

## **Use of *in vitro* methods according to OECD GD 129 and OECD TG 439 to classify children's articles aligned with the UN GHS principles**

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Schools Articles Safety Brazilian Technical Committee (TC/ABNT CEE 102) has taken up the challenge to update

the national safety standard ABNT NBR 15236:2016 that complies with the regulations and guidelines on

alternatives testing. The current aim was to provide an *in vitro* strategy for risk assessment of school articles with

data integration following OECD GD129 & TG439. *In Vitro* Acute Toxicity and SkinEthic<sup>TM</sup> Reconstructed Human

Epidermis Skin Irritation methods were adapted from medical devices protocols by measuring cytotoxic effects of

extracts prepared according ISO10993. Results obtained on >150 school articles (pens, pencils, crayons,

watercolor, adhesives, correction fluid) were reproducible. 100% concordance with UN GHS classification for

discriminating approval (95%) versus non-approval (5%) was observed. In conclusion, these results are important

to ensure that regulatory authorities in Brazil are provided with the appropriate data required for decision-making.