Material Safety Data Sheet
Cardanol

1. Chemical Product and Company Identification
MSDS Name: Cardanol
Chemical name: cashew nutshell liquid monomer
CAS No.: 8007-24-7
Weight percentage: 12%
Toxic properties: toxic by ingestion, skin irritant, eye irritant, skin sensitiser.
Method of detection and determination: the notified chemical may be identified by a combination of nuclear magnetic resonance spectrum, infrared spectrum and gel permeation chromatography (GPC)

2. PHYSICAL AND CHEMICAL PROPERTIES
Appearance at 20°C and 101.3 kPa: black, moderately brittle, slightly rubbery solid
Odour: not provided
Melting Point: 57-65°C
Specific Gravity: 1.0 at 25°C
Water Solubility: < 1 g/L at 25°C
Reactivity/Stability: non-exothermic self polymerisation at temperatures above 80°C with evolution of ammonia and trace formaldehyde possible
Flammability: combustible

3. Occupational Exposure
The monomers are added to a reactor which is heated to affect polymerisation. Ammonia and trace formaldehyde produced during polymerisation is collected under negative pressure by a water scrubber on a vacuum pump. At the completion of the reaction the molten resin is discharged to cooling trays on the floor below the reactor and is allowed to cool under mechanical exhaust ventilation to remove residual ammonia or trace formaldehyde. The cooled resin slabs weighing 7 kg each are removed from the trays, sealed in polyethylene bags, packed in cardboard boxes and shipped by road to the manufacturers of shaped products. This process is expected to involve 6 reactor operators and 2 cooling floor operators, both of whom are expected to have a potential exposure of 3 hours/week to the notified chemical, in addition to 2 technical leaders/supervisors who are potentially exposed for 1 hour/week.

4. Public Exposure
The most likely exposure of the public to the notified polymer would be in the event of a transport accident involving spillage of the reacted slabs. Due to the slab form, public exposure to the polymer is unlikely to be significant.
The cured polymer in friction products such as brake linings should not present any acute exposure hazard. However, during use these products will generate dust, to which the public may be exposed in relatively minute concentrations.