



BASTA PHASES
OUT DANGEROUS
SUBSTANCES FROM
CONSTRUCTION
PRODUCTS!



Nobody wants to build buildings that damage the environment or make people sick. Just the same, there can be substances in construction products which are direct dangers to the environment or cause illness.

To avoid building with such substances, the BASTA-system is now available to help contractors and designers and their clients select products which we know to have a minimum of such effects.

All suppliers of construction products are welcome to make use of the BASTA-system. By registering your products in the data base, you tell your customers that you know what your products contain and that they are in accordance with the BASTA requirements. BASTA becomes thereby an effective support in your marketing. As a supplier, you know that the evaluation is based on scientifically developed criteria and you avoid the complication of various phase-out lists.

BASTA is a focused, effective and reliable tool for the phasing out of dangerous substances from construction products.

INDUSTRY STANDARD

One part of BASTA is a set of maximum limits for substances with certain dangerous properties to be phased out or to occur restrictively, agreed by the whole Swedish construction sector. BASTA specifies a number of particularly dangerous substance properties instead of listing certain substances which are known or suspected to be dangerous. In this way, all substances are covered.

A brief explanation of the substance properties on which the BASTA-system is focused follows below. A detailed list of requirements is given in a *criteria document* which also specifies how much of substances with such properties may be present in a product.

The list includes such properties which within EU are pointed out of very high concern. Restriction will be applied to these for

approval in the coming EU chemicals regulations designated REACH.

Some of the criteria are intended to reduce the risks involved in handling chemicals and focus on the improvement of the working environment at building sites. Some are based on the national Swedish environmental objective "A non-toxic environment".

Properties to be restricted in construction products according to BASTA	What does this mean in plain English?
Carcinogenic	Can simply cause cancer.
Mutagenic	May cause heritable genetic damage.
Reproduction toxic	Persons exposed to such substances may become sterile or their future children may be born defective.
Sensitising	Can cause an allergic reaction if inhaled or by skin contact.
Poisonous, acutely poisonous or chronically poisonous	Acutely poisonous substances cause an immediate reaction. Chronically poisonous substances have effect after a longer period of repeated exposure, e.g. by inhalation or by skin contact.
Volatile organic compounds	Fluids such as solvents which evaporate readily and pollute the atmosphere and are dangerous to inhale.
Persistent, organic substances	Substances which need a long time to decompose in nature.
Bio accumulative organic substances	Can accumulate in the body or other biological tissue.
Lead, cadmium, mercury	Three very poisonous metals. The Swedish Parliament has legislated for the elimination of their use.
Dangerous to the ozone layer	These can degrade the layer of ozone in the stratosphere which protects us from dangerous solar ultraviolet radiation.
Toxic to aquatic organisms	These have a negative effect on algae, fishes and other organisms which live in water.

TERMS OF QUALIFICATION

In the BASTA system, it is the suppliers who determine if their products satisfy the requirements of the system. It is reasonable to expect that the suppliers themselves know if their products contain anything which is dangerous. It is also the suppliers who register their products in the data base. But only the products which they know satisfy the system requirements, and first after they have signed an agreement in which they state that they know the chemical composition of the product and have the knowledge and competence to determine the properties of its constituents.

Many suppliers are unable to register their products in BASTA because they do not know the constituent substances. In this way, BASTA will stimulate increased knowledge of the substances included in building products.

To begin to register products in the system, the supplier must first sign an agreement with BASTA with a number of terms of qualification. They also pay an annual administration charge. The same for all and irrespective of the number of products registered.

Requirement in the Agreement	Required of the Supplier
Self-declaration	Bears the full responsibility that the products registered in BASTA actually satisfy the properties requirements.
Declaration of composition	Detailed knowledge of the chemical composition of the product to ensure the correctness of the evaluation.
Assessment of substance properties	A document presenting on what ground the absence of the specified properties was determined. There are already such regulations for chemicals, but BASTA requires a presentation for all types of construction products.
Competence requirement	Knowledge of the constituents of the product and the ability to evaluate the health and environmental effects of these substances. As the requirement is based on the rules for classification and labeling of chemical products of the Swedish Chemicals Inspectorate, adequate knowledge of this is also necessary.
Provision of documentation	The ability to present all the relevant data if an audit is performed. No other documentation other than the agreement itself need to be submitted when registering a product in BASTA.

REGISTRATION IN BASTA

The Supplier

Do you have access to competence to determine the effects of your building materials' on health and the environment?

NO: Arrange for it!

Yes!

Is your company organised with the responsibility for the assessment of your products clearly defined?

NO: Arrange for it!

Yes!

Do you have routines to ensure good quality in these assessments?

NO: Arrange for it!

Yes!

Sign an agreement with the BASTA-organisation!

The Product

Do you have the complete chemical composition documented?

Yes!

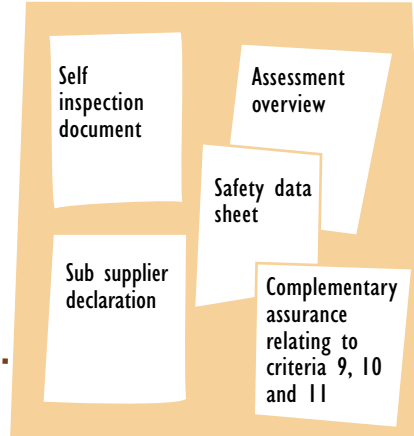
Do the constituents of the product satisfy the BASTA system properties criteria?

Yes!

Can you verify this evaluation?

Yes!

Register the product!



Information on which the evaluation can be based

VALIDATION FOR CREDIBILITY

The conditions for participation in the system are strict but to further strengthen its credibility, suppliers are subjected to random auditing. The purpose is to create and maintain confidence among suppliers and customers and to feed back experience from the practical application of BASTA for future development of the system.

During auditing, inspections are performed primarily to determine that:

- work in evaluating and registering the products is well-organised and that there are reliable routines for this
- those who perform the evaluation have the necessary competence
- that there are data which verify the evaluation

The auditing can be seen as system auditing and do not imply any approval of the suppliers. However, a supplier who cannot demonstrate that a registration is well-founded, risks, in the worst case exclusion from the system and the de-registration of all his products from the system.

The Problem

Too often and too late has it been discovered that a new building material is dangerous to the environment and/or health. Not before the material is in place in a building and first when the damage has occurred. Too often, in addition, after extended disputes to determine the relation between material and damage. As a rule, it is the customer, the user, who must show that the material has been the true cause of the damage.

Well-meaning attempts have been made to stop the use of certain dangerous substances but most of these have been based on the principle that the purchasers have pointed out the substances which are considered to be dangerous. These phase-out lists have led to that

substances not included in the lists are tacitly accepted as being non-dangerous.

In the case of chemicals, there are regulations today which require that a supplier shall inform his customers of dangerous effects these may have on health or the environment. The regulations mean that the initiated purchaser can select products on the basis of safety data sheets. This however requires considerable competence of the purchaser who may need to be a chemist or a toxicologist to be able to make a correct choice.

There are no corresponding regulations for building materials which are not chemicals and even more is therefore required of the purchaser of such materials to be able to choose a suitable product.

The Solution

The BASTA system has been developed against this background. The Swedish building sector has agreed upon a definition of which substance characteristics are to be given priority in the identification of dangerous substances. The suppliers have been allocated the burden of proof that their products satisfy the properties requirements. Many of the industry's phase-out lists have thereby become redundant, this simplifying the work of both materials suppliers and purchasers.

All products which satisfy the properties criteria can be registered in a data base which is freely available from the website www.bastaonline.se

IT IS EASY TO USE THE BASTA

The data base listing products which satisfy the properties criteria is available at: www.bastaonline.se BASTA gives two clear indications:

- That the supplier has full knowledge of the chemical contents of the product.
- That the supplier has certified that the contents of the product have none of the particularly dangerous properties specified by BASTA.

The absence of a product from the data base can mean that it contains some dangerous substance. It is then advisable to look for alternative in the data base. It can also mean that the supplier has not been able to specify the contents of the product. Which can be equally bad. It is in both cases advisable to contact the supplier and advise him, to apply for registration in BASTA.



All can freely and simply seek construction products in BASTA



All products listed in the search results satisfy the BASTA requirements

INITIATED BY THE CONSTRUCTION INDUSTRY – ADOPTED BY THE WHOLE SECTOR

The Swedish building concerns, NCC, Skanska, JM and Peab, in association with the Swedish Construction Federation have initiated BASTA. They saw considerable value in the coordination of their requirements with respect to the constituents of the building products they used.

When the project began in 2003, IVL, The Swedish Environmental Research Institute entered the group. The objective was to develop an industry standard and a system, to support the phasing-out of particularly dangerous substances from all types of building products.

The Swedish Ecocycle Council has as one of its objectives, a reduction in the use of dangerous substances in building materials and has supported the BASTA system by including it in their agenda 2010.

The EU-Commission has seen in BASTA, an early and notable initiative to show in a practical way, how REACH, the coming EU chemicals regulations, can be applied in practice and has provided the project with economic support. For information and support please contact IVL Swedish Environmental Research Institute who operates the system.

P.O.Box 210 60

SE-100 31 Stockholm, Sweden

Telephone: +46 8 598 563 00



The development work in BASTA has been granted economic support by the EU Life foundation for innovative environmental projects



BASTA is based on simplicity and openness.

On the website, you can find more information about, for example:

- A data base including all BASTA-registered construction products
- The properties criteria applied
- Agreement conditions for suppliers
- Suppliers' Guide and User's Guide

www.bastaonline.se