

HEATBASE Ltd FACTSHEET 20

Carbon Monoxide (CO) Poisoning

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Many people are unaware that they can get CARBON MONOXIDE poisoning from anything other than a Gas appliance. This is worrying as you can get it from Mains gas, LPG, and Oil appliances as well as Coal fires and Multi fuel stoves. Carbon monoxide can also be produced from biomass wood pellets in the area they are stored as well as when they are burnt; Carbon monoxide is colourless, odourless, tasteless, and non-irritating, which makes it difficult for humans to detect. The initial symptoms of acute carbon monoxide poisoning include headache, sickness and fatigue. These symptoms are often mistaken for a virus such as cold or flu or other illnesses such as food poisoning or gastroenteritis; therefore, great care should be taken to avoid this problem. British Standard 5410 part 1:2014 states that any new or replacement appliances with an open flue (not of the room sealed type) fitted from 1st January 2015 must have a Carbon Monoxide alarm fitted. Although there is no legal requirement for a home owner or landlord to install a Carbon Monoxide alarm in properties with Oil fired appliances with open flues (not of the room sealed type) installed before that date, regular Servicing and the installation of a Carbon Monoxide alarm and a Smoke alarm is highly recommended; regardless of the flue type or age of the appliance.

Concentration of CO in air	Inhalation time and effects
35 - 50 parts per million PPM	Safety level as specified by the Health and Safety Executive Headache and dizziness within 6-8 hours constant exposure
100 PPM	Slight headache within 2-3 hours
200 PPM	Slight headache within 2-3 hours With loss of judgement
400 PPM	Frontal headache within 1-2 hours, becoming widespread in 3 hours
800 PPM	Dizziness, nausea, convulsions within 45 minutes, insensible within 2 hours
1600 PPM	Headache, tachycardia, dizziness, and nausea within 20 min; death in less than 2 hours
3200 PPM	Headache, dizziness and nausea in five to ten minutes. Death within 30 minutes.
6400 PPM	Headache and dizziness in one to two minutes. Convulsions, respiratory arrest, and death in less than 20 minutes.
12800 PPM	Unconsciousness after 2-3 breaths. Death in less than three minutes.

It is the Owner/householders responsibility to ensure their system is compliant and safe.