

COSMETICS EUROPE RECOMMENDATION

FLAMMABILITY LABELLING OF COSMETIC PRODUCTS

SEPTEMBER 1994
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This document is an update to an industry recommendation issued in 1994 by Colipa (now Cosmetics Europe). This update has become necessary due to recent changes in the cosmetics legislation (Cosmetics Directive 76/768/EEC replaced by Cosmetic Products Regulation (EC) No 1223/2009) and chemicals legislation (Dangerous Substances Directive 67/548/EEC replaced by Classification, Labelling, and Packaging Regulation (EC) No 1272/2008). However, the basic content and approach remain unchanged.

Cosmetic products are regulated and labelled on the basis of the risk they pose under normal and reasonably foreseeable conditions of use according to Regulation (EC) No 1223/2009 on cosmetic products. Consequently, they are fully exempted from the hazard-based classification and labelling requirements of the European CLP-Regulation (No 1272/2008) and their labelling is also not governed by the UN GHS (“Purple Book”). However, note that cosmetics sold in aerosol dispensers must be labelled according to Directive 75/324/EEC as modified.

This recommendation addresses flammability labelling of cosmetic products in their final packaging and state, as sold to the end user. The labelling of cosmetics during transport (bulk or packaged) is not in the scope of this recommendation but subject to the international labelling regulations applying to dangerous goods.

To ensure a high level of end user safety, the cosmetics industry represented by Cosmetics Europe, the Personal Care Association, however recommends that flammability labelling be introduced for flammable cosmetic products for final sale to the consumer or professional user, under the following provisions:

1. Products fulfilling the UN GHS hazard classification criterion ‘Flammable Liquid’ for Category 4 do not require flammability labelling.
2. Products fulfilling the UN GHS and/or CLP hazard classification criterion ‘Flammable Liquid’, Category 1 should carry a flammability labelling.
3. Products fulfilling the UN GHS and/or CLP classification criterion ‘Flammable Liquid’, Categories 2 or 3 should be assessed case-by-case as part of the product safety assessment. They should carry a flammability labelling if an end user risk is identified for reasonably foreseeable handling or use conditions, taking into account the product composition, its boiling point, flashpoint and flame point, as well as market experience with similar products/formulations. In the following cases, exemption from flammability labelling could be considered by the Responsible Person :
 - a) For categories 2 & 3 : pack sizes up to 125 ml¹
 - b) For category 3: products with an ethanol content equal to or below 60% by volume, provided that ethanol is the only flammable solvent (see Annex 1)
 - c) For category 3: other products with a flash point equal or greater than 35°C and lower or equal to 60°C, which cannot in any way support combustion under normal or reasonably foreseeable conditions of use²
4. Flammability labelling should be indelible, easily legible and visible, on the inner (primary) and outer (secondary) packaging.
5. Labelling should either use the word “flammable” or an easily recognisable flame symbol. If wording is used, it should be in the national language(s)

¹ In analogy to CLP Regulation, Annex I, Section 1.5.2, Exemptions from Article 17 [(Article29(2))

² See GHS Chapter 2.6.2, Nota 2. Respective reference methods under GHS are ISO EN 13736 and Sustained Combustibility Test L.2, Part III, section 32 of the UN RTDG, Manual of Tests and Criteria

ANNEX 1



UN GHS category	1	2	3	4
UN GHS criteria	Flash point < 23°C and initial boiling point < or = 35°C	Flash point < 23°C and initial boiling point > 35°C	Flash point > or =23°C and < or = 60°C	Flash point > 60°C and < or =93°C
Recommended labelling as per the guideline	Word "Flammable" or flame symbol	Case by case (see below)	Case by case (see below)	Not required
Labelling assessment in case of case by case analysis	N/A			N/A



ANNEX 2

WATER-ETHANOL SOLUTION FLAMMABILITY (maximum ethanol content: 60% v/v)

Water-ethanol solutions (lotions) which are widely used in cosmetics, often have a flash point between **35°C and 60°C**, so they ought to be considered as “flammable” according to the classification criteria based on the “flash point method” provided in GHS.

Nevertheless, due to the presence of water or of other non-flammable ingredients, some of these solutions cannot be ignited or support a flame in a way which presents a real risk to the consumer, when they are used at room temperature (max. 30°C) and under “normal and reasonably foreseeable conditions”. This circumstance is in principle provided in GHS where it is stated Chapter 2.6.2 – Nota 2 (similarly stated in the EU CLP Regulation):

Liquids with a flash point of more than 35 °C and not more than 60 °C need not be classified in Category 3 if negative results have been obtained in the sustained combustibility test L.2, Part III, section 32 of the UN RTDG, Manual of Tests and Criteria.

This exemption considers the difference between the flash point, i.e. the temperature at which a mixture containing a flammable component produces an instant flame (flash), and the “flame point”, i.e. the temperature up to which the mixture can support a flame for no more than 5 seconds, which means that the flame immediately extinguishes itself.

The difference in behaviour of a water-ethanol solution in respect of the “flash” and “flame” points, is shown in Table 1 where, for a given solution, the “flame point” occurs at a higher temperature than that of a “flash point”, but it can be seen that the two curves tend to merge as the ethanol content increases, and as the risk of combustion becomes greater.

Table 2 shows the “flash” and “flame” points for actual cosmetic lotions, whether or not they are classified “flammable”, according to the “flame point” method. The minor discrepancies between their temperatures and the corresponding values shown in the graph, are due to the presence, in the tested cosmetics, of other ingredients (perfumes, etc.).

For cosmetic products containing no more than 60 % ethanol, it is apparent that the flame point is above 30°C.

From this, and from long standing experience with products on the market, it can be concluded that cosmetic products with an ethanol content equal to or below 60% by volume do not pose a significant flammability risk to consumers, provided that ethanol is the only flammable solvent.

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TABLE I

ETHANOL/WATER SOLUTIONS

FLASH POINT : ABEL PENSKY
DIN 51755 (CLOSED CUP)

FLAME POINT : TAG -----
ASTM - D 1310-86 (OPEN CUP)

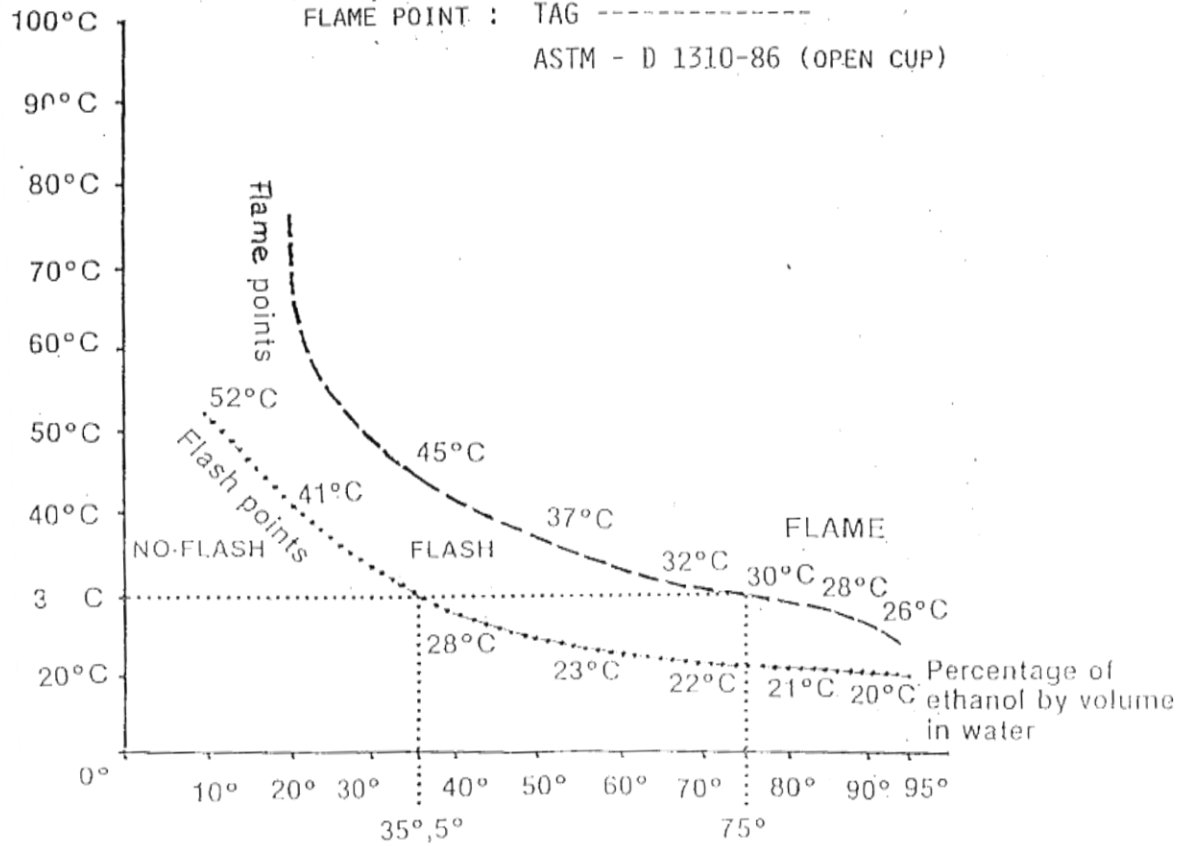


TABLE II
HYDRO-ALCOHOLIC COSMETIC LOTIONS
FLASH AND FLAME POINT

PRODUCT	ALCOHOLIC DEGREE	FLASH POINT (closed cup) ABEL PENSKY	FLAME POINT (open cup) TAG	WARNING
FIXATIVE GEL	20°	+ 35.5°C	> 50°C	---
FIXATIVE LOTION	50°	+ 26°C	+ 36°C	---
AFTER SHAVE LOTION I	53°	+ 24°C	+ 31°C	---
AFTER SHAVE LOTION II	60°	+ 23°C	+ 30°C	---
COLOGNE	70°	+ 21°C	+ 25°C	FLAMM.
TOILET WATER	80°	+ 18°C	+ 20°C	FLAMM.

TEST PARAMETERS: ROOM TEMPERATURE + 26°C
RELATIVE HUMIDITY 65%
ATMOSPHERIC PRESSURE 745 mm Hg