

Health Effects of 6 Major Chemicals in Tar Sands Crude:

BENZENE

Long-term: Carcinogenic, may cause reproductive and/or developmental delays.

Short-term: Causes drowsiness, dizziness, rapid heart rate, headaches, tremors, confusion and unconsciousness, high levels can result in death.

HYDROGEN SULFIDE (H₂S)

Long-term: High exposure is of immediate danger to life and health - can cause loss of consciousness, and even death. Long term exposure may include poor memory, poor attention span, and poor motor function.

Short-term: Irritant and a chemical asphyxiant taken up by lungs, effects on both oxygen utilization and the central nervous system, irritates eyes, nose, throat and respiratory system; breathing difficulties, inflammation, headaches, fatigue, irritability, insomnia, digestive disturbances and weight loss.

ETHYLBENZENE

Long-term: Carcinogenic and reproductive effects.

Short-term: Eye and throat irritation, dizziness.

N-HEXANE

Long-term: Damage to the nervous system, numbness in extremities. Muscular weakness, blurred vision, headache and fatigue.

Short-term: Numbness in feet, muscle weakness.

TOLUENE

Long-term: High levels can result in birth defects and retard mental abilities if inhaled during pregnancy, low level impacts not known.

Short-term: Impacts nervous system, tiredness, confusion, weakness, memory loss, nausea, loss of appetite, hearing loss, color vision loss, light headedness, sleepiness, unconsciousness or death. High levels affects kidneys.

XYLENE

Long-term: Delayed growth and development in testing on unborn animals, can also damage pregnant mother, low levels impacts during pregnancy unknown.

Short-term: Cause headaches, lack of muscle coordination, dizziness, confusion, and changes in sense of balance. Exposure of people to high levels of xylene for short periods can also cause irritation of the skin, eyes, nose, and throat, difficulty in breathing, problems with the lungs, delayed reaction time, memory difficulties, stomach discomfort, and possibly changes in the liver and kidneys. Can cause unconsciousness and even death at very high levels.

Source: Agency for Toxic Substances and Disease Registry

30 Chemicals Reported in Analysis of Arkansas Pegasus Tar Sands Spill:

Benzene
Isobutane
n-Octane
n-Butane
Cyclohexane
Isopentane
n-Heptane
n-Pentane
n-Hexane
Cyclopentane
Ethylbenzene
2,3-Dimethylbutane
m,p-Xylene
2-Methylpentane
o-Xylene
3-Methylpentane
n-Nonane
Methylcyclopentane
Cumene
2-Methylhexane
n-Propylbenzene
3-Methylhexane
n-Propylbenzene
3-Methylhexane
4-Ethyltoluene
Dimethylcyclopentane
1, 3, 5-Trimethylbenzene
Methylcyclohexane
1, 24-Trimethylbenzene
2-Methylheptane
Toluene
Dimethylcyclohexane
2,3-Mimethylpentane

Hazardous Air Pollutants (HAPs) include 7 hydrocarbons identified as benzene, toluene, ethylbenzene, m,p-xylenes, o-xylene, hexane, and cumene. HAPs are regulated under the 1990 Federal Clean Air Act amendments as the most toxic of all known airborne chemicals.