In today’s textile, leather and footwear manufacturing, many factories are taking an upstream chemical management approach to ensure safety and compliance of chemical formulations and raw chemicals before production. As many chemical formulations are used in production, gaining information clarity and transparency to ensure the safety and compliance of the chemical formulations is key. Testing of original raw chemicals will provide a higher level of assurance in your supply chain, which would reduce the risk of product non-compliance at the finished product stage. This is especially true when information in the Material Safety Data Sheet (MSDS) may be incomplete or vague.

With this in mind, Zero Discharge of Hazardous Chemicals (ZDHC), an industry-led collaboration with the intent to eliminate hazardous chemicals in the supply chain by 2020, developed a Manufacturing Restricted Substance List (MRSL) in 2014. The ZDHC MRSL provides an approach for the industry to manage the use of certain chemicals in textile, synthetic leather and natural leather processing. It is broadly divided into two groups:

- **Group A**: Raw Materials such as textiles, leather and related trims;
- **Group B**: Chemical Formulations such as solvents, cleaners, adhesives, paints, inks, dyes, colorants, auxiliaries, etc.

In year 2017, ZDHC published a ZDHC-MRSL Conformance Guidance which establishes a list of priority chemicals and specifies the threshold concentration limits for substances in chemical formulations used in manufacturing facilities that process materials and trims for textile and footwear products. The guidance includes a MRSL conformance process and gives different conformance levels.

**ENSURING COMPLIANCE OF CHEMICAL FORMULATIONS**

MRSL testing by SGS is a targeted quantitative analysis based fully on the ZDHC MRSL conformance guidance Annex A. Using technology in analytical chemistry to achieve a lower detection limit than required in the market, this solution takes a risk assessment approach. This approach takes into consideration the most relevant parameters of different materials and uses industry experience. This solution provides an absolute figure to the client to help assure a greater level of product safety compliance. With crystal clear data, manufacturers will be able to build a chemical inventory that will be transparent and traceable along the supply chain as well as aiding continuous improvements by phasing out hazardous substances used in factory operations.

**THE MRSL TESTING PACKAGE INCLUDES THE FOLLOWING 16 PARAMETERS**

1. Alkylphenol (AP) & Alkylphenol Ethoxylates (APEOs)
2. Chlorobenzenes & Chlorotoluenes
3. Chlorophenols
4. Dyes – Azo
5. Dyes – Navy Blue Colorant
6. Dyes – Carcinogenic or Equivalent Concerns
7. Dyes – Disperse
8. Flame Retardants
9. Glycols
10. Halogenated Solvents
11. Organotin Compounds
12. Polycyclic Aromatic Hydrocarbons (PAHs)
13. Perfluorinated & Polyfluorinated Chemicals (PFCs)
14. Phthalates
15. Total Heavy Metals
16. Volatile Organic Compounds (VOC)

---

1 Safeguards No. 010/16
2 ZDHC Manufacturing Restricted Substance List (MRSL)
SGS MRSL TESTING SERVICE
TESTING FOR CHEMICAL FORMULATIONS FOR THE TEXTILE, SYNTHETIC LEATHER AND NATURAL LEATHER INDUSTRIES

BUSINESS BENEFITS WITH MRSL TESTING
TEXTILE, FOOTWEAR & LEATHER GOODS MANUFACTURERS:
- Supports the manufacturers in ensuring raw chemicals used in manufacturing are safe and compliant to market requested standards.
- Assists the manufacturers to build a reliable chemical inventory that enables their supply chain to become more traceable and transparent.

CHEMICAL SUPPLIERS:
- Supports chemical suppliers to ensure their chemical formulations sold in the market are compliant to the MRSL requirements as a matter of increasing market demand.

CHEMICAL SCREENING (SGS BRS200-17) PROGRAM FOR CHEMICAL FORMULATION
We also offers an alternative Chemical Screening (SGS BRS200-17) program. This is designed to be practical, applicable and achievable to the industry. Our panel of multi-disciplinary technical experts in the field of textile and leather chemistry researched and assessed the relevancy of the target analytes to ensure the scope of our screening solution covers a comprehensive list of substances:
- Full list of analytes in ZDHC Manufacturing Restricted Substances List (MRSL) Conformance Guidance 2017 and ZDHC-MRSL 2015 version 1.1

To learn more about Chemical Screening (SGS BRS200-17), please contact your local representatives for more information about our service.

ABOUT SGS
Headquartered in Switzerland, SGS is the world's leading inspection, verification, testing and certification company. Founded in 1878, SGS is recognised as the global benchmark in quality and integrity. We operate a network of over 2,000 offices and laboratories around the world with nearly 90,000 employees.

SGS Global Softlines has an extensive network worldwide with a strong team of committed professionals from multi-disciplinary backgrounds. Our internationally accredited state-of-the-art testing laboratories offer a comprehensive range of physical, chemical and functional testing services for components, materials or finished products. We help your company ensure the quality and performance needs and comply with international, industrial and regulatory standards worldwide.

CONTACT US
To learn more about or to enroll to this training course, please contact our representatives for more information

GLOBAL SOFTLINES DEVELOPMENT OFFICE
Email: Global.SL@sgs.com