



TITLE: Animal Use and Welfare Policy			
TYPE: Corporate Policy			
APPROVER: Policy Committee			
SPONSOR: SVP, HS&E, Global Engr. & Turnarounds			
HISTORY	EFF. DATE	REV. NO.	REV. DATE
	6/23/2021	0	

1. Purpose:

- 1.1 Establish the policy for use of animals and animal welfare in product safety testing by or on behalf of LYB.

2. Definitions:

- 2.1 **Animal testing** – Scientific studies conducted through the use of non-human vertebrate animals
- 2.2 **Replacement** - avoiding the use of animals in testing
- 2.3 **Reduction** - decreasing the number of animals used per experiment
- 2.4 **Refinement** – altering study methods to ensure required studies are conducted humanely
- 2.5 ***In vitro*** – Studies conducted in cell systems
- 2.6 ***In silico*** – Studies conducted through computer modeling
- 2.7 **Animal free testing** – Scientific studies that do not involve the use of vertebrate animals

3. Applicability

- 3.1 This Policy applies to all LyondellBasell employees, officers, directors, contractors, and anyone acting on behalf of the Company involved in conducting animal testing.

4. Summary:

- 4.1 LyondellBasell recognizes the sensitive nature of animal welfare for product testing while maintaining its commitment to completing robust product safety evaluations and satisfying regulatory requirements. We actively evaluate each instance requiring animal testing and assess whether an accepted and validated non-animal alternative method is available. We only conduct animal testing where there is no accepted or validated non-animal method available, and where animal testing is required, we protect animal welfare by following the approach of the “3Rs.”

## 5. Policy Provisions

- 5.1 **Use of Non-Animal Alternatives:** We are actively engaged with, and continue to seek additional opportunities with, research consortia to develop accepted alternative testing strategies; we continue to evaluate and utilize *in vitro* and *in silico* techniques either as definitive tests or as screening assessments during product development. These activities aid us in helping move toward animal-free chemical safety assessments.
- 5.2 **Regulatory Compliance:** We advocate the use of sound scientific principles to minimize the number of animal tests required by regulatory authorities. This includes using existing data to evaluate chemicals, using categories to assess similar families of chemicals, and applying read-across from data on one substance to satisfy the requirements of another substance. We recognize, however, there are situations where animal testing cannot be avoided in order to be compliant with existing regulatory requirements.

### 5.3 Our Testing Process

Animal testing is only performed when there is no accepted or validated non-animal method available. We only utilize toxicology laboratories that have been fully accredited by the Association for Assessment and Accreditation of Laboratory Animal Care (AAALAC) International, a private, non-profit organization that promotes humane animal care and use in science, and we follow the Organization of Economic Co-operation and Development (OECD) principles of Good Laboratory Practice. All studies involving animal testing must be coordinated by the Corporate HSE Toxicology group within Product Safety.

Where animal testing is required, LyondellBasell is committed to following the approach of the “3Rs”<sup>1</sup>:

- **Replacement** or avoiding the use of animals in testing
- **Reduction** of the number of animals used per experiment
- **Refinement** of methods to ensure required studies are conducted humanely.

By following the 3Rs, LyondellBasell commits to improving animal welfare while maintaining high quality chemical safety assessments.

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<sup>1</sup> <https://www.nc3rs.org.uk/the-3rs>