## **FRICTION**

## Friction force is of two types.

(a) Kinetic (b) Static

## **KINETIC FRICTION**: $f_{k} = \mu_{k} N$

The proportionality constant  $\mu_k$  is called the coefficient of kinetic friction and its value depends on the nature of the two surfaces in contact.

## STATIC FRICTION:

It exists between the two surfaces when there is tendency of relative motion but no relative motion along the two contact surfaces.

This means static friction is a variable and self adjusting force. However it has a maximum value called limiting friction.

$$f_{max} = \mu_s N$$
 $0 \le f_s \le f_{smax}$ 



