

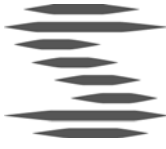
Guide to Svenska kraftnät's chemical requirements





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1 Summary

Svenska kraftnät aims to phase out the use of the most hazardous chemicals and reduce the risks to human health and the environment when using chemicals. Therefore, all chemicals used in Svenska kraftnät's operations must be reviewed or have a classification. Depending on the classification, there are special conditions which must be met prior to use. The special conditions mean that Svenska kraftnät want to see that the supplier is engaged in active product choice work and safe handling of their chemicals. This is shown in documented product choice analyses and risk assessments. The classification of the chemicals must be shown in the chemical list. During inspections, you as the contractor must be able to show that all special conditions have been met.

2 What is the scope of the requirements?

The requirements apply to all suppliers with agreements that were made with Svenska kraftnät from October 2014 onwards. They apply to construction, operation and maintenance.

3 Which chemicals are covered?

The requirements for classification, inspection and special conditions apply to all chemicals that are used in Svenska kraftnät's operations and require label elements. They apply to chemicals used for consumption or in operations as well as chemicals that are contained in a product, such as transformer oil. However, the requirements do not apply to chemicals that are part of a product, e.g. treated wood.

Svenska kraftnät's chemicals can be divided into eight product types:

- > mortar and grout
- > fuel and additives
- > paint and surface treatment
- > glue and sealants
- > cleaning agents
- > lubricants



- > explosives
- > other (e.g. pesticides)

4 What does the chemical has been reviewed mean?

The review provides a classification of the chemical's inherent hazardousness to human health and the environment on a scale from A to D, where A is least hazardous and D is most hazardous. The classification follows BASTA's and BETA's criteria.

The review does not constitute validation of use, as safe handling depends on how the chemical is handled at each area of use. You are responsible for safe handling and use of your chemical and for compliance with current legislation.

5 Classification

The critical factor in chemical classification is the levels of substances with particularly hazardous properties contained in the chemical and how hazardous these substances are to the environment and human health.

The hazardous properties correspond to a certain hazard statement with particularly dangerous and undesirable properties, such as being carcinogenic, endocrine-disrupting or dangerous to the ozone layer.

5.1 Classes

Class A: First choice – no special conditions

The chemicals contain no or very low levels of substances with properties specified in the classification criteria. The criteria for Class A are the same as for registration in the BASTA register.

Class B: Risk reduction – may be used if special conditions are met

The chemicals contain risk reduction substances. The criteria for Class B are the same as for registration in the BETA register. Class B entails conditional use. See "Special conditions" below.



■ Class C: Phase-out – may be used if special conditions are met

The chemicals contain phase-out substances. The chemicals in this class will be gradually phased out of use in Svenska kraftnät's operations and replaced by chemicals that are less hazardous environmentally and to human health. The chemicals must only be used when there is no alternative.

Class C entails conditional use. See "Special conditions" below.

✗ Class D: Prohibited or only permitted for specific use

The banned list is not yet available from Svenska kraftnät but can be found in the Swedish Transport Administration's Chemsoft. In areas of use approved by law, the conditions for Class C chemicals must be met.

! No label elements required/Exempt from review

No label elements required

Does not meet the criteria for a chemical and does not need to be classified and labelled with regard to human health and environmental hazardousness, nor have a safety data sheet. Chemicals that do not require label elements do not need to be submitted for review.

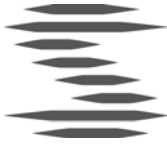
Exempt from review

Chemicals that are exempt do not need to be submitted for review.

5.2 Exempt chemicals

The following chemicals are exempt from the review requirement and do not need to be submitted for review:

- > Chemicals that are labelled with Bra miljöval (Good Environmental Choice), the Nordic Swan or the EU Ecolabel.
- > Hygiene products for personal use, office products and household products.
- > Environmental class 1 fuels.
- > Alkylate-based petrol for four-stroke and two-stroke engines
- > Hydraulic fluids/oils that meet all environmental performance requirements according to Swedish Standard SS 15 54 34 (link to RISE website with list of chemicals reviewed and approved according to the standard).
- > Lubricants that meet all environmental performance requirements according to Swedish Standard SS 15 54 70 (link to RISE website with list of chemicals reviewed and approved according to the standard).

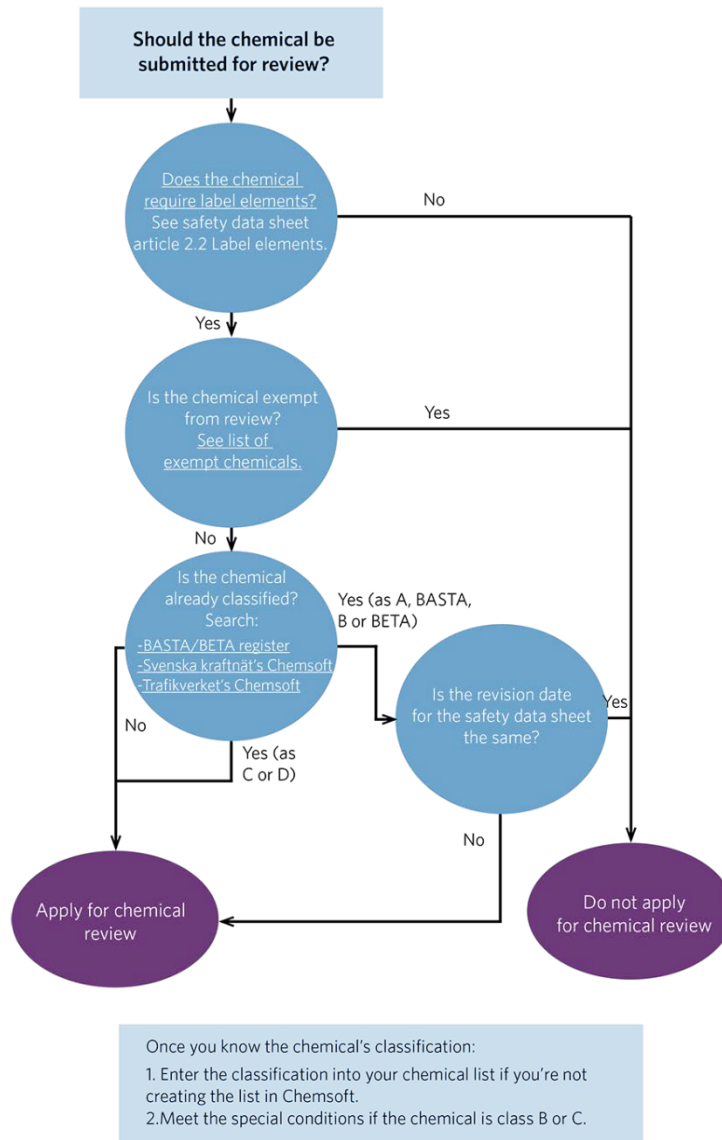


6 When does a chemical need to be reviewed?

Chemicals must be reviewed by Svenska kraftnät in order to obtain a classification. For classified chemicals, the following applies:

- > Chemicals that do not require label elements/exempt chemicals do not need to be reviewed.
- > Class A and B chemicals only need to be reviewed again when a new safety data sheet becomes available.
- > Class C chemicals must be reviewed at each new area of use, i.e. for a new contract or a new area of use¹ within an existing contract.

¹ New area of use means when conditions for use change e.g. methods of handling and use or outdoors instead of indoors etc.

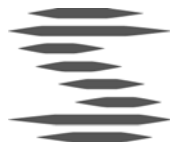


7 How to apply for a review

You do not need to submit chemicals already classified as BASTA/BETA in the BASTA register or as A/B in the Swedish Transport Administration's or Svenska kraftnät's Chemsoft if the review is done on the same safety data sheet.

Please note that there are chemicals which are exempt from the classification requirement, see "5.2 Exempt chemicals".

Please follow the steps below to apply for a review and obtain classification A-C for an unclassified chemical.



- 1 Log in to Chemsoft.
Apply here if you have no login details.
- 2 Click the tab "Apply for chemical review"
- 3 Click "All Languages"
- 4 Fill out the form. All fields marked with an asterisk (*) are mandatory.
- 5 Attach an up to date safety data sheet in digital, searchable format, e.g. PDF.

When an application for review is received by Chemsoft, you will be sent an immediate confirmation by e-mail from Explizit. If the application is incomplete, you will receive a request for completion by e-mail.

7.1 Review

The review period is maximum one week from the date your completed application was received. You can track and see the status of your case in Chemsoft.

If the safety data sheet is lacking information, you must inform your supplier of this. If the safety data sheet is lacking so much information that classification is impossible, an updated safety data sheet must be submitted. If this is not submitted, the chemical cannot be used as safe handling cannot be assessed.

7.2 Review report

When the chemical has been reviewed, you will receive a review report by e-mail and in Chemsoft. It will contain the chemical's classification A-C and the special conditions. You will also receive information about whether the chemical:

- > May require medical inspection and/or special training according to AFS 2011:19 Chemical Hazards in the Working Environment. This applies to allergenic substances, for example epoxy resins.
- > Includes substances covered by AFS 2018:1 Occupational Exposure Limits.
- > Includes substances contained in any of these REACH restriction lists: candidate list, restricted substances list or authorisation list.
- > Has other classifications.









The chemical is registered in Chemsoft under the current project, maintenance area or storage. You can now link the chemical to your own chemical list in Chemsoft.

7.3 After you have received a review report

- 1 Enter the classification in your chemical list if your list is not created directly in Chemsoft.
- 2 Fulfill the special conditions if the chemical is Class B or C.








7.4 Status of chemicals in Chemsoft

-  A - permitted
-  B - risk reduction
-  C - phase-out
-  D - prohibited
-  Reported
-  Review ongoing
-  Review application incomplete
-  Has not been reviewed: applies to self-registered chemicals that are not classified

8 Special conditions

All special conditions must be met with each new area of use.

Symbol	Class	Meaning	Special conditions from Svenska kraftnät in addition to legal requirements/TR13
	Exempt from review/ No label elements required	Exempt from review	No additional requirements from Svenska kraftnät
	Class A/BASTA	Permitted	No additional requirements from Svenska kraftnät
	Class B/BETA	Risk reduction	<ul style="list-style-type: none">• Complete Product choice analysis• Complete Risk assessment for B• If the chemical might affect soil and water, complete Risk assessment for C• Class A and B chemicals only need to be reviewed again when a new safety data sheet becomes available• The documents should be saved in a designated location and be displayed upon request
	Class C	Phase-out	Svenska kraftnät aims to phase out the use of Class C chemicals. Therefore the use of Class C chemicals must be discussed with Svenska kraftnät prior to use. <ul style="list-style-type: none">• Complete Product choice analysis• Complete Risk assessment for C• The product choice analysis and risk assessment must be accepted by PL/UI prior to use.• Class C chemicals must be reviewed with each new area of use, i.e. for a new contract or a new area of use within an existing contract• The documents should be saved in a designated location and be displayed upon request
	Class D	Prohibited/only permitted for specific use	Not yet available from Svenska kraftnät but can be found in the Swedish Transport Administration's Chemsoft. In areas of use approved by law, the conditions for Class C chemicals must be met.



Appendix 1. Classification criteria

The classification refers to the contents of substances with certain hazardous properties. To obtain a certain classification, the chemical must not contain amounts of the hazardous substances above a specific limit.

About the classification system

Svenska kraftnät's classification follows BASTA's classification criteria. These criteria are also used by other authorities, such as the Swedish Transport Administration and the metropolitan municipalities. They can be used for chemicals as well as goods and construction products. The criteria follow the EU regulation REACH. All substances included in the candidate list for REACH have particularly hazardous properties and are therefore covered by the criteria. The criteria are also in line with the criteria for phase-out and risk reduction substances in the Swedish Chemicals Agency's PRIO Guide, as well as the Swedish environmental quality objective "A Non-toxic Environment".

BASTA's criteria are reviewed periodically to adapt them to new findings and objectives in the chemical field and may therefore be tightened.

Phase-out and risk reduction substances

The Swedish Chemicals Agency's PRIO guide divides hazardous substances into phase-out and prioritised risk reduction substances. These terms are given in the review statement. Phase-out substances are those which are so hazardous to humans and the environment that they should not be used irrespective of how they are used. Some of these substances are already prohibited for specific areas of use. According to the environmental quality objective "A Non-Toxic Environment", the use of these substances must cease as far as possible.

Phase-out substances are found or may end up on the list of substances subject to authorisation in REACH (Annex XIV). This means that you need to apply for permission from the European Chemicals Agency ECHA to use chemicals containing these substances. Risk reduction substances have properties which should be noted due to their hazardous nature. Prior to use, substitution should be considered and the risk of use should be assessed in particular.

Criteria and limits

In the BASTA and BETA's criteria document on Bastaonline.se, you can see which substances or properties are not permitted in amounts equal to or above the specified weight limits for class A (BASTA) and class B (BETA) chemicals. Class C chemicals therefore contain substances with particularly hazardous properties above the weight limits for B.



Appendix 2. Glossary

BASTA	Responsible for the construction sector's phasing out of hazardous substances from construction products. A self-declaration system where suppliers and manufacturers of construction products register the chemicals that meet the requirements for content of substances with hazardous properties according to BASTA or BETA criteria. Together, IVL Swedish Environmental Institute and the Swedish Construction Federation developed the joint organisation BASTA, a non-profit organisation.
BASTA-classified	The BASTA system's most stringent chemical composition criteria, which restrict phase-out and risk reduction substances. The requirements are defined in the system's BASTA criteria. Applies to construction products and chemicals.
BETA-classified	The system's basic chemical composition criteria, which restrict phase-out substances. The requirements are defined in the system's BETA criteria.
Candidate list	List of substances that are particularly hazardous – SVHC substances. Entails special requirements for manufacturers/importers/retailers/users of goods and chemicals containing more than 0.1% by weight of a substance on the candidate list. Examples of special requirements are registration and notification of safe use. Permission may be required in order to use chemicals with substances on the candidate list. The candidate list is found in Annex XVII in REACH.
CAS number (Chemical Abstract Services)	A way of identifying a chemical substance. Example of a CAS no: 68476-33-5.
Chemical	See chemical product.
Chemical hazard	Chemical substances which can cause ill health or accidents depending on how they are handled. For example hot liquids,



grinding dust, exhaust gases or chemicals that require label elements.

Chemical pesticide	A chemical whose purpose is to prevent or counteract animals, plants or micro-organisms, including viruses, from causing harm or inconvenience to human health or damage to property.
Chemical product	Chemical substances or a mixture of chemical substances which have been manufactured or extracted and whose function is primarily determined by its chemical composition. Definition from Chapter 14, Section 2 Swedish Environmental Code (1998:808)).
Chemical that requires label element	A chemical that is classified as hazardous to health or the environment and is labelled with a hazard pictogram and/or hazard statement on the packaging (in sections 2 or 15 of the safety data sheet).
Chemsoft	Svenska kraftnät's chemicals management system.
Class A	The chemicals contain no or very low levels of substances with properties specified in the classification criteria. The criteria for Class A classification are the same as for registration in the BASTA directory.
Classification	Outcome of a review or self-assessment. A chemical can be classified A to C according to the BASTA criteria or "Exempt from review" or "No label elements required." The classification provides an assessment of the hazardousness of a chemical based on its inherent properties. Acute toxicity, corrosive properties, the ability to cause allergies, resistance to degradation in soil and water are examples of intrinsic properties that may present a hazard to human health or the environment.
CMR	Carcinogenic, mutagenic or toxic for reproduction.
Construction product	Any product or kit which is produced and placed on the market for permanent incorporation in construction works or parts thereof and the performance of which has an effect on the per-



formance of the construction works with respect to the basic requirements for construction works. Definition according to Regulation (EU) No 305/2011, Article 2.

EC no.	Used to identify a substance. This is an official number within the EU and consists of an EINECS, ELINCS or NLP number. Example of an EC no: 270-675-6.
ECHA	The European Chemicals Agency.
Exposure	Refers to all possible exposure to substances that are hazardous to human health and the environment that may occur to humans and the environment.
Handling chemicals	Manufacturing, processing, handling, packaging, storage, transportation, use, disposal, destruction, conversion and similar procedures.
Hazard pictograms	Hazard pictograms warn of chemicals that are hazardous to human health, environmentally hazardous, flammable or explosive, and of pressurised gases.
Hazard statement	<p>Hazard statements explain how the chemical is hazardous and are found in the safety data sheet and on the label.</p> <p>Examples of hazard statements given in the classification criteria:</p> <ul style="list-style-type: none">> H340 May cause genetic defects> H350 May cause cancer> H360 May damage fertility or the unborn child> H362 May cause harm to breast-fed children> H372 Causes damage to organs through prolonged or repeated exposure> H373 May cause damage to organs through prolonged or repeated exposure> H420 Harms public health and the environment by destroying ozone in the upper atmosphere> EUH059 Dangerous for the ozone layer



Material	<p>Here, material refers to bulk materials which can be made into goods, for example wood, steel and plastic.</p> <p>Material is not defined in legislation.</p>
Medical inspections	<p>Statutory inspections which must be performed when preventive occupational hygiene, technical, psychological and organisational measures are not sufficient to protect against ill health.</p>
Occupational exposure limits	<p>There are occupational exposure limits for around 400 substances. They indicate the highest acceptable levels in inhalation air (see AFS Occupational exposure limits). When there is an occupational exposure limit, an assessment must be made as to whether the content is acceptable with regard to the limit. This must also be documented. An exposure test must be performed if there is no other way to do this.</p>
Particularly hazardous substances	<p>The definition of particularly hazardous substances includes CMR substances, persistent and bioaccumulative substances, very persistent and very bioaccumulative (vPvB) substances, mercury (Hg), cadmium (Cd) and lead (Pb). Particularly hazardous substances also include endocrine-disrupting and highly allergenic ones, but there are no fixed criteria for these properties and they are determined on a case by case basis. The specification of "A Non-toxic Environment" states that the use of particularly hazardous substances must cease as far as possible.</p>
PBT/vPvB	<p>Persistent, bioaccumulative and toxic/very persistent and very bioaccumulative.</p>
Phase-out substances	<p>Substances with the properties listed below, according to the Swedish Chemicals Agency's PRIO list.</p> <ul style="list-style-type: none">> CMR (carcinogenic, mutagenic or toxic for reproduction), category 1A and 1B> PBT/vPvB (persistent, bioaccumulative and toxic/very persistent and very bioaccumulative)> Particularly hazardous metals (mercury, cadmium, lead and their compounds)> Endocrine-disrupting



> Ozone-depleting

The criteria are harmonised with criteria according to REACH Article 57, substances of very high concern and criteria for inclusion in the candidate list. The criteria are harmonised with criteria for phase-out substances according to the environmental objective "A Non-toxic Environment".

Precautionary statement Precautionary statements provide information on how to protect human health and the environment.

Product choice analysis An analysis that describes how the Swedish Environmental Code's product choice principle has been applied.

Product choice principle Also referred to as the substitution principle. This is laid down in the Swedish Environmental Code's general rules of consideration in Chapter 2 and applies to all operations.

In the supervision of the product choice principle, the focus will be on how the operation identifies chemicals containing particularly hazardous substances and finds alternatives.

This includes knowledge and procedures for working with product choice and a plan for replacing chemicals that contain particularly hazardous substances.

REACH REACH is the EU chemicals regulation. REACH regulates chemical substances in chemicals and goods. The rules are contained in Regulation (EC) No 1907/2006 of the European Parliament and the Council. REACH stands for Registration, Evaluation, Authorisation and Restriction of Chemicals.

Review report The review report means that the chemical has been classified in groups A-C and you can see which special conditions from Svenska kraftnät must be met prior to use, in addition to the legal requirements.

Reviewer function Chemical consultants who, on behalf of Svenska kraftnät, review the chemical's safety data sheet and classify chemicals based on their contents.

Risk reduction substances > Substances with the properties listed below, according to the Swedish Chemicals Agency's PRIO list.



- > Very high acute toxicity (e.g. H330 Fatal if inhaled)
- > Allergenic
- > High chronic toxicity
- > Mutagenic
- > Dangerous to the environment, long-term effects
- > Potential PBT/vPvB

The risks associated with the use of risk reduction substances should be limited according to the environmental objective "A Non-Toxic Environment". Risk reduction substances have a better health and environmental record than phase-out substances.

Safety sheet	A summary version of the safety data sheet where important safety information is provided.
Safety data sheet	Sheet with information on possible human health and environmental risks etc. and other properties of certain chemicals and preparations. The safety data sheet must contain 16 sections, in which the headings and order are mandatory. Annex II in REACH lists the headings that should be included in a safety data sheet. A safety data sheet must be available for those chemicals and substances classified as hazardous (e.g. flammable, oxidising, explosive, hazardous to human health or the environment). A safety data sheet must also be available for substances and mixtures not classified as hazardous but which contain at least 1% (0.2% for gases) of a human health or environmental hazard or have an EU Occupational Exposure Limit.
Special conditions	Conditions in addition to legal requirements which Svenska kraftnät has for Class B chemicals or higher. Includes a product choice analysis and hazard assessment/risk analysis.
Substance	Chemical substances are elements and compounds of elements in natural or manufactured form, including any additives necessary to preserve their stability and contaminants originating from the manufacturing process, but excluding any solvents which can be separated without affecting the stability of the substance or altering its composition.



Substitution principle	See product choice principle.
Supplier	Contractors and consultants who provide goods and services to Svenska kraftnät.
SVHC	Substances of Very High Concern. Substances with hazardous properties such as CMR (carcinogenic, mutagenic or toxic for reproduction in Class 1 or 2), PBT (persistent, bioaccumulative and toxic) or vPvB (very persistent and very bioaccumulative) as well as endocrine-disrupting. The criteria for an SVHC substance are defined in REACH, Article 57. These substances are placed on the candidate list. Permission for use can be requested from ECHA.
The PRIO list	<p>The PRIO list is a list/database of substances which should be prioritised in risk reduction and phasing out work.</p> <p>The tool has been developed by the Swedish Chemicals Agency.</p> <p>The list can be helpful in adapting to the EU regulation REACH as well as in work on sustainable development and our common goal "A Non-Toxic Environment".</p>