
15 important topics to evaluate before buying

SDS authoring software



CHYMEIA ApS 2019

Important topics to evaluate when buying SDS (safety data sheet) authoring software

Having provided SDS authoring software for more than a decade, we have gained invaluable insight into the concerns arising in the process of buying a new SDS software.

From own experience, from countless product descriptions, tenders and requirement specifications, we have identified the fifteen most important topics to evaluate and consider, when buying new SDS software. Removing all focus from our own software solutions AlphaOmega and ALEMGO®, we have created this generic guide that can be used by anybody searching the market for a new SDS authoring software solution.

Key evaluation criteria for SDS authoring software solutions

1. Price	Comments & score
<p>Price is always an important criterion to evaluate. But there can many pitfalls, if you only pay attention to the price tag.</p> <p>A cheap software might be much more expensive for your company than a more expensive but more efficient alternative. When going for the cheapest, you risk making a very expensive decision, because the main cost is the labour costs used to generate the SDS.</p> <p>The full price of the software is not uncovered until you fully understand the associated costs, i.e.:</p> <ul style="list-style-type: none">(1) the hours used pr. SDS,(2) the updating processes,(3) the extra cost for translations and specific functionalities(4) cost of software updates and/or extensions. <p><i>SDS authoring is a process, and you need to look at the price of the entire process.</i></p> <p>There are typically 2 approaches to price (with many variants and hybrids). The traditional license model, where you pay for the software and pay an annual maintenance fee. This model typically also includes added costs for updates and extra modules. The new approach is the SaaS or SaaS-inspired pricing model, where you pay a flat license fee and get access to updates, maintenance etc. Some solutions also offer vouchers/pay pr. SDS.</p> <p>Consider and score</p> <ul style="list-style-type: none">• Price (license) (first year and following years)• Price for extensions (if module-based prices)• How, when and at what price is the software updated• Time pr. SDS / pr. update / pr. language version	

2. Quality

Price and quality are the primary evaluation criteria that always should be considered together. In this context, we assume that quality is compliance, accuracy and completeness of the SDS documents.

You can create SDS documents of poor quality in every SDS authoring software solution. Low quality input will produce low quality output. However, there is a significant difference between the quality and accuracy of the calculations, documents, functionalities and the degree of help/guidance provided by the software.

Output quality and the accuracy of CLP classification calculations should be verified before acquiring a new software solution. It is best tested through references and through software tests of products that have complex compositions.

Consider and score

- Document quality (see above)
- Quality and performance of the CLP calculator
- Flexibility – to which degree can I decide the contents of the document?
- Functionalities that are important to your sector?
- Version management
- If there is a database with substance classifications in the software; how are these selected, validated and updated?
Classification data is core data, it is thus crucial to verify the classification process

Comments & score

3. Guidance, help and hotline

The complexity of chemicals legislation is extremely high, thus working within this field typically triggers a lot of questions about scope, exemptions and interpretations.

Some systems offer useful built-in-guidance, but none can cover all aspects of the legislation, so you will probably need to ask for help and advice at some point.

You will typically need training and qualified guidance to ensure optimal use of the software.

Comments & score

<p>You should always select a software in combination with an available hotline - and then you need to consider the price of the hotline, the qualifications of the people manning the hotline and the extent of the hotline. Does it come with limitations or exemptions?</p> <p>SDS authoring is your responsibility and you wouldn't want a software without help available. References will help you to evaluate the quality of the hotline.</p> <p>Consider and score</p> <ul style="list-style-type: none"> • Price of the hotline • Qualifications of the staff • Extent of the hotline - how much can/will they help you with? 	
<p>4. Manual flexibility</p> <p>Some of the first SDS authoring software solutions had very high manual flexibility, because you created all the phrases and contents for the document yourself.</p> <p>Today, most software comes with standard phrases that are inserted either manually or automatically based on core data.</p> <p><i>Automation is good, yet flexibility is needed in those cases where you need special input due the nature of the product or your sector.</i></p> <p>For many, the ideal solution would be automated "smart-rule authoring" with the possibility to add both manual phrases and create your own smart rules.</p> <p>Note the difference between a manual phrase and a manual rule.</p> <ul style="list-style-type: none"> ➤ A manual phrase must be manually attached/attributed to the specific product. ➤ A manual rule is a rule that <i>you</i> define, which the software will use to trigger <i>your manual</i> phrase every time the conditions of the rule are satisfied. <p>Consider and score</p> <ul style="list-style-type: none"> • Can I add manually phrases? • Does the software have smart rules? • Can I add my own smart rules? 	<p>Comments & score</p>

5. Level of Automation

The degree of automation defines the convenience of the software. High automation means less work. Automation is, however, many things; easy look-up, calculation, control functions.

However, automation typically refers to the way phrases are selected by the software based on rules or other criteria. A highly automated software will choose all or most phrases based on basic input data. The opposite of high automation is where each phrase must be selected and/or authored by the user.

The views on automation are many - some favour it others dislike it. The discussion, however, is focusing on the wrong question. What is the quality of the automation?

Automation is meant not only to increase ease of work but also to increase quality. If the software manages to do that, then it is automation to the benefit of the user (while automation working by skipping important steps in the process will work to the disadvantage of the user).

You might think of it as man versus machine, but man cooperating with machine is more accurate.

Automation will inevitably standardize areas of the contents in the document. This is not necessarily bad. Standardization can mean more precise, uniform and understandable contents in comparison with phrases manually constructed. Again, it is the result that matters.

Consider and score

- Level of automatization
- Quality of the safety data sheet (see *Point 2. Quality*)
- Flexibility in adding phrases, creating own rules and editing in the phrases

Comments & score

6. User-friendliness

User-friendliness is directly correlated to price and quality. When companies change software, user-friendliness is often mentioned as one of the reasons for changing.

You want a software that assists and reduces your work load not an extra task of decoding functionalities.

Comments & score

Pretesting of a software is the best way to get a feeling of the user-friendliness. Illogical work flows, many unnecessary clicks, complicated processes in the software will haunt you and new users later.

Upon starting up in a new software, you will create a lot of new SDS's. Thus, the procedure for creating new SDS documents is the focal point, when looking for a new software. However, remember to test the SDS and data update procedure – many evaluations skip this important step.

After some time, the majority of the work in the software is updating and adjusting SDS's, thus the updating process is a major concern, if the software has an unmanageable approach to this.

Consider and score

- User-friendliness / UX / Ease of use / Convenience
- Test how you amend/update SDS documents
- Level of automatization

7. Languages

This might seem like an easy assessment. But be sure to verify the quality of the translations.

Also, don't focus on the languages and markets, you need documents for at the time of acquiring the software. Your markets and requirements will change. Verify that other languages are available, because you might be needing them for your future operations.

The most important thing to ask, is if the included countries take local legislation into account and to which degree.

National occupational exposure limits are the first level of country specific information in terms of special legislation. Going a level deeper, you also want to make certain that national cancer lists, German "Wassergefährdungsklasse" (WGK) or Danish "Kodenumre" or French emission codes are implemented.

Ask the company how and how often they retrieve and update national regulatory data. You want to be certain that defined procedures exist for updating and implementing national data exist.

Comments & score

<p>Consider and score</p> <ul style="list-style-type: none"> • Quality of translation. • Languages included/available. • The degree to which national legislation is implemented. • What it requires to add new languages/countries to the solution? 	
<p>8. Future-proof (is new legislation implemented/included?)</p> <p>An SDS authoring software should be in constant development. New information, new legislation and new functionalities should be added continuously. A software that is not updated with new information will soon lose its value and become obsolete in many regulatory areas.</p> <p><i>Remember that chemical management and SDS authoring is not something that is just done every third or fifth year. It's a continuous process that is constantly affected by new knowledge, new data and new legislation.</i></p> <p>Look at the history, check the terms and ask about the procedures. Ask how often they implement new updates. This will give you an impression of what to expect. Also check how updates are implemented and make sure that this is an efficient and transparent process.</p> <p>Ask for a specific new topic you know is soon to be implemented. To ask for some up-to-date topics, see section 9 below. Also ask specifically to the source of the substance classification data available in the software. Substance classification data is one of the key determinant for the hazard of the product.</p> <p>Consider and score</p> <ul style="list-style-type: none"> • What is updated, when it is updated, and at what resources? • When the software is updated is it then possible to assess how the update affects your SDS's? 	<p>Comments & score</p>

9. Handling of Exposure Scenarios (ES) / SUMIs

Management of Exposure Scenarios (ES) / SUMIs is an excellent example of a topic mentioned in section 8 - management of new legislation.

Implementing ES and SUMIs has been an issue for several years and will continue to be in the coming years. There are different methods and approaches, as the market has not yet settled on a unified approach.

You want a software that is agile, and a software company that already has implemented (or are ready to implement) methods for handling ES and SUMIs: You also want to make sure that the software will adjust to any new standard practices that might be implemented.

Consider and score

- Approach to ES now and in the future
- Approach to Sumi now and in the future

Comments & score

10. Integration

The companies that provide SDS authoring software solutions are often very specialized, and the SDS authoring software is thus often an isolated software solution. Therefore, it is important to consider the possibilities for integration.

The SDS software provider will typically be able to integrate with other systems in your company. Typically, it is just a matter of moving data. But make that it is possible and not too expensive to do what you have in mind. There may be obstacles or high costs associated with the integration.

Try to keep it simple and efficient.

Integration issues are sometimes overcomplicated. It is important to stay focused on the “must have integration” and just make it part of the agreement.

Consider and score

- Which systems will need to be integrated?
- How and at what price is this integration possible?

Comments & score

11. Migration Data structure

Most people converting from one software to another will want to know about the possibilities of migration of data from their old software to the new.

The answer is “yes” if the new software company is willing to make the necessary code to systematically arrange the old data, so it can be imported in to the new software.

Data migration has the risk of turning into a dangerous detour. Always remember to have the higher purpose and long perspective in mind.

Time and money spent on entering and migrating data only have real value if the imported data is robust and of good quality. Otherwise you will just be moving errors and deficient data to a new software and the time saved by migrating data is quickly spent on correcting it.

Thus, judgement is clouded by the time spent on entering the old data in the old software since time spent on data is not necessarily proportional to the quality of the same data. Especially not if new and better data are made available in the new solution.

There are, however, some low-hanging fruits in relation to data migration. This is typically basic substance data like CAS-numbers and product compositions. Before considering a full migration, you should carefully consider the pros and cons. Remember that switching software is also an opportunity to clean up your database.

Migration is also important, if you think ahead to the next software change. Make sure to choose a database with well-structured data and make sure that you own and can extract your data (typical in CSV format with you) if you terminate the license.

Consider and score

- Which types of data can be migrated?
- What data makes sense to migrate?
- Is new and better data available in the new solution?
- Is it more efficient to input new data than to import and verify old data?
- Does the old database need a clean-up?
- Do I have access to my data?

Comments & score

12. License commitment

License commitment is the degree to which you commit to a software. At one end of the scale is unit pricing in an all web SaaS solution. At the other end of the scale is solutions, where you buy the software at a very high start-up cost or commit yourself to a very long termination period.

You might ask why this is important, when you have evaluated all elements of the price. However, it is important not only to consider the price at your current needs, but also to think about the possibilities when things change.

What are the terms for termination? Can you switch to another license model if your needs change? Can you switch from a software license to consultancy help and back again or even switch to unit pricing - and at what costs and implications?

Especially with a very high start-up price, you risk finding yourself locked to a structure that does not allow for needed changes.

Changes may happen in your company and new software solutions will emerge, this must be taken in to account.

Consider and score

- License flexibility
- Possibilities for unit pricing

Comments & score

13. Legal & terms

Most SDS authoring software solutions are just tools that makes your work easier. The final responsibility will be on the user. Hoping for a system to take that responsibility of your shoulders will be a long journey. But there can be differences in the terms.

Read the terms – that is the only advice here.

Reading the terms will in some cases point you to the limitations of the software - and it will give you a clearer understanding of the product.

Consider and score

- Legal terms
- Does the supplier have an insurance?

Comments & score

14. IT platform

Complex software solutions can (over time) end up being very complex in the IT design. When that happens, there is a risk that updates are difficult to implement and that only *must have* functionalities are updated.

Typically, you will see three types of software:

1. The “client server software” that it is installed locally.
2. The SaaS or 100% web software, where everything can be managed through a web browser meaning no installation is needed. You just need a password and internet access.
3. Hybrids software, typically with a backend, and a web-based frontend (user interface).

So how do you check whether the IT structure is modern and flexible or an old Klondike design where problems are bound to arise? Unfortunately, this is not easy.

You might be able to get help from your IT department, asking a few questions. Or even ask for a “road map” to see the company plans. You might also ask if the software company have inhouse programmers or if they use external programmers? But the answer will probably not help you that much.

References are your best way of getting information. After all, an old IT set-up might work just fine, and a new set-up is no guarantee for a smooth system. Ask questions like: “*How (and how fast) have new regulatory requirements been implemented in the system?*” and “*Is you IT department satisfied with the software*”. Questions like that can help you asses this very important part.

Consider and score

- IT platform
- Consider along with section 10, if this is relevant

Comments & score

15. References and credentials

Taking references is always highly recommendable. It is interesting to compare the sales pitches with actual experiences from the users. In this guide, much of the information that we recommended to collect is best obtained through dialog with relevant references.

Consider and score

- Reference feedback
- Market image

Having collected all your information, you have the baseline needed to compare and evaluate the different SDS authoring software solutions. Some may already have been discarded through the process. Either because they fail to impress, were obviously not competitive or because they failed to meet deal-breaking criteria.

In the model presented, we have provided an example to illustrate the comparison of two fictional SDS authoring software solutions *Red* and *Green*.

The example is neutral, but you will always have some criteria's that you value higher than others, and the model should be adjusted to this.

Often, some criteria are must haves, and you would have to add such deal breaking areas to the model.

Scoring model (fictive examples)

Price	Low	11	4	High
Quality	High	12	5	Low
Guidance	High	12	5	Low
Flexibility	High	11	9	Low
Automation	High	10	4	Low
Use and UX	High	12	7	Low
Languages	Many	8	6	Deal breaker area Few
Future proof	Yes	10	5	No
ES & SUMI	Yes	6	5	No
Integration	High	5	4	Low
Migration	High	8	2	Low
License	Good	4	3	Bad
Legal	Good	6	5	Bad
IT/Online	New	11	1	Old
Reputation	Good	10	4	Bad

Total score Red =

Total score Green =