



## HEALTH & SAFETY INFORMATION: RUBBER PRODUCTS

### 1) GENERAL INFORMATION

Rubber products supplied will contain:-

- a) Rubber Hydrocarbon base which may be Natural rubber, Styrene/Butadiene rubber, Polychloroprene rubber (Neoprene), Acrylonitrile-Butadiene rubber (Nitrile), Isobutylene/Isoprene rubber (Butyl), Hypalon, Silicone, Viton or Ethylene-Propylene rubber (EPDM).
- b) Rubber fillers which may be either carbon black or inorganic; e.g. calcium carbonate, clay, etc.
- c) Rubber process oils and processing aids.
- d) Antioxidant/Antioxonant protective agents.
- e) Cure activating agents (accelerators) and curative (normally sulphur).

Generally, these materials are recognised and established rubber ingredients exhibiting no health hazard when commanded and included into the vulcanised rubber. Where, for technical reasons, a potentially hazardous material must be included into a recipe, then special and particular instructions for handling will be provided to customers. However, such instances would be exceptional and should be regarded as exhibiting little hazard to health.

- f) Anti-tack agents are used to prevent sheets of rubber adhering together, and can be of three types:-
  - i – Dry Powder
  - ii – Wet Film
  - iii – Polythene Film.

i – Is dusted with an anti-tack agent. This may be regarded as a nuisance dust with an OEL of 10mg/m<sup>3</sup> total dust and is non-toxic.

iii – Polythene Film will burn in air, continue to burn, and melt after ignition source is removed.

Water or Carbon Dioxide is the recommended spray extinguishing media.

Static electricity can be generated when polythene film is peeled from the rubber surface, and if discharged to earth via the human body, could cause a mild electric shock or spark. Flammable solvents or dusts must, therefore, be kept clear of the area where the peeling operation takes place. The operator should also wear anti-static footwear.

## 2) HEALTH INFORMATION & PROTECTION

In common with most rubber products, rubber materials will burn once ignited, with the evolution of dense smoke. As with all organic matter, the combustion products will include toxic gasses (e.g. Carbon Monoxide). Therefore, inhalation of the fumes must be avoided.

Buffing operations can cause the formation of rubber accumulations, which are an explosion and fire hazard.

- Handling: - For pro-longed handling of these industrial materials it is recommended that gloves are worn at all times.
- Eye Protection: - Safety glasses during machining/buffing operations.
- Respiratory Protection: - Dust masks recommended when processing.
- Clothing: - Overalls recommended.
- Ventilation: - Storage areas and areas where buffing operations are undertaken should be well ventilated and consideration given to LEV.
- Hygiene: - Good personal hygiene is essential. It is always advised to avoid drinking and smoking in work areas.

## 3) FIRE AND EXPLOSION HAZARD DATA

- Flash Point: - Combustible if in contact with flame.
- Extinguishing Media: - Water, Foam, Sand or Earth.
- Special Procedures: - Breathing apparatus should be available for use if circumstances dictate.
- Unusual Hazards: - Will burn with emission of dense black smoke. Combustion products will include toxic gases such as Carbon Monoxide, Carbon Dioxide and Oxides of Nitrogen. High temperatures may cause emission of oxidation products. Halogen-containing materials may emit Hydrogen Halides e.g. Hydrogen Chloride.

Reactivity: - Stable.  
Avoid strong oxidising agents.  
Keep away from excessive and prolonged heat.  
Do not expose to naked flame.

4) FIRST AID

Eye Contact: - Treat as for foreign body. Irrigate with clean water.  
Fumes from rubber exposed to excessive heat may cause irritation.

Skin Contact: - For pro-longed handling of these industrial materials it is recommended that gloves are worn at all times.

Inhalation: - No hazard at ambient temperature.

Ingestion: - Seek medical help.

5) SPILLAGES AND DISPOSAL

Sweep or pick up.

May be disposed of at approved tips or incinerated under approved conditions in accordance with the requirements of the local Waste Disposal Authority.