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TECHNICAL GUIDELINE

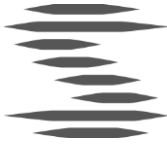
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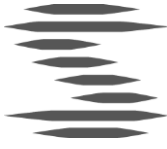
# Svenska kraftnät's chemicals prohibition list

This technical guideline contains specific requirements related to chemicals used in Svenska kraftnät's operations. The requirements apply to the execution of all types of building, civil engineering and maintenance work, storage operations, consultancy services in planning and design, and other similar assignments. The requirements also apply to products and equipment delivered to Svenska kraftnät.

This English text is regarded as a translation of the Swedish guideline. The Swedish text and the interpretation thereof shall govern the contract and the legal relations between parties.



REVISION	Change note	Date
Revision 1	New technical guideline	2019-04-30



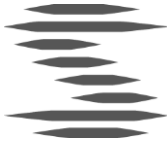
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# 1 Definitions

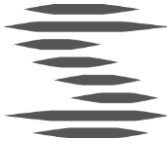
Building and Civil Engineering Work	Work or activities which the Supplier carries out in the field under contract with Svenska kraftnät, cf. AFS 1999:3.
CMR	Carcinogenic, mutagenic, toxic for reproduction
Contractor	Companies that deliver more or less complete construction or maintenance services. Services may include materials.
Handling of chemical products	Manufacture, processing, treatment, packaging, storage, transport, use, disposal, destruction, conversion, and similar procedures.
Endocrine-disrupting	Substance which can affect hormone function in living organisms and have harmful effects, for example contribute to the development of cancer or affect reproductive ability.
Inbuilt chemical products, materials and goods	Inbuilt chemical products, materials and goods are those built into the installation to form a permanent part of the use phase of the installation. Chemical products or materials and goods used temporarily during the construction phase are not inbuilt.
Inbuilt stand-alone chemical products	Inbuilt, but stand-alone, chemical products forming part of the installation or equipment to be a permanent part during the use phase. 'Stand-alone' means that they can be added or removed without the installation itself being affected, e.g. transformer oil.
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.
Consultant	Consulting company that provides services and includes the role Project Planner.
Supplier	Collective term for any company that has a contract with Svenska kraftnät and is supplying products/services. It includes Contractor and Consultant. Subcontractors can be different things but Svenska kraftnät is never party to the agreement.
Environmental hazard	Harmful to the environment, for example by breaking down the ozone layer or causing acidification of lakes and watercourses etc.
Subcontractor	Company that is a contractor or consultant, and party to agreement with a Svenska kraftnät's contracted Supplier.
PBT	Persistent, Bioaccumulative, Toxic
REACH	Stands for Registration, Evaluation, Authorisation and Restriction of Chemicals. In Swedish: Registrering, utvärdering, godkännande och begränsning av kemikalier. REACH is the EU's chemicals legislation. Policies are set out in European Parliament and Council Regulation (EC) No 1907/2006.
Toxic	Another word for poisonous. Substance that can cause harm to living organisms.



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Maintenance work	Maintenance of substations, lines, line corridors, cables, technical buildings and other installations, and security inspections, where maintenance is a combination of technical and administrative measures, including monitoring, designed to maintain or restore an element to a state enabling it to perform a required function.
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## 2 Scope and responsibility

This technical guideline lists substances which are prohibited from use in Svenska kraftnät's operations, or may only be used in restricted areas of application. The prohibition includes substances included in

- > chemicals used or consumed in Svenska kraftnät's project, maintenance and storage operations, including all subcontractors working in commissions,
- > inbuilt chemical products, materials and goods,
- > inbuilt stand-alone chemical products, e.g. transformer oil,
- > chemical products, materials and goods supplied to Svenska kraftnät as reserve material.

Note that this is a prohibition list drawn up by Svenska kraftnät, and even if it is complied with, this does not mean that legal requirements concerning hazardous chemical substances are thereby fulfilled.

The Supplier, with whom Svenska kraftnät has signed an agreement, is responsible for ensuring that the requirements in this document are followed.

The Contractor, consultant, manufacturer and intermediary (if any) are referred to below as the Supplier, and Svenska kraftnät as the Customer.



### 3 Obligation to supply information concerning particularly hazardous substances restricted by law

The Supplier is obliged to inform the Customer if substances listed in the candidate list (article 59), permit list (annex XIV) and restriction list (annex XVII) in REACH<sup>1</sup> occur in their products intended for use in the Customer's operations.

If new substances are added to the candidate list during the agreement period, the Customer must be informed if they occur in the products. This must be done within six months of the publication of a revised candidate list by the European Chemicals Agency (Echas). If such substances are intended to be included in inbuilt stand-alone chemical products, or in chemical products, materials and goods to be supplied to the Customer as reserve materials, the Supplier must also, in the same time frame, present a substitute product, unless the Supplier has a valid licence for continued use.

### 4 List of prohibited and restricted substances

'Prohibited substances' are substances which may not occur in products used or purchased by the Customer or for the Customer's operations.

'Restricted substances' are substances which may only occur in certain areas of use. Active efforts must be made to find alternatives to restricted substances.

#### 4.1 Prohibited substances

Substance	CAS	Example of use	Risk
Acrylamide	79-06-01	Construction plastic products	CMR
Anthracene	120-12-7	Wood protection treatment	PBT
Arsenic and its compounds	All	Wood protection agent, pesticide, metal in alloys	CMR
Bisphenol A	80-05-7	Stabilising, bonding agent in plastics	Endocrine disruptor
Boric acid	10043-35-3, 11113-50-1	Flame retardant, antiseptic properties	CMR

<sup>1</sup> Regulation (EC) no. 1907/2006 on Registration, evaluation, approval and restriction of chemicals



<b>Phthalates</b>  Benzyl butyl phthalate (BBP)  Dibutyl phthalate (DBP)  Di (ethylhexyl) phthalate (DEHP)  Diisobutyl phthalate (DIBP)	85-68-7,  84-74-2,  117-81-7  84-69-5	Plasticiser in plastic products, adhesives, sealants	CMR
<b>4,4'-Methylenebis(2-chloroaniline) (MOCA)</b>	101-14-4	Curing agent in resins and polymers, e.g. in plastic and rubber manufacturing.	CMR
<b>Hexabromocyclodecane (HBCDD)</b>	25637-99-4, 3194-55-6, 134237-51-7, 134237-50-6, 134237-52-8	Flame retardant in electronics etc.	CMR
<b>Hexachlorobenzene (HCB)</b>	118-74-1	Pesticide	CMR
<b>Short-chained chlorinated paraffins (SCCP)</b>	Several examples 85535-84-8	Occur in paints and sealants, refrigerants and lubricants, plastics and rubber, sealants, cutting oils, cutting fluids.	PBT
<b>Borax</b>	1303-96-4, 12179-04-3, 1330-43-4	Wood protection agent, disinfectant, flame retardant, metal-working agent, detergent etc.	CMR
<b>Nonylphenol</b>	All, e.g. 25154-52-3, 104-40-5, 90481-04-2, 84852-15-3	Surfactant	Endocrine disruptor
<b>Nonoxynols</b>	All, e.g. 26027-38-3, 9016-45-9, 127087-87-0,	Surfactant, corrosion inhibitor	Endocrine disruptor





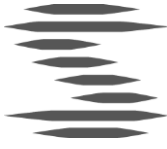
	37205-87-1, 68412-54-4		
<b>Organic phosphates</b>  - (Tris(2-carboxyethyl)phosphine (TCEP)	115-96-8	Flame retardant added to plastics. Flame retardant paints, plastics and adhesives.	Environmental hazard
<b>Pentachlorophenol (PCP)</b>	87-86-5, 131-52-2	Surface treatment and impregnation of wood	CMR
<b>Perfluorinated substances</b>  - Perfluorooctanoic acid (PFOA)  - Perfluorooctanesulfonic acid (PFOS)	All perfluorocarboxylates with carbon chains longer than 6 carbon (C6)	Impregnation agents, polishes, fire extinguishing foam, paint, sealing strips	Environmental hazard, CMR
<b>Polybrominated diphenyl ethers (PBDE)</b>	All, e.g. 1163-19-5, 32534-81-9, 32536-52-0	Flame retardants in plastics and textiles	Environmental hazard
<b>Organotin compounds</b>	All	Wood preservatives, sealants, adhesives and varnishes	CMR, Environmental hazard
<b>Chlorofluorocarbons (CFC)</b>	All	Refrigerants in cooling plants	Environmental hazard
<b>Dinitrotoluene</b>	All, e.g. 25321-14-6, 121-14-2, 606-20-2	Occur in plastic, rubber and explosives	CMR
<b>Glycol ethers</b>  2-Ethoxyethanol  2-Methoxyethanol  2-Ethoxyethyl acetate	110-80-5,  109-86-4,  111-15-9,	Paint, adhesives, cleaning etc.	CMR



2-Methoxyethyl acetate	110-49-6		
<b>Halon compounds</b>		Fire-fighting equipment	Environmental hazard
Halon 1211	353-59-3,		
Halon 1301	75-63-8,		
Halon 2402	124-73-2		
<b>Hydrochlorofluorocarbons (HCFC)</b>	All	Solvents, foaming agents	Environmental hazard

## 4.2 Restricted substances

Substance	CAS	Permitted areas of use	Risk
<b>Anthracene oil</b>	90640-80-5, 90640-81-6, 91995-15-2	Creosote for impregnation of sleepers and poles  Bitumen for asphalt coating	CMR, PBT
<b>Benzene</b>	71-43-2	Propellants of environmental class 1 may contain proportions of the substance as in Act on Propellants 2011: 319	CMR
<b>Benzo(a)pyrene</b>	50-32-8	Creosote sleepers and poles, asphalt coating	CMR
<b>Lead and its compounds</b>	All	As in directive 2011/65/EU and directive 2006/66/EC Detonators	CMR, Environmental hazard
<b>Cadmium and its compounds</b>	All	As in directive 2011/65/EU and directive 2006/66/EC	CMR, Environmental hazard
<b>Chromium (VI) compounds</b>	All	As in directive 2011/65/EU	CMR, Environmental hazard



<b>Mercury and its compounds</b>	All	As in directive 2011/65/EU	Toxic, environmental hazard
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