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UNIVERSITY OF CAPE TOWN

Division of Environmental Health | UCT

Sweden
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University of Cape Town's CHEMICALS NETWORK

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Digest Summary of Discussion 3 2021

The implementation of the GHS across the world is a process that requires consultation, collaboration and cooperation from all stakeholders involved. To see implementation in its fullness, all stakeholders involved in this system are to be actively involved and working towards better chemicals management. This discussion was led by representatives from the industrial chemical industry, the pesticides industry and labour and was entitled **"The role of industry in enhancing GHS implementation in low- and middle-income countries (LMICs)".** To view the PowerPoint presentation from this discussion, click here.

ABOUT THE PRESENTER

Maria Ruiz-Cuevas, is a Spanish citizen who holds a Chemical Engineer degree with an Executive Master in Business Administration. She worked 10 years in ExxonMobil holding several positions globally, mainly in sales and operations management. She joined Cefic in 2008 and currently is working as International Chemicals Manager leading several international projects and advocacy activities. Maria is Cefic's liaison in several international working groups representing the Chemical Industry. She is deeply engaged in global regulatory cooperation activities with governments, industry, and international bodies (OECD, UN, etc.) looking for more effective chemical policies.

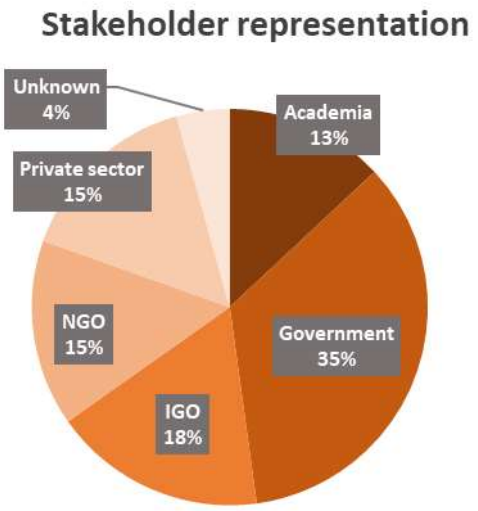
Dr Richard Garnett is by training and early experience, a weed biologist and agronomist, and has been working on regulatory affairs and product development in the agriculture and pesticides industry for over 30 years. For the past 4 years he has been consulting with CropLife International as a senior advisor on regulatory policy. In the past, he dealt with many of the practical aspects of the GHS from a manufacturer's perspective. He has been involved with SAICM since ICCM4, recently participating in the series of SAICM Highly Hazardous Pesticides (HHP) Community of Practice (CoP) meetings.

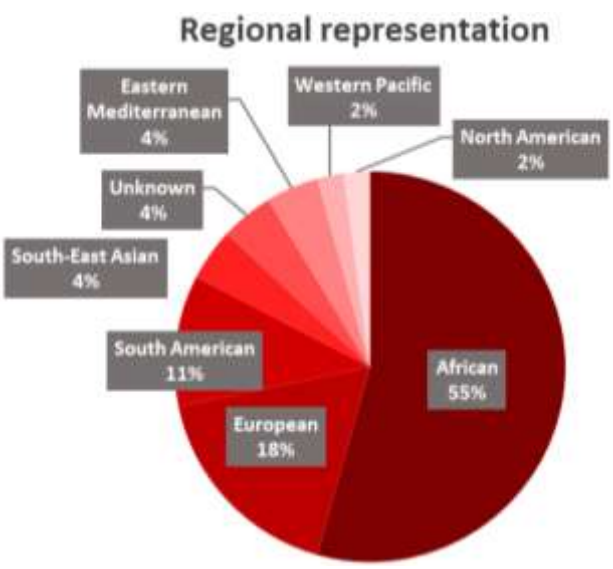
Ana Ocampo is a Chemical Engineer from the Universidad del Valle (Cali, Colombia) with an MSc. in Chemical Engineering from Tulane University (New Orleans, United States) and a doctorate in Environmental Engineering from Washington State University (Pullman, United States). Her main research topic is soil and groundwater remediation, with an emphasis on chemical oxidation processes. She has worked for more than 12 years on remediation projects with various companies. She led the accession process of Colombia to the Organization for Economic Cooperation and Development (OECD) in the part of chemical substances management. Likewise, she led the technical side of the formulation of the regulation of contaminated sites in Colombia from the Ministry of Environment and Sustainable Development. She is a professor at different universities in Colombia and currently leads the Responsible Care chapter in Colombia, where she promotes, from the technical point of view, the best practices on issues related to process safety.

Stella Simiyu is multi skilled with 20 year's cumulative experience in public policy analysis, biosafety in agriculture, regulatory compliance for crop protection products and agriculture policy harmonisation. Since joining CLAME in 2014, been leading engagements with international, regional and national organizations including RECs on uptake of best practices in regulation of crop protection products; capacity building and information dissemination. Been involved in chemicals management dialogue under SAICM- ICCM4; UNEA and specific capacity building efforts in implementation of GHS, harmonization and domestication of regulations for crop protection products and challenges associated with MRLs in Africa Middle East region among other efforts.

2021 DISCUSSION 3 ATTENDANCE BREAKDOWN

 # ATTENDEES: 46
Female – 57%
Male – 41%
Unknown – 2%





Key:
IGOs = Intergovernmental Organisations
NGOs = Non-governmental Organisations

KEY MESSAGES FROM THE DISCUSSION

1. Many respondents felt that one of the **main ways in which industry could help enhance GHS implementation in LMICs** was to focus on **capacity building activities**. These activities include providing technical advice, training, resources, and education programmes for consumers who may not be aware of the risks and hazards associated with the chemicals they encounter in their everyday lives. Furthermore, help with getting **effective regulations** established and enforced would help with GHS enhancement. This process must be inclusive and involve all stakeholders that form a part of the chemicals supply chain, from manufacturers, to regulators, to government officials and policy makers, right down to the consumer.

2. The **UN GHS Purple Book** is a guidance document published by the United Nations on the Globally Harmonized System of Classification and Labelling of Chemicals (GHS). Many participants expressed that **consistent interpretation and application** of the GHS Purple Book was beneficial for pesticide labelling in their regions because it allowed for uniform standards to be adopted by all countries in that region. It was stated that it also helps with **monitoring and compliance** as there is one standard that needs to be followed by all. It is a way to ensure that all countries within a region, that may be interacting on the import and export level, are speaking the same language when manufacturing, transporting, and using pesticide. In terms of trade, it creates a fair environment for the industry and most importantly for the consumers. For Poison Information Centres and Networks, it provides comprehensive and accurate information that is helpful when looking at case studies of adverse effects from use the of such chemicals.

3. It was highlighted that the **first step of ensuring worker safety and effective use of the GHS**, is to start with ensuring that **regulations and legislation** are in place to protect worker's rights to health and safety in the workplace. Following this, **training of workers and consumers** on the GHS and the risks and hazards associated with chemicals should be done to further protect the health of all stakeholders involved and to ensure the GHS is being used effectively. Finally, **comprehension of the GHS and the labelling classifications** is an important thing for employers to prioritise. It was agreed that it is an employer's responsibility to not only ensure GHS is being used, in whichever way it can be in their work, but also to ensure that their employees comprehend what is on a chemical label and how to interpret that correctly to protect their health and safety.

CONTRIBUTIONS FROM DISCUSSION PARTICIPANTS

The discussion was structured around three questions. The key discussion points raised by participants and organized by themes or countries (although not representative) are presented under each:

Question 1:
How can the chemical industry enhance GHS implementation in LMICs?

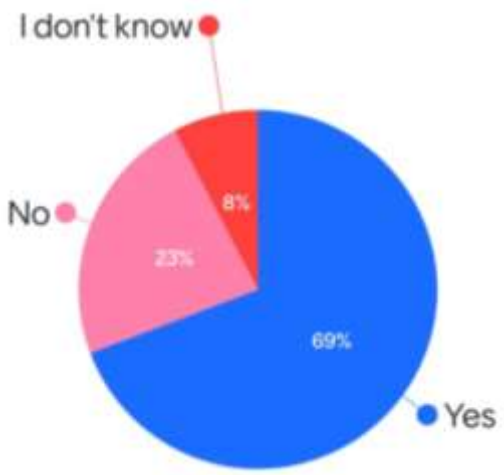
COUNTRY:	PARTICIPANT RESPONSES:
CAMEROON (NGO)	- Supporting civil society in the implementation through the financing of micro projects and provision of real data.
IRAN (Academia)	- In most developing countries this is not an easy task. - It needs wide work and cooperation with and between government agencies, private sector, NGOs, chemical associations, and regulatory bodies. - Regulatory bodies in some developing countries are not well developed and organized.
JAMAICA (NGO)	- There are numerous informal industries in LMICs which must be regulated. - Capacity building must be done for SMEs as this is a major barrier in implementing GHS. - The discussion on GHS is often not all inclusive for the relevant stakeholders. - This poses a problem in understanding the real challenges that exist on the ground. - If all stakeholders are not included in the discussion, then complete buy in of the rationale for compliance does not occur and the present cycle continues. - Public education programmes for consumers should be continuous with funding allocated to sustain this over a period to drive change. - There needs to be sustainability of conversation within each country because the political context within countries can change discussions. - One of the driving forces is working through NGOs that usually have staff working for longer period in their capacities.
SIERRA LEONE (Government)	- Help LMIC with regulatory framework and technical training. - The chemical industry needs to provide technical training to national regulatory bodies. - Some countries do not have chemical associations, but they do have bodies responsible for chemical related issues.
SOUTH AFRICA (Academia)	- One of the ways the industry could enhance implementation is to work more with local industry in countries that are under-represented.
SOUTH AFRICA (Government)	- Provide training to policymakers and regulators. - Encourage Government to adopt and enforce the GHS across industries.
SOUTH AFRICA (Private sector)	- CAIA in South Africa trains the regulatory authorities. - CAIA is also involved with GHS training on the African continent, awareness raising, and collaboration with industry bodies.
PRESENTER'S COMMENTS	**Question: How much training is the chemical industry involved in to help consumers not only understand GHS labels, but to know what safety measures to take?** - It is hard to quantify. - We work via national associations, and they provide training. - Our Responsible Care colleagues also provide training to workers, and they reach out to domestic industry. - For the consumers directly we do not provide training - it is hard to reach out to consumers as we are the first ones in the supply chain. - We are also planning to cooperate more with UNITAR for example in African countries where we are not present. **Question: I am in the Caribbean; how can I arrange with the Chemical Association to have a discussion with my country in developing the same initiative for corporation in my region?** - for the Caribbean countries contact: alejandra.acosta.work@gmail.com - We would like to reach out to all bodies related to chemicals related issues but sometimes it is not so straight forward to us.

	- The political agenda of a country is very important. - For example in Argentina and Brazil, both chemicals management laws were very ready to be approved but the change in government stopped the entire project. - Any questions can be directed to Maria on mcu@cefic.be

Throughout the discussion, informal polls were conducted to help encourage discussion among the participants. They do not provide any representative data but rather provide a snapshot of participant views.

Poll 1 Results (N = 13)

Are you aware of any activities that the chemical or pesticide industry are doing related to the GHS?



Poll 2 Results (N = 11)

What should the chemical industry (industrial chemicals not only pesticides) be doing to promote GHS implementation? Please indicate your country.

Awareness raising (n = 3):

- "Zambia: Awareness presentations/promotions"
- "Support NGOs that work with Chemical Safety or environmental awareness to implement grassroots/community outreach programmes to educate the public on the GHS and chemical safety in general."
- "South Africa: Key is to have more consumer and worker training that is accessible and in different languages. Billboards, commercials, posters, flyers etc… where chemicals are purchased."

Regulation and legislation (n = 3):

- "Jamaica needs to include all relevant stakeholders as a part of the discussion and focus on regulating the informal industry. Chemical industry needs to first do an inventory of the chemicals, secondly, a review of the present situation and finally, establish a national plan to implement."
- "Establish regulatory bodies with multi sectorial experts, stricter standard laboratory and facilities training."
- "Brazil: A proper legislation on industrial chemicals management."

Compliance with already existing regulations (n = 2):

- "Promoting and divulging proper labelling on the industrial chemicals."
- "Consistency in classification and labelling for cross border trade."

Intersectoral communication and cooperation (n = 1):

- "Iran: Cooperation, talks and coordination sessions between different chemicals/pesticides and biocide sectors will help and of course with the help of academia and scientific bodies."

Question 2:
What are the regional benefits of the consistent interpretation of the GHS Purple Book for pesticide labelling?

COUNTRY:	PARTICIPANT RESPONSES:
BELGIUM (Private sector)	- Poor enforcement is a problem in a lot of countries with several banned chemicals.
IRAN (Academia)	- Proper labelling and reading the pesticide label. - Unfortunately, in most developing countries the end user of the pesticide usually does not read the label and that is a big problem.
JAMAICA (NGO)	- Having consistent and same contextual interpretation within a region helps with effective monitoring and surveillance on both a public health, and regulatory enforcement perspective. - In terms of trade, it creates a fair environment for the industry and most importantly for the consumers. - For Poison Information Centres and Networks, it provides comprehensive and accurate information that is helpful when looking at case studies of adverse effects from use the of such chemicals. - In terms of the cost for developing educational materials, a levy for financing is a good recommendation. - Need to look at the type of materials that are being developed for consumers and how these materials are being used or if they are being used at all. - We should consider what is the best medium to educate consumers for it to be effective.
NEPAL (NGO)	- GHS has not been fully adopted into the registry. - Needs for this to happen include technology transfer and capacity building for stakeholders involved, including the customs department. - GHS code needs to be adopted for some chemical free products considering Minamata mercury convention. - An example in Nepal is the Department of Customs has blocked the entry of asbestos or asbestos containing product. - There is still asbestos getting in and appearing in the end of the year custom data.
SOUTH AFRICA (Academia)	- What is key for pesticide labelling is that the GHS address chronic health effects which is currently not addressed as thoroughly with the WHO hazard classification system. - What would be good is if the industry could provide GHS pesticide labels in different languages through the use of QR codes. - There is always someone who has a phone that can be shared with other, but what is key is that there must be QR codes. - Developing materials for workers and consumers are expensive. - There needs to be multiple methods for transmitting this information. - Countries need to engage with communication specialists and perhaps this is something that the industry could fund.
SWEDEN (Government)	- The Swedish Chemicals Agency is actively promoting GHS implementation in our capacity building activities. - https://www.kemi.se/en/international-cooperation
ZAMBIA (Government)	- Having a consistent interpretation of labelling as proposed by the GHS implies that all countries in the region will speak the same language. - This will in turn give the same understanding of a particular chemical content so that there is no misinterpretations resulting in misapplication of chemicals.
PRESENTERS COMMENTS:	**Question: What is the GHS Purple Book about?** - The UN GHS Purple Book is a guidance document published by the United Nations on the Globally Harmonized System of Classification and Labelling of Chemicals (GHS). - https://unece.org/ghs-rev8-2019 - Under GHS all the hazard classes are looked at and inform the label. - We're looking into systems for doing what you suggest - provision of languages and additional info including SDS by QR code or similar.

	- The same understanding of chemicals and their management becomes tricky if countries are not aligned. - In some countries they have encouraged sensitization/training of the public.

Poll 3 Results (N = 5)

How can process and evidence contribute to increased regional GHS harmonization of pesticide labelling? Please list the region you are from.

"**The Middle-East-North-African and Western Asian** countries have some activities going but unfortunately not much cooperation between countries due to political and financial reasons."

"**GRULAC region:** Enhancing the existing Chemicals Network in the region."

"**SADC region:** What would help is to have research to show that the GHS pesticide labelling is understood and that more people can read and use the labels (or SDS) to reduce environmental contamination and chronic health effects."

"For pesticide labelling the WHO/FAO must have close discussion with UN-GHS sub-committee in the **Association of Southeast Asian Nations**, we are following the WHO/FAO guidelines, not GHS."

"If the benefit of GHS implementation can be expressed in monetary terms, I think it would be a driver."

Poll 4 Results (N = 10)

What do countries need when the interpretation of data requires complex expert judgement, for example chronic toxicity of pesticides and other chemicals.

Sharing of information (n = 3):

- "Access to other countries who have classified a pesticide already using the GHS since the GHS is a hazard-based and not risk-based system."
- "Knowledge on where to find available hazard information (e.g. the Classification and Labelling Inventory databases at the European Chemicals Agency (ECHA))."
- "For example, in developing countries, there are many academic papers that include proper data etc… but does the end-user of pesticides follow that?"

Regulations and legislation (n = 2):

- "Before interpreting data (e.g. chronic), we must ensure the legal requirement is in place. If the experts have interpreted the data but authority refers to WHO guideline (mainly on acute hazard), then this has wasted the efforts of the experts."
- "We have to make the root strong, which means anybody involved with pesticides must have gone through a process of Licensing and Certification, this will guarantee the job."

Intersectoral cooperation (n = 4):

- "Consultation with other experts in regions or across countries for opinion and advice."
- "Consultation with regional chemical associations or bodies."
- "Countries need to invite external experts if they do not have capacity at the national level."
- "Intersectoral partnership with scientist and public health specialists throughout the implementation phase is imperative."

Capacity building (n = 1):

- "Countries need to appoint properly trained officials with a basic understanding of toxicology. Capacity building on basic toxicology training for officials would be helpful to understand Safety Data Sheets (SDS)."

Question 3:

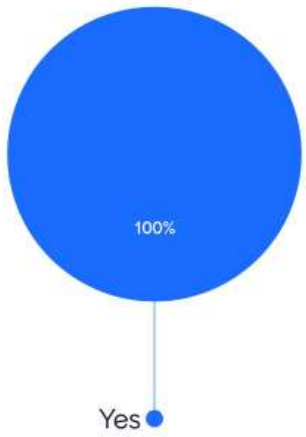
What should the chemical industry be doing to implement the GHS in the workplace aimed at protecting the worker´s safety and health from the use and handling of hazardous chemicals?

COUNTRY:	PARTICIPANT RESPONSES:
ANGOLA (Government)	- GHS implementation gives guidance and better understanding about chemicals & its risks.
BRAZIL (Government)	- SCRC/Brazil for GRULAC region have already implemented some trainings on chemical with KemI and SIDA. - There is one for next semester in partnership with BCRC in Trinidad & Tobago for Caribbean Region. - Besides that, the UCT network experience could be a very good way to strengthen the existing GRULAC network on chemical and wastes.
CAMEROON (NGO)	- Build capacity and sensitize workers on the issues. - Apply the display policy (signage plate for example) in the workplace and on products.
CANADA (NGO)	- Back in 2015 UNITAR in cooperation with NGOs and the government in Kyrgyzstan implemented a project aimed at raising stakeholder awareness on GHS. - The project resulted in the development of the Resolution on the Approval of the Chemical Hazard Classification System and Hazard Information Requirements - Labelling and Safety Data Sheet. - This aimed to strengthen the effective management of chemicals, to better protect the health of the population and the environment, to prevent illegal trade, and to promote organic agriculture. - This Resolution is shortlisted for the 2021 Future Policy Award. Here is the award link: https://www.worldfuturecouncil.org/future-policy-award-2021-about-the-shortlisted-policies/ - The implementation of this policy has resulted in significant impact, including behavioural changes of consumers. - Also, more than 6,500 employees of the biggest industrial companies operating in Kyrgyzstan received information on hazard classification and labelling to ensure safety at workplace.
IRAN (Academia)	- Production and marketing in the chemical sector are going to double by 2030, so chemical industries must do a lot to prevent damage before it is too late. - More printed materials, online activities, capacity buildings, etc… can be done. - Spraying technology is going to be revolutionized by using Drones and this is a big and good development.
JAMAICA (NGO)	- There needs to be enforced policies and legislations. - An important point includes dialoguing with workers to get their perspectives. - There is a lot of misunderstanding and miscommunication because of differences in interpretations.
MALAYSIA (Academia)	- As far as consumer chemicals are concerned, we trained the public about the meaning of GHS hazard communication elements (such as pictograms). - If there are no legal requirements to label consumer chemicals based on GHS, then the labelling of consumer chemicals might still vary between products, causing confusion for the public. - Regarding the risk management, although correct hazard classification is one of the vital components, a potential challenge would be for mixtures. - Due to CBI (Confidential Business Information), the same mixture produced by different companies in a country might have different hazard classification, hence the risk management for the same mixture would be different due to different hazard classification.
SOUTH AFRICA (Academia)	- The industry plays a key role in not just providing access to GHS information in the workplace, but also making sure that correct comprehension of the information is occurring. - This requires different strategies and engaging with the workers to see what their understanding is of the information. - What is important to note with the GHS is that if the label is compliant with the purple book building blocks, a country could request additional information that enhances understanding related to a specific country and cultural context. - Such as colour codes which are used on pesticide labels in LMICS.
ZAMBIA (NGO)	- It is necessary to put in place a legal framework.
UKNOWN (Blessings)	- Industry has managed a way to work on their own, i.e. development of trainings and training materials, however, governments should be part and parcel of these meetings and trainings as well.
PRESENTER'S COMMENTS:	- Having trained workforce is a key point. - It is important to have reliable information to take actions.

	- Having a legal framework is important to start thinking about how to manage chemicals and reduce the health and environmental impacts. - GHS implementation in the workplace will allow, among other aspects, to establish the actions that employers must develop to protect the workers' safety and health from the use and handling of chemicals. - The classification of mixtures is a challenge.

Poll 5 Results (N = 11)

Do you think that proper risk management for the use of chemicals in the workplace includes their correct hazard classification and identification?



Poll 6 Results (N = 11)

Please indicate the benefits that GHS implementation provides for the company and their workers.

Risk reduction (n = 1):

- "Clear communication and thus less risks."

Health and safety (n = 4):

- "Protection from the hazardous effects of chemicals."
- "Workers' and environmental health."
- "Social and environmental security."
- "More confidence about safety issues in the company and a better situation for workers, pesticides production, sprayers etc… We do not have to be worried for companies because most are looking for more profits but we have to do more about workers."

Creates awareness (n = 4):

- "Awareness of chemicals related risks especially for the workers."
- "In theory, if the workers are trained in how to interpret the GHS, how to apply it to prevent hazardous exposures and have access to the right equipment, then they should be able to apply that knowledge and skills when they change jobs."
- "Provide accurate information on how to use a product, the potential risk and what to do if exposed to hazard."
- "Provides accurate information about the ingredients and formulation of the hazardous chemicals and provides guidelines on how to implement prevention methods for hazardous chemicals."

Consistency across regions and sectors (n = 2):

- "Consistent hazard classification for the same chemical."
- "It is a visionary policy that can inspire other countries which have difficulties in drafting and enforcing the national legislation on GHS implementation."

Key resources:

- **UNITAR Global Partnership to Implement GHS**
  https://unitar.org/global-partnership-implement-ghs

- **eChemPortal: Global Portal to Information on Chemical Substances - OECD**
  https://www.oecd.org/chemicalsafety/risk-assessment/echemportalglobalportaltoinformationonchemicalsubstances.htm

- **Toolbox to develop/update chemicals management regulations (Includes chapter on GHS)**
  https://icca-chem.org/resources/icca-regulatory-toolbox-2-0/

- **ICCA Synthesis of GHS Cost Benefit Papers 2019**
  https://unitar.org/sites/default/files/media/file/Synthesis%20of%20GHS%20Cost%20Benefit%20Papers%20-%20ICCA%2C%202019.pdf

- **ICCA Case Studies to Support GHS Implementation 2019**
  https://unitar.org/sites/default/files/media/file/Case%20Studies%20to%20Suppport%20GHS%20Implementation%20-%20ICCA%2C%202019.pdf

- **Overview of GHS activities from organisations outside the UNITAR/ILO/OECD Partnership**
  https://unitar.org/sites/default/files/media/file/Overview%20of%20GHS%20activities_final_29.12.2020.pdf

- **CropLife International:**
  - **Globally Harmonized System of Hazard Classification and Labeling | CropLife International**
    https://croplife.org/crop-protection/regulatory/product-management/globally-harmonized-system-of-hazard-classification-and-labeling/
  - **Revised position paper GHS August 2012 vs 3 final.doc (croplife.org)**
    https://croplife.org/wp-content/uploads/pdf_files/Position-Paper-The-Implementation-of-the-Globally-Harmonised-System-of-Classification-and-Labelling-of-Chemicals-August-2012.pdf
- **ICCA and German Federal Ministry cooperate on GHS implementation in Africa – International Council of Chemical Associations (icca-chem.org)**
  https://icca-chem.org/news/icca-and-german-federal-ministry-cooperate-on-ghs-implementation-in-africa/

- **The FAO/WHO International Code of Conduct includes Guidelines on Good Labelling Practice for Pesticides which refer to the GHS.**
  - **WHO | Guidelines on good labelling practice for pesticides (revised)**
    https://www.who.int/whopes/resources/9789241509688/en/
  - **Plant Production and Protection Division: New List of Guidelines (fao.org)**
    http://www.fao.org/agriculture/crops/thematic-sitemap/theme/pests/code/list-guide-new/en/

- **Hazard classifications | Pesticide Registration Toolkit | Food and Agriculture Organization of the United Nations (fao.org).**
  http://www.fao.org/pesticide-registration-toolkit/information-sources/hazard-classifications/en/

- **Global situation of pesticide management in agriculture and public health Report of a 2018 WHO–FAO survey.**
  http://www.fao.org/3/ca7032en/ca7032en.pdf

Chemical Network: The Chemical Network is a non-partisan online forum established by the Division of Environmental Health (DEH) at the University of Cape Town's (UCT) School of Public Health and Family Medicine. It was established as part of a knowledge management and sharing project supported by the Swedish Chemicals Authority (KemI).

This forum has been produced with financial assistance from Sweden, through the Swedish International Development Cooperation Agency (SIDA), which has been arranged by the Swedish Chemicals Agency (KemI). The views herein shall not be taken to reflect the official opinion of SIDA or the Swedish Chemicals Agency.

If you have any question or require clarification on this initiative, please contact UCT at chemicallistserver@gmail.com.
If you are not already a member, to join the Chemical Network at: https://forms.office.com/r/Lk1tgAL6DF