GLP Compliant Laboratories

Laboratory Services

Chilworth Technology

the experts in process safety

FREE Data Review
See Overleaf for Details

ValiData
Safety Data Verification

Safety data is critical in the definition of safe operating conditions for material handling and processing across all industries as it underpins the design and specification of safety systems. The recent EU Directive, ATEX 137, implemented as DSEAR 2002 in the UK, places considerable emphasis on understanding the fire and explosion properties of the materials you are handling or processing. It is essential therefore, that the data you have is the "right" data. This similarly applies to regulatory safety data used for transport, packaging and labelling classification.

WHY VALIDATE EXISTING DATA?

If existing data is available, are you sure that it is valid and correct? Whilst one would expect recent data from a reputable source to be valid, there may be many occasions where the validity of data may be questionable. Such circumstances may include:

- Old data obtained using Standards which have subsequently changed or even been withdrawn. For example, if you have explosion severity data from the Hartmann tube apparatus, this method has been withdrawn for such applications and has been replaced.
- Data obtained using invalid methods (e.g. using an open-cup DSC method for process safety applications when the material is processed under sealed vessel conditions).
- Materials which, by virtue of evolving changes in manufacturing methods, may exhibit markedly different properties compared with the time when the existing data was obtained. Significant differences in safety test results may occur due to changes in particle size, moisture content, particle shape, composition, impurity profile, etc.
- Occasions where the source of the original data is unknown (or otherwise dubious).
- Data which is questionable and untrusted (or simply requires confirmation).
- Data obtained from literature which is to be applied to a specific material manufactured by a specific method. Many past examples indicate that literature data can be appreciably different from experimental data for any substance. Indeed, in most cases, conflicting literature data exists for a single substance.

If the basis of safety for your process or operation relies on material safety data, validation may be an important aspect in gaining confidence and confirming that the design basis is adequate. Erroneous data may cause you to either over design safety provisions resulting in unnecessary costs in equipment and time, or under design the safety system and increasing the risk of fire and/or explosion on plant. The importance of having the correct data is clear.

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HOW TO VALIDATE EXISTING DATA

If concern exists regarding the original test methods employed to collect the data, a review of the evolution of the test method since the date of testing will enable a judgement to be made on the adequacy of existing data. Major test method changes would indicate the need to re-test a material property whilst minor changes would probably permit confirmation that the existing data is adequate for the relevant application.

WHAT CHILWORTH CAN PROVIDE

Chilworth Technology has years of experience in the generation and application of process safety and regulatory test data. Our GLP compliant laboratories are equipped to perform a very wide range of tests to investigate the process safety hazardous properties of dust, gases and vapours.

Our validation procedure involves:

- **FREE** review of the original test report for your first 10 data samples.
- Confirming that the test method is correctly specified to meet the required data application.
- Confirming whether the test standard remains applicable and, if not, do the intervening changes affect the validity of the data?
- Providing written confirmation of the validity of the test data or specifying a test program to obtain valid data.

Although there is no charge made by Chilworth for the data review of your first 10 samples, a fee would be made for the provision of a "validation statement" and to review further sample data. If re-testing is advisable, we will consult with you over the most appropriate test programme based on the volume of work and the safety range tests that match your needs. These test programmes can be very cost-effective as many tests can be started at the previous data value and not "from scratch".

To discuss validation of any of your existing process safety data, please do not hesitate to contact Chilworth Technology at one of our sites detailed below.

Training

Consultancy

Testing to GLP Standard

CONTACT

Chilworth Technology can be contacted at the following sites:-

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