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Third Meeting (Teleconference) of the Pest Control Products Sector Working Group
May 28, 2004

Discussion Guide for the Flammable Hazard Classes

This document has been prepared to facilitate a technical discussion of the Pesticides Sector Working Group (PSWG) regarding the implementation of the Globally Harmonized System (GHS) for pest control products (PCPs) with flammable properties. It provides a comparison of current requirements with the GHS and some proposals and options for members to consider. Members are invited to provide comments and additional options. For ease of comparison, the document should be read in conjunction with the situational analysis table for each hazard class (http://www.hc-sc.gc.ca/ahc-asc/pubs/ghs-sgh/analys/index_e.html).

Under the GHS labelling system, product flammability is divided into four hazard classes: Flammable gases, flammable aerosols, flammable liquids and flammable solids. Each of these classes is further categorized by the severity of the hazard which is based on specific test criteria. Under the Pest Control Product labelling system, flammability hazard is currently identified for two types of products, the non pressurized products and the pressurized products (i.e. aerosols and gases). For each product type, the labelling requirements are based on the level of hazard using some criteria that are similar to GHS. An impact analysis of the implementation of the GHS for pest control products is presented here. The analysis covers the changes that may be required to the existing labelling system in order to incorporate GHS, and some issues which require consideration. Implementation of GHS, where applicable, will follow the harmonized classification scheme and the harmonized label elements.

Transport of Dangerous Goods (TDG) currently requires the classification of all substances and mixtures for all physical hazards that are in the GHS. Manufacturers of pest control products probably have data to support the flammable classification of their products, according to GHS criteria.

1. Flammable Gases:

a) Classification Criteria:

Flammable gases are not a separate hazard class under PCP. These products are considered under the “Pressurized Products” for flammability hazard and classified according to three specific hazard levels based on flame projection or positive flashback tests. These test data are used to categorize and label flammability hazard for registered pest control products.

GHS uses different test criteria to categorize flammable gases into two categories. The GHS categories are based on the flammable mixture of gas with air in certain proportion or on flammable range when mixed with air. GHS does not include flame projection and flashback as test criteria.

This difference in test criteria between the two systems is an issue to be considered for implementation of GHS, as application of the different tests may not give similar results.

Manufacturers of pesticides probably have the specific GHS test data available for compliance with other regulatory systems. Few PCPs are flammable gases, as defined in the GHS, and most of them are used for other purposes as well as pest control. Access to appropriate test data will facilitate the process of reclassification.

b) Hazard Communication

The flammable symbol and signal words ‘Danger: Extremely flammable gas’ are required for products in GHS category 1. ‘Warning: Flammable gas’ is required on the label of products in GHS category 2.

c) Proposal: that PMRA adopt GHS criteria for flammable gases (ignitable in a mixture of air) for PCPs which are gases and amend the physical and chemistry data requirements.

2. Flammable aerosols:

a) Classification Criteria:

Under the PCP labelling system, the flammability of aerosols is addressed as part of the assessment for all pressurized products. Different criteria are used in the PCP and GHS systems to categorize flammable aerosols. PCP uses flame projection and positive flashback tests and GHS uses the percent flammable components, chemical heat of combustion, ignition distance (spray aerosol), flame height and flame duration (foam test). Because of the difference in test criteria, categorization according to GHS may require expert judgement if test data based on GHS criteria are not available.

b) Hazard communication

Under the GHS, two categories of flammable aerosols are to be identified with the flammable symbol and signal words ‘Danger, Extremely flammable aerosol’ (Cat.1) or ‘Warning, Flammable aerosol’ (Cat.2). Comments and suggestions are requested on the use of flame projection data for classifying products into the GHS categories.

c) Proposal: that PMRA adopt GHS criteria for flammable aerosols for PCPs which are aerosols and amend the physical and chemistry data requirements. Scientific rationales to categorize based on flame projection data will be considered.

3. Flammable Liquids:

a) Classification Criteria

Under the current PCP labeling system, flammable liquids are “non pressurized products” with labeling for three levels of hazard for products with a flash point $\leq 27^{\circ}\text{C}$. GHS identifies four categories of hazard for products with flash point $\leq 93^{\circ}\text{C}$. In addition to the flash point, GHS uses initial boiling point to distinguish categories 1 and 2. Boiling point is not currently required for end-use products but is probably known to most manufacturers. There are probably many PCPs with flashpoints between $27 - 93^{\circ}\text{C}$ which are currently not labelled as flammable.

b) Hazard Communication

GHS categories 1 and 2 probably include most PCP liquids that are labelled as FLAMMABLE. Products in GHS categories 1 and 2 would be identified with the Flammable symbol and signal words “Danger: Extremely/Highly flammable liquid and vapour”.

GHS category 3 labels products with flash point between $23 - 60^{\circ}\text{C}$ with the flammable symbol and signal words “Warning: flammable liquid and vapour”. Products in category 4 (flash point ranging from 60 to 93°C) would be identified by the signal words “Warning: combustible liquid” but with no symbol.

c) Proposal

Option 1: Adopt GHS categories 1-3

Category 1-3 would capture all PCPs that are currently labeled as flammable liquids. New labeling requirements would exist for products with flash points between 27 and 60°C . Although not communicated on the label, data for flash point above 27°C are readily available for existing products. Data on initial boiling point will be required for products with flashpoint $< 23^{\circ}\text{C}$.

Option 2: Adopt all 4 GHS categories

New label requirement would exist for products with flash points between 27 and 93°C . Although not communicated on the label, flash point above 27°C are readily available for existing products.

Regardless of options, more products will require labeling.

3. Flammable Solids:

a) Classification Criteria

PCP has no criteria for flammable solids as these products are not likely to be used as pesticides products.

Option 1: Adopt GHS categories 1 and 2, in the event that products fitting GHS criteria for flammable solids are manufactured as pesticides. Amend data requirements.

Option 2 Do not adopt this hazard class, as such products are not expected to be used as pesticides.