Ministry of Infrastructure and Water Management

Policy on emissions of hazardous substances to water and air

General and practical guide

Dutch policy on emissions of substances to water and air commonly distinguishes between **'national substances of very high concern'**, **'potential national substances of very high concern'** and '**contaminants of emerging concern'**. These three terms apply to different groups of hazardous substances. Each term has its own meaning and aim.

This leaflet clarifies the meaning, aim and use of these terms, and the relationship between them. Overleaf is a summary of how emissions and discharges of hazardous substances are dealt with.

The information in this leaflet is intended as a general and practical guide for anyone interested in Dutch water and air quality policy.

This leaflet contains simplified information;
in all cases the relevant legislative provisions prevail.

The use and emission of any chemical must comply with regulations, the aim being to prevent the use and emission of hazardous substances wherever possible. Manufacturers and users are required to abide by European and national rules. Policy in this area differentiates between three groups of substances.

National Substances of very High Concern (nSVHC)

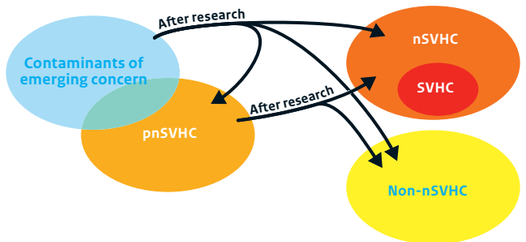
The marketing of chemicals is regulated by European legislation (REACH). Article 57 of the REACH regulation contains criteria that determine whether a substance is of very high concern for human health and the environment. These Substances of Very High Concern (SVHC) may no longer be marketed in the long term. The same REACH criteria are used in Dutch laws and regulations to determine which emissions of chemical substances have adverse effects. Substances that meet these criteria (national Substances of Very High Concern, nSVHC) are of very high concern to humans or the environment. They are subject to strict rules, including an obligation to minimise the emissions as far as possible, beyond limit values.

Potential national Substances of Very High Concern (pnSVHC)

In the EU, substances, which are expected, but not yet proven, to meet the REACH criteria are called potential national Substances of Very High Concern (pnSVHC). In The Netherlands, companies that emit these pnSVHC can be asked to conduct research and, if necessary, limit their emissions as a precautionary measure. Once all the data on the pnSVHC is known, the substance is classified as either nSVHC or non-nSVHC. Non-nSVHC may however still have adverse effects on health and the environment.

Contaminants of emerging concern (CEC)

This refers to any chemical found in water, whose concentration and e¬ffects on the environment or safety as source for drinking water are not yet sufficiently known. No standards or limit values have been set for these substances, which are called contaminants of emerging concern (CEC). Research into the risks to water quality and drinking water is essential. Based on the outcomes, (provisional) standards and measures are laid down and purification techniques are developed.



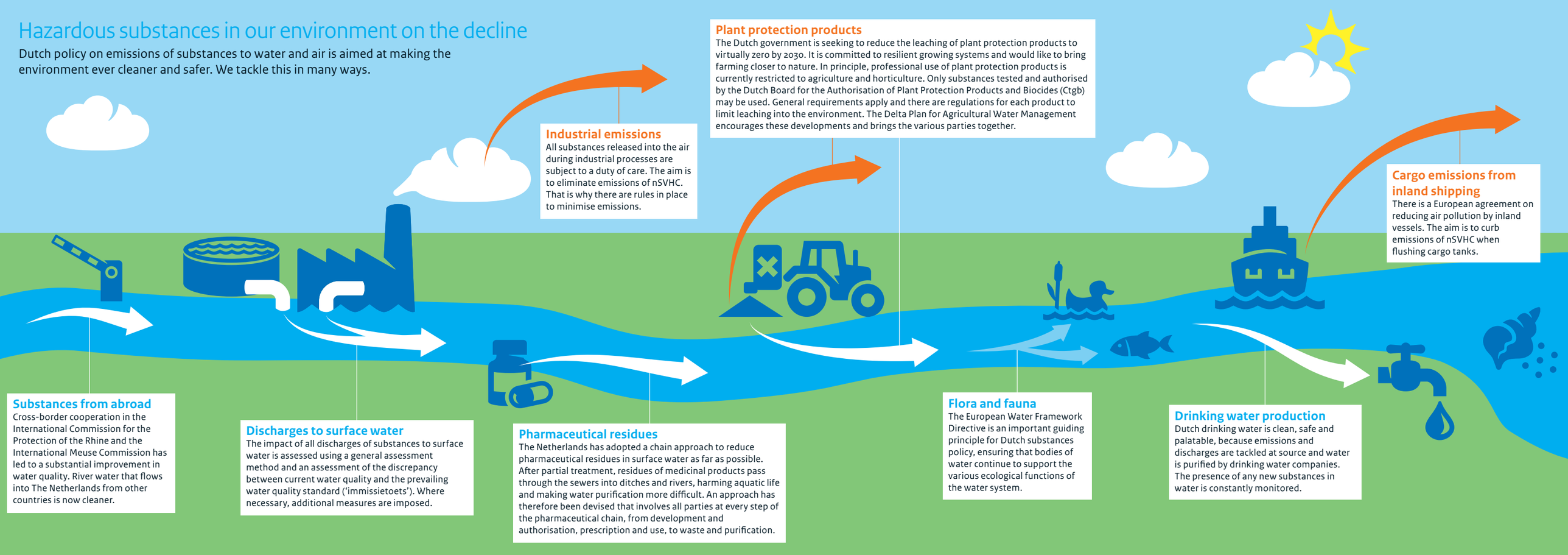
Summary

	nSVHC	pnSVHC	Contaminants of emerging concern
Properties	Undoubtedly very hazardous	Possibly very hazardous	Adverse effects unknown
Policy aim	Prevent emissions or reduce them to negligible concentrations	Clarify risks; meanwhile, monitor closely as a precaution and, if necessary, reduce emissions	Identify as quickly as possible, document risks and, if necessary, take action
Approach	Prioritise: - If possible, stop use (source approach) - Minimise emissions - Review every five years	Research and perhaps limit emissions: - Competent authority can ask a company responsible for pnSVHC emissions to conduct further research - Based on research, decision may be made to impose extra, precautionary measures; duty of care applies to all substances, but pnSVHC require extra monitoring	Research: - Monitor presence of CEC - Develop sustainable and affordable purification techniques - Develop standards and measures to limit risks of CEC
List of substances	RIVM's nSVHC list (ZZS-lijst in Dutch)	RIVM's pnSVHC list (pZZS-lijst in Dutch)	Unknown
Number identified	Approx. 1,400 (as at October 2018)	Approx. 300 (as at October 2018)	Unknown
Standards	Standards are available for the substances relevant to The Netherlands	Standards are laid down if necessary	No
Emission limitation	BAT+ and minimisation obligation	BAT	Not yet known
Phasing out	Yes, aim is to reduce emissions to zero, but safe use is still possible	No	No
Authorisation possible?	Yes, if substitution is not feasible	Yes, extra monitoring is possible, based on duty of care	N/A
Examples	Mercury, cadmium and PFOA	Melamine, benzaldehyde and carbon black	Caffeine and cyanuric acid

BAT Best available techniques
BAT+ If, despite the best available techniques being used, the environmental impact proves to be too great, additional measures must be taken; this is referred to as BAT+.

Hazardous substances in our environment on the decline

Dutch policy on emissions of substances to water and air is aimed at making the environment ever cleaner and safer. We tackle this in many ways.



Substances from abroad

Cross-border cooperation in the International Commission for the Protection of the Rhine and the International Meuse Commission has led to a substantial improvement in water quality. River water that flows into The Netherlands from other countries is now cleaner.

Discharges to surface water

The impact of all discharges of substances to surface water is assessed using a general assessment method and an assessment of the discrepancy between current water quality and the prevailing water quality standard ('immissietoets'). Where necessary, additional measures are imposed.

Industrial emissions

All substances released into the air during industrial processes are subject to a duty of care. The aim is to eliminate emissions of nSVHC. That is why there are rules in place to minimise emissions.

Pharmaceutical residues

The Netherlands has adopted a chain approach to reduce pharmaceutical residues in surface water as far as possible. After partial treatment, residues of medicinal products pass through the sewers into ditches and rivers, harming aquatic life and making water purification more difficult. An approach has therefore been devised that involves all parties at every step of the pharmaceutical chain, from development and authorisation, prescription and use, to waste and purification.

Plant protection products

The Dutch government is seeking to reduce the leaching of plant protection products to virtually zero by 2030. It is committed to resilient growing systems and would like to bring farming closer to nature. In principle, professional use of plant protection products is currently restricted to agriculture and horticulture. Only substances tested and authorised by the Dutch Board for the Authorisation of Plant Protection Products and Biocides (Ctgb) may be used. General requirements apply and there are regulations for each product to limit leaching into the environment. The Delta Plan for Agricultural Water Management encourages these developments and brings the various parties together.

Flora and fauna

The European Water Framework Directive is an important guiding principle for Dutch substances policy, ensuring that bodies of water continue to support the various ecological functions of the water system.

Drinking water production

Dutch drinking water is clean, safe and palatable, because emissions and discharges are tackled at source and water is purified by drinking water companies. The presence of any new substances in water is constantly monitored.

Cargo emissions from inland shipping

There is a European agreement on reducing air pollution by inland vessels. The aim is to curb emissions of nSVHC when flushing cargo tanks.