paraffin’s (or alkanes)

14,890,190 L/ per year

Saturated hydrocarbons, compounds of carbon and hydrogen.
Liquid with increasing viscosity (C_5 to C_{16}),

Uses

The saturated hydrocarbons are used in industry as fuels, lubricants and solvents. After undergoing processes of alkylation, isomerization and dehydrogenation, they also act as starting materials for the synthesis of paints, protective coatings, plastics, synthetic rubber, resins, pesticides, synthetic detergents and a wide variety of petrochemicals.

The fuels, lubricants and solvents are mixtures which may contain many different hydrocarbons. From *heptanes* upwards, are used as motor fuels and solvents. *Isobutane* is used to control the volatility of gasoline and is a component of instrument calibration fluid. *Isooctane* is the standard reference fuel for octane rating of fuels, and *octane* is used in antiknock engine fuels. In addition to being a component of gasoline, *nonane* is a component of biodegradable detergent.

The principal use of *hexane* is as a solvent in glues, cements and adhesives for the production of footwear, whether from hide or from plastics. It has been used as a solvent for glue in the assembling of furniture, in adhesives for wallpaper, as a solvent for glue in the production of handbags and suitcases from hide and artificial hide, in the manufacture of raincoats, in the retreading of car tyres and in the extraction of vegetable oils. In many uses, hexane has been replaced by *heptane* because of the toxicity of *n*-hexane.

It is not possible to list all the occasions when hexane may be present in the working environment. It may be advanced as a general rule that its presence is to be suspected in volatile solvents and grease removers based on hydrocarbons derived from petroleum.

Hexane is also used as a cleaning agent in the textile, furniture and leather industries. Aliphatic hydrocarbons used as starting materials of intermediates for synthesis may be individual compounds of high purity or relatively simple mixtures.

Product	**Alkanes present**	**Boiling range/°C**
petroleum ether (solvent)	C5–C7	30 to 98
gasoline	C5–C10	36 to 175
kerosene, jet fuel	C10 –C18	175 to 275
diesel fuel	C12–C20	190 to 330
fuel oil	C14–C22	230 to 360
lubricating oil	C20 –C30	above 350
mineral oil (refined)	C20 –C30	above 350
		Melting range/°C
petroleum jelly	C22–C40	40 to 60
paraffin	C25–C50	50 to 65