

Common Name: **PENTANE**

Synonyms: Amyl Hydride; Normal Pentane

CAS No: 109-66-0

 Molecular Formula: C₅H₁₂

RTK Substance No: 1476

Description: Clear, colorless liquid with a mild gasoline-like odor

HAZARD DATA

Hazard Rating	Firefighting	Reactivity
1 - Health 4 - Fire 0 - Reactivity DOT#: UN 1265 ERG Guide #: 128 Hazard Class: 3 (Flammable)	FLAMMABLE LIQUID Use dry chemical, CO ₂ , water spray or foam as extinguishing agents. POISONOUS GASES ARE PRODUCED IN FIRE. CONTAINERS MAY EXPLODE IN FIRE. Use water spray to keep fire-exposed containers cool. Pentane may form an ignitable vapor/air mixture in closed tanks or containers.	Pentane may react violently with OXIDIZING AGENTS (such as PERCHLORATES, PEROXIDES, PERMANGANATES, CHLORATES, NITRATES, CHLORINE, BROMINE and FLUORINE) to cause fires and explosions. Pentane is not compatible with STRONG ACIDS (such as HYDROCHLORIC, SULFURIC and NITRIC); STRONG BASES (such as SODIUM HYDROXIDE and POTASSIUM HYDROXIDE); and COMBUSTIBLE MATERIALS .

SPILL/LEAKS

Isolation Distance:

Spill: 50 meters (150 feet)

Fire: 800 meters (1/2 mile)

Absorb liquids in vermiculite, dry sand, earth, or a similar material and place into sealed containers for disposal.

 Use only non-sparking tools and equipment, especially when opening and closing containers of **Pentane**.

DO NOT wash into sewer.

PHYSICAL PROPERTIES

Odor Threshold:	Gasoline-like
Flash Point:	-56°F (-49°C)
LEL:	1.5%
UEL:	7.8%
Auto Ignition Temp:	500°F (260°C)
Vapor Density:	2.48 (air = 1)
Vapor Pressure:	426 mm Hg at 68°F (20°C)
Specific Gravity:	0.6 (water = 1)
Water Solubility:	Insoluble
Boiling Point:	97°F (36°C)
Freezing Point:	-202°F (-130°C)
Ionization Potential:	10.34 eV
Molecular Weight:	72.15

EXPOSURE LIMITS

OSHA: 1,000 ppm, 8-hr TWA

NIOSH: 120 ppm, 10-hr TWA; 610 ppm, 15-min Ceiling

ACGIH: 600 ppm, 8-hr TWA

IDLH: 1,500 ppm

The Protective Action Criteria values are:

PAC-1 = 610 ppm PAC-2 = 610 ppm PAC-3 = 1,500 ppm

PROTECTIVE EQUIPMENT

Gloves:	Nitrile, Silver Shield®/4H®, Viton and Barrier® (>8-hr breakthrough)
Coveralls:	Tychem® BR, Responder®, and TK (>8-hr breakthrough for <i>Hydrocarbons, aliphatic</i>)
Respirator:	>120 ppm - Supplied air >610 ppm - SCBA

HEALTH EFFECTS

Eyes: Irritation and burns

Skin: Irritation and burns

Inhalation: Nose, throat and lung irritation, with coughing, and severe shortness of breath (pulmonary edema)
 Headache, dizziness, confusion, lightheadedness, loss of balance and passing out

FIRST AID AND DECONTAMINATION

Remove the person from exposure.

Flush eyes with large amounts of water for at least 15 minutes. Remove contact lenses if worn.

Quickly remove contaminated clothing and wash contaminated skin with large amounts of soap and water.

Begin artificial respiration if breathing has stopped and CPR if necessary.

Transfer promptly to a medical facility.