

For Hairdressers

– Ammonium, Potassium and Sodium Persulfate

Ammonium Persulfate, Potassium Persulfate and Sodium Persulfate are imported for use in bleaching products used by the hairdressing industry and in home hair-lightening products.

NICNAS assessed these persulfates in June 2001. Here are the main findings of that assessment.

Persulfates can cause health effects by being swallowed, breathed or coming in contact with the skin. Contact with persulfate dust can cause skin and eye irritation. Some people have an acute allergic reaction to persulfates resulting in swelling, itching and reddening of the skin while other people have a delayed response to persulfates. Contact dermatitis can build up following repeated exposure to persulfates. Breathing persulfates can cause irritation to the airways resulting in conditions such as asthma or rhinitis. Over time, the airways and skin can become more sensitive to persulfates, so that less exposure is needed to produce a reaction. Once acquired, this sensitivity can be a life-time response. Hairdressers are likely to be exposed to persulfates by skin contact and breathing in dust.

RECOMMENDATIONS

Risk from exposure to dusty formulations is significant. Alternatives to these formulations are available. Use of non dust-free formulations should be phased out.

Avoid breathing persulfate dust:

- Bleach should be mixed in a well-ventilated area.
- Cream preparations are less likely to cause respiratory reactions than powder. (and less likely to contaminate hands and work surfaces).
- In general, products advertised as dust-free are preferred although dust is still produced and spills and exposure can occur when the product is being scooped out.
- Correct packaging can reduce dust. Buy products without inner plastic snap lids, in bulk containers that don't need shaking and with the plastic scoops packaged separately to the bleach.

Avoid skin contact with persulfates.

- Vinyl or nitrile rubber gloves should be worn when mixing and applying bleach.
- Remove jewellery and watches to prevent dust collecting under them.
- Shampooing can cause the skin on hands to become dry making a reaction to persulfates more likely. Gloves should be worn while shampooing.
- Use a moisturising cream to protect the hands. Dryness between the fingers is an early sign of contact dermatitis.

Keep all open packages and materials used for mixing in a designated area where casual contact is unlikely. Store plastic scoops outside the container to avoid contact with persulfates.

Used materials (caps, foils) should be placed in a designated area until disposal.

Staff need to be trained in the safe use of chemicals used in hairdressing.

Ammonium and Potassium Persulfate are classified as Hazardous Substances. The Report recommends that Sodium Persulfate be added to the list. However, no exposure standard has been set. The NICNAS assessment suggests 0.1 mg/m³ TWA over 8 hours is appropriate.

More information on these persulfates can be found in the Material Safety Data Sheet available from the supplier. A comprehensive source of information is the detailed assessment of persulfates published by the National Industrial Chemicals Notification and Assessment Scheme (NICNAS). This is available free of charge on the NICNAS website or by calling 1800 638 528. More information on the use of industrial chemicals can be found at the NICNAS website: www.nicnas.gov.au