


Alkyl phosphate anti-valve seat recession additive



The alkyl phosphate additive is manufactured in and imported to Australia for use as a fuel additive. It is used for anti-valve seat recession protection in automotive engines. It is commonly blended into lead-replacement petrol (LRP) and is also available in aftermarket products that consumers add to automotive fuel.

NICNAS completed a full assessment of the alkyl phosphate additive in July 2003. Here are the main findings of the report.

The alkyl phosphate additive can enter the body by being swallowed or through skin contact. Of these, skin contact is the most likely way for exposure to occur. There is no data for the alkyl phosphate additive itself because it is manufactured in kerosene.

The kerosene-based alkyl phosphate additive may cause skin irritation. This is most likely due or contributed to by the kerosene.

If swallowed, the kerosene-based alkyl phosphate additive has a low toxicity. Accidental ingestion by a child of the alkyl phosphate additive aftermarket formulation is not considered a significant health risk to children by virtue of the alkyl phosphate additive.

Ingestion of or contact with the kerosene and solvent naphtha (which is contained in one of the consumer products) may represent, however, specific health effects such as irritancy and lung damage.

Gaps in the data identified during the assessment are not regarded as significant impediments to assessment of the risks associated with the current use of the alkyl phosphate additive in lead replacement petrol.

ENVIRONMENT

Based on limited data, the kerosene-based alkyl phosphate additive has a low toxicity to aquatic animals.

The assessment has not identified any significant risk to the environment due to the current use of the alkyl phosphate additive in lead replacement petrol.

There are insufficient data to classify the alkyl phosphate additive itself as a Hazardous Substance. The inclusion of additives in the various alkyl phosphate formulations may represent specific hazards. More information on alkyl phosphate formulations can be found in the Material Safety Data Sheets available from a main supplier.

At the time of publication, the most comprehensive source of information is the full PEC assessment of the alkyl phosphate additive published by the National Industrial Chemicals Notification and Assessments Scheme (NICNAS). This is available free of charge from the NICNAS web site or by calling 1800 638 528. More information on the use of industrial chemicals can also be found at the NICNAS web site: www.nicnas.gov.au.

