

C-14 GUIDANCE NOTES BETA, E_{Max} 0.156 MeV T_{1/2} 5730y
(Figures below are for organic compounds as these are the most restrictive)

IRR 99 Requirements

HSE NOTIFICATION LEVELS*: for work **10 MBq**
 for inadvertent release or spill **100 GBq**
 for loss or theft **100 MBq**

CONTROLLED AREA needs to be considered if activity exceeds **1 GBq**
(see below for consideration of supervised area limits)

SUPERVISED AREA will be required if activity exceeds **100 MBq**

Supervised Area Limits

Grade C lab	- non-volatile work	- up to 4 GBq
	- volatile work in FC	- up to 1 GBq
Grade B lab	- non-volatile work	- up to 40 GBq
	- volatile work in FC	- up to 10 GBq

ANNUAL LIMIT OF INTAKE (ALI) **34 MBq**
(equivalent to dose of 20 mSv)

(*Notification levels - notification to the HSE if these are exceeded)

Special Considerations and Monitoring

Some compounds may penetrate gloves and skin, or be incorporated in the skin. Some compounds may release radioactive gases on opening the vials. Take note of the user precautions provided by the supplier and to be on the safe side open all vials in a fume cupboard.

Work with up to 100 MBq can take place in non-designated areas which have been registered for radioactive work with Safety Services. However, work with trace amounts should always be segregated from work with large quantities of material.

All work with volatile compounds must be carried out in a FC and all dispensing of stock material must be carried out behind a screen for contamination control. Whatever the level of work, there is the responsibility to keep doses as low as reasonably practicable. In order to meet this requirement, strict adherence to the lab rules is essential and monitoring should be performed on a regular basis to ensure that contamination is kept below 100 Bqcm⁻². Expected monitor responses at this level are as follows:-

	Old Mini E	New E	EL
Counts above bg (100Bq cm ⁻²)	30-40	65	140

It is intended that each monitor will have advised action levels marked on it.