



## **Australian Government**

### **EXPOSURE DRAFT**

#### **Industrial Chemicals Environmental Management (Register) Bill 2020**

#### **Information Paper**

#### **Risk Management Measures**

The Industrial Chemicals Environmental Management (Register) Bill 2020 (the ICEMR Bill) allows the Minister to make scheduling decisions for industrial chemicals (and the use of industrial chemicals). All scheduling decisions must be recorded in the Industrial Chemicals Environmental Management (Register) Instrument (the ICEM Register).

A scheduling decision may include a decision to list a chemical in a particular Schedule or Schedules of the ICEM Register, and a decision to specify any one or more risk management measures for the relevant industrial chemical or for any particular uses of that chemical. Scheduling decisions will be informed by the risk characteristics of a particular chemical (or particular use of that industrial chemical) as set out in the Industrial Chemicals Environmental Management (Register) Principles (the ICEMR Principles)<sup>1</sup>.

Risk management measures are directive, outcomes-based measures that may be assigned to an industrial chemical or a particular use of that chemical to protect the environment.

Risk management measures are used to set requirements for the intended, normal use or disposal of a chemical. A risk management measure can require particular actions, impose an obligation, or prohibit or restrict particular conduct or things. Risk management measures may also apply for a specified period of time.

Throughout this Information Paper, a reference to an industrial chemical includes a reference to a class of industrial chemicals.

#### **Assignment of Risk Management Measures to Schedules of the ICEM Register**

A pre-defined suite of risk management measures has been developed in consultation with key stakeholders through the development of the National Standard for the environmental risk management of industrial chemicals (the National Standard)<sup>2</sup>. The risk management measures are organised by both subject matter (Attachment A) and by Schedule (Attachment B), to indicate the types of pre-defined measures that may apply to an industrial chemical (or a particular industrial use of that chemical). Chemicals listed in higher schedules (that pose a greater risk to the environment) will have more stringent controls applied than those in lower schedules, thus encouraging the use of industrial chemicals from lower schedules.

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<sup>1</sup> For further information regarding the ICEMR Principles, see the Explanatory Note for the Industrial Chemicals Environmental Management (Register) Principles.

<sup>2</sup> Available at the Australian Government Department of the Environment and Energy's webpage: <https://www.environment.gov.au/protection/chemicals-management>

When making a scheduling decision, it is intended that the Minister will select from the pre-defined suite applicable for the Schedule the chemical is to be listed in. However, the Minister may assign risk management measures to chemicals which are outside the pre-defined measures for that Schedule, or may tailor risk management measures to address specific risks associated with the use of an industrial chemical. For example, while in most cases the Minister will select a Schedule 3 risk management measure for a Schedule 3 chemical, in some instances it may be appropriate to include a risk management measure from the Schedule 4 list or a tailored risk management measure.

In addition to adhering to any risk management measures specified for an industrial chemical or for a specified use of an industrial chemical, it is expected that all users of chemicals will act in accordance with a general responsibility to protect the environment (Attachment C). The risk management measures build on this general responsibility to manage specific risks posed by industrial uses of hazardous chemicals.

A general overview of the assignment of risk management measures to Schedules of the ICEM Register is outlined below.

### ***Schedule 1***

Schedule 1 industrial chemicals will be those that are not hazardous, or have low hazard characteristics. Chemical users will be expected to adhere to the general responsibility to protect the environment in using chemicals listed in all schedules, including Schedule 1. However, due to the inherently low or no hazard characteristics of these chemicals, no risk management measures will be assigned.

### ***Schedules 2 to 5***

Industrial chemicals (or particular uses of industrial chemicals) assigned to Schedules 2 to 5 will be those classified as hazardous to the environment when the risks posed to the environment can be predominantly managed using pre-defined risk management measures.

### ***Schedules 6 and 7***

Industrial chemicals assigned to Schedules 6 and 7 will be those that pose high risk to the environment. These chemicals are more likely to require tailored risk management measures to manage those risks, however pre-defined risk management measures may also be used.

Industrial chemicals listed in Schedule 7 will be prohibited for all uses, however risk management measures may be required in order to safely store or dispose of those chemicals. Industrial chemicals listed in Schedule 6 may have specific permitted uses, where the Minister determines risk management measures can appropriately manage the identified risks to the environment.

**Attachment A**  
**Draft risk management measures by subject**

**Storage, handling and containment**

Item	Risk management measures
1	Do not use [ <i>packaging/containment systems and/or plant and equipment</i> ] for the [storage and/or handling] of the chemical that allows the chemical to be discharged into the environment.
2	Do not use the chemical where its disposal cannot be controlled.
3	Do not allow [ <i>bird life/taxonomic rank descriptor</i> ] to be exposed to the chemical [ <i>above x concentration</i> ].
4	Do not allow [ <i>mammal/taxonomic rank descriptor</i> ] to be exposed to the chemical [ <i>above x concentration</i> ].
5	Do not allow [ <i>insect/taxonomic rank descriptor</i> ] to be exposed to the chemical [ <i>above x concentration</i> ].
6	Do not allow [ <i>invertebrates/vertebrates</i> ] to be exposed to the chemical [ <i>above x concentration</i> ].
7	Do not allow [ <i>plant/taxonomic rank descriptor</i> ] to be exposed to the chemical [ <i>above x concentration</i> ].

**Treatment and disposal**

Item	Risk management measures
1	Apply best available techniques when treating a substance containing the chemical for disposal.
2	Do not dispose of empty bulk storage containers and drums containing the chemical other than through an approved facility.
3	Do not discharge the chemical to sewer at concentrations greater than [ <i>x concentration</i> ].
4	Do not use the chemical at concentrations greater than [ <i>x concentration</i> ] in products intended to be disposed to sewer.
5	Do not dispose of wastes containing the chemical to landfill at concentrations greater than [ <i>x concentration</i> ].
6	Do not discharge the chemical to sewer.
7	Do not discharge the chemical to sewer unless permitted under an approved agreement.
8	Do not dispose of waste containing the chemical other than through an approved facility.
9	Do not dispose of the chemical to the environment without an approval to do so, and prior to treatment to [ <i>destroy the chemical/render it inactive/harmless</i> ].
10	Do not dispose of wastes containing the chemical to landfill.

## Water

Item	Risk management measures
1	Do not discharge the chemical directly to surface waters at a concentration greater than [ <i>x concentration</i> ].
2	Do not discharge the chemical directly to marine water at a concentration greater than [ <i>x concentration</i> ].
3	Do not discharge the chemical directly to freshwater at a concentration greater than [ <i>x concentration</i> ].
4	Do not discharge the chemical directly to estuarine water at a concentration greater than [ <i>x concentration</i> ].
5	Do not discharge the chemical to groundwater at a concentration greater than [ <i>x concentration</i> ].
6	Do not discharge the chemical directly to surface water.
7	Do not discharge the chemical directly to marine water.
8	Do not discharge the chemical directly to freshwater.
9	Do not discharge the chemical directly to estuarine water.
10	Do not discharge the chemical to waters and/or waterways that are continuous with a high ecological value aquatic system.
11	Do not discharge the chemical within the designated boundaries of a high ecological value aquatic system [ <i>above x concentration/time period</i> ].
12	Do not use the chemical within the designated boundaries of a high ecological value aquatic system [ <i>above x concentration/time period</i> ].
13	Do not discharge the chemical to groundwater.
14	Do not release the chemical into marine water which has a pH value [ <i>greater than/less than/equal to pH value</i> ].
15	Do not release the chemical into freshwater which has a pH value [ <i>greater than/less than/equal to pH value</i> ].
16	Do not release the chemical into estuarine water which has a pH value [ <i>greater than/less than/equal to pH value</i> ].
17	Do not release the chemical into marine water where it will result in a reduction of Dissolved Oxygen of greater than [ <i>x %</i> ].
18	Do not release the chemical into freshwater where it will result in a reduction of Dissolved Oxygen of greater than [ <i>x %</i> ].
19	Do not release the chemical into estuarine water where it will result in a reduction of Dissolved Oxygen of greater than [ <i>x %</i> ].
20	Do not release the chemical into marine water which has a mass flux rate [ <i>greater/less than/equal to x kg/m<sup>2</sup></i> ].

21	Do not release the chemical into freshwater which has a mass flux rate [ <i>greater/less than/equal to x kg/x m<sup>2</sup></i> ].
22	Do not release the chemical into estuarine water which has a mass flux rate [ <i>greater/less than/equal to x kg/x m<sup>2</sup></i> ].

### Land

Item	Risk management measures
1	Do not apply the chemical directly to land at a concentration greater than [ <i>x concentration/time period</i> ].
2	Do not apply the chemical directly to land within the designated boundaries of a terrestrial area of ecological significance [ <i>above x concentration/time period</i> ].
3	Do not apply the chemical to land if heavy rains or storms are forecast in the immediate area within [ <i>x days</i> ] of application.
4	Do not apply the chemical directly to land within [ <i>x distance of</i> ] of the designated boundaries of a terrestrial area of ecological significance [ <i>above x concentration/time period</i> ].
5	Do not apply the chemical directly to land where storm run-off could enter waterways.
6	Do not apply the chemical directly to land.

### Air

Item	Risk management measures
1	Do not discharge the chemical to air at a concentration greater than [ <i>x mass emission rate/time period</i> ].
2	Do not discharge the chemical to air during periods of [ <i>high/low</i> ] winds and/or where winds are [ <i>above x speed/below x speed</i> ].
3	Do not discharge the chemical to air.

**Attachment B**  
**Assignment of Risk Management Measures to Schedules**

**Schedule 2**

Category	Risk management measures
Storage, handling and containment	Items 1 and 2
Treatment and disposal	Items 1 and 2

**Schedule 3**

Category	Risk management measures
Storage, handling and containment	As for Schedule 2
Treatment and disposal	As for Schedule 2, plus items 3, 4 and 5
Water	Items 1, 2, 3, 4 and 5
Land	Items 1, 2 and 3
Air	Items 1 and 2

**Schedule 4**

Category	Risk management measures
Storage, handling and containment	As for Schedule 3
Treatment and disposal	As for Schedule 3, plus items 6, 7 and 8
Water	As for Schedule 3, plus items 6, 7, 8, 9, 10, 11, 12 and 13
Land	As for Schedule 3, plus items 4, 5 and 6
Air	As for Schedule 3, plus item 3

**Schedule 5**

Category	Risk management measures
Storage, handling and containment	As for Schedule 4, plus items 3, 4, 5, 6 and 7
Treatment and disposal	As for Schedule 4, plus items 9 and 10
Water	As for Schedule 4, plus items 14, 15, 16, 17, 18, 19, 20, 21 and 22
Land	As for Schedule 4
Air	As for Schedule 4

## Attachment C

### General responsibilities to protect the environment from table B-1 in the National Standard for the Environmental Risk Management of Industrial Chemicals

General Responsibility	Comment
Prevent or minimise release of industrial chemicals into the environment to the extent possible.	<i>All users of chemicals should adopt a preventative approach to risk management. The regulated community should not seek to release chemicals simply because a risk management measure allows release up to a certain limit.</i>
Do not permit deliberate or uncontrolled release of the chemical substance to the environment at concentrations that may cause harm.	<i>This is a general requirement applicable to manufacturers and industry that store, handle and process bulk quantities of chemicals, and can be achieved by applying the procedures outlined in ISO 14001 (Environmental Management Systems) or similar, and applying guidelines issued by the environmental regulatory agencies or applying guidance such as AS1940 2004 (The Storage and Handling of Flammable and Combustible Liquids).</i>
Prevent unnecessary use of excessive quantities of the chemical substance so as to minimise the release of the chemical substance to the environment.	<i>This may be achieved by minimising use and release of the chemical through alternatives identified and systematically considered in consultation with process and design experts. This may also be achieved by improving or modifying the efficiency of systems and processes involved in the use of the industrial chemical.</i>
Use an alternative chemical substance that is of lower concern to the environment for the use, where it is practicable to do so.	<i>This may be achieved by minimising use and release of the chemical through alternatives identified and systematically considered in consultation with process and design experts. It would not be practicable to use an alternative chemical where using the alternative may compromise human health or workplace safety.</i>
Where practicable, reuse and recycle the chemical.	<i>This may be achieved by identifying and systematically considering in consultation with process and design specialists opportunities to reuse and recycle the chemical and avoid its disposal.</i>
Do not adopt risk management measures that will result in adverse impacts on the environment.	<i>This action aims to prevent unintended adverse effects on the environment or infrastructure from implementing risk management approaches. An example of this could be where a chemical is disposed of to a landfill. This also aims to prevent dilution of chemicals to achieve specified concentrations where that dilution is excessive and likely to have adverse impacts on the environment or sewage treatment facilities.</i>
Report uncontrolled or accidental release of a chemical to a state, territory or federal government environment agency.	<i>This general requirement requires that incidents where a chemical is released to the environment are reported to the relevant authorities in the jurisdiction where the incident occurred.</i>