



envis
environmental system



Information on **envis**

Your environment - we care ...

Concept

envis – environmental system

envis stands for „environmental system“ and is a software tool for the environmental management of companies.

The concept of this software is to show and to link plant technology, chemical processes and the legal regulations of companies.

In contrast to other stand-alone solutions **envis** offers a broad and integrated solution for the environmental management. With the focus on legal compliance at shop floor level for one or several plants, **envis** offers practical solutions for the most challenging tasks. **envis** provides your company with a uniform structure and supports the user by means of classification wizards to improve legal compliance.

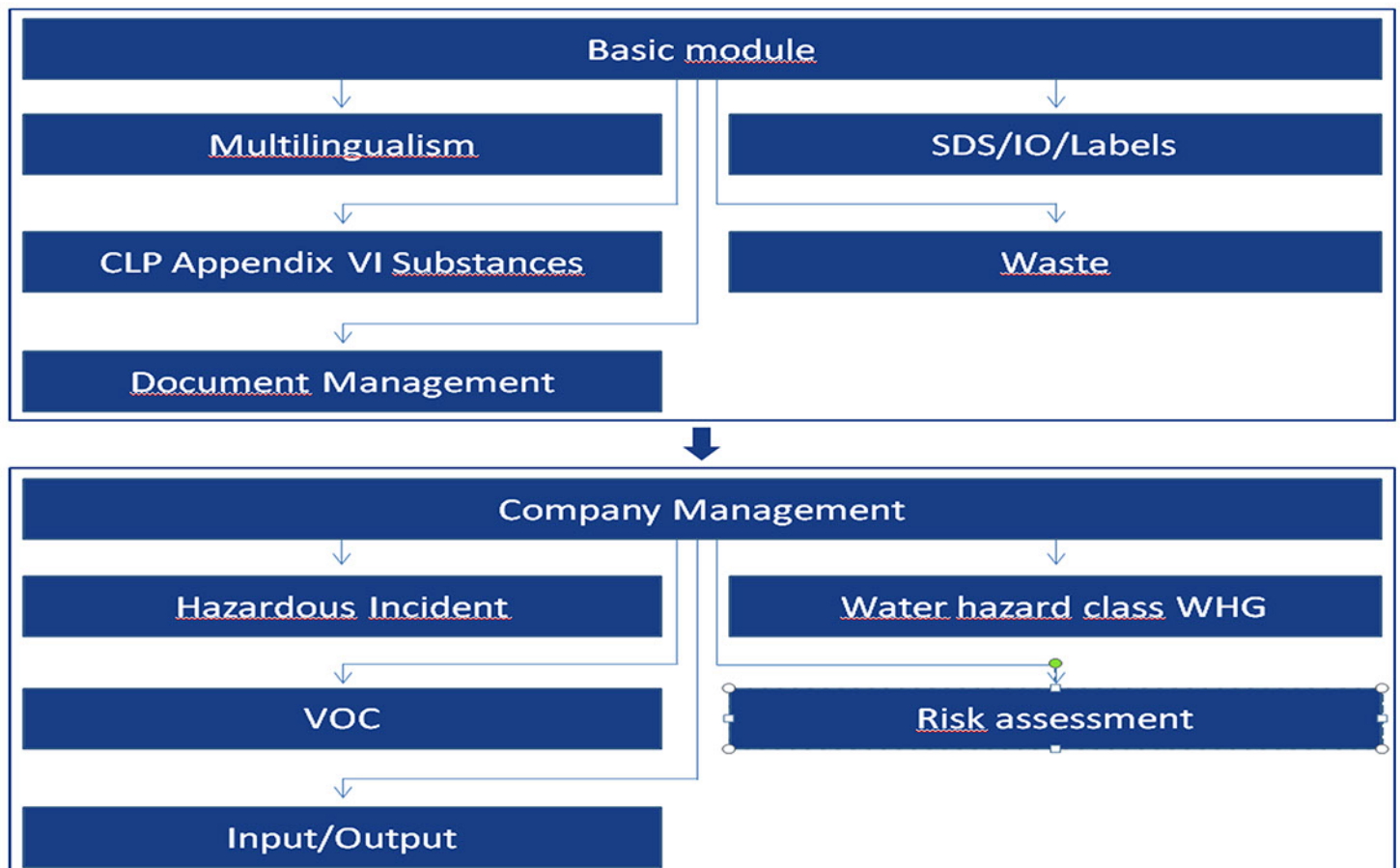
The objective is to provide a complete solution for your management processes regarding environ-

Process / Technology / Legal Compliance

envis illustrates the interaction of Process, Technology and Legal Compliance in your company based on current legal regulations. Customizing enables the user to define his plants, lines or business units to his needs and to adjust them in accordance with legal or official requirements. **envis** supports an easy download of 6000 substances (CLP App. VI), the mixing of formulas and automatic classification.

Modular setup

The design of **envis** is modular and thus supports the building of any specific and made-to-measure system.





Corporate Structure

Navigation menu

envis structures your company hierarchically top-down, from enterprise level to the smallest entity. This enables you to navigate within the company structure without losing overview and focus. Provide a link between your hazardous substances as well as your material-, energy- and waste consumptions and any company units and create your configurable Environmental Balance.

Facilities register

Record the technical data for any corporate unit and facility. **envis** provides an overall view of the Facilities register with all relevant data like manufacturers specifications, weight, size, capacity and connected load.

Responsibilities

envis supports the management of persons responsible for environment, occupational health and safety, emergency information and so on for each area. The clearly laid out structure helps to find the right contact person in case of an emergency or when looking for answers to a question.



Chemicals Management

CLP Appendix VI

envis provides a complete App VI CLP (approx. 6000 substances) with legal classifications according to 1272/2008/EG - CLP and 1999/45/EG, with dilution level classification. Beyond this the Chemicals Management contains further information for the substances like physic-chemical properties.

Chemical register

Record any substance or mixture to complement the substances classified as legal according to CLP. An easy logic supports the user to build new mixtures from substances or other mixtures and to classify them automatically in accordance with 1272/2008/EG or 1999/45/EG. Determine the water hazard classification of a mixture with a few clicks.

envis also enables you to manage specific data for Life Cycle Assessments (energy, CO₂, waste).

Solvents will be identified and structured automatically by **envis** according to the VOC regulation.



Chemicals Management

Safety Data Sheet (SDS)

Create individual SDS according to current regulations in up to 30 languages. The text module system "Euphrac" allows the easy and convenient design of your SDS. Additionally you can record your individual phrases and text modules in 30 languages.

The SDS can be printed according to either 1272/2008/EG or 1999/45/EG or as a combination of both.

Operating instructions

envis supports you in the fast and convenient creation of your hazardous substance operating instructions in up to 30 languages. Printout is also possible according to 1272/2008/EG and/or 1999/45/EG.

Assign operating instructions to your facilities, lines or other individual operating areas and store and

Labels

envis creates hazard labels according to 1272/2008/EG or 1999/45/EG out of the chemical management module. These labels can be saved in format PDF for further use.

Chemicals Management

Hazardous substance register

Due to the structure of **envis**, the hazardous substance register is available for any operating area in your company. Configurable columns allow you to customize the register to your needs or to the needs of authorities.

Bezeichnung Anlage	Stationsname	Stationsnummer	Volumen max.	Gewicht max.	Bezeichnung	R-Satz	S-Satz	Gefahrsymbol	UN-Nummer	Flammpunkt
Anlage 1 Vorbehand...	Station1	1.1	20000.0l	20000.0kg	Salpetersäure/Nickelsalz-	R 8, R ...	S 45, S 53			
Anlage 1 Vorbehand...	Station2	1.2	15000.0l	15000.0kg	Lösemittelzubereitung	R 8, R ...	S 6, S 7, S 9			
Anlage 1 Vorbehand...	Station3	1.2	25000.0l	25000.0kg	Salzsäure-...%	R 34, R ...	S 26, S 1/2			
Anlage 1 Vorbehand...	Station4	1.2	8000.0l	8500.0kg	Beryllium	R 49, R ...	S 45, S 53			
Anlage 1 Vorbehand...	Station5	1.2	12500.0l	12000.0kg	Ethylnitrat	R 3	S 2			10.0°C
Anlage 1 Vorbehand...	Station6	1.2	15000.0l	15000.0kg	Phosphortrichlorid	R ...				
Anlage 2 Mischanlage	Station1	1.1	20000.0l		Salze-von-Hydrazin	R ...				

Stationsname	Stationsnummer	Volumen max.	Gewicht max.	Bezeichnung	P-Satz	H-Satz	Gefahrsymbol ...	CAS-Num...	Wasserg...	Flamm...	Arbeitspla...	Biologisch...
Station1	1.1	20000.0l	20000.0kg	Salpetersäure,Nic...	P264,...	H334,...		14216-75-2				
Station2	1.2	15000.0l	15000.0kg	Lösemittelzuberei...	P501,...	H205,...						
Station3	1.2	25000.0l	25000.0kg	Salzsäure-...%	P260,...	H314,...			schwach ...			
Station4	1.2	8000.0l	8500.0kg	Beryllium	P264,...	H301,...		7440-41-7	schwach ...			
Station5	1.2	12500.0l	12000.0kg	Ethylnitrat		H200		625-58-1		10.0°C		
Station6	1.2	15000.0l	15000.0kg	Phosphortrichlorid		H300,...		7719-12-2	schwach ...			
Station1	1.1	20000.0l		Salze-von-Hydrazin		H301,...			stark wa...			

Customer and supplier management

Any substance or preparation can be assigned to one or more customer or supplier. The data is maintained in the customer and supplier management module from which you can gain an overview of all the products assigned to a customer or supplier.



Legal compliance

Classification Wizard VOC

The wizard for the VOC classification helps to determine whether your company or any individual part of it is subject to VOC Regulation and automatically creates the input/output balance of solvents. **envis** identifies solvents in accordance with VOC and supports the localization of them.

Where necessary, a reduction scheme is created and evaluated. General regulations to substitute extremely hazardous solvents in the exhaust air are taken into consideration. **envis** is able to identify and indicate those substances separately.

Classification Wizard for water hazards

envis automatically identifies the water hazard classification of mixtures based on substances or other preparations which then serves as basis for the Classification Wizard for the water hazard level.

Classification Wizard for water hazard classes

Based on the water hazard classification **envis** determines the water hazard class in accordance with German "WHG"- Regulations.



Legal compliance

Wizard for Hazardous Incidents

Determine whether your plant is subject to the Hazardous Incidents Ordinance in accordance with column 4 or 5. Define individual operating units according to legal regulations. The wizard supports the classification and identification of hazardous substances and categories according to the Hazardous Incident Ordinance.

Wizard for Hazardous Substances

Any mixture based either on single substances or other preparations can automatically be classified by envis according to the specifications of CLP or the former guideline 45/1999/EG.

Customizing

One of the most significant problems ensuring legal compliance within a company is often the inaccurate definition and use of the terms “production line”, “production unit”, “linked units” or “site”. Those terms often have different meanings not only within the various European countries but also within a country.

The classification wizards enable you to link any units in order to ensure legal compliance.

Eco Controlling

Input / Output

envis offers a standard module to record all input and output values of your company like material flow, waste, energy consumption, emissions etc. The values can be recorded in any business unit and summarized at different levels (e.g. company level) in customized balance sheets.

Verbräuche erfassen

Consumption (input/output) can be recorded at time intervals or by meter readings. **envis** also takes the different physical states into consideration. Furthermore it is possible to breakdown all consumption to key figures.

Messwerte erfassen

All measured values are to be documented based either on legal requirement or on a voluntary basis. This helps to achieve legal certainty on the one hand and to gain an overview of the entire company unit on the other hand. The comparison of target to actual values allows the early detection of deviations in your process and enables you to take appropriate action.

Via volume flows **envis** automatically calculates the overall mass streams of waste water or waste air flow.

Eco Controlling

Balances

envis summarizes consumption and measured values in balances. An editor supports the required design by linking all input and output values for any company unit. **envis** provides a standard I/O balance and also predefined reports for CO₂, NO_x, SO₂, energy and other balances.

Core indicators

Based on the single balances **envis** creates an overview of the environmental core indicators. The summarized balance values are related to defined key figures to gain comparable core indicators.

Eco report EMAS/ISO 14001

Input/output values, balances and core indicators are the basis of your eco report, whether your company is certified according to EMAS or to DIN ISO 14001 or whether you would like to improve transparency of resource consumption.

Environmental care starts with the efficient use of resources and the sustainability in a plant. Record and document the most important input and output volume flows to achieve this objective.



Process management

Process data - nominal value

Recording and controlling the process data increases process stability, improves quality and takes care of efficient use of resources.

Process data - control limits

Alert and control limits help to control processes and to keep them within their defined limits.

Actual value recording

Record the actual process values. By linking them with the nominal values you gain precise and detailed process control and a means to visualize deviations.



Waste management

Manage waste

Waste management in **envis** provides you with an overview of all waste values. This data is available to create waste balances or to choose from when compiling Safety Data Sheets. Proof of disposal can be associated to waste.

Manage waste disposal companies

This function links waste to the appointed disposal companies, their handling possibilities and their classified treatment processes.

Manage waste transport companies

If required, waste transport companies for each type of waste can also be managed.

Control waste stream

Create waste balances by using the data on waste and waste disposal companies and by recording the consumption values (output values) for each company unit. The recorded data provide an overview of the quantity, cost and hazardous nature of your waste per company unit or the entire

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