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Committee of Experts on the Transport of Dangerous Goods and on the Globally Harmonized System of Classification and Labelling of Chemicals

Sub-Committee of Experts on the Globally Harmonized System of Classification and Labelling of Chemicals **12 June 2013**

Twenty–fifth session
Geneva, 1 – 3 July 2013
Item 3 of the provisional agenda
Hazard Communication Issues

Practical alternatives to empty pictogram frames

Transmitted by the Dangerous Goods Advisory Council (DGAC)

Introduction

1. GHS generally prescribes in section 1.4.10.4.2.3 that pictograms "should have a black symbol on a white background with a red frame". Manufacturing and packaging operations for global distribution are often characterized by high output production of continually varying products. In these mass-production scenarios, printers are required which are highly reliable, simple, fast and resistant to chemical environments. The predominant viable printing technology consists of one-color, thermal ribbon printers. The combination of the red frame requirement with the one-color printer infrastructure necessitates the use of pre-printed red frames on label stock. This stock is then custom printed in black ink with applicable hazard symbols inside the frames, plus product identifiers and all other components required for compliant GHS labelling.

2. The foregoing scenario is addressed by the use of label stock with multiple red pictogram frames, for example four red frames. Depending on the product which is being packaged, there may be fewer hazards than the number of pictogram frames. This results in unused pictogram frames which do not have a hazard symbol inside them. GHS does not address the presence of unused frames on a label. National and regional implementations tend to prohibit empty frames. DGAC is concerned by one alternative which is to completely obliterate a frame, with a resulting black diamond the size of the other pictograms. We believe this is unsightly, confusing, and may be misinterpreted that a real hazard has been obscured. Blacking out blank pictograms is especially detrimental for cosmetics, pharmaceuticals, medical supplies, personal care items and food related products for which positive public perception is paramount.

3. DGAC agrees that red frames are beneficial and that they should not be empty. Industry has intermittently solved the issue by printing a text such as "NO GHS SYMBOL," "INTENTIONALLY BLANK," or inserting other alternatives, such as waffle screen patterns, to fill in the unused frames, to date without significant issues globally. Other symbols, such as a dash "-" meaning "not applicable", could be used. The Sub-Committee is invited to consider what solutions would be appropriate.

Discussion

4. DGAC represents many medium sized companies that typically have over 200 one-color printers currently in use for printing labels across global operations. A single physical site may actually have as many as 50 or more printers. Each of these printers would have to be replaced with a colour printer to print pictograms with red frame borders. A review of a typical medium size company has shown that they print 3.275 million labels annually across 4 physical locations (>800,000 labels printed per site). The compliance cost for larger companies is much greater. Based on a range of member companies' analyses, the estimated initial cost to comply with the new provisions for each company is between $2.4 and $3.6 million. There is also a significant cost to prematurely retire and dispose of tens of thousands of existing one colour printers. Not only would there be a financial and environmental cost associated with the disposal of the printers, there would also be similar costs associated with disposing of the unused inventories of their unique printing supplies such as ink, cartridges, pre-printed label stock, etc., and the related packaging for these supplies.

5. DGAC believes it is not a universally viable option to obtain colour printers to print the red frames on individual labels. Our experience has shown that currently available colour printers have not proven to be durable enough to reliably print a high volume of labels. We have no data to show that reliable printers capable of reasonably meeting this expectation are available that could be effectively relied upon.

6. The most efficient method of providing red frames on labels is to use pre-printed label stocks. This is a common practice for DGAC member companies manufacturing in or shipping into or out of Europe, China, Singapore, Brazil, Taiwan and other countries where these GHS requirements have previously been implemented. The pre-printed label contains a sufficient number of blank red frames to accommodate the maximum number of hazard symbols that may be needed for the variety of substances and mixtures for which the label stock is to be used. When a label is then prepared for a particular commodity, pictogram symbols are printed in black ink within the pre-printed red diamonds. In the case of substances and mixtures which present fewer hazards than the number of blank frames provided, unneeded frames are populated with text such as "Not Applicable" or "No GHS Symbol" or "Intentionally Left Blank" in the language appropriate for the label, or populated with other screening pattern images. This is effective, efficient, and makes use of reliable existing, one-color printers. Our experience has shown these methods to be comprehensible and effective in communicating the critical hazard information communicated on the label.

7. The alternate use of multiple, different label stocks with fewer pictograms is also an inefficient option to eliminate blank pictograms. For every four pictogram label option, five different label stocks would be needed for no pictogram, one pictogram, two pictogram, three pictogram and four pictogram options. Multiple label stocks are more costly to purchase, require additional inventory storage, and cause additional production run set-ups with associated labour. Adding additional printers dedicated to specific label stocks is also extremely costly and increases labour and labour costs. The use of different label stocks and printers to satisfy different numbers of pictograms causes a significant increase in supplies, labour and/or capital investment.

8. We are concerned that in some cases comprehensibility would be adversely impacted by the full obliteration of empty pictograms. This is unsightly and may cause users to speculate as to what information has been covered up. We suggest that in the interest of promoting better comprehension and understanding, a general statement be added to the GHS publication that alternatives to blank pictograms are acceptable,

including a variety of current methods which are viable for existing infrastructure and technology.

Proposal

9. DGAC invites the views of the sub-committee on the following alternatives. Illustrations are given in the Annex.

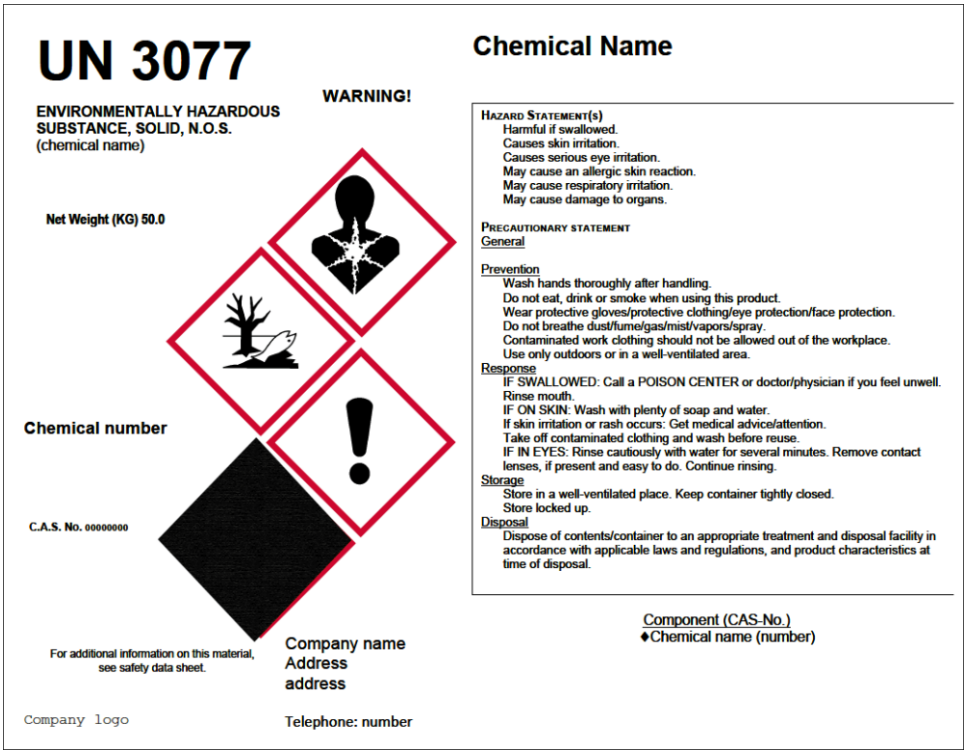
(a) Obliterated frames.

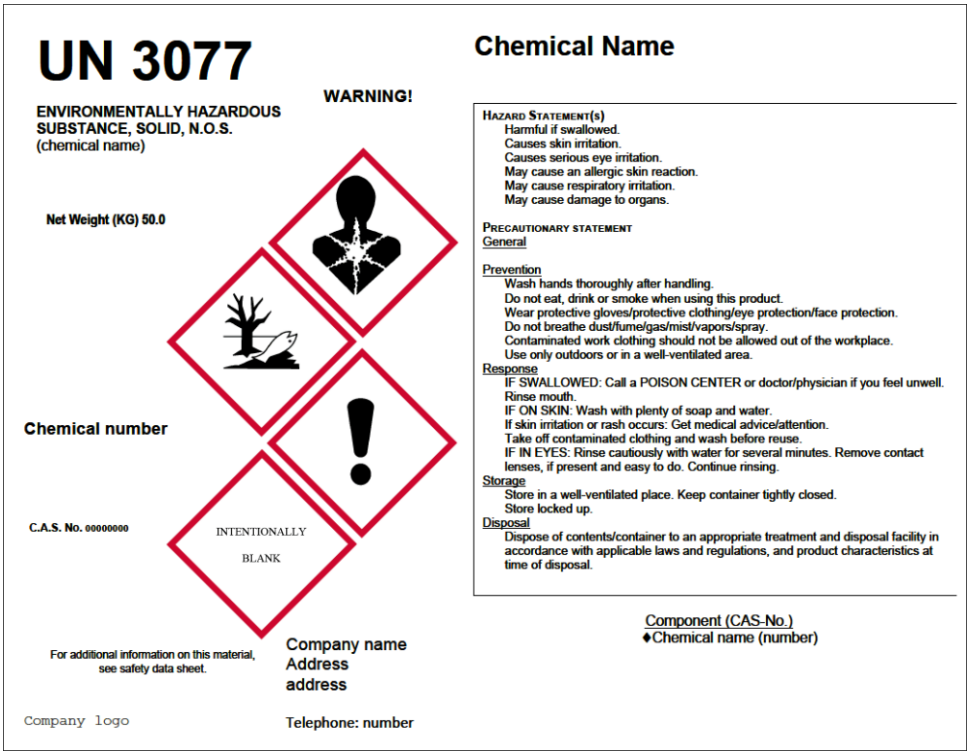
(b) “Intentionally Blank” or other text.

(c) Symbol understood to convey no hazard.

(d) Partially obliterated frames.

Annex


UN 3077
WARNING!
ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
(chemical name)
Net Weight (KG) 50.0
Chemical number
C.A.S. No. 00000000
For additional information on this material, see safety data sheet.
Company name
Address
address
Company logo
Telephone: number
Chemical Name
HAZARD STATEMENT(s)
Harmful if swallowed.
Causes skin irritation.
Causes serious eye irritation.
May cause an allergic skin reaction.
May cause respiratory irritation.
May cause damage to organs.
PRECAUTIONARY STATEMENT
General
Prevention
Wash hands thoroughly after handling.
Do not eat, drink or smoke when using this product.
Wear protective gloves/protective clothing/eye protection/face protection.
Do not breathe dust/fume/gas/mist/vapors/spray.
Contaminated work clothing should not be allowed out of the workplace.
Use only outdoors or in a well-ventilated area.
Response
IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
Rinse mouth.
IF ON SKIN: Wash with plenty of soap and water.
If skin irritation or rash occurs: Get medical advice/attention.
Take off contaminated clothing and wash before reuse.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Storage
Store in a well-ventilated place. Keep container tightly closed.
Store locked up.
Disposal
Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.
Component (CAS-No.)
♦Chemical name (number)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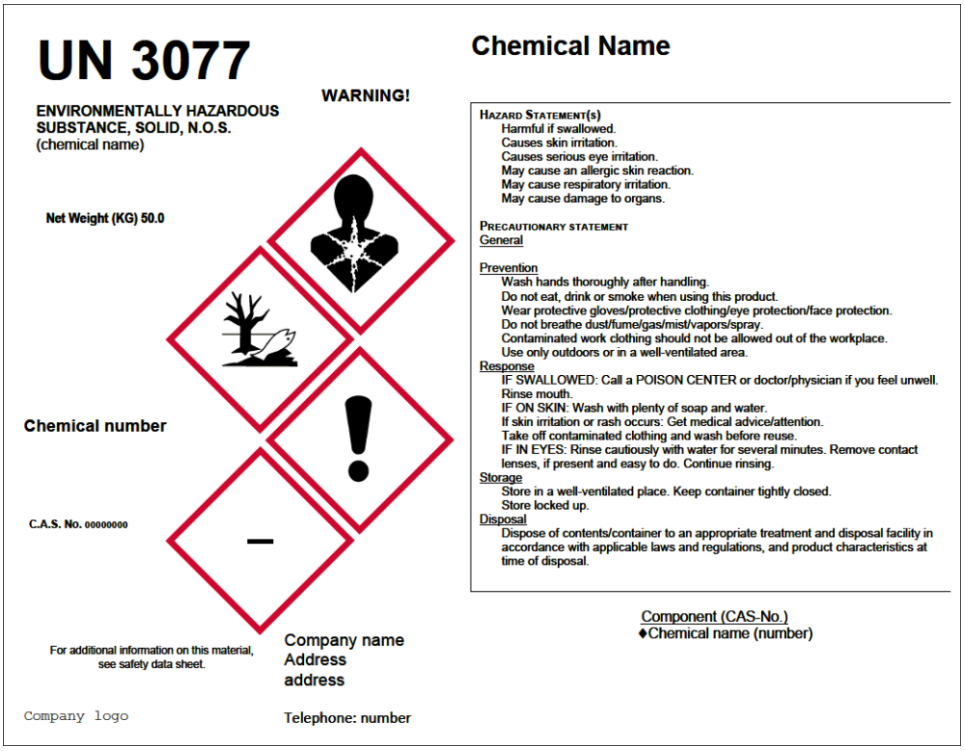
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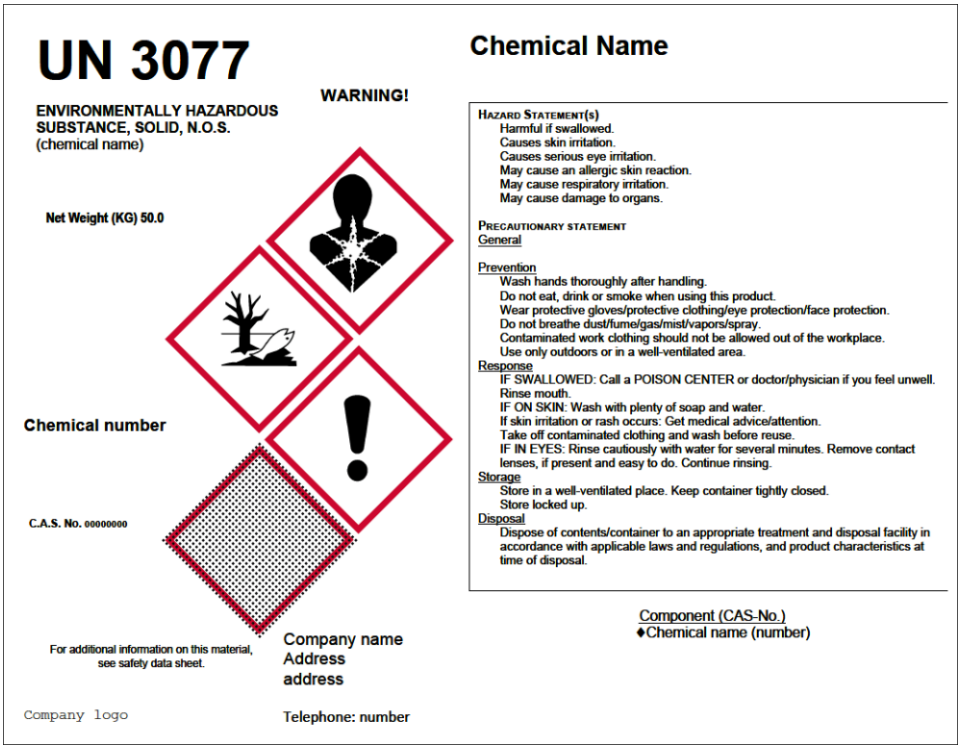
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