

Table 1. Adopted OECD Test Guidelines on Short, and Long-Term Toxicity Testing, with 3R Relevance

TG	Title	Original adoption	3R relevance , and most recent update if any
401	Acute Oral Toxicity (deleted)	12 May 1981	Date of Deletion: 20 December 2002 (Replaced by TGs 420, 423 and 425, introducing refinement and reduction)
402	Acute Dermal Toxicity	12 May 1981	24 February 1987: Animal test introducing reduction compared to the original TG (lowering of the dose level)
403	Acute Inhalation Toxicity	Draft updated Test Guideline (Original adoption: 12 May 1981)	Animal test introducing potential reduction in animal usage compared to original 403, if one sex is more susceptible. Refinement by applying humane endpoints.
404	Acute Dermal Irritation /Corrosion	12 May 1981	24 April 2002: Animal test with a sequential testing strategy for acute dermal irritation and corrosion that introduces refinement and reduction, including <i>in vitro</i> screens
405	Acute Eye Irritation/Corrosion	12 May 1981	24 April 2002: Animal test with a sequential testing strategy for acute eye irritation and corrosion that introduces refinement and reduction, including <i>in vitro</i> screens
406	Skin Sensitisation	12 May 1981	17 July 1992: Animal test introducing reduction by 50% compared to original OECD TG
407	Repeated Dose 28-Day Oral Toxicity Study in Rodents	12 May 1981	27 July 1995: Animal test introducing refinement compared to original OECD TG (more information on best dosing practice, more information from the same animal)
408	Repeated Dose 90-Day Oral Toxicity Study in Rodents	12 May 1981	21 September 1998: Animal test (more information from the same animal than in the original test)
409	Repeated Dose 90-Day Oral Toxicity Study in Non-Rodents	12 May 1981	21 September 1998: Animal test (more information from the same animal than in the original test)
412	Repeated Dose Inhalation Toxicity: 28/14-Day Study	Draft updated Test Guideline (Original adoption: 12 May 1981)	Animal test providing more information from the same animal than in the original test method.

413	Subchronic Inhalation Toxicity: 90-Day Study	Draft updated Test Guideline (Original adoption: 12 May 1981)	Animal test providing more information from the same animal than in the original test method.
414	Prenatal Developmental Toxicity Study	12 May 1981	22 January 2001: Animal test (introduces reduction compared to the original OECD TG, requiring 20% fewer animals, more information from the same animals)
420	Acute Oral toxicity – Fixed Dose Procedure (FDP)	17 July 1992	17 December 2001: Animal test (reduction/ and refinement method in comparison with the conventional TG 401), less suffering, smaller number of animals
421	Reproduction/Developmental Toxicity Screening Test	27 July 1995	Animal test (reduction method compared to original TGs), new screening test provides essential information with a minimum number of animals
422	Combined Repeated Dose Toxicity Study with the Reproduction/Developmental Toxicity Screening Test	22 March 1996	Animal test (reduction method compared to the individual TGs), combines the new screening test on reproduction toxicity with TG 407, and further reduces the number of animals to an absolute minimum for these combined endpoints
423	Acute Oral Toxicity – Acute Toxic Class Method (ATC)	22 March 1996	17 December 2001 Animal test (reduction method compared to the conventional TG 401), much smaller number of animals (10% of that required for TG 401)
425	Acute Oral Toxicity: Up-and-Down Procedure	21 September 1998	17 December 2001: Animal test (reduction method compared to the conventional TG 401), smaller number of animals, provides a closer estimate of the LD50 than TGs 420 and 423
428	Skin absorption: <i>In vitro</i> method	13 April 2004	Alternative to the <i>in vivo</i> method (TG 427)
429	Skin Sensitisation: Local Lymph Node Assay	24 April 2002	Animal test (reduction and refinement method compared to TG 406), provides more information and causes less suffering
430	<i>In Vitro</i> Skin Corrosion: Transcutaneous Electrical Resistance Test (TER)	13 April 2004	<i>In vitro</i> test method (<i>ex vivo</i> test) for the corrosion part of TG 404
431	<i>In Vitro</i> Skin Corrosion: Human Skin Model Test	13 April 2004	<i>In vitro</i> test method for the corrosion part of TG 404
432	<i>In Vitro</i> 3T3 NRU phototoxicity test	13 April 2004	<i>in vitro</i> test method (no OECD TG existed for an animal test)

435	<i>In Vitro</i> Skin Corrosivity	19 July 2006	<i>In vitro</i> test method for the corrosion part of TG 404 (for specific applications, only applicable to acids and bases)
436	Acute Inhalation Toxicity: Acute Toxic Class (ATC) Method	7 September 2009	Animal test introducing reduction in animal usage compared to TG 403, and refinement by applying humane endpoints.
437	Bovine Corneal Opacity and Permeability (BCOP) Test Method: an <i>In Vitro</i> Method for Identifying Ocular Corrosives and severe Irritants	7 September 2009	An <i>in vitro</i> screening test for identifying potential ocular corrosives and severe irritants in a tiered-testing strategy, as part of a weight-of-evidence approach.
438	Isolated Chicken Eye (ICE) Test Method: an <i>In Vitro</i> Method for Identifying Ocular Corrosives and Severe Irritants	7 September 2009	An <i>in vitro</i> screening test for identifying potential ocular corrosives and severe irritants in a tiered-testing strategy, as part of a weight-of-evidence approach.
451	Carcinogenicity Studies	Draft updated Test Guideline (Original adoption: 12 May 1981)	Animal test. A Guidance Document is under development addressing issues on reduction and refinement.
452	Chronic Toxicity Studies	Draft updated Test Guideline (Original adoption: 12 May 1981)	Animal test. A Guidance Document is under development addressing issues on reduction and refinement.
453	Combined Chronic toxicity/Carcinogenicity Studies	Draft updated Test Guideline (Original adoption: 12 May 1981)	Animal test. A Guidance Document is under development addressing issues on reduction and refinement.
455	TG for a Stably Transfected Human Estrogen Receptor- α Transcriptional Activation Assay (STTA) for Detection of Estrogenic Agonist-Activity of Chemicals	7 September 2009	<i>In vitro</i> test (could possibly introduce reduction if used in a testing strategy for detection of endocrine disrupting chemicals).

