

8. CONCLUSION AND RECOMMENDATIONS

As many have said before, the data demonstrate that no hazard communication system is intuitively obvious. While a few commonly recognised items show good understanding, considerable further work is required.

Based on the results of this study, the following recommendations are proposed:

8.1 Training

Training is clearly a key recommendation to emerge from this study. Workers and consumers will need carefully directed information and training materials to assist the uptake of the GHS if it is to be effective. In developing such materials, cognisance should be taken of:

- 8.1.1 The items that workers and consumers currently recall most easily from labels are symbols. Training in comprehension of all symbols should be a priority.
- 8.1.2 Training should also aim to ensure that users of chemicals learn to recognise items that they do not 'normally' remember or regard as important – i.e. it should not simply repeat knowledge already known to the trainees.
- 8.1.3 Key symbols that require correction are the confusion of oxidising and flammable, and those that generate critical confusions – e.g. catching of fish indicated by the environmental symbol.
- 8.1.4 Training on symbols should take account of the way in which symbols similar to the GHS symbols are used in other contexts (e.g. targets, road traffic signs) in the design of the training material.
- 8.1.5 Colour sequences (agriculture) have to be learnt and are not intuitive. Training must make this an explicit component of training to farm workers and those handling pesticides.
- 8.1.6 Peer education is a key strategy to employ since which co-workers and, to a lesser extent, supervisory staff were identified as important sources of information.

8.2 SDS and Label Content

- 8.2.1 Consideration should be given to some of the content issues for SDSs and labels:
- 8.2.2 Inclusion of symbols on the SDS may attract workers attention and prompt them to explore the information present on an SDS, which is presently not well utilised.
- 8.2.3 Consider ways to abbreviate SDS, or at least make workers feel that SDSs are manageable. This may mean having two kinds of SDSs, one amenable to shop floor reading, and one for office/laboratory use. Alternatively, training should ensure that all employees are SDS-literate.
- 8.2.4 Other than where already in existence (e.g. agriculture), colour sequences should not be used in denoting hazard other than using red to indicate hazard. Specific provisions should be made to improve comprehensibility in relation to colour where it is appropriate (e.g. ensuring standard colour bars of standard size in relation to the label).

8.3 Language:

- 8.3.1 A number of words and statement can and should be written in simpler English without losing the hazard warning value. Glossaries could be developed for complex words.
- 8.3.2 An Adult Educational Expert authority (via the South African Qualifications Authority, SAQA) could be mandated to develop standards for the kind of language used on labels and SDSs to ensure basic intelligibility to users who command basic grasp of English. The GHS does not stipulate the exact wording of many elements of the hazard statements so South Africa does has some flexibility in ensuring that label language is written in a way that most (or at least more) South Africans can understand.
- 8.3.3 A bank of such statements could be developed based on South African experience.
- 8.3.4 Simplifying language may not be sufficient given the high numbers of persons who are not first-language English speakers in South Africa and their increased likelihood of not understanding a hazard message adequately. Consideration should therefore be given to labelling in alternative languages, or to posting of label contents at the workplace in the form of a poster in the language/s of the employees required to read the information.

- 8.3.5 Consumers who do not speak English as a first language also need to be reached through media appropriate to the public – TV and radio – in language they understand. This implies the development of educational materials and programmes for the mass media.

8.4 Sources of Information:

The GHS will play a key role in increasing the use of labels and SDS's. However, this should take place in the context of expanding the roles of other sources that can provide very useful information for chemical hazards. For example, many workplaces employ one or more Occupational Health Practitioners who should be able to provide such information. Similarly, certain kinds of personnel may benefit by access to Poison Information Centres. Moreover, organised labour can play a key role in facilitating information to support the GHS implementation, yet the data show much room for improvement. The introduction of the GHS in South Africa should ensure that supportive sources of information are used to bolster any training initiatives.

8.5 Items Missing from the GHS

- 8.5.1 In general, the GHS package covers the range of information identified by respondents as important – health risks, hazard identification, etc.
- 8.5.2 Respondents, particularly in the transport industry, would value the inclusion of the UN number for chemicals in the list of provided information.
- 8.5.3 SDSs may be improved if a glossary of terms is included. (However, it may transpire that if the SDS is not rewritten to be simpler, the glossary may simply be as long as the SDS itself)
- 8.5.4 Attention should be paid to ensuring the font and layout of the labels meet minimum requirements. Adoption of an international standard (e.g. US ANSI standard) or a SABS standard should be considered.