



HEALTH & SAFETY INFORMATION

FOR SOLID AND SPONGE RUBBER PRODUCTS

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GENERAL PRODUCT INFORMATION

Solid and sponge rubber products supplied may contain:

1. **Rubber Hydrocarbon Base** which may be Natural rubber, Styrene/Butadiene rubber (SBR), Polychloroprene rubber (Neoprene), Acrylonitrile-Butadiene rubber (Nitrile), Isobutylene/Isoprene rubber (Butyl), Hypalon, Silicone, Viton or Ethylene-Propylene rubber (EPDM).
2. **Rubber Fillers** which may be carbon black or inorganic materials such as calcium carbonate, clay, etc.
3. **Rubber Process Oils** and processing aids.
4. **Antioxidant/Antiozonant** protective agents.
5. **Cure Activating Agents** (accelerators) and curative (normally sulphur).

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

Anti-Tack Agents

Anti-tack agents are used to prevent sheets of rubber adhering together and can be of three types:

1. **Dry powder** - Dusted onto surface. Regarded as nuisance dust with OEL of 10mg/m³ total dust. Non-toxic.
 2. **Wet film** - Liquid coating applied to surface.
 3. **Polythene film** - Will burn in air and continue to burn and melt after ignition source is removed. Static electricity can be generated when peeled from rubber surface and if discharged via the human body could cause mild electric shock or spark. Flammable solvents or dusts must be kept clear of peeling operations and operators should wear anti-static footwear.
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CHEMICAL CHARACTERISATION

Form: Sheet and strip in solid rubber and closed-cell sponge rubber

Colour: Predominantly black and white

Solubility in Water: Insoluble

Solubility in Aromatics and Halo Alkanes: Partial

Pyrolysis Temperature: >200°C

Stability: Stable

Hazardous Polymerisation: None

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

FIRE PROTECTION INFORMATION**Hazardous Decomposition Products:**

- Carbon Monoxide
- Carbon Dioxide
- Various hydrocarbons and partially oxidised hydrocarbons
- Partially oxidised organic compounding chemicals
- Polychloroprene-based products will also evolve hydrochloric acid
- Halogen-containing materials may emit hydrogen halides

Fire Extinguishing Agents: All fire extinguishing media permitted; water recommended. Full emergency equipment with self-contained breathing apparatus should be worn to protect fire fighters from hazardous decomposition/combustion products.

Flash Point: Combustible if in contact with flame.

Special Procedures: Breathing apparatus should be available 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.

HEALTH INFORMATION AND PROTECTION

In common with most rubber products, these materials will burn once ignited with the evolution of dense smoke. As with all organic matter, the combustion products will include toxic gases (i.e. carbon monoxide) therefore inhalation of the fumes must be avoided.

Buffing/Grinding Operations: Can cause formation of rubber accumulations which are an explosion and fire hazard. Dust extraction and good ventilation are essential.

OCCUPATIONAL CONTROL PROCEDURES

Eyes: Safety glasses recommended if grinding, punching, cutting, or buffing.

Skin: Gloves recommended. Certain individuals may suffer dermatitic reaction, particularly when handling hot materials.

Inhalation: Normally no special protection devices needed at ambient temperatures.

Respiratory Protection: Should not be necessary under normal handling conditions.

Ventilation: Should be provided at processing machinery where heating is involved to control fumes and odours. Storage areas and areas where buffing operations are undertaken should be well ventilated and consideration given to Local Exhaust Ventilation (LEV).

Clothing: Overalls recommended.

Storage: Periods of exposure to temperatures in excess of 20°C should be avoided.

Hygiene: Good personal hygiene is essential. Always advisable to avoid eating, drinking, or smoking in working areas.

FIRST AID PROCEDURES

Inhalation: Inhalation under ambient and ventilated processing conditions is normally not a problem. Fumes from rubber exposed to excessive heat may cause irritation.

Eyes: If dust from grinding gets into the eyes, flush with clean water and see a doctor if irritation persists. Treat fumes as for foreign body and irrigate with clean water.

Skin Contact: Short-term exposure not considered hazardous. Wash hands after use. Avoid skin contact by use of gloves and practice good personal hygiene.



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Ingestion: Not applicable in normal handling and detrimental effects are unlikely. See a doctor if symptoms develop. Seek medical help if material is accidentally ingested.

SPILLAGES AND DISPOSAL

Waste Disposal Methods: Sweep and pick up. May be disposed of at approved land disposal sites or incinerated in accordance with regulations and requirements of the local Waste Disposal Authority.