

# FACT SHEET ON FUEL HAZARDS IN FLOODS

Gasoline, diesel and other hydrocarbon fuels are often released during disasters, contaminating water, air, and land. They contain toxic chemicals such as benzene that pose health risks when they are inhaled, ingested, or when skin contact occurs. Fuel in water evaporates into air and can also adhere to soil, sand, buildings, and other materials. Protective strategies can reduce health risks.

## **What can happen if you are exposed to fuels?**

- Short-term airborne exposure can cause difficulty breathing, headaches, dizziness, nausea, vomiting, confusion, depression, respiratory difficulties, cough, and sore nose and throat.
- High risk groups include people with asthma, chronic bronchitis, emphysema (COPD), and other respiratory problems, skin disorders or neurocognitive problems.
- Skin contact can cause skin irritation and damage. Fuel ingredients can move through the skin into the circulation and cause many problems described above.
- Longer-term exposure can cause neurobehavioral problems, including short-term memory loss, difficulty concentrating, decreased attention span and other related problems.
- Delayed effects include liver, kidney, respiratory, reproductive, blood, immune system and nervous system, reproductive and other damage and increased cancer risk.

**\*\*\*If you are experiencing any health problems, obtain medical care as soon as possible.\*\*\***

## **Who is at risk?**

Whether someone experiences health problems and the types of problems that occur depend on exposure conditions and individual factors. Susceptible people often include: children, pregnant women, the elderly, and people with pre-existing health conditions. If in doubt, consult your physician.

## **Protection - Preventing exposure is the best option- avoid contaminated water & materials if possible.**

If you must work with contaminated materials, keep in mind:

- Fuel ingredients can penetrate many plastics and latex. Choose clothing designed for use around fuels and solvents such as nitrile, PVC rubber and tyvek.\*
- A respirator with activated charcoal cartridges affords some protection from airborne fuel but must fit tightly on the face to be effective.\* Respirators stress the heart so consult your MD prior to use.
- Ventilate indoor areas. Fuel odors indicate exposure, but chemical hazards may exist without odors. Immediately move away from areas with natural gas odors & notify authorities. Avoid entering any space with a natural gas odor due to possible explosion hazard.
- Keep contaminated clothing & equipment out of homes if possible. Handle with care.
- Fuel residues can be flammable and heat sources near contaminated material may pose a risk.

**\*\*\*If you feel ill, seek medical attention ASAP.\*\*\***

\* Cleanup workers – protective equipment, employee protection requirements and additional resources are available from: [http://www.njwec.org/PDF/Factsheets/Hurricane\\_Resources.pdf](http://www.njwec.org/PDF/Factsheets/Hurricane_Resources.pdf)

More detailed information on these topics is available at: [www.sciencecorps.org/floods-fuels](http://www.sciencecorps.org/floods-fuels)

Links to information from many other sources is at:

<http://www.sciencecorps.org/floods-fuels/default.html#AdditionalInfo>

Occupational & Environmental clinics that treat chemically-exposed patients are listed at: <http://www.aoec.org/>

This does not constitute medical advice.