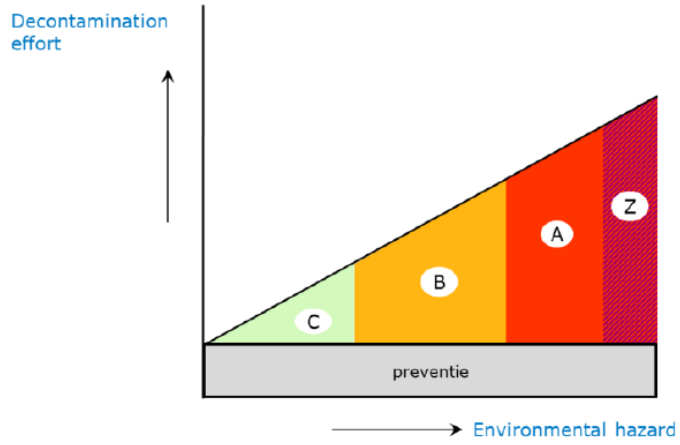
Appendix 2: ABM-assessment: evaluation of substances (Z, A, B or C)

ABM-assessment

To ensure proper implementation of the water quality policy it is considered necessary to have insight into the aquatic hazard of substances and/or mixtures to be discharged. The more hazardous a substance or mixture the more effort to decontaminate the discharge is required. This is schematically indicated in figure 1.



Z & A: Pollution will have to be terminated
B: Discharge will have to be prevented wherever possible
C: the need for taking emission reducing measures has yet to be determined.

Figure 1: General relationship between decontamination effort and the aquatic hazard level of substanceseid

The aquatic hazard of a substance depends on a large number of intrinsic properties, such as toxicity (acute or chronic), biological degradability and bioaccumulative potential (also based on the n-octanol/water partition coefficient (log Kow)), carcinogenicity, mutagenicity and reprotoxicity. According the General Assessment Method (ABM) the substance is classified into one of the following four categories based on these data:

Z: Substances of Very High Concern, SVHC, set of substances that are most hazardous for humans and the environment);

A: not readily biodegradable aquatic harmful substances;

B: readily biodegradable aquatic harmful substances;

C: substances that occur naturally in local surface water.

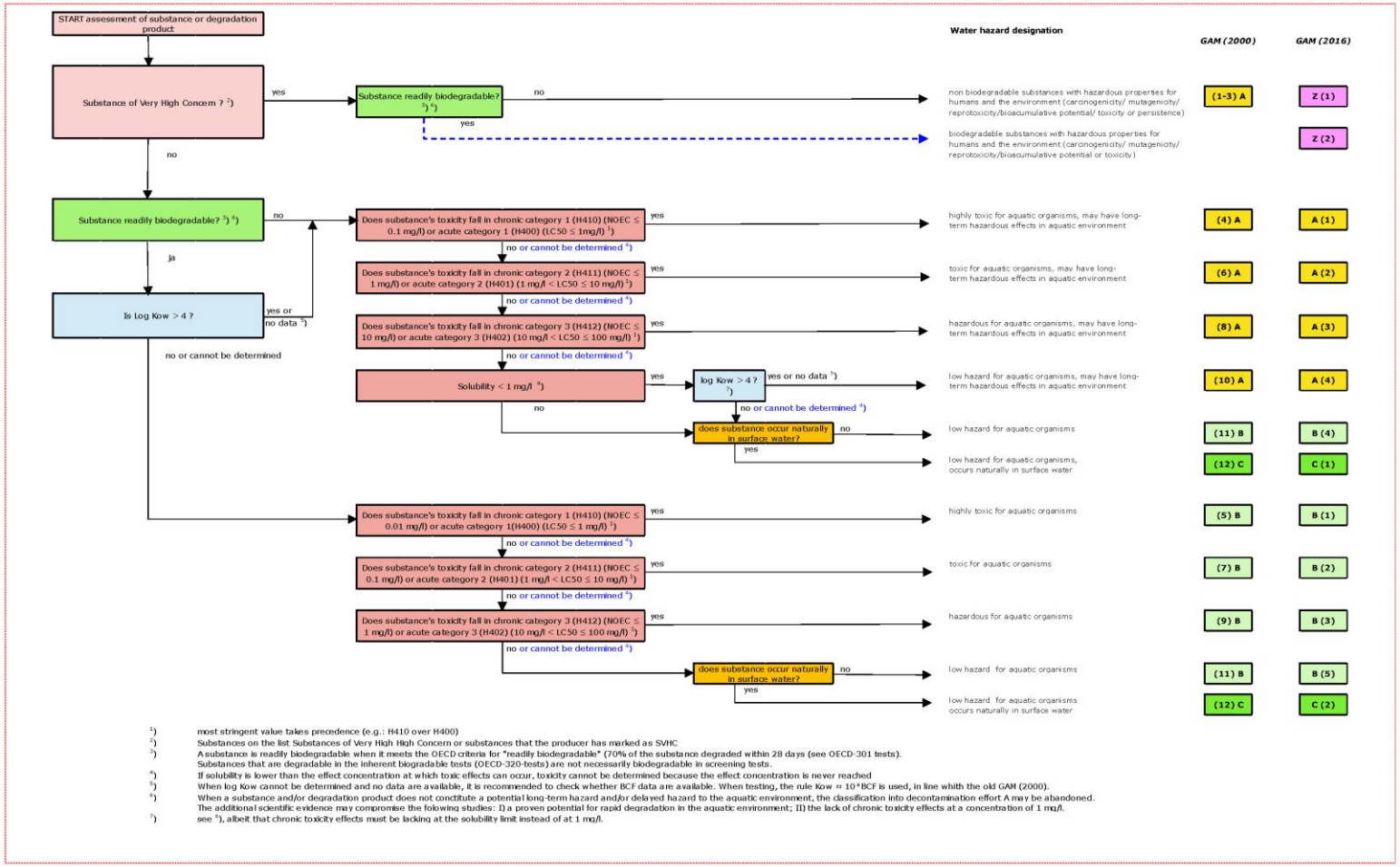
Figure 2 indicates the assessment scheme used for the ABM.

Carcinogenicity, mutagenicity and reprotoxicity (among others by hormone disrupting effects) are not indicated in this scheme as a separate assessment criterion, but are classified into the category SVHC.

For the ABM a worst case approach is followed. If no data on specific properties is available, the worst case classification is used: either the most toxic category, or the property not readily biodegradable or log Kow > 4.

Figure 2: General assessment methodology of substances

Figure 1. General assessment methodology of substances[23]



[23] The GAM uses a worst-case approach. If no information on specific substance properties is available, a worst-case scenario is applied: either the most toxic class or NOT readily biodegradable or log Kow >4.