

# Rules for generating hazard alerts

The hazard alerts shown at the top of each record are generated using the interpretation of the substance properties using rules below to categorise each substance in high (red), moderate (yellow) or low (green) with respect to environmental fate, ecotoxicity and human health.

#### **Environmental fate**

Respective alerts are triggered when a substance has any of the values in the respective tables below (i.e. if substance has any of the high alert values, it is categorised as high; if not then likewise for moderate values; and then low values):

#### High (red) alert

Property	Value
Persistence (based on soil DT <sub>50</sub> values)	Persistent or Very persistent
GUS leaching potential index	High leachability
Potential for loss via drain flow	Very mobile or Mobile
Potential for particle bound transport index	High

#### Moderate (yellow) alert

Property	Value
Persistence (based on soil DT <sub>50</sub> values)	Moderately persistent
GUS leaching potential index	Transition state
Potential for loss via drain flow	Moderately mobile or Slightly mobile
Potential for particle bound transport index	Medium

#### Low (green) alert

Property	Value
Persistence (based on soil DT <sub>50</sub> values)	Non-persistent
GUS leaching potential index	Low leachability
Potential for loss via drain flow	Non-mobile
Potential for particle bound transport index	Low

If data for  $DT_{50}$ ,  $K_{oc}$  or  $K_{foc}$  (which are used for the indices above) are missing, a warning about missing data is shown.

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# **Ecotoxicity**

Respective alerts are triggered when a substance has any of the values in the respective tables below (i.e. if substance has any of the high alert values, it is categorised as high; if not then likewise for moderate values; and then low values):

### High (red) alert

Property	Value
Birds acute ecotoxicity	High
Birds chronic ecotoxicity	High
Fish acute ecotoxicity	High
Fish chronic ecotoxicity	High
Daphnia acute ecotoxicity	High
Daphnia chronic ecotoxicity	High
Bees acute contact ecotoxicity	High
Bees acute oral ecotoxicity	High
Bees acute unknown ecotoxicity	High
Earthworms acute ecotoxicity	High
Earthworms chronic ecotoxicity	High

### Moderate (yellow) alert

Property	Value
Birds acute ecotoxicity	Moderate
Birds chronic ecotoxicity	Moderate
Fish acute ecotoxicity	Moderate
Fish chronic ecotoxicity	Moderate
Daphnia acute ecotoxicity	Moderate
Daphnia chronic ecotoxicity	Moderate
Bees acute contact ecotoxicity	Moderate
Bees acute oral ecotoxicity	Moderate
Bees acute unknown ecotoxicity	Moderate
Earthworms acute ecotoxicity	Moderate
Earthworms chronic ecotoxicity	Moderate

### Low (green) alert

Property	Value
Birds acute ecotoxicity	Low
Birds chronic ecotoxicity	Low
Fish acute ecotoxicity	Low
Fish chronic ecotoxicity	Low
Daphnia acute ecotoxicity	Low
Daphnia chronic ecotoxicity	Low
Bees acute contact ecotoxicity	Low
Bees acute oral ecotoxicity	Low
Bees acute unknown ecotoxicity	Low
Earthworms acute ecotoxicity	Low
Earthworms chronic ecotoxicity	Low

If data for 3 or more acute values are missing, a warning about missing data is shown. For the bee data, all three values must be missing to count as one missing data item.



### **Human health**

Respective alerts are triggered when a substance has any of the values in the respective tables below (i.e. if substance has any of the high alert values, it is categorised as high; if not then likewise for moderate values; and then low values):

### High (red) alert

Property	Value
Mammals acute toxicity	High
Mammals chronic toxicity	High
Carcinogen	Yes
Genotoxic	A1, B1, C1, D1 or E1
Endocrine disrupter	Yes
Reproduction/development effects	Yes
Acetyl cholinesterase inhibitor	Yes
Neurotoxicant	Yes

### Moderate (yellow) alert

Property	Value
Mammals acute toxicity	Moderate
Mammals chronic toxicity	Moderate
Carcinogen	Possible
Genotoxic	A2, B2, C2, D2 or E2
Endocrine disrupter	Possible
Reproduction/development effects	Possible
Acetyl cholinesterase inhibitor	Possible
Neurotoxicant	Possible

## Low (green) alert

Property	Value
Mammals acute toxicity	Low
Mammals chronic toxicity	Low
Carcinogen	No
Genotoxic	A3, B3, C3, D3 or E3
Endocrine disrupter	No
Reproduction/development effects	No
Acetyl cholinesterase inhibitor	No
Neurotoxicant	No

If data for 3 or more properties is missing (excluding mammals chronic toxicity), a warning about missing data is shown.