



Definition

Coal tar is a by-product of the coal distillation process. Between about 1973 and 1977 coal tar was commonly used as a binder instead of bitumen in asphalt mixes, particularly in the Sydney and Newcastle areas. Coal tar continued to be used in roads in very small quantities up until about 1989 in some asphalt mixes and some pre-coated aggregate for sealing. It has also on occasions been inadvertently used in recycled asphalt mixes.

Coal tar asphalts may still exist as a road surface layer but are more commonly found as a discreet subsurface layer, overlaid by more modern bitumen asphalt.

Important information

Coal tar is classified within the Australian Hazardous Substances regulatory regime as a Category 1 Carcinogen. Coal tar asphalt poses a risk to human health and the environment and cannot be re-used.

Waste Classification

Coal tar asphalt is a waste that has been pre-classified as general solid waste (non-putrescible).

Identification and Testing requirements

Coal tar asphalts are more likely to be encountered in the Sydney and Newcastle areas and to a lesser extent in the Wollongong region. They have also been found in Northern NSW. Unfortunately, there are no comprehensive records showing the location of coal tar asphalts.

The most obvious way most Transport for NSW workers identify the presence of coal tar asphalt, as distinct from bitumen, is the distinctive odour it gives off when heated. This odour occurs when the coal tar asphalt is milled and the friction heat from the milling machine releases coal tar fumes.

Laboratory analytical tests can also be conducted to determine if asphalt contains coal tar. If testing is required, arrangements should be made with an environmental consultant and/or analytical laboratory for samples of the asphalt to be tested using Transport for NSW Test Method T542. This test method identifies the presence of phenol which is in coal tar and not in bitumen.

Handling requirements

Whenever coal tar is identified, work should cease immediately and the supervisor notified.

Prior to any further work, any areas of exposed skin should be washed with soap and water and dried well. Barrier cream and SPF 30+ sunscreen should be applied to exposed skin and rubbed in well.

A risk assessment and Safe Work Method Statement (SWMS) for coal tar must be prepared prior to any further work. Guidance on risk assessment is available in the [OneRMS Safety Management System manual](#).

Overalls (which are to be washed separately after use), impervious gloves, safety glasses and a half-face combination dust/organic vapour respirator must be issued and worn by any staff remaining in the area to carry out removal work.

Where practical, coal tar should be removed by non-milling methods including saw cutting the perimeter of the area to be removed and excavating the material to a separate stockpile in a bunded area. The work area should be kept damp. Following the excavation, the exposed area should be cleaned with a suction sweeper using water and brooming. Plant and equipment must be washed down in an approved wash bay with interceptor pits.

Disposal

Coal tar asphalt from light rail and road construction and maintenance activities must be disposed of at a landfill that is licensed to accept asphalt waste. It is not to be stored for operational re-use or any other re-use/recycling purpose.

Coal tar asphalt removed during construction and maintenance works must be separated out and not mixed with other construction wastes.

Contact and further information

Internal: [Environment and Sustainability Management Framework - Waste](#)

All users: environmentandsustainability@transport.nsw.gov.au