TOYOTA

MATERIAL HANDLING

Safe Working Practices:

SWP- 10 Fluoroelastomers

Before doing any type of work you must carry out an assessment of the task to be undertaken. This will include the equipment to be worked on, the task itself, Personal Protective Equipment requirements, the work area and environment, plus the tools and equipment required to carry out the job safely. Consult your team leader if you are not satisfied the job can be carried out in a safe manner.

GENERAL

1.0 The handling of brake seals, hydraulic seals, and plastics in general that have been affected by heat should be done with great caution.

1.1 Because of the way these items are sometimes sourced they cannot be guaranteed not to contain Fluoroelastomer. This synthetic rubber like material contains Fluorine and is used in the manufacture of gaskets, seals, cables, "O" rings diaphragms and pipes. When operating within their design limits these items are perfectly safe to use and handle.

1.2 However, if subjected to temperatures of around 400°C or higher it does not burn so much as decomposes. One of the by-products of this decomposition is Hydrofluoric Acid which is extremely corrosive. If allowed to come into contact with the skin it is almost impossible to remove. In some cases amputation of the affected part is the only cure.

1.3 After fire damage or if damage is suspected after welding or a similar process check carefully for any seals or gaskets that may have suffered decomposition, in which case they will appear charred or as a black sticky mass.

1.4 If there are any such indications or if there is any doubt proceed as follows:-

- Do not under any circumstances touch the affected part or the surrounding area with bare hands. PVC gloves and goggles must be worn. All affected material should be placed in double polythene bags and advice sought locally (Local or Environmental Health Authority) on safe disposal.
- Any equipment suspected of contamination should be washed thoroughly with water.
- If skin contamination does occur, the affected area should be washed with generous quantities of water and then medical attention sought.
- Calcium gluconate gel should be applied on and around the affected area and massaged in continuously until advised further by the medical services.

1.5 Fluorelastomer is used under a number of trade names the more common of these are Viton, Fluorel and Tecnoflon, extra care is required when the products are known to have been used and subjected to high operating conditions or fire.

CHILDREN AND YOUNG PERSONS

2.0 See Safety & Environmental Manual procedure “Employment of Young Persons” for precise definitions on children and young persons.

2.1 “Children” will not be allowed to work where the presence of fluoroelastomers is suspected. They may be allowed to observe such operations and work practices, but must take no active part, be kept at a safe distance and under the constant supervision of a competent person.

2.2 “Young Persons” may be allowed to work where a fluoroelastomer may be present subject to the conditions imposed above and only when under the constant supervision of a competent person.