Hazardous Chemical Management Policy

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Glossary of Acronyms

COSHH
The Control of Substances Hazardous to Health Regulations 2002, as amended is a United Kingdom Statutory Instrument that states general requirements on employers to protect employees and other persons from the hazards of substances used at work by risk assessment, control of exposure, health surveillance and incident planning.

GHS
The Globally Harmonized System of Classification and Labelling of Chemicals (GHS) is an internationally agreed-upon system, created by the United Nations beginning in 1992 to harmonize the classification and labelling of chemical substances across the globe.

HPC Score
High Priority Chemical Score is a Gurit internal scoring system created to identify the most hazardous chemical substances and formulations used.

REACH
Registration, Evaluation, Authorization and Restriction of Chemicals (REACH) is a European Union regulation dated 18 December 2006. REACH addresses the production and use of chemical substances, and their potential impacts on both human health and the environment

RoHS
The Restriction of Hazardous Substances Directive 2002/95/EC, (RoHS 1), short for Directive on the restriction of the use of certain hazardous substances in electrical and electronic equipment, was adopted in February 2003 by the European Union.

SVHC
A Substance of Very High Concern (SVHC) is a chemical substance (or part of a group of chemical substances) for which it has been proposed that the use within the European Union be subject to authorization under the REACH Regulation.·

TSCA
The Toxic Substances Control Act (TSCA) is a United States law, passed by the United States Congress in 1976 and administered by the United States Environmental Protection Agency, that regulates the introduction of new or already existing chemicals.

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Introduction

Gurit Materials Business Unit produces many product types varying from formulated laminating systems, adhesives and core materials to pre-pregs. As a result, many different chemicals are used during the manufacture process and which form the basis of our products. As the chemical constituents vary greatly so do the hazards associated with them. As well as performance of our products Gurit understands the need to identify and manage the risks to human health and the environment that form part of the characteristics of the chemicals and products we use and manufacture. The global shift to sustainable practises and products as prescribed by the UN Sustainable Development Goals has supported and accelerated industry to incorporate them into their businesses. Similar aims are identified in ISO 14001:2015 Management System, the UN global compact commitments to environment and Global Reporting Index (GRI) for sustainability.

Many legal requirements have been introduced to international legislation over the years to protect people and the environment from the potential adverse effects of exposure to hazardous chemicals. The advances in analytical techniques and hazard testing mean that the detection of harmful substances is more accurate, and the volume of hazard data generated is greater. These aspects contribute to a growing and ever-changing chemical hazard picture in our world. Additionally, the rise in the number of countries applying for OECD status means that new forms of chemical regulation are developed and applied on an ongoing basis. In addition to the development of new chemical legislation, compliance with schemes such as the Stockholm Convention, Rotterdam Convention and conflict mineral legislation is widely adopted and compliance with these is of great importance.

These requirements have led to developments in governmental chemicals policy ranging from EU Registration, Evaluation and Authorisation of Chemicals Regulation (REACH), US TSCA and China's Decree 591; Regulations on Safe Management of Hazardous Chemicals in China to name a few. The development of such regulations to control the most harmful chemicals coupled with the advent of GHS (Globally Harmonised System) which has or is in the process of being adopted by the majority of UN countries means that there is greater harmonisation of the classification and communication of hazardous chemicals. The combination of increased identification, communication and control has meant that all users of chemicals have better access to chemical hazard information and potential restrictions around chemical usage, ultimately allowing for better management of the risks.

Policy

(a)   High Priority Chemical Score

Whilst Gurit recognises that hazardous chemicals must be used in order to produce quality products we also understand that these must be used with knowledge of the risk they present to human health and the environment. It is expected with the continual growth of available hazard data due to regulations such as REACH that the number of chemicals identified as requiring legislative restrictions will increase. The tracking of such factors within Gurit means that the increase in harmful chemicals can be managed effectively and maintained at a practicable level.

Central to managing the risk of our products is the identification of ''high priority chemicals''. These are identified within Gurit as having one or more of the characteristics below:

- Carcinogens, Mutagens and Reproductive toxic chemicals
- Persistent bio accumulative toxic chemicals
- Very persistent bio accumulative toxic chemicals
- Ozone depleting chemicals
- Endocrine disruptors
- High toxicity chemicals

In order to identify high priority chemicals an in-house score (HPC Score) is assigned to each product purchased each year and to every finished product in the standard and essential product ranges. Many systems for ranking and scoring chemical's human health and environmental impact have been discussed in industry and are used by large manufacturing companies. In identifying a scoring system relevant for Gurit it was important to understand the aspects that affect Gurit's suppliers, manufacturing processes and customers whilst ensuring that a meaningful tool was developed for formulators. The HPC score can be applied to substances, raw materials (substances or mixtures) and finished products and highlights the most hazardous and, by association, most at risk from regulatory restrictions, for each product in the formulation process.

As well as identifying hazards such as those outlined above consideration is also given to the substance's regulatory status within the EU such as classification as an SVHC, authorisations and restrictions that may be placed on the substance. EU REACH has been chosen as the legislation to weight HPC scores due to its regulatory maturity, large industrial influence both outside and within the EU and very often leading the way in hazardous chemicals management in other regions. EU REACH also has a very rigorous process for characterisation of chemical hazards taking into account data and opinion from industry and member states.

The HPC score is based solely on the regulatory status of the chemical and its hazard and does not take into account the commercial sector or product type that the chemical is used in. The score must therefore be considered along with, not independently to these factors. Once scored the chemical is assigned either a red, orange, blue or green status.

- Red – Do not use in new formulations, formulate out as soon as technically feasible. (HPC >19)
- Orange – Undesirable; can be used if no technically feasible alternative available. (HPC = 9-18)
- Blue – Use with caution, some regulatory activity and/or low hazard (HPC = 3-8)
- Green – Unrestricted use of the chemical in formulations. (HPC = 0-2)

Assignment of an HPC score allows Gurit to quantitatively identify, control and monitor the use of the most hazardous chemicals to human health and the environment.

(b) Chemical substitution

ISO 45001:2018 encompasses the concept of risk reduction and in common with good practice the substitution of hazardous chemicals with less hazardous equivalents is desirable. Before considering the substitution of an existing chemical we must ensure that any replacement fits with the manufacturing process and ensure that any changes do not affect any current certifications or qualifications currently held on the product. Consequently, it is not always feasible to substitute chemicals in many existing products and even if it is possible the cost of making such changes may be prohibitive. As a result, substitution or elimination of hazardous chemicals in formulations tends to be focused on new product development activities.

Gurit recognises the ECHA 'sunset dates' as applied to the most harmful substances subject to authorisation (REACH Annex XIV) and will always comply with such dates. In order to drive the substitution process further concerning the most harmful substances, Gurit generates self-imposed 'horizon dates' on products. These dates are imposed after the phase out period of products containing the most harmful substances where they will no longer be available.

(c) Policy Principles

The hazardous chemicals management policy is driven by four principle ideas that we believe help to ensure that the products we produce or use minimise adverse effects to human health and the environment.

1) **Assess and avoid "High Priority Chemicals":** We have adopted a chemicals management approach whereby we aim to either eliminate or minimise exposure when hazards cannot be prevented. To that end, we:
- Identify "high priority chemicals" that we currently use.
- Actively assess the feasibility of using alternative, less hazardous chemicals.
- Focus on the development phase of new products to identify when and where these less hazardous chemicals may be used.
- Develop projects designed to eliminate or substitute "high priority chemicals".
- Replace "high priority chemicals" in our existing products and manufacturing processes, if this is technically and economically feasible.
- Adopt appropriate and responsible risk management approaches where elimination or substitution is not possible.
- Reporting of key performance indicators relating to substitution and reduction in high priority chemicals.

This will be achieved by;
- Each chemical used at Gurit will have an HPC (High Priority Chemical) score assigned to it in order to identify areas of chemical hazard and regulatory concern. It is expected that year on year the number of chemicals classified as red HPC's will rise as regulation develops and evolves. By monitoring the number of HPC's used we can ensure we are controlling the increasing regulatory restrictions being placed on chemicals.
- New project activity will focus on health and safety of products as much as technical performance and is written into each project specification. The legislation of the target sales geographies will also be identified in the specification to allow compliance with local legislation.
- Product development projects created specifically to target existing red high priority chemical containing products.
- Identification early on in the development process of orange grade high priority chemicals allows the relevant stakeholders of the project to inform and act as appropriate to ensure controls are in place.
- Annual report of Gurit HPC chemicals created by regulatory compliance to monitor Gurit's product position within the hazardous chemicals landscape.

Supporting GRI chapters:
- GRI-416-1: Health and safety impacts of products

2) **Hazard Assessment and Communication:** A comprehensive understanding of chemical hazards is critical for decision making and the sound management of risks. We therefore:
- Use assessment approaches that identify the key environmental and workplace health and safety hazards associated with all our chemicals used.
- Obtain environmental and workplace health and safety information on non-proprietary chemicals from our suppliers.
- Provide relevant stakeholders (e.g. employees, contractors, customers, etc) with chemical hazard information to enable them to adopt appropriate risk management approaches.
- Regular review of products and raw materials to identify any opportunity for reformulation to generate a lower hazard product.

This will be achieved by:
- Evaluation of sample chemicals before they are brought into Gurit by way of sample pre-assessment taking into account an assessment of the hazards and control measures required such as those described in EU Chemical Agents directive (CAD 98/24/EG) and Carcinogens and Mutagens Directive (CMD 2004/37/EC) and HPC score.

- No sample will be evaluated technically without the appropriate sample pre-assessment in place.
- The hazards of nano-size materials are considered separately to their larger forms due to their unique properties.
- Availability of hazard assessments throughout working areas.
- Raw material and product safety datasheets available to all Gurit employees globally.
- Automated sending of Safety Datasheets to all customers upon purchase of product and updates sent automatically, where applicable, to all customers receiving the product in the last 12 months.
- Hazard labelling applied appropriate to the country of destination and to include all relevant languages and in a format specific to that region's legislation.
- All finished product safety datasheets are reviewed at least every two years to ensure the most up to date information is communicated.
- Incoming safety datasheet review process to identify changes to raw materials.
- Tracking of all chemicals used by Gurit for changes to their regulatory landscape. Any changes are assessed for impact on finished products and the products HPC score and acted upon accordingly.

Supporting GRI chapters:
- GRI-416-1: Health and safety impacts of products
- GRI-102-43: Approach to stakeholder engagement

3) **Supply Chain Management:** We recognise we have a role to play in encouraging responsible management of hazardous chemicals throughout our supply chain and apply consistent standards to our supply chain partners. This is achieved by**:**
- Requiring that our suppliers comply with all legal and regulatory requirements.
- Establishing global environmental, health and safety requirements for key suppliers and where appropriate conduct pre-contract evaluations of potential suppliers.
- Work with suppliers to eliminate high priority chemicals from raw materials wherever technically feasible.
- Availability of all our Safety Datasheets on request to customers as well as automated sending of updates to customers.

This will be achieved by:
- Working with all suppliers of hazardous products to supply compliant, recently reviewed safety datasheets (preferably no more than 2yrs old).
- Ensuring all chemicals used are compliant with relevant legislation such as REACH, conflict minerals and RoHS 2011/65/EU.
- Moral, ethical sourcing.
- Remote audits of suppliers prior to contract agreement.
- Involve suppliers in reformulation work to reduce the number of HPC's where specific projects have been set to achieve improved health and safety.
- Automated sending of Safety Datasheets to all customers upon purchase of product and updates sent automatically where applicable to all customers receiving the product in the last 12 months.

Supporting GRI chapters:
- GRI-102-43: Approach to stakeholder engagement

4) **Sustainable Chemistry:** We believe that the advancement of "green chemistry" should occur wherever possible. Therefore, we work to identify opportunities to adopt sustainable chemical technologies wherever feasible:

- Improving process design and efficiency to minimise and reduce associated waste or emissions.
- Exploring opportunities for the use of renewable resources.
- Minimising energy-intensive manufacturing processes.
- Exploring and optimising recycling and reuse opportunities.

This will be achieved by:

- Optimisation of manufacturing times to ensure minimal energy consumption.
- Creating projects specifically targeted at reducing energy and waste in manufacturing processes and incorporating recyclables in new products.
- Actively seeking greener sourced chemicals.

Supporting GRI chapters:

- GRI-301-1: Renewable resources
- GRI-302-3: Reclaimed input materials
- GRI-302-4: Reduced energy consumption

This policy will be reviewed every 24 months or as is appropriate.