



R F Bright Enterprises Ltd
Applications Technology
Division

HEALTH AND SAFETY
ASPECTS OF THE USE AND
HANDLING OF CHEMSET®
POLYMERIC SYSTEMS

Polymeric resin systems, and especially the hardeners, are generally regarded as hazardous materials due to the physiological damage that can result from careless handling.

However, if sensible precautions are taken, they may be used safely, with confidence, giving properties unmatched by other classes of chemical compounds.

No 6, Access 4.20
New Hythe Business Park, Bellingham Way
Aylesford, Kent ME20 7HP
Email: enquiries@rfbright.co.uk
Website: www.rfbright.co.uk

*All recommendations are given
in good faith but without warranty*

Product Information

CHEMSET® resin products, hardeners, accelerators and ancillary materials are based on established industrial chemical compounds, the effects of which are well known and, as such, should be treated with the respect normally shown to chemical materials.

Avoid skin contact

Avoid eye contact

Avoid inhalation of fumes

Keep away from food

Keep away from naked flames

Keep containers tightly closed

Do not take internally

The main hazard is the risk to the skin, but the eyes and respiratory system also need protection.

Liquid epoxy resins are generally regarded as irritants. Resins containing reactive modifiers can be slightly more hazardous, because of the vapours given off by the modifiers.

Solid resins are not generally regarded as irritant, but these are mostly used as solutions in solvents, which introduce other hazards, mainly the flammability of the solvents and their possible toxic effects.

Frequent or prolonged contact with the skin can result in irritation, reddening, sensitisation and dermatitis or other allergic reactions and must, therefore, be avoided.

The hardeners and accelerators are the greater danger, as they are much more prone to causing these effects and can also cause chemical burns, blistering and corrosion in severe cases. Contact with the skin and eyes must be avoided. Generally, they also yield harmful vapours more readily than the resins.

/continued



R F Bright Enterprises Ltd

Applications Technology
Division

HEALTH AND SAFETY
ASPECTS OF THE USE AND
HANDLING OF CHEMSET®
POLYMERIC SYSTEMS

No 6, Access 4.20
New Hythe Business Park, Bellingham Way
Aylesford, Kent ME20 7HP
Email: enquiries@rfbright.co.uk
Website: www.rfbright.co.uk

*All recommendations are given
in good faith but without warranty*

Product Information

Page 2

Certain people are more sensitive to these materials than others and experience has shown that, in particular, people with a fair complexion are more likely to be sensitive. If proper precautions are taken and such people still experience skin irritation, then it is better that they should be removed from working with these materials, as prolonged exposure would almost certainly lead to more serious skin problems.

We recommend that the materials are used in such a way that a ventilation system removes any vapours in a direction away from the face and neck. Workbenches are best covered with paper (preferably coloured) so that any spillages are quickly apparent and the paper can be readily changed. A face shield or goggles should be used to prevent splashes from getting into the eyes or onto the face, and the neck should be covered with suitable clothing.

Contact with the skin of the hands should be avoided as far as possible and a suitable skin-protection cream should be applied to the clean hands before work commences. We recommend TRAVABON SPECIAL®, which has proved very effective over many years and which we can also supply. Gloves also provide good protection and are generally accepted by health inspectors and factory doctors, but these themselves can give rise to problems. For example, it is very easy to get resin on the inside of the gloves and this is more harmful than the normal exposure because a) contact with the skin is more intimate and b) the skin swells within the gloves due to the higher temperature and the trapped moisture from perspiration, and in the swollen condition it has a lower resistance to attack. Where gloves are used, we recommend a pre-work application of STOKO-EMULSION® since this product tends to toughen up the skin, thereby counteracting the undesirable effects of wearing gloves.

TRAVABON SPECIAL® affords a protection against solvents as well as resins and hardeners and its use permits much freer working than wearing gloves does.

/continued



R F Bright Enterprises Ltd
Applications Technology
Division

HEALTH AND SAFETY
ASPECTS OF THE USE AND
HANDLING OF CHEMSET®
POLYMERIC SYSTEMS

No 6, Access 4.20
New Hythe Business Park, Bellingham Way
Aylesford, Kent ME20 7HP
Email: enquiries@rfbright.co.uk
Website: www.rfbright.co.uk

*All recommendations are given
in good faith but without warranty*

Product Information

Page 3

Invariably some resin mixture will get on the skin and cleaning should be effected promptly with a special, safe, hand cleaner that loosens and emulsifies the resin dirt. We recommend CUPRAN®, SLIG® or ResSolve™ which all have proven track records and which we can also supply.

Under no circumstances should solvents or thinners be used to remove resin contamination from the skin.

Ideally, an after-work cream should also be applied to the clean hands to offset any drying out effect of repeated washings.

If any contamination gets into the eyes, wash with copious amounts of clean water and seek medical attention.

CHEMSET® coatings containing solvents, used mainly as floor and wall coatings for buildings, should be applied only in adequately ventilated areas. Adequate ventilation means sufficient to remove the vapours and prevent them from accumulating. Both the solvent content and the hardeners are damaging to the skin and respiratory systems. The vapours of the solvents have toxic effects if they are present in sufficient quantity. However, a greater hazard with the solvents is the flammability and the possibility of explosive mixtures forming through the accumulation of vapour.

Protective clothing should be worn when working with CHEMSET® materials to avoid contamination of normal clothing.

Dispensing equipment should be used wherever possible as this reduces the risk of exposure to vapours and skin contact by reducing the frequency of handling.

We recommend that notices should be posted at work places to warn of the hazards and remind workpeople to take precautions.

/continued



R F Bright Enterprises Ltd
Applications Technology
Division

HEALTH AND SAFETY
ASPECTS OF THE USE AND
HANDLING OF CHEMSET®
POLYMERIC SYSTEMS

No 6, Access 4.20
New Hythe Business Park, Bellingham Way
Aylesford, Kent ME20 7HP
Email: enquiries@rfbright.co.uk
Website: www.rfbright.co.uk

*All recommendations are given
in good faith but without warranty*

Product Information

Page 4

Waste should be incinerated or buried at an approved disposal site.

Any spillage should be absorbed with sand, which should then be placed in an appropriate waste disposal container. The area should then be cleaned down with detergent and water.

Note: Vapours are more pronounced during the curing process and at elevated temperatures.

Resin and hardener mixture residues generate considerable heat on standing as cure takes place. Such heat can readily melt plastics, crack glass and ignite sensitive materials. Therefore, place all waste and contaminated rag or paper in a safe, fireproof place until properly disposed of.

If these warnings are observed and our suggestions followed, we believe that no health problems will arise from the use of CHEMSET® polymeric materials.

Once fully and properly cured (i.e. set), the CHEMSET® materials are inert and present no health hazard.

Further information for both employers and employees may be obtained from publication ref. HSG262 entitled "Managing Skin Exposure Risks at Work" available from HSE Books, P.O. Box 1999, Sudbury, Suffolk, CO10 2WA or via the internet at <https://books.hse.gov.uk> under the catalogue code 9780717666492.

Individual product safety data sheets give details of any additional precautions to be taken with specific products.

®CHEMSET is the registered trademark of
R F BRIGHT ENTERPRISES LTD

®TRAVABON SPECIAL, ®CUPRAN, ®SLIG, ®STOKO-EMULSION
are registered trademarks of
CHEMISCHE FABRIK STOCKHAUSEN GmbH.

JRD/AT

04/04/16
Copyright R F Bright Enterprises Ltd 2016