01.15 FOCUS



VitroScreen has implemented STE assay (OECD TG 491) in compliance to GLP

- In July 2015 the Short Time Exposure (STE) *In Vitro* Test Method has been adopted as OECD TG 491.
- The STE test method has the great advantage of allowing the identification of:
 - Chemicals Inducing Serious Eye Damage (UN GHS Cat.1) and
 - Chemicals Not Requiring Classification for Eye Irritation or Serious Eye Damage **(UN GHS No Category)** without further testing.
- In cases where prediction cannot be made, the chemicals would be subsequently tested with other validated test methods (e.g EpiOcular[™] Eye Irritation Test, HCE).
- The STE assay is relevant for the safety assessment of **chemical substances and mixtures, cosmetic ingredients, pesticides, biocidal products** and **drugs.**



STE fingerprints

Test system: confluent monolayer of SIRC cells

Endpoints measured: cytotoxicity (MTT assay)

Protocol: test chemicals exposed at 5% and 0.05% for 5 min

Applicability domain and limitations:

- Suitable for water-soluble and water-insoluble test chemicals (e.g., long-chain fatty alcohols or ketones) that can be dissolved or uniformly suspended for at least 5 min in physiological saline or 5% dimethyl sulfoxide (DMSO) in saline or mineral oil.
- Not applicable to test chemicals that are not soluble or do not form stable suspension for ≥ 5 min in at least one of the three proposed solvents.
- Not applicable to highly volatile chemicals with vapour pressure > 6 kPa and non-surfactant solids (both substances and mixtures).

