Endpoint	**Mutagenicity** in vitro micronucleus test
Endpoint description	Mutagenicity - mutagenic effect in mammalian cell lines treated in vitro with TiO_2 nanoforms, using micronucleus test performed according to scientifically valid, recognized protocols, including OECD TG 487.
Nanoform	TiO_2
Data quality control	The QSAR model utilizes extracted literature data subjected to a quality control including the evaluation of: i) relevance of the test material, ii) reliability of genotoxicity studies, and iii) relevance of genotoxicity studies.
Type of model	L-PCA + kNN
Descriptors	The model includes descriptors of nanoform physicochemical characteristics and cell line characteristics.

Dataset

	training set	validation set	total
positive	19	5	57
negative	26	7	

Statistics

	training set	validation set
accuracy	0.822	0.750
precision	0.867	0.750
recall	0.684	0.600
F1 score	0.765	0.667
MCC	0.636	0.478

Inclusion criteria to applicability domain

Chemical composition of nanoform: 'TiO_2'
Shape of nanoform: 'spherical'
Crystal structure: 'anatase' OR 'rutile' OR 'anatase+rutile'
Surface area, value up to: 220.0
Minimum particle size, range: 5.0 - 90.0
Mean particle size, range: 6.2 – 110.0
Maximum particle size, range: 6.2- 262.0

Endpoint	**Mutagenicity** in vitro micronucleus test
Endpoint description	Mutagenicity - mutagenic effect in mammalian cell lines treated in vitro with SiO_2 nanoforms, using micronucleus test performed according to scientifically valid, recognized protocols, including OECD TG 487.
Nanoform	SiO_2
Data quality control	The QSAR model utilizes extracted literature data subjected to a quality control including the evaluation of: i) relevance of the test material, ii) reliability of genotoxicity studies, and iii) relevance of genotoxicity studies.
Type of model	L-PCA + SVM
Descriptors	The model includes descriptors of nanoform physicochemical characteristics and cell line characteristics.

Dataset

	training set	validation set	total
positive	7	3	28
negative	12	6	

Statistics

	training set	validation set
accuracy	0.895	0.778
precision	0.857	0.667
recall	0.857	0.667
F1 score	0.857	0.677
MCC	0.774	0.5

Inclusion criteria to applicability domain

Chemical composition of nanoform: 'SiO_2'
Shape of nanoform: 'spherical'
Surface area, value up to: 183.0
Minimum particle size, range: 5.0 - 224.8
Mean particle size, range: 6.0 – 200.0
Maximum particle size, range: 6.0 – 200.0