

Ignitable Liquid Classifications

Report Findings (Based on interpretations from ASTM E1618)

Your report may contain one or more of the following findings. This document is intended as a guide in aiding you to associate the findings with common commercial products

Classification Name – Analysts must sometimes choose one classification over another by how the item best fits the ASTM description.	Approximate Peak Spread (n-Alkane Carbon Numbers)	Examples – These examples are not exclusive. Marketing of refinery products often results in a single refinery product being sold under a variety of labels.
Gasoline	C4 to C12	All grades and brands of automobile gasoline and gasohol (including E85).
Light Petroleum Distillate	C4 to C11	Cigarette Lighter Fluid, some Camping Fuels, Stoddard Solvent, Petroleum Ether, Ligroine, and various light commercial solvents.
Medium Petroleum Distillate	C8 to C12	Mineral Spirits, some Charcoal Lighters, some Paint Thinners, some Insecticides (as the vehicle for delivering the pesticide), some polishes.
Heavy Petroleum Distillate	C9 to C23	Fuel Oil #1, Jet “A” Aviation Fuel, some Charcoal Starters, some Lamp Oils, some Paint Thinners, some Insecticides (as the vehicle for delivering the pesticide) or polish solvents, Kerosene Heater Fuel, Fuel Oil #2, Diesel Fuel, some Lamp Oils, some Tar and Asphalt Removers
Oxygenated Solvents – The laboratory reports the specific chemical(s) identified.	Variable	Alcohols (Methyl, Ethyl, Isopropyl), Ketones (Acetone, Methyl Ethyl Ketone).
Isoparaffinic Hydrocarbon Products	Variable	Some odorless Charcoal Lighters, some odorless Solvents, some odorless Paint Thinners, some Insecticide or polish solvents, some Lamp Oils.
Normal Paraffinic Products	Variable	Specialty Products, some Liquid Candles, some Lamp Oils, some Insecticides (as the vehicle for delivering the pesticide), some polishes.
Aromatic Solvents/ Products	Variable	Aromatic Naphtha solvents in paint and plastics, other specialty solvents.
Naphthenic/Paraffinic Products	Variable	Some Insecticides (as the vehicle for delivering the pesticide), some lamp oils, Industrial Specialty Solvents
Miscellaneous - Other	Variable	Some Blended Products, Some Specialty Products, Turpentine, Single Compounds.
No Ignitable Liquid Determined	NA	There were either no ignitable liquid noted or the compounds seen could not be attributed to an ignitable liquid and may have been the product of pyrolysis of material burned in the scene or extracted from the matrix itself.

For an alternate, but very useful view of the types of ignitable liquids reported as an ASTM classification, please go to www.twgfex.org. Select the “Databases” tab. Select the [Ignitable Liquids Reference Collection \(ILRC Database\)](#). Select “Search Database”. This takes you to a searchable database of over 500 commercial products that have been classified by the ASTM system. In the dropdown for the “Classification” box, select the ASTM Classification on your report and then select “Search”. You will have a list where you can scroll through and see all of the brand names of commercial products that fit that classification on the right. There will be variation in the chromatographic patterns depending on how light or heavy the mixture of compounds.