

WORK STUDY › OPPORTUNITIES FOR PROFIT

# FLOOD



DELIVERING HIGH QUALITY TRAINING

## FLOODS

Floodwaters often bring mass devastation, flooding homes and other premises, causing stress and deprivation. The presence of floods also frequently heightens the risk of disease.

Floods can create the perfect environment for pests, such as rodents, since they are often displaced from sewers and burrows. The standing water, waste, sewage and debris left behind provide ideal breeding grounds for insects such as mosquitoes and other flies. Such favourable conditions can result in an abundance of disease carrying and nuisance causing flies, posing a significant risk to health.

## DISEASE

Coliform bacteria and other faecal organisms can be associated with floods, stormdrains, sewer back-up incidents, etc.

Weil's disease or Leptospirosis, carried by rodents, has been associated with flooding. Some studies have found a 15-fold risk of the disease associated with walking through floodwaters.

A report revealed that there were 42 cases of Weil's disease reported in England in 2010. Epidemics may be associated with changes in human behaviour, animal or sewage contamination of water, changes in animal reservoir density, or following natural disasters such as floods. It is important to be aware of the flu-like symptoms caused by a Leptospirosis infection. Those who may be exposed to Leptospirosis should take relevant precautions listed on the 'Leptospirosis (Weil's disease)' cards, which should be kept with you at all times.

## INSECT PESTS

Filth and debris left by the floodwaters create excellent breeding conditions for houseflies, mosquitoes, other flies and insects associated with decaying organic matter. Those insects may be capable of causing significant nuisance and in some cases spreading disease.

Control of such insects involves removal of the breeding source, which can be standing/stagnant water, and accumulations of organic matter in drainage systems. Flooded cellars in particular, can harbour *Culex pipiens* biotype *molestus*, a human-biting mosquito. Accumulations of decaying organic matter can provide breeding sites for a number of different 'drain' flies that may be involved in disease transmission and can certainly reach nuisance proportions. Such families of flies include the lesser dung flies family Sphaeroceridae, fruit flies family Drosophilidae, owl-midges or bathroom flies family Psychodidae, fungus gnats family Mycetophilidae, sciarid flies family Sciaridae, window gnats family Anisopodidae and others. Sites that are very wet, for at least part of the year, may favour the development of biting midges, family Ceratopogonidae.



## RODENT PESTS

After flooding, many rodents are displaced from their natural habitat. The rodents will then find areas that provide food, water and harbourage. Inevitably, rodents enter houses, sheds, barns, and other buildings. Flood-damaged premises are particularly attractive and provide easy access for rodents. These unwelcome rodents may cause damage to property directly by gnawing or indirectly by depositing faeces and urine. Rodents can threaten public health, as they may carry diseases such as *E.coli*, *Salmonella* and leptospirosis. The high instance of recent flooding in the UK has increased concern regarding exposure of householders to these diseases and rodent control is likely to become increasingly important.

## GENERAL SAFETY PRECAUTIONS

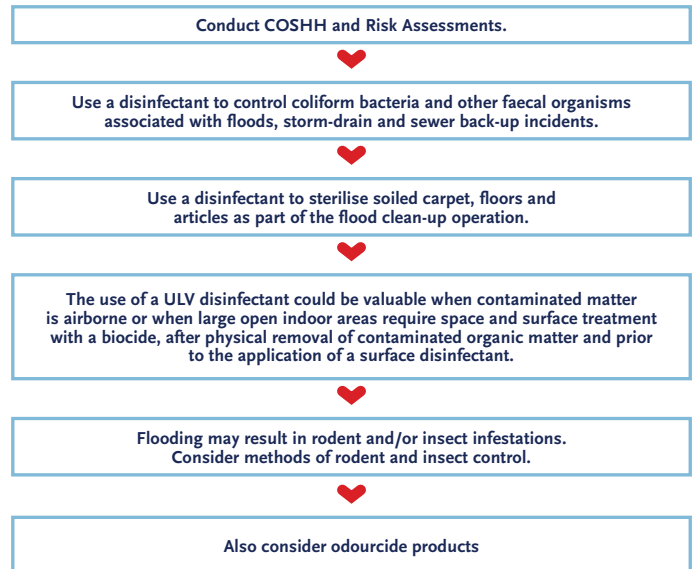
The Environment Agency recommends the following Safety Precautions:

- Wear protective clothes, sturdy boots and waterproof gloves and face masks when handling debris
- Floodwater may be contaminated by sewage, chemicals, or rat's urine (leading to Weil's disease)
- Keep your hands away from your face while cleaning and always wash your hands if you come into direct contact with floodwater or silt
- Wash all cuts and grazes and cover with a waterproof plaster. Get a tetanus jab if you are not already inoculated

Contact the Environment Agency for further advice on cleaning up after a flood: **0345 988 1188**.

## SUGGESTED FLOOD CLEAN UP PROCEDURE

After referring to the Environment Agency's advice above, we suggest you follow this general flow diagram to ensure a safe and efficient flood clean-up procedure:



Disinfectants are also available that have been specifically formulated to deal with rodent-borne diseases, such as Leptospirosis. It is important to only use disinfectants that state an effect against the microorganisms that you are attempting to control.

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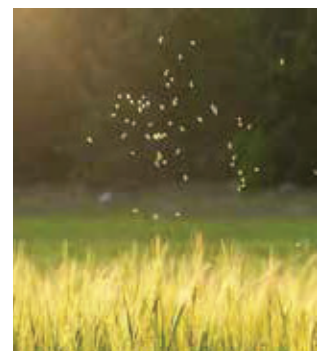
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### PX Parvo

Contains Chlorhexidine and QAC's (<7.5%)

For use to control coliform bacteria and other faecal organisms associated with floods, storm-drain and sewer back-up incidents etc.

#### RECOMMENDED PPE FOR PX PARVO FLOOD CLEAN UP

Exposure controls and personal protection		
PPE	In Use	Spillage
Respirator	Half mask + Type AP filter to required protection factor	Half mask + Type AP filter to required protection factor
Gloves	Unlined synthetic rubber	Unlined synthetic rubber
Footwear		Impervious footwear
Overall	Coverall to ISO 6530 eg Ep Coverall	Coverall to ISO 6530 eg Ep Coverall
Goggles/ Face shield	Face shield to BS2092 IC when handling concentrate	Face shield to BS2092 IC



### Exodus & PX-ULV Disinfectant

PX-ULV Disinfectant contains: chlorhexidine and QAC's (< 7.5%)

In some situations, PX-ULV Disinfectant can be applied with an Exodus machine, as a supplement to the standard procedures. The use of PX-ULV Disinfectant could be particularly useful when contaminated matter is airborne or when large open areas indoors require space and surface treatment with a biocide, after physical removal of contaminated organic matter and prior to application of PX Parvo. Additionally PX Odourcide and PX-ULV Odourcide can be used to combat malodours.



### Sol-Odamask

Sol-Odamask is a highly concentrated formulation of essential oils, odour absorbents and emulsifiers. This deodorant product is non-corrosive even at high levels of concentration.



### Gorilla Wipes

Gorilla Wipes are pre-impregnated cleaning wipes designed primarily for use by anyone who needs a fast and effective hand cleaning product.



### PX Lepto

Contains Chlorhexidine and QAC's (<7.5%)

PX-Lepto is used to control the disease organisms associated with pest rodents (rats and mice) and has been formulated to help combat such microorganisms.



### Earth Care Odour Remover

A non-toxic and biodegradable way to remove unwanted smells and odours!

Earth Care odour remover simply and easily removes the odours caused by dead rats and mice as well as many other unpleasant odours.

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USE BIOCIDES SAFELY. ALWAYS READ THE LABEL AND PRODUCT INFORMATION BEFORE USE.

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