



MMO approved list of tracers, conditions and best practice

Approved list

Tracer	Total release amount	Maximum single release	Average rate of delivery
Chemical dyes			
Erioglaucine	2.00kg	2.00kg	-
Sulforhodamine G	2.00kg	2.00kg	-
Uvitex WGS	2.00kg	0.91kg	0.130kg/min
Fluorescein	2.00kg	0.89kg	0.128kg/min
Xanthene	2.00kg	0.32kg	0.046kg/min
Diphenyl methane	0.50kg	0.10kg	0.015kg/min
Rhodamine WT	0.50kg	0.05kg	0.007kg/min
Microbial tracers			
Phi-X174 coliphage	$\leq 10^{14}$ per ml (5l max)	-	-
MS2 coliphage	$\leq 10^{14}$ per ml (5l max)	-	-
PRD1 phage	$\leq 10^{14}$ per ml (5l max)	-	-
Bacteriophage for <i>Enterobacter cloacae</i>	$\leq 10^{14}$ per ml (5l max)	-	-

Tracer	Total release amount	Maximum single release	Average rate of delivery
Bacteriophage for <i>Serratia marcescens</i>	$\leq 10^{14}$ per ml (5l max)	-	-
Particle tracers			
Fluorescent coated natural particles	≤ 250 kg	-	-
Fruit (e.g. Oranges and Apples) and seeds	≤ 250 kg	-	-
Fluorescent (painted) pebbles	≤ 250 kg	-	-

Criteria for application of exempt tracers.

Criteria
An exemption does not apply should the tracer activity be likely to cause obstruction or danger to navigation.
An exemption does not apply should the tracer release be made for the purpose of disposal.
In applying the exemption, the user must not release the same approved tracer in the same location (at least 1km difference) on more than twelve occasions in a twelve month period, with a maximum of four releases in any given month and with at least one day between each release.
If applying the exemption within an area under the jurisdiction of a port or harbour authority, the user must consult with the responsible local navigation authority prior to any activities commencing.
If applying the exemption within 1km of a bathing water during the bathing season (15 May to 30 September), the user must consult the Environmental Agency prior to any activities commencing.
The user must report and record any oil, fuel or chemical spill in accordance with the advice at https://www.gov.uk/marine-pollution-incident-response .
If applying the exemption through the use of a hovercraft within a Special Area of Conservation (SAC), Special Protection Area (SPA) or Site of Special Scientific Interest (SSSI), a wildlife license is likely to be required and various controls may apply. In such circumstances, the user must also consult Natural England.
If applying an exemption using a particle tracer placed directly on the seabed/ intertidal zone, the tracer must not be placed on an area greater than 10m ² .
If applying an exemption using a particle tracer, the median particle diameter of the tracer must not be more than 1 phi class smaller than the prevailing sediment.
The user must apply for and obtain any other relevant licences to conduct the proposed work prior to any activities commencing.

Recommendations for best practice regarding tracer activities.

Recommendations for best practice
When anchoring is necessary to complete the activity, the user should avoid seagrass beds and reef habitats.
Activities should avoid seal colonies and seal haul outs throughout the year.
Activities should avoid seabird breeding colonies during the breeding season.
Ballast water releases should be managed as part of the activity.
Good practice for operating vessels in the marine environment should be followed.
The user should ensure that any equipment, temporary works and/or debris (including litter) associated with the activity are removed upon completion of the activity.