

## SAFETY DATA SHEET

### 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

PRODUCT NAME	ORTHODONTIC POWDER
Product Description	Ethyl methacrylate based polymer.
Use of Substance / Preparation:	Manufacture of dental and medical products.
Address/Phone No.	WHW Plastics Ltd, Therm Road, Cleveland Street, Hull, East Yorkshire HU8 7BF, UK Tel: +44(0)1482 329154 <a href="mailto:sales@whwplastics.com">sales@whwplastics.com</a>
Emergency telephone number	+44(0)1482 329154 (Office hours only)

### 2. HAZARDS IDENTIFICATION

EC Classification Not Classified as Dangerous for Supply/Use.

Combustible but not readily ignited.  
May form explosible dust clouds in air.  
Low toxicity under normal conditions of handling and use.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substances in the product which may present a health or environmental hazard, or which have been assigned occupational exposure limits, are detailed below.

HAZARDOUS INGREDIENT(S)	% W/W	CAS No.	EC No.	EC Classification
No classifiable hazardous ingredient(s).				

### 4. FIRST AID MEASURES

Inhalation	Remove patient from exposure. Obtain medical attention if ill effects occur.
Skin Contact	Wash skin with water. If symptoms (irritation or blistering) occur obtain medical attention.
Eye Contact	Remove particles by irrigating with eye wash solution or clean water, holding the eyelids apart. Obtain medical attention.
Ingestion	Do not induce vomiting. Wash out mouth with water. Obtain medical attention if ill effects occur.
Further Medical Treatment	Symptomatic treatment and supportive therapy as indicated.

### 5. FIRE-FIGHTING MEASURES

Combustible but not readily ignited. Combustion or thermal decomposition will evolve toxic, irritant and flammable vapours. This product can form flammable dust clouds at elevated temperatures. The minimum ignition temperature of a dust cloud of a similar polymer has been measured at approximately 480°C (IEC 1241-2-1).

Incompatible materials: None known.

Extinguishing Media	Foam or CO <sub>2</sub> .
Fire Fighting Protective Equipment	A self contained breathing apparatus and suitable protective clothing should be worn in fire conditions.

## 6. ACCIDENTAL RELEASE MEASURES

Caution - spillages may be slippery. Collect in containers for disposal using approved dust respirator.

## 7. HANDLING AND STORAGE

HANDLING	Product as supplied: Avoid contact with eyes. Avoid prolonged skin contact. Unlikely to represent a dust hazard under normal handling conditions.
Process Hazards	ORTHODONTIC POWDER dental resins are usually processed in conjunction with reactive monomers and this may require the use of a higher level of PPE than that necessary for the polymer itself. Please also see the advice in Sections 8 and 11.
STORAGE	Acrylic polymers are supplied in either bags or bulk containers. Keep containers in a clean, cool and dry area away from heat sources. Natural ventilation is adequate.
Storage Temperature	Ambient.
Specific use	Manufacture of dentures. Not intended for thermal processing.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Provide adequate ventilation, including appropriate local extraction, to ensure that the occupational exposure limit is not exceeded. Consideration should be given to the work procedures involved and the potential extent of exposure as they may determine whether a higher level of protection is required. The following information is given as general guidance.

### Respirators



A suitable dust mask or dust respirator with filter type P-S or FFP-S (EN143 or EN149) may be appropriate. In the unlikely event of formation of particularly high levels of dust a self contained breathing apparatus may be appropriate.

### Eye Protection



Safety spectacles/goggles/full face shield.

### Gloves



Not normally required, however use of gloves is recommended to comply with good occupational hygiene practice.

### Other

Wear suitable protective clothing.

### Occupational exposure limits

Substance	CAS No.	LTEL ppm (8Hr TWA)	LTEL mg/m <sup>3</sup> (8Hr TWA)	STEL ppm	STEL mg/m <sup>3</sup>	Notes
Dust (total inhalable dust) (respirable dust)			10 4			

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Form	Powder.
Colour	White.
Odour	Typically methacrylate.
pH (Value)	Not applicable.
Boiling Point (°C)	Not applicable.
Flash Point (°C)	~390
Flammable Limits	Not applicable.

Auto Ignition Temperature (°C)	~465
Explosive Properties	Weakly to moderately explosible.
Oxidising Properties	Not applicable.
Vapour Pressure (Pascal)	Not applicable.
Density (g/ml)	1.1 - 1.18 g/cm <sup>3</sup>
Solubility (Water)	Negligible.
Solubility (Other)	Not available.
Partition Coefficient (n-Octanol/water)	Not applicable.
Viscosity (mPa.s)	Not available.
St Class	1
Vapour Density (Air=1)	Not applicable.
Bulk Density (g/ml)	0.60 - 0.75
Relative Evaporation Rate (Ether = 1)	Not applicable.
Melting Range (°C)	150-230

## 10. STABILITY AND REACTIVITY

Hazardous Reactions	None known.
Hazardous Decomposition Product(s)	Methyl methacrylate, Ethyl methacrylate, Carbon dioxide, Carbon monoxide.

## 11. TOXICOLOGICAL INFORMATION

Inhalation	Unlikely to be hazardous by inhalation.
Skin Contact	Unlikely to cause skin irritation. Contains greater than 0.1% residual (Ethyl methacrylate, Methyl methacrylate, Dibenzoyl peroxide). During normal handling this will not constitute a hazard. If the polymer matrix is destroyed e.g. when the product is dissolved in organic solvent, chemical residues will be released from the polymer matrix. Under these conditions, they may produce an allergic reaction in persons already sensitised.
Eye Contact	Dust may cause irritation.
Ingestion	Low oral toxicity.
Long Term Exposure	No information available.

## 12. ECOLOGICAL INFORMATION

Environmental Fate and Distribution	Solid with low volatility. The product is essentially insoluble in water. The product has low potential for bioaccumulation. The product is predicted to have low mobility in soil.
Persistence and Degradation	The product is non-biodegradable in soil. There is no evidence of degradation in soil and water.
Toxicity	The product is predicted to have low toxicity to aquatic organisms.
Effect on Effluent Treatment	The material is essentially insoluble in water and can therefore be separated from aqueous medium by sedimentation and filtration processes at an effluent treatment plant.

## 13. DISPOSAL CONSIDERATIONS

The waste is considered to be non hazardous. Clean scrap may be reprocessed. Incineration may be used to recover energy value. May be disposed of by landfill in accordance with local regulations. Certain packages are returnable. Please consult your local office for further details. Ensure that all packaging is disposed of safely.

## 14. TRANSPORT INFORMATION

Not Classified as Dangerous for Transport.

## 15. REGULATORY INFORMATION

EC Classification                      Not Classified as Dangerous for Supply/Use.

## 16. OTHER INFORMATION

This Safety Data Sheet was prepared in accordance with Directive 2001/58/EC.

**IMPORTANT NOTICE:** This product must not be used in the manufacture or formulation of artificial finger nails or nail sculpture products.

It is the responsibility of the end-product manufacturer to identify all market and use-specific regulations and to ensure compliance with these regulations.

Information contained in this publication or as otherwise supplied to Users is believed to be accurate and is given in good faith, but it is for the Users to satisfy themselves of the suitability of the product for their own particular purpose. WHW Plastics gives no warranty as to the fitness of the product for any particular purpose and any implied warranty or condition (statutory or otherwise) is excluded except to the extent that exclusion is prevented by law. WHW Plastics accepts no liability for loss or damage (other than that arising from death or personal injury caused by defective product, if proved), resulting from reliance on this information. Freedom under Patents, Copyright and Designs cannot be assumed.

The following sections contain revisions or new statements: 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16

### GLOSSARY

Note: Not all of the following are necessarily contained in this Safety Data Sheet:

IOELV: Indicative Occupational Exposure Limit Value

WEL: Workplace Exposure Limit (UK HSE EH40)

Bmgv: Biological Monitoring Guidance Value

Sen: Capable of causing respiratory sensitisation

Sk: Can be absorbed through skin

Carc: Capable of causing cancer and/or heritable genetic damage

CHAN: Chemical Hazard Alert Notice

COM: The company aims to control exposure in its workplace to this limit

LTEL: Long Term Exposure Limit

STEL: Short Term Exposure Limit

TWA: Time Weighted Average

STOT SE: Specific Target Organ Toxicity - Single Exposure

Repr.: Reproductive toxicity

Aquatic acute/chronic: Hazardous to the aquatic environment