

BAuA-Workshop

„Quality of Safety data sheets –

Data processing-supported compiling assistance“¹

under INQA

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Dortmund

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¹ see also <http://inqa.de/Inqa/Navigation/root.did=61314.html>

1. Brief description of the presented software

Presented safety data sheet-compiling software-products
(ordered by name of the software):

Firma	Software
ChemWatch	AuthorITe (amendment December 2005)
Infor Global Solutions Prozessindustrie GmbH (ehemals IncoDev)	Blending Envicon
DR Software GmbH	ChemGes
CSB-System AG	CSB-System
ChemicalServ Software & Consulting	CS Studio
PES-Ingenieurgesellschaft mbH	EPOS-Gefahrstoff-Manager
Chemie & Vorschrift	Lycos Athena 4
Atrion International BV	Material Compliance Solution (MCS)
SAP AG	SAP EH&S

comment:

The data and modules given under „General Information“ are not automatically part of the software, but partly optional available.

This concerns the number of substances and phrases in the provided databases, the possible languages and single modules like label-printing, etc.!

1.1 Chemwatch – AuthorITe (amendment December 2005)

AuthorITe Authoring Software is arguably unique. Chemwatch chemists write between 3000 and 4000 MSDS monthly and developed the tool over many years to cover internal requirements. In the course of 18 years the tool was designed to produce MSDS for most types of substance/ preparation/ article – not only can an MSDS for a common paint be developed but, in addition, MSDS for radioactive articles or pathogens, as just two examples, can also be produced. Underlying this flexibility is a set of rules set numbering more than 70,000, most handcrafted and reviewed by authors using them on a daily basis. The experience of more than 100 chemists and safety professionals has been distilled, over 18 years, to produce the current product.

AuthorITe includes the entire health and safety profile of over 50,000 substances, each individually researched and annotated by our own team. In addition AuthorITe is supported by an underlying database of Regulation from more than 50 countries. More than 4 million substances and 500,000 CAS Numbers are available from more than 1000 Regulatory and Properties Lists. This database, known collectively as Galleria Chemica, is produced and maintained entirely by Chemwatch professional staff and is updated weekly on the Web. AuthorITe can link directly to the Web version of the Galleria Chemica for real time updates of Regulation around the world.

Exporters using authoring packages require not only a multi-language facility but a multi – format and –classification ability. Japan, India, Indonesia, Malaysia, Australia and New Zealand, for example, differ in their requirements for producing MSDS. The USA, similarly, has its own standards. Each requirement or standard is available in AuthorITe. AuthorITe already produces GHS formatted documents according to the GHS criteria. New Zealand adopted a form of GHS document several years ago whilst it is expected that Japan will do so soon. GHS criteria for classification is just one example of differing criteria currently required by various countries. AuthorITe maintains a complete set of Rules addressing the classification requirements of countries outside the EU. The content of a single MSDS, written for one country, is automatically converted to reflect the requirements of another country – language, format and classification may all differ.

AuthorITe produces MSDS and Labels in more than 30 languages; in addition Work Instructions, for example Betriebsanweisung, mini-MSDS and many other workplace documents are produced simultaneously.

Every MSDS produced by AuthorITe may bear the Chemwatch Emergency Number ensuring 24/7 contact with our Emergency Response team. The team boasts more than 50 languages and trained chemists are available to handle queries from around the world related to spill, fire or exposure.



Offices in 17 countries. Please visit www.chemwatch.net to find your nearest location:

email: chemwatch@chemwatch.net

1.2 Blending Envicon – Infor Global Solutions Prozessindustrie GmbH

Envicon is a comprehensive dangerous substance management system, which enables a certain and safe and secure dangerous substance management according to international regulations. It may be used as a stand-alone or as an integrated module of the ERP software Infor Blending. Envicon reduces the administration expenses, which the dangerous substance and goods regulations entail, to a minimum.

The central element of Envicon is its extensive dangerous substance data base with about 4000 substance data records. It is continuously updated.

Based on this information, Envicon carries out a formula analysis and determines the correct labelling pursuant to the General Preparations' Guideline 1999/45/EG, the transport classification according to RID/ADR, IMDG, ICAO/IATA as well as further additional national classifications.

Via a text phrases catalogue, safety data sheets and labels can currently be generated in 16 different languages. This catalogue may be expanded variably.

Optionally, the edition of the safety data sheets can be made via a printer, as a file (DOC, PDF, HTML, RTF) or a safety data sheet archive.

Additional modules are available for printing of tremcards in 26 languages, a dangerous substances register, interfaces for the import and export of data, a delivery history, a list of substance usages, a component replacement and a module for processing of simple chemical reactions. Envicon is available in different user languages and is used throughout Europe.

General information

- Update of all regulations concerning safety data sheets every 3 - 6 months
- Dangerous substance data base with 50 - 100 % of all substances of the Annex I of 67/548/EEC in all EC-languages (with the exception of Greek)
- About 1.030 text phrases (no BDI-standard phrases) in 16 languages available
- Edition of the safety data sheet as .pdf-, .doc-, .rtf- and .html-file
- Printing of labels is possible
- EDAS-interface is provided
- Available as network and single place version

Operating system/System requirements

- Windows XP / 2000
- Office XP / 2000 (Word and Access)
- SQL-Server 2000 or Oracle
- Central memory RAM: 512 MB
- Fixed Hard disc: 40 GB

Contact



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1.3 ChemGes - DR-Software

ChemGes has been available on the market since 1989, and is successfully used within the USA and most European Countries by the chemical industry, trade, in laboratories as well as by governmental organizations. The program covers the requirements of small, as well as large companies.

The multilingual surface (German, English, French and Italian) of the Basic program enables the international use of the software.

Maintenance contracts guarantee program- and data updates, as well as unlimited hotline support.

We provide our customers with offices in Canada and Europe, thus ensuring close contact and direct support whenever necessary.

General information:

- Substance database: Approximately 13,200 different substances with their classification and labelling according to Substance Directive 67/548/EEC, transport data according to ADR, IMDG and IATA, physical, chemical, toxicological and country-specific data (MAK, TLV, Swiss Giftklasse, etc.)
- Preparation database: Creation of preparations and kits, Splitting of formulations according to various criteria, Search for substances in formulations and problem-free import of formulations from a mainframe computer
- Classification programs: Calculation of the classification / labelling according to Preparation Directive 1999/45/EC, of transport regulations ADR, IMDG and IATA, and national regulations, like VbF, WGK /ABM, MAL-Code and VOC-content within seconds
- Material Safety Data Sheets: Almost fully automatic generation in all EU-languages, as well as various Eastern European and Asian languages, Administration of version numbers and customers, Output in various formats, Distribution of all MSDSs to customers by means of the add-in program MSDS+.
- TremCards (Transport Emergency Cards): Fully automatic generation according to Road Transport regulation ADR in all languages of the ADR-member states
- Internal Plant Instructions: Multilingual, fully automatic generation with all necessary information symbols
- Labels: Free definable, individual label formats, Print of hazard and transport symbols, Integration of company logo, barcodes etc.

Operating systems / System requirements:

ChemGes is applicable under Windows 95 / 98 / ME / NT / 2000/ XP and higher, as well as under Citrix. We recommended to use a Pentium computer corresponding to the present standard.

ChemGes is fully network capable and allows data transfer between most system platforms.

Contact



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1.4 CSB-System - CSB-System AG

To meet the legal requirements in the United States, the European Union and Asia, CSB-System offers normed standard forms to provide detailed standardized information concerning hazardous materials and dangerous goods. These forms include material safety data sheets (MSDS), IATA documents, IMO papers and accident notices.

CSB-System contains a fully integrated and highly flexible hazardous materials and dangerous goods management to comply with regulations. The integration of the Hazardous Materials Management application into the industry-specific ERP software results in unprecedented benefits throughout the handling of all process involved in manufacturing, storage and distribution of dangerous goods.

An efficient Hazardous Goods Handling encompasses the administration of all relevant information for substances and items. Based on this information, all necessary forms can be created, stored and printed. In addition, bills of material created with the CSB-System can be classified in accordance with EC directive 1999/45.

The implementation of the hazardous materials solution has come about in close collaboration with the experts of QualiSys. This collaboration has resulted in the fact that all local and international regulations and laws are adhered to and that individual customer objectives can be met.

General Information:

- Relevant statutory provisions for MSDS update within 1-3 months
- Hazardous materials database with all substances of Appendix I of EC directive 67/548 in all languages of the European Union
- ca. 3.000 text phrases / templates (no BDI standard lines) available in multiple languages
- Output of MSDS in .pdf, .doc, .html, and other formats
- Label print
- EDAS-interface
- LAN and single-station editions available

System Requirements

- Server OS: Windows 2003, Linux (SuSE, RedHat), Novell NetWare
- Client OS: Windows, Citrix ICA Client, Web Browser (Internet Explorer), X-Window System, Linux (SuSE, RedHat)

Contact



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1.5 CS Studio - ChemicalServ Software & Consulting

CS-Studio is a powerful e-business software solution for hazardous chemical information and material management. The system can be arranged from different software components, so it is a cohesive solution suitable for your facility and company's specific data requirements.

CS-Studio enables you to create material safety data sheets (MSDS), transport emergency cards (tremcards), IMO and IATA transport documents, internal plant instructions, chemical reports, labels etc. within seconds.

The range of your basic data existence (raw materials, dangerous materials, phrases) can be determined.

General information

- Update of all regulations concerning safety data sheets every 1 - 3 months
- dangerous material data base with all registered materials of the appendix I of the 67/548/EEC in all European Union languages available.
- all BDI standard records in 11 languages available
- providing of safety data sheets in pdf -, doc -, html and other formats.
- label printing possible.
- available as network and single place version.

Operating system/System requirements

- Windows XP / 2000
 - SQL-Server 2000 or Oracle
 - Central memory RAM: 128 MB & 1024*768 dissolution.
 - Fixed Hard disc: 10 GB
- Online V: Platform independently

contact



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1.6 **epos Hazardous Substances Manager - PES-Ingenieurgesellschaft mbH**

epos hazardous substances manager main focus is the straightforward production and management of safety data sheets.

Further expansion modules are a laboratory database, labels, transport emergency cards and a shipment module for safety data sheets.

The **epos** hazardous substances manager supports the procedure and flow of information from the laboratory, product safety and production to sales and ultimately to the customer.

The system is able to manage clients. For each client own report layouts can be used.

Electronic data exchange – e. g. the EDAS[®] interface – makes paperless data distribution from supplier to user easy.

A remarkable feature of the **epos** software is the multi-lingual system for production and output of safety data sheets, transport emergency cards and hazardous substances labels.

The software has a modular structure. We also have assembled ready-made software packages for typical applications. You may select low cost packages for smallr companies or full functionality for high requirements or even tailor the system to your individual requirements.

If your requirements on the software should increase, you need a further output language or want to switch from a single workstation licence to network use, there is no problem. You can upgrade at any time.

The user interface is available in German, English and Czech. More languages are being prepared.

General information

- Update of safety data sheet relevant lists and directives all 1 – 3 months
- Hazardous substances database with all substances from annex I of 67/548/EEC in all EC languages available. More substances are optionally available
- about 5.300 text phrases (incl. all BDI phrases version 7) in 24 languages available
- Includes an automatic hazardous substance classification system
- Output of safety data sheets in .pdf-, .html- and other formats
- Label printing possible
- Transport emergency cards available
- EDAS[®] interface (for im- and export) available
- Network and single workstation licences available

Operating system/system requirements

Network version : – Server: Windows NT 4.0 SP 6a, 600 MHz, 64 MB RAM, 200 MB plus database (150 MB – 2 GB) hard disk space

– Client: Windows 2000, 128 MB RAM, 266 MHz, 130 MB hard disk space

Single workstation: – Windows 2000, 128 MB RAM, 600 MHz, 300 MB hard disk space

Contact



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1.7 Lycos Athena 4 - Chemie & Vorschrift

Lycos Athena 4 is a Windows based software for producing MSDS.

The Software is coming up with the following features:

- Elaboration of MSDS for pure substances and compositions
- Classification of formulae
- Creation and printing of Dangerous Goods and Dangerous Substances labels
- Creation of Tremcards (multilingual)
- Creation of Consignment papers, IATA, IMDG documents etc.

General Information

- Updating of the MSDS relevant regulations every 3 - 6 months
- Annex I Database with all substances 67/548/EEC available
- EU-OEL included
- More than 1500 text phrases in 17 languages available
- Printing of MSDS in .pdf-Format
- Label design and printing possible
- Stand-alone and network version available

OS / system Requirements

Network version : e. g. Windows XP

Stand-alone version : 32 MB RAM, 200 MHz, 1 GB Harddisk space

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1.8 Material Compliance Solution - Atrion International BV

The Material Compliance Solution consists of 5 components:

- Content Solutions (substance data and classification-algorithms)
- Intelligent Authoring (automatic compilation of (Material-) Safety data sheets)
- Transport Assistant (automatic Transport-classification)
- Label Print Interface
- Document Manager

(Material-)Safety data sheets are automatically generated by Atrion's (M)SDS Authoring Solution.

All regulations from 37 countries are available.

General information

- Update of safety data sheet-relevant regulations every 3 - 6 month
- Hazardous substance database with all substances in appendix I of 67/548/EEC, available in all EU languages
- circa 6.000 text-phrases (no BDI-standard phrases) in 40 languages available
- SDS-export in .pdf-, .doc-, .html- and other formats
- label printing possible
- EDAS-interface available
- network version and stand alone version available

Operating system/system requirements

On request

contact



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1.9 SAP EH&S - SAP AG

SAP EH&S provides a solution for environmental, health and safety issues that enables companies to expand business processes, comply with legal requirements, monitor risks and integrate health and safety functions such as management of hazardous substances and hazardous goods, occupational safety, occupational health care and waste management. The SAP EH&S hazardous substances management solution is geared to companies that require integration in SAP business processes (e.g. purchasing, shipping, materials management and maintenance), particularly for a global, multilingual user group.

The hazardous substances management module in SAP EH&S enables you to comply with the following regulations, which are legally binding in many countries.

- Checking for alternative substances before a hazardous substance is purchased
- Blocking the purchase of hazardous substances
- Packaging and identification of hazardous substances in accordance with regulations
- Safe storage of hazardous substances
- Management of up-to-date in-house material safety data sheets and those of suppliers of hazardous substances (supplier data sheets)
- Documentation and tracking of all changes in hazardous substance management
- Identification of all hazardous substances contained in materials and creation of a hazardous substance register
- Identification and evaluation of risks to protect your staff
- Monitoring of hazardous substance concentrations at the workplace
- Formulation, implementation and monitoring of safety measures
- Creation of standard company directives for work areas and substances
- Health and safety briefings for all staff relating to handling of hazardous substances

General information

- Updating of safety data sheet-related legal regulations every 1 – 3 months
- Hazardous substance database with all substances in appendix I of 67/548/EEC, available in all EU languages
- 5,500 text phrases (incl. 50 – 100 % of BDI standard phrases) available in 26 languages
- Output of safety data sheet in .pdf, .doc, .rtf, .html and other formats
- Label printing possible
- EDAS interface available
- Only available as network version

Operating system/system requirements

Server and 1 PC and Client PCs

Client PC: DB, SAP R/3, Microsoft Word, Microsoft Access

Contact



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2. Summary of the submitted software-questionnaires

The table is to be read column by column for each software.

The footnotes refer to one column and begin in each column with "1)".

All information was provided by the supplier!

<u>Software</u>	<u>Supplier</u>
AuthorITe (amendment December 2005)	ChemWatch
Blending Envicon	Infor Global Solutions Prozessindustrie GmbH (ehemals IncoDev)
ChemGes	DR Software GmbH
CSB-System	CSB-System AG
CS Studio	ChemicalServ Software & Consulting
EPOS-Gefahrstoff-Manager	PES-Ingenieurgesellschaft mbH
Lycos Athena 4	Chemie & Vorschrift
Material Compliance Solution (MCS)	Atrion International BV
SAP EH&S	SAP AG

		AuthorTe	Blending Environ	Chem Ges	CSB- System	CS Studio	EPOS	Lycos Athena 4	MCS	SAP EH&S
1.	Base information on substances									
1.1	How many substances from Annex I Dir. 67/548/EWG are included in the database by default?	all	50-00 % 1)	all	all	all 1)	all	all	all	all
1.2	Is information offered for substances, which are not in Annex I Dir. 67/548/EWG?	yes	yes	yes	yes 1)	yes	yes	yes	yes	yes
1.3	Can other substances be added?	yes	yes	yes	yes	yes	yes	yes	yes	yes
1.4	Are the data fields CAS and EINECS/ELINCS proved with an algorithm to avoid wrong entries?	yes	yes	no	yes	yes	yes	no	yes	yes
1.5	Are the substances according to 1.1 available in all EU-languages?	yes	yes 2)	yes	yes	yes 2)	yes	no	yes	yes
1.6	Are substances included which are not in Annex I Dir. 67/548/EWG?	yes	yes 3)	yes	yes 1)	no	yes 1)	yes 1)	yes 1)	yes 1)
1.7	Are occupational exposure limit values (OELs) according to the TRGS 900 included? Are they going to be updated?	all yes	all yes	all yes	all	none	all yes	all yes	all yes	all yes
1.8	Are BAT-values according to the TRGS 903 included? Are they going to be updated?	all yes	all yes	all no	all yes	all yes	all yes	no	no	all yes
1.9	Are national occupational exposure limit values from other EU memberstates in their languages included?	all	no 4)	all	all	none	50 - 100 %	all	all	all
1.10	Are all EU-occupational exposure limit values included?	all	all	all	all	none	all	all	all	all
1.11	Which information is given for the substances included in Annex I Dir. 67/548/EWG? yes / no / extra = extra charge / user = users` task									
	CAS-No.	Yes	yes	yes	yes	yes	yes	yes	yes	extra
	EINECS-No.	Yes	yes	yes	yes	yes	yes	yes	yes	extra
	ELINCS-No.	Yes	yes	yes	yes	yes	yes	yes	yes	extra
	UN-No.	Yes	yes	yes	yes	yes	user	yes	yes	extra
	Classification	Yes	yes	yes	yes	extra	yes	yes	yes	extra
	Concentration limits for classification	Yes	yes	yes	yes	yes	yes	yes	yes	extra
	Flash point	Yes	yes	yes	yes	yes	extra	user	yes	no
	Explosion limits	Yes	user	yes	yes	yes	extra	user	yes	no
	Vapour pressure	Yes	user	yes	yes	yes	extra	user	yes	no

		AuthoriTe	Blending Environ	Chem Ges	CSB- System	CS Studio	EPOS	Lycos Athena 4	MCS	SAP EH&S
	Viscosity	Yes	user	yes	yes	yes	extra	user	yes	no
	LC/LD-values	Yes	user	yes	yes	yes	no	yes	yes	no
	Decree about emergencies	Yes	yes	yes	yes	yes	no	user	yes	extra
	Water hazard classification (WGK) according to the General Administrative Regulation on the Classification of Substances Hazardous to Waters into Hazard Classes (VwVWS)	Yes	yes	yes	yes	yes	user	user	yes	extra
	Technical Instructions on Air Quality Control (TA-Luft)	Yes	yes	yes	yes	yes	user	user	yes	extra
	VOC (EU)	Yes	user	yes	yes	yes	no	no	yes	extra
	VOC (Switzerland)	Yes	user	yes	yes		no	no	yes	extra
	VOC (US)	Yes	user	yes						
	Transport (land, sea, air)	Yes	yes	yes						
	TRGS 905, TRGS 907	Yes	user				yes			
	Swiss hazard class	Yes	user							
	Index-No.	Yes	yes	yes						
1.12	Are queries for identification of substances via CAS-No. or other criteria available? If yes, how many at least?	23	yes 9	yes 3	yes 2)	yes 3) 3	yes 4	yes 4	yes all	yes all
2.	Contents									
2.1	Are all 16 chapters available according to Dir. 91/155/EG?	All	all	all	all	all	all	all	all	all
2.2	In which concentration-limits are hazardous ingredients mentioned in chapter 2 in case of preparations with hazardous ingredients?	Exact or ranges	5 % 5)	exact	exact	exact	5 % 2)	exact	2)	exact 2)
2.3	Are the single substances` concentration in preparations considered according to the formular in Annex II Dir. 1999/45/EG to determine the classification of preparations?	Yes	yes	yes	yes	yes	yes	yes	yes	yes
2.4	Are the special concentration limits according to Annex II Dir. 1999/45/EG considered in case of gaseous preparations?	Yes	no	no	no	no	yes	yes	yes	yes
2.5	Are data fields (not text phrases) for personal protective equipment (PPE) provided?	Yes	yes 6)	yes 1)	yes	yes	yes	no	yes	yes
2.6	How many R- and S-phrases are maximal determined for a preparation?	1)	7)	1)						

		AuthorITe	Blending Environ	Chem Ges	CSB- System	CS Studio	EPOS	Lycos Athena 4	MCS	SAP EH&S
	R-phrases	All	6	20	3)	10	17	all	3)	all
	S-phrases	All	6	20		10	17	2)	4)	all
2.7	Can PPE be chosen from a list of established types including filter types?	Yes	yes 6)	yes	yes	no	no	yes	yes	yes
2.8	Are data fields (not text phrases) for material thickness and break through time for glove materials available?	Yes 2)	yes 6)	yes	yes	yes	3)	no	yes	yes
2.9	Does the software inquires all demanded physical and chemical parameters according to Nr. 6.9.2 TRGS 220 and Nr. 9 Annex Dir. 1991/155/EG?	Yes	yes 8)	yes	yes	yes	yes	yes	yes	yes
2.10	Are data fields for information about toxicological data according to No. 6.11.1 TRGS 220 completely available?	Yes 3)	yes	yes	yes	yes	yes	yes	yes	yes
2.11	Does the software propose names for studies and tests?	no	yes	yes 1)	yes	no	no	yes	no	yes
2.12	Is the classification of preparations as Marine Pollutant according to 2.10.3 of the IMDG-Code for sea-transport automatically determined?	yes	yes	yes	yes	yes	no	yes	yes	yes
2.13	How many hazard triggers are maximal determined?	>60	4	20 1)	4)	1	4	2)	4	2
2.14	Are data fields for the waste classification according to the European waste catalogue available?	yes	yes 6)	yes	yes	yes	yes	yes	yes	yes
2.15	Are data fields for the swiss hazard class and BAG T-Number available?	yes	yes 6)	yes	yes	yes	4)	no	yes	yes
2.16	Are data fields for the number of the Federal Environmental Agency (UBA) according to the washing and cleansing agents act available?	yes	yes 6)	yes	yes	yes	4)	yes	no	yes
2.17	Are the changes in updated safety data sheets clearly recognisable in comparison to the previous version?	yes	yes	yes	yes	yes	no 5)	yes	yes	yes
3.	Text phrases									
3.1	Does the software contain all text phrases from the BDI Standard text phrase catalogue? (BDI -> Federation of German Industries)*	no	none 9)	50-100 %	partly	all	all	none	none	50-100 %
3.2	How many text phrases are offered beyond those mentioned under	>9000	1.030	1.000	3.000	none	5.046	3)	6.000	5.500

* please ask, when buying an SDS, if it contains the text phrases from the latest BDI Standard catalogue.

		AuthoriTe	Blending Environ	Chem Ges	CSB-System	CS Studio	EPOS	Lycos Athena 4	MCS	SAP EH&S
	3.1?									
3.3	Can single sentences be added in the data fields and archived in the system catalogue?	yes	yes	yes	yes	yes	yes	yes	yes	yes
3.4	Sum of all german text phrases	> 5000	1.030	> 3.500	3.000	BDI	5.358	> 1.500	ca. 6.000	5.495
	Sum of the german text phrases according to chapter:					BDI				
	01	> 200	20		250		186			45
	02	> 200	10		250		31			275
	03	> 200	10		250		70			215
	04	> 500	50		250		341			240
	05	> 400	50		250		119			75
	06	> 400	45		250		96			155
	07	> 600	75		250		516			315
	08	> 600	70		3.000		351			275
	09	> 600	100		3.000		951			450
	10	> 600	80		3.000		411			300
	11	> 200	85		3.000		551			700
	12	> 200	70		3.000		749			250
	13	> 200	35		3.000		74			650
	14	> 100	45		3.000		74			450
	15	> 100	260		3.000		510			1.000
	16	> 50	25		3.000		16			100
3.5	Are all above mentioned text phrases in foreign languages available?	all	all	all	all	all	50-100 %	50-100 %	all	all
3.6	How many foreign languages are available?	31	14 a)	2)		11 4)	24 6)	17 4)	ca. 33	26 3)
4.	Software modules									
4.1	Calculation of preparations	yes	yes	yes	yes	yes	yes	yes	yes	yes
4.2	Is a classification module for substances and preparations available?	yes	yes	yes	yes	yes	yes	yes	yes	yes
4.3	Transport classification									
	Road	yes	yes	yes	yes	yes	no	yes	yes	yes

		AuthorITe	Blending Envicon	Chem Ges	CSB- System	CS Studio	EPOS	Lycos Athena 4	MCS	SAP EH&S
	Rail	yes	yes	yes	yes	yes	no	no	yes	yes
	Inland waterway	yes	no	no	yes	yes	no	no	yes	yes
	Sea	yes	yes	yes	yes	yes	no	yes	yes	yes
	Air	yes	yes	yes	yes	yes	no	yes	yes	yes
4.4	National classification									
	Water hazard class (WGK)	yes	yes	yes	yes	yes	yes	yes	yes	yes
	VOC according to the 31. BImSchV	yes	10)	yes	yes	no	no	no	yes	yes
	Decree about emergencies	yes	yes	yes	yes	no	no	yes	yes	yes
	Storage class	yes	yes 11)	no	yes	no	no	yes	yes	yes
	Other	4)		yes	yes					yes 4)
	Technical Instructions on Air Quality Control (TA-Luft) summation	yes	yes							
	Regulation on inflammable liquids (VbF)	yes		yes 3)			yes			
4.5	Printing of safety data sheets									
	Pdf (Adobe Reader)	yes	yes	yes	yes	yes	yes	yes	yes	yes
	Word (doc/rtf)	Yes/ yes	yes/ yes	yes	yes	yes	yes		no	yes/ yes
	Html	yes	yes	yes	yes	yes	yes		yes	yes
	Excel	no	no		yes	no	yes		no	no
	Other	Yes 5)		yes 4)	yes 5)	yes 5)	yes 7)			
4.6	Can forms be adapted to the operational requirements by the user?	yes	yes	yes	yes	yes	yes	yes	yes	yes
4.7	Is a modul label-printing offered?	yes	yes	yes	yes	yes	yes	yes	yes	yes
4.8	Is the archiving of safety data sheets possible?	yes	yes	yes	yes	yes	yes	yes	yes	yes
	Is the archiv researchable?	yes	yes	yes	yes	yes	no	no	yes	yes
	What are the criteria?	6)	12)	5)		6)			div.	5)
4.9	Is there an update management for safety data sheets?	yes	yes	yes	yes	yes	yes		yes	yes
4.10	Is a modul „historie and check of sds-forwarding“ offered?	yes	yes	yes	yes	no	yes	yes	yes	yes
4.11	Is it possible to exchange one component in selected recipes?	yes	yes	yes	yes	no	no	yes	no 5)	yes
4.12	Is the im- and export of preparations` ingredients in other software-systems possible?	yes	yes	yes	yes	yes	yes	yes	yes	yes

		AuthoriTe	Blending Envicon	Chem Ges	CSB- System	CS Studio	EPOS	Lycos Athena 4	MCS	SAP EH&S
4.13	Is the export of labelling-data for label printing in other software-systems possible?	yes	yes	yes	yes	no	yes	yes	yes	yes
4.14	Is the export of preparations` transport classification in other software-systems possible?	yes	yes	yes	yes	no	yes	yes	yes	yes
5.	Data processing-technical performance criteria									
5.1	Are network-versions available?	yes	yes	yes	yes	yes	yes	yes	yes	yes
	Required hard- and software	7)	13)	6)		7)	8)	5)		6)
5.2	Can the software be used via internet?	yes	yes	yes 7)	yes	yes 8)	no	yes	yes	yes
5.3	Are single workstation versions available?	yes	yes	yes	yes	yes	yes	yes	yes	no
	Required hard- and software	7)	13)	6)	6)	9)	9)	6)		
5.4	Is a basic database (incl. hazardous substance database with moduls for collection of data and administration) available?	yes	yes	yes	yes	yes	yes	yes	yes	yes
	Are further elements of the basic database available?	Yes 8)	yes 14)	yes 8)			yes 10)	yes 7)	yes 6)	yes 7)
5.5	Are further system upgradings possible?	Yes 8)	yes 15)	yes 8)	yes 7)	yes 10)	yes 11)	yes 8)	yes 7)	yes 8)
5.6	Does the software contain an EDAS-interface?	yes	yes	no	yes	no	yes	no	yes	yes
5.7	Is the research of substance data easily possible?	yes	yes	yes	yes	yes	yes	yes	yes	yes
	Available search criteria:									
	Wildcards	yes	yes	yes	yes	yes	yes	yes	yes	yes
	CAS-Number	yes	yes	yes	yes	yes	yes	yes	yes	yes
	EINECS-Number	yes	yes	yes	yes	yes	yes	yes	yes	yes
	ELINCS-Number	yes	yes	yes	yes	yes	yes	yes	yes	yes
	Substance name/-identifier	yes	yes	yes	yes	yes	yes	yes	yes	yes
	Index-Number	yes	yes	yes			yes	yes	yes	
	UN-Number	yes	yes	yes				yes	yes	
	Are further search criteria available?	yes	yes 16)	yes 9)	yes 8)	yes 11)		yes 9)	all	all
5.8	Is the combination of different search criteria possible when searching for substance data?	Yes	yes	yes	yes	no	no	yes	yes	yes
	If yes, how many maximal?	7	all		ca.30			2	19	all
5.9	How many documents (in thousand) can be handled in the complete	>1	> 10	> 10	> 10	> 10	> 10	> 10	> 10	> 10

		AuthoriTe	Blending Envicon	Chem Ges	CSB- System	CS Studio	EPOS	Lycos Athena 4	MCS	SAP EH&S
	system ?	million								
5.10	Technical and organisational effort necessary for		yes 17)		yes 9)					
	Server	no		no		no	yes	no	yes	yes
	Operating system	yes		no		no	no	no	yes	yes
	Database	no		no		yes	yes	no	yes	yes
	Application support	no		no		yes	yes	no	yes	yes
	Work on user-specific system requirements	yes		no		yes	yes	no	yes	yes
	Archiving and data backup	yes		no		no	yes	no	yes	yes
	Training	yes		yes 8)		yes	yes	yes	yes	yes
5.11	Is a software test with given reference-substances possible?	yes	yes	yes	yes	yes	yes	yes	yes	yes
6.	Service									
6.1	Number of updates per year	4	18)	≥ 2		2	4	1 – 2	1	2 – 4
6.2	Software handbooks available?	yes	yes	yes	yes	yes	yes	yes	yes	yes
6.3	Is there an written explanation about the content of updates for the user?	yes	yes	yes	yes	no	yes	yes	yes	yes
6.4	Is the service 24 hours a day accessible?	yes	no	yes	yes	no	no	no	no	yes
6.5	Is maintenance via DFÜ possible?	yes	yes	yes	yes	yes	no	yes		yes
6.6	When are changes in regulations concerning SDS taken into consideration in updates (esp. ATP's and Occupational exposure limit values (OEL)? time in months:	weekly	3 – 6	ATP: 3 – 6 OEL: 1 – 3	1 – 3	1 – 3	1 – 3	3 – 6	3 – 6	1 – 3

2.1 remarks from the supplier concerning the software

Chemwatch AuthorTe

- 1) No restrictions but can filter by Hazard Severity and can remove several generated R Codes as required.
- 2) Inbuilt algorithm also calculates Glove Rating for most commercial types against stated Ingredients. Respirator algorithm also available.
- 3) In addition the inbuilt algorithms automatically assess appropriate R statements and DG Class (if appropriate). Additional algorithms determine R Codes for Ecotoxic substances/ preparations
- 4) Classification based on GHS criteria, Australian/ NZ criteria, OSHA (US) criteria also included
- 5) XML formats available
- 6) Version number/ date – documents may be compared side by side to determine differences
- 7) Software requirements RAM 512 MB, Hard disc space 40 Gb; Operating system Windows XP, NT4.
- 8) Molecular Structure searches using SMILES strings or drawing tool; Colour Index Number; FEMA; Japanese Inventory Number; RTECS, Part Number

Blending Envicon

- 1) Substances listed here but not available in the data base will be provided upon request, free of charge
- 2) in all of the languages published in the EC, except Greek
- 3) about 1000, TRGS 900/903 (German Technical Guidelines), WGK lists (German Water endangering classes), KBwS/VCI, TA Clean Air Guideline, StörfallV (German Ordinance on hazardous incidents); altogether it contains about 4000 substances
- 4) The basic data base contains only the industrial threshold limit values for TRGS 900/903 and EC regulations. For the following nationalities threshold limit values are also available for a fee: Austria, Belgium, Switzerland, Denmark, Spain, France, Finland, Great Britain, Italy, Norway, the Netherlands, Portugal, Poland, Sweden, USA
- 5) can be set up as needed: exact or other % ranges
- 6) Various data fields can be added using the variable definition of specifications
- 7) The number of R/S phrases to be determined is adjustable. In the standard 6 are defined each time.
- 8) The parameters to be tested are variable and can be defined generally or in connection with a product group.
- 9) Own phrases catalogue
- 10) Calculation can be done in the ERP software part
- 11) VCI
- 12) Article number, article description, language, country code, data sheet structure, version, business partner
- 13) RAM: 512 MB; Hard disc memory: 40 GB; Operating system: Windows XP / 2000; Software: Office XP / 2000 (Word, Access);
Data base: SQL Server 2000 or Oracle
- 14) Phrases catalogue in German
- 15) Calculation (labelling, transport, WGK, etc.), printing of safety data sheets, safety data sheet archive, customer–article maintenance,

additional languages for the phrases catalogue, interfaces for the import and export of data, printing of labels, list of substance usages, component replacement, processing of simple chemical reactions, dangerous substances register, printing of tremcards

- 16) RTECS number, formula index, molecular weight. Search criteria can be expanded
- 17) An evaluation is only possible if the project requests and prerequisites are known
- 18) The number of updates made is essentially dependent on the activities of the legislator. At least one update per year.
 The number of updates does not influence the price.
 - a) Danish, French, Italian, Norwegian, Portuguese, Swedish, Czech, English, Finnish, Dutch, Polish, Russian, Spanish, Hungarian, Slovenian

ChemGes

- 1) (individually) definable
- 2) 28 languages for the Material Safety Data Sheet, see pricelist
 28 languages for the TremCard, see pricelist
 14 languages for the Internal Plant Instruction, see pricelist
- 3) Germany and Austria
- 4) direct email-distribution, ISI-format
- 5) date
- 6) no specific (all Windows-systems from Windows 95 onwards, as well as Citrix)
- 7) via terminal technology (Citrix, Windows Terminal Server)
- 8) see price list
- 9) product code

CSB-System

- 1) circa 500
- 2) selectable according to the requirements
- 3) R-phrases unlimited, according to the necessity
- 4) according to the necessity
- 5) XML
- 6) established platforms
- 7) complete integration in enterprise resource planning system CSB-System
- 8) according to the requirements
- 9) according to customer requirements

CS Studio

- 1) according to customer requirements circa 7.000
- 2) only registered

- 3) expandable
- 4) English, Danish, Greek, French, Dutch, Italian, Norwegian, Portuguese, Russian, Spanish, Turkish.
 Provided in German and English by default.
- 5) CSW (documents are generated in different formats depending on the CS-System.)
- 6) Product name, article number, date, etc.
- 7) Standard V: any MS-Systems. Online V: irrespective of the platform
- 8) Any MS-Systeme with 128 MB RAM & 1024*768 resolution.
- 9) CS-Online
- 10) Enterprise resource planning, IMO, IATA, UMB, LABEL, operation instructions, register, IMDS, etc.
- 11) Company, product type. Different filter, expandable according to customer requirements.

EPOS

- 1) 250 substances. Substance data is available as optional starter set; further substances may be obtained individually.
- 2) Optional free text
- 3) It exists a long text field for input of personal hand protection.
- 4) It exists a long text field for input of national regulations. The use of phrases assures that texts only apply for the output for a certain country.
- 5) It exists a long text field for input of last changes in chapter 16.
- 6) Bulgarian, Danish, English, Estonian, Finnish, French, German, Greek, Italian, Croatian, Latvian, Lithuanian, Dutch, Norwegian, Polish, Portuguese, Romanian, Russian, Swedish, Slovak, Slovenian, Spanish, Czech, Turkish, Hungarian
- 7) Fax
- 8) Client: Windows 2000, 128 MB RAM, 266 MHz, 130 MB free hard disk space;
 Server: Windows NT 4.0 SP 6a, 600 MHz, 64 MB RAM, 200 MB + database (150 MB – 2 GB) free hard disk space
- 9) Windows 2000, 128 MB RAM, 600 MHz, 300 MB free hard disk space
- 10) Print output
- 11) Laboratory database, automatic shipment, client management, sales assistant, US-MSDS format

Lycos Athena 4

- 1) All substances with OEL.
- 2) all necessary.
- 3) own phrase catalogue
- 4) English, French, Italic, Spanish, Dutch, Danish, Portuguese, Swedish, Finnish, Greek, Polish, Norwegian, Tcheque, Hungarian, Slowakian, Slowenian
- 5) e.g. Windows XP
- 6) 200 MHz, 32 MB, 1 GB HD
- 7) Detergents Parfum List
- 8) extrenal Tox database externe Toxdatenbank

- 9) Waterhazard class, various fieldsWGK, beliebige Felder

MCS

- 1) in fact 20.400 single CAS-Numbers.
- 2) definable by user
- 3) all applicable
- 4) all prescribed or all prescribed plus recommended
- 5) xml-Export possible
- 6) Several hundred registers, taken from world-wide regulations
- 7) Compilation of all other product-specific documents, e.g. accident procedures sheets, operation instructions, technical datasheets, etc.

SAP EH&S

- 1) circa 350.000 substances
- 2) OEL can be set
- 3) Danish, German, English, Finnish, French, Greek, Dutch, Italian, Norwegian, Portuguese, Spanish, Swedish
 Polish, Hungarian, Czech Russian, Estonian, Croatian, Lettish, Romanian, Slovak, Turkish, Chinese simplified, Chinese traditional, Japanese, Korean, Malaysian
- 4) Malcode DK, MaladiesProfessionnelles – F, ICPE – F, VOC CH, VbF AT
- 5) according to all criteria of the database (circa 200), in addition update-data, languages, region areas etc.
- 6) Server + 1 PC + Client PCs (DB, SAP R/3, Microsoft Word, Microsoft Access)
- 7) product safety (Europe, USA/Canada, Far East (e. g.: China, Japan, Korea, Taiwan, Australia), Labelling Waste, hazard substances management, occupational safety, occupational medicine.
 All modules are fully integrated in the standard software SAP R/3, this includes e.g. the material-line, logistik, human resource management, the production etc.
- 8) all modules, add-ons and future developments SAP R/3 countries- resp. regional packages USA/Canada and Asia/Pazific

3. Summary of the submitted additional software-questionnaires

		AuthorITe	Blending Environ	Chem Ges	CSB- System	CS Studio	EPOS	Lycos Athena 4	MCS	SAP EH&S
1.	How many software installations have been realised yet (2004)? - Germany - Europe - World-wide (n.s. - not specified, s.b. - see below)	n.s. 5 45	1)	s.b. s.b. 950	65 12 77	15 15	n.s. n.s. n.s.	5 >100 n.s.		200 200 200
2.	Can a "normal" user install the software or this be done by the supplier? (user / Supplier (Suppl))	User	Suppl	user	Suppl	user	user	user		Suppl
3.	Can parts of the software (e. g. data about ingredients) be secured via access protection (user-authorisation)?	Yes	yes	yes	yes	yes	yes	yes		yes
4.	Can a "normal" user use of the software without instructions from the supplier? If no, how high is the training demand in days?	yes	2) 3)	yes	no	yes	yes	yes		no
5.	Is an internet-access obligatory for running the software?	no	no	no	no	yes	no	no		no
6.	Is the compilation and printing of Safety data sheets (SDSs) one modul of an overall package? If yes, can the single modul be purchased and used without restrictions?	Yes yes	yes yes	no	yes yes	yes yes	yes yes	yes yes		yes no
7.	Can the result of the classification be modified manually?	yes	yes	yes	yes	yes	yes	yes		yes
8.	Must further software be purchased for running the product? If yes, which ones (databases, Office-Produkte, etc.) ?	no	yes 4)	no	yes 1)	1)	no	no		yes 1)
9.	Is the user interface of the software multilingual?	yes	yes 5)	yes	yes	yes	yes	yes		yes
10.	How high is the effort for compiling an SDS? hours	0.02- 0.5	6)	0,05	n.s.	0.25	n.s.	1		0,5
11.	Does the software provide an indication of the compilers` judicial responsibility?	no	7)	yes	yes	no	no	yes		yes

3.1 remarks from the supplier concerning the additional software-questionnaire

Blending Envicon

- 1) Envicon is a module of the ERP software solution Infor Blending, but may also be used as a stand-alone version. Blending is used by more than 250 companies in Europe with more than 7500 employees.
- 2) Depending on previous knowledge concerning the regulatory base and the basic operation of Windows programs and with the help of the online-help it might be possible.
- 3) The training expense depends very much on the previous knowledge concerning the regulatory base and the basic operation of Windows programs, usually about 2 - 3 days.
- 4) Oracle or SQL-Server and MS-Word
- 5) The system language can be chosen when login is done, German/English/Italian/Dutch
- 6) The expense for generation of a MSDS can not be estimated without specification of the given conditions.
- 7) The responsibilities of manufacturer and user are regulated in the accompanying contract documents.

CSB-System

- 1) CSB-System and database

CS Studio

- 1) In case of Intranet-solution: Oracle or SQL-Server

SAP EH&S

- 1) MS-Word