

LABORATORY MANUAL  
ON  
DETERMINATION OF FLASH POINT AND FIRE POINT  
OF FUELS

Prepared  
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**AIM OF THE EXPERIMENT: -**

Determination of flash point and fire point.

**APPARATUS REQUIRED: -**

SL.NO	NAME OF THE APPARATUS	SPECIFICATION	QUANTITY
01	Flash point and fire point apparatus		01
02	Fuel	Petrol/Kerosene/Diesel	0.5 lit
03	Ignition source	Cotton	
04	Thermometer	Degree Celsius	01

**THEORY:-****Flash Point:-**

The flash point of any fuel is the lowest temperature at which it can vaporize to form an ignitable mixture in air. At flash point the vapor may easily burn the source of ignition is removed. The flash is not to be confused with auto ignition temp. Which does not require an ignition source.

**Fire Point:-**

The fire point of a fuel is the temperature at which it will continue to burn for at least 5 sec. After ignition by an open flame, fire point can be assumed to be about 10° C higher than the flash point.



### ***FLASH POINT AND FIRE POINT APPARATUS***

#### **PROCEDURE:-**

- We take the flash point and fire point apparatus.
- Then, its electric wire plug is connected to the electric circuit board.
- Then, we choose a fuel for testing.
- Then, take a thermometer for taking temp. Of the fuel.
- Fuel is inserted in to the apparatus.
- Set the thermometer and switch on the apparatus for heating.

- Then, the fuel is heating and also you can raise the temp. By a temp Adjustment switches on the apparatus.
- And set the ignition source on the fuel of the apparatus. If it will catch the fire frequently or slightly that is called flash point.
- Then, adjust the ignition source of the fuel. Then, if that ignition source catches the fire continuously that is fire point.

**TABULATION:-**

Types of fuel	Flash point	Fire point
Petrol		
Diesel		
Kerosene		

**CONCLUSION:-**

From the above experiment we determine the flash point and the fire point of the fuel. The flash point and fire point of petrol was found to be \_\_\_\_\_, and \_\_\_\_\_ respectively.