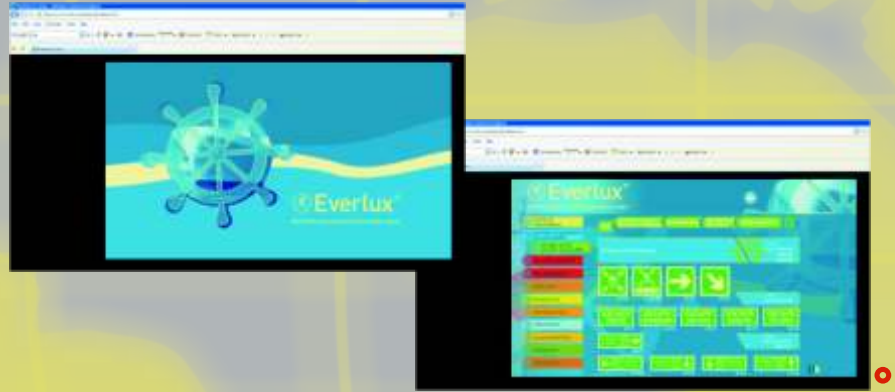


> - the maritime signs are quite specific;

©Everlux® has decided to develop a specific catalogue for international maritime signs.

These signs have been removed from the ©Everlux® general catalogue and are now part of this new, specific and exclusive catalogue.

The catalogue is available in printed version (requests by e-mail to commercial@everlux.eu) and is also on our website [www.everlux.eu/maritime](http://www.everlux.eu/maritime)



Picture 4

For this reason, and due to the evolution in signing, in 2001 the present signs of extinguishing agent were created, with symbols of EN3. The previous signs became obsolete due to their ineffectiveness and in general they are not recommended under the legal and normative framework, either at national, european or international level. With the evolution of the market, new needs have arisen and lately a great



Picture 5

deal has been said about the numbering of fire extinguishers, as a consequence of the creation and setting up of recent norms on quality, management and maintenance of fire extinguishers.



Picture 6

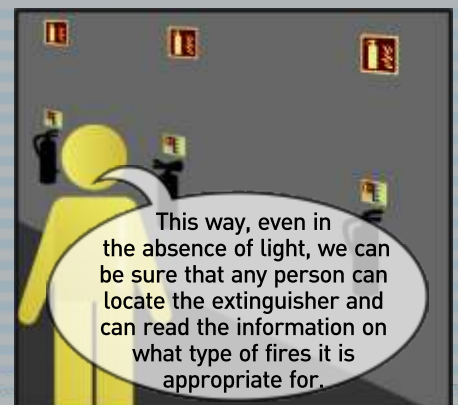
The main objective is to be able to identify each extinguisher and to create a register and a tracking system of all the interventions they went through, be it their discharge, inspection, maintenance or other (this need was reinforced by the present register of all the stationary equipment of a company, which also involves a physical register in order to make this control easier).

So, to avoid adding one more sign to the fire extinguisher, to include its number, ©Everlux® has developed a new system which allows for the register of the numbering of the extinguisher in the relative sign of "extinguishing agent". This is a new sign of an extinguishing agent, which apart from the identification of the extinguishing agent and the information on its efficacy, it also allows the inclusion of the number of the extinguisher. Obviously this number will have to be marked on the sign and on the extinguisher itself (see picture 7).

One of the advantages of this sign is to guarantee that after maintenance or recharge, there will be no swap in the location of the extinguishers, which would be a high risk, but that unfortunately still happens too often. ⦿



Picture 7




## > Editorial



of the premises, who are the final objective of our activity, i.e. those we work for and who will benefit from our products and assess in their development.

The **Everlux** catalogue, with its technical and educational content and with detailed explanations of the products, contributes to the signing solutions in the most varied cases. So does **Everlux**news. Most important, apart from the catalogue and this Newsletter, **Everlux** is also available to prepare and develop technical presentations and training sessions on safety signs, in the most varied areas – from the selection and installation of signs to the preparation of plans, emergency plans, norms and legislation, etc.

Everlux will always be at your disposal for the best cooperation. 

## The importance of the local light in the stimulation of the photoluminescent

The objective of a sign is to transmit efficiently the message for which it was created, and, since it focuses on safety, it should be photoluminescent. This will guarantee that the user will understand the message completely even in situations of absence of light.

### The photoluminescent principle

Photoluminescence is the emission of light (photons) by a material, after being submitted to luminous excitation.

The excitation of photoluminescent signs is therefore a pre-requisite for the emission of photoluminescence, or rather, for the signs to work.

On the other side, the luminous intensity issued by a sign depends on the quantity of energy it managed to store, i.e., it depends on the time of exposure to the surrounding light and on the type of light used in its stimulation.

### The importance of the local light in the stimulation of photoluminescent signs

The type of surrounding light and the luminance (lux) of the places where the signs are going to be installed are two factors that directly affect their efficacy.

There are two types of Photoluminescent Safety Signs, different and complementary, depending on the different places where they are going to be installed:

- **Everlux** - Photoluminescent Safety Signs with high luminous intensity, to be installed at higher level (close to the ceiling) and intermediate level (between 1.20 and 1.60 meters).
- **Everlux<sup>-LLL</sup>** - Photoluminescent Safety Signs at floor level (Low Location Lighting System)

The Photoluminescent Signs to be installed at floor level, which we call **Everlux<sup>-LLL</sup>** and

**Everlux<sup>-AL</sup>** (signs for tunnels), can be excited with very low levels of luminance (25 lux) and for a short period of time.

These signs are appropriate for situations and places where the surrounding light and the type of bulbs are not sufficiently intense to stimulate traditional products.

Fluorescent light, as it emits part of its radiation at the beginning of the invisible area of the UV rays, is the one that in practice better stimulates photoluminescent signs.

The table below shows the level of performance of photoluminescent signs depending on the different types of light.

Source of stimulation light (Type of lamp)	<b>Everlux</b>	<b>Everlux<sup>-LLL</sup></b> <b>Everlux<sup>-AL</sup></b>
Fluorescent		
High pressure sodium vapour		
Incandescent		
	 Good	 Less good

Tests performed with a stimulation of 25 lux during 15 minutes

NOTE: It is important to mention that the light tone of the fluorescent bulb also has an influence on the stimulation of the photoluminescent. The bulbs that better stimulate it are the cold tone bulbs, as these are better at substituting daylight and their colour temperature is above 5000 K.

In conclusion, the choice of positioning and of the type of different photoluminescent products is of fundamental importance, given that the photoluminescent signs in order to perform (emit light in the darkness) need the surrounding light to be stimulated. The light to which the signs will be exposed will also have a big influence on the way they perform. The ideal light is the one resulting from fluorescent bulbs.

The same lamp may not be appropriate for the stimulation of a **Everlux** sign but may be appropriate for the **Everlux<sup>-AL</sup>** material. For example, in tunnels the lamps that are generally used are sodium vapour, which are not appropriate to stimulate **Everlux** signs, but are appropriate for **Everlux<sup>-AL</sup>**.

A very good knowledge of the type of light in each location enables the appropriate choice of the type of signs to be used. This will always guarantee the performance of the Photoluminescent Safety Signs in the most varied situations. 