

## **Acrylates**

Your patch tests indicate you have a contact allergy to acrylates. These are also known as acrylate chemicals or acrylics. This means that you should avoid products containing acrylate in the future.

The acrylate(s) you are known to be allergic to are:

Methacrylate(s)
Cyanoacrylate(s)

Acrylates are widely used in dentistry, medicine and by beauticians. Other occupational sources include the printing industry and building trade. Most acrylates are used as plastics. These chemicals are made up of lots of smaller acrylic building blocks (monomers) which join together to form larger chains (polymers). This process is usually speeded up by heat, ultraviolet light or adding other chemicals. This is known as curing. When fully hardened (cured), the plastic is unlikely to cause problems. It is nearly always the smaller building block (monomer) that results in an allergic reaction.

There are many different acrylate chemicals. You are very unlikely to be allergic to all, but may be allergic to several of them. It is not currently possible to test for all acrylates in use.

Although acrylates are commonly used in cements for hip replacements and in white tooth fillings they are very unlikely to give any problems once they are hardened. These therefore do not need to be removed.

## Methacrylate resins may be found in:

- Nail resins including nail gels, Shellac and acrylic nails
- Dental products including white fillings (composite fillings) and dentures. However once the filling has set these products are very unlikely to cause a problem.
- Glues and adhesives including Loctite. These are used in industry for locking screws and for repairing windscreens

- Bone cement used in operations such as hip replacements. This is more likely to cause a skin reaction in the health professional operating rather than the patient.
- Some sticky dressings, tapes, TENS and neurostimulator adhesive pads, glucose sensors and ECG pads.
- Sticky tapes to keep wigs in place, pedometers
- Printing industry in UV cured inks and glossy papers
- Paints and varnishes
- Building materials including some flooring adhesives, Perspex blocks

## Cyanoacrylate resins may be found in:

- Glues used to stick artificial (false) nails.
- Glues for sticking false eyelashes
- Surgical glue used instead of stitches on the skin
- Superglues

**Acrylic copolymers**. You will find acrylic copolymers in many personal care products including hair products. You do not need to avoid these, as they only very rarely cause a problem.

**Protecting your hands.** Wear polyvinyl alcohol (PVA) gloves but change gloves frequently. If these are not available to you then nitrile gloves give better protection than latex and neoprene. Latex and neoprene will not give adequate protection against acrylates. Double gloving gives more protection than wearing just one glove. For industrial work 4H gloves give the best protection.

## You are allergic to these acrylates: (mark)

2-Hydroxyethyy methacrylate	Butyl acrylate
2-Hydroxypropyl methacrylate	Ethyl methacrylate
Ethyl acrylate	N-Butyl methacrylate
Ethyleneglycol dimethacrylate	Triethyleneglycol dimethacrylate
Tetraethyleneglycol dimethacrylate	Trimethylol propane triacrylate
2 Hydroxyethyl acrylate	Tetrahydrofurfuryl methacrylate
1-6 Hexanediol diacrylate	Methyl methacrylate
Ethyl cyanoacrylate	Urethane dimethacrylate
Triethyleneglycol diacrylate	1,4-Butanediol diacrylate
BIS-GMA	Diethyleneglycol diacrylate
1-4 Butanediol dimethacrylate	Tripropyleneglycol diacrylate
BIS-MA	Pentaerythritol triacrylate
NN Dimethylaminoethyl methacrylate	Oligotriacrylate 480
2-Ethylhexyl acrylate	Epoxy acrylate
2-Hydroxypropyl acrylate	Urethane diacrylate (aliphatic)
BIS-EMA	1,6 Hexanediol diacylate
Urethane diacrylate (aromatic)	N,N-Methylenebisacrylamide