

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURES AND OF THE COMPANY/UNDERTAKING

1.1. Product Identifier

Product Name Enigma High Base Powder

Based on poly methyl methacrylate (PMMA) co-polymers containing impact modifier

CAS-No. 9011-14-7 (PMMA)

EC No. None

1.2. Relevant identified uses of the substance or mixture and uses advised against

For use in dental applications.

1.3. Details of the supplier of the safety data sheet

Supplier Davis Schottlander & Davis Ltd
Fifth Avenue, Letchworth Garden City
Hertfordshire, SG6 2WD, UK
msds@schottlander.co.uk
www.schottlander.com

1.4. Emergency contacts

Office Hours Schottlander
+44 1462 480 848

Out of Hours UK National Chemical Emergency Centre
+44 1865 407333

2. HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

This substance does not meet the criteria for classification in any hazard class according to GHS on classification, labelling and packaging of substances and mixtures. However, a safety datasheet is being supplied on request as it contains a component for containment and for the recommended use of personal protective equipment

2.2. Label elements

Signal word None

GHS Pictogram None

Hazard Statement None

Precautionary Statement

(Prevention) P280 Use personal protective equipment as required

(Response) P312 Call a POISON CENTER or doctor/physician if you feel unwell

P330 Rinse mouth

(Disposal) P501 Dispose of contents/container in accordance with local regulation

Hazardous components

for labelling None

2.3. Other hazards

None

3. COMPOSITION/INFORMATION ON INGREDIENTS**3.1. Substances**

In Accordance with Regulation EC 1272/2008

COMPONENT	CAS NO. EC INDEX NO. REACH NO. EINECS NO.	CONTENT	HAZARD/CATEGORY/STATEMENT
Poly Methyl Methacrylate	9011-14-7 - Exempt (polymers) -	>98%	None

4. FIRST AID MEASURES**4.1. Description of first aid measures**

General advice No special measures required.

Inhalation The product is not a respiratory irritant.

Skin contact The product is not skin irritating.

Eye contact Flush with plenty of water. Consult a doctor if irritation occurs.

Ingestion Drink plenty of water. Do not induce vomiting and consult a doctor

Self protection
for First Aider No special measures required.**4.2. Most important symptoms and effects, both acute and delayed**

None

4.3. Indication of any immediate medical attention and special treatment needed

None

5. FIRE-FIGHTING MEASURES**5.1. Extinguishing media**

Suitable extinguishing media	Water mist, extinguishing powder, carbon dioxide
Unsuitable extinguishing media	Do not use direct water stream

5.2. Special hazards arising from the substance or mixture

No

5.3. Advice for firefighters

Use water spray to cool unopened containers

6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

No special measures required. No dangerous materials are released.

6.2. Environmental procedures

No special measures required.

6.3. Methods and material for containment and cleaning up

Clean up mechanically.

6.4. Reference to other sections

For personal protection see section 8.
For disposal considerations see section 13.

7. HANDLING AND STORAGE

7.1. Precautions for safe handling

Only adequately trained personnel should handle the product. Use hygienic measures for dental practise.

7.2. Conditions of safe storage, including any incompatibilities

Store in a cool, dry area.

7.3. Specific end use(s)

No

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Substance contains no components or products of decomposition according to point 10, with limit values related to the place of work, which require monitoring. However, manufacturer recommends:

Poly Methyl Methacrylate **CAS No. 9011-14-7**

WEL 10mg/m³

8.2. Exposure controls

General protective measures Usual precautionary measures should be employed when handling the material.

8.3. Personal Protective Equipment

Hygiene measures	Use hygienic measures for dental practise.
Respiratory protection	If workplace exposure limit is exceeded (leakage, spillage), apply dust mask with P2 particle filter.
Hand protection	In practise, as the product is a preparation of several substances, resistance tests of glove materials cannot be conducted in advance and should be performed by the end user prior to application. A suitable glove type should be selected for each work environment. On the whole, for permanent contact in work areas, natural latex (NR) gloves are suitable.
Eye protection	Not required, but safety goggles are recommended.
Body protection	On handling larger quantities: light weight protective clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Form	Powder
Colour	According to product specification
Odour	None
Melting Temperature	n/a
Boiling Temperature	n/a
Flashpoint	n/a
Ignition Temperature	>400°C
Lower Explosion Limit	20g/m ³
Upper Explosion Limit	not determined
Vapour Pressure	n/a
Relative Density	1.2g/cm ³ @ 20°C
Relative Vapour Density	n/a
Solubility in Water	not soluble
Solubility (Qualitative)	Soluble in organic solvents
pH value	n/a
Partition Co-efficient	n/a
Viscosity (Dynamic)	not determined

9.2. Other information

The product is not self-igniting or explosive, however formation of explosive powder/air mixtures is possible.

10. STABILITY AND REACTIVITY

10.1. Reactivity

Avoid contact with other chemicals.

10.2. Chemical stability

Stable under normal temperature conditions and when used as directed. Decomposition can occur at elevated temperatures (>250°C), releasing potentially irritating vapours (methyl methacrylate).

10.3. Possibility of hazardous reactions

No hazardous reactions known when used as directed.

10.4. Conditions to avoid

The product is supplied in a stable form. Protect from humidity.

10.5. Incompatible materials

None known.

10.6. Hazardous decomposition products

Organic products of decomposition. No decomposition occurs when used as directed.

11. TOXICOLOGICAL INFORMATION**11.1. Information on toxicological effects**

Metabolism	-
Acute Oral Toxicity	LD ⁵⁰ rat (PMMA) >10000mg/kg
Acute Inhalation Toxicity	not toxic
Acute Dermal Toxicity	not toxic
Caustic Burning/Skin Irritation	No irritant effect
Serious Eye Damage/Irritation	No irritant effect
Respiratory/Skin Sensitisation	None known
Germ Cell Mutagenicity	Non mutagenic
Carcinogenicity	Non carcinogenic
Reprotoxicity/Teratogenicity	Not toxic
General Information	Product is not subject to classification according to the calculation method of the General EC Classification Guidelines for Preparations. When used and handled according to specifications and GLP, no harmful effects are observed.

12. ECOLOGICAL INFORMATION**12.1. Ecotoxicity**

Aquatic Environment None, insoluble in water (inert polymer).

12.2. Persistence and degradability

Persistence and Degradability None

Biodegradability Product is solid, chemically inert and non-biodegradable. No negative effects are known.

12.3. Bioaccumulative potential

Bioaccumulation No evidence for hazardous properties

12.4. Mobility in soil

Mobility The substance not water soluble.
No evidence for hazardous properties

12.5. Results of PBT and vPvB assessment

Persistent, Bioaccumulative or Toxic	n/a
very Persistent, very Bioaccumulative	n/a

12.6. Other adverse effects

General Information	-
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13. DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Substance	Waste is non-hazardous and can be disposed of in an incineration plant or approved landfill in accordance to local regulations.
Packaging	Can be re-used or recycled after cleaning.
List of Waste, LOW	07 Wastes from organic chemicals, 07 02 Waste from the MFSU (manufacture, formulation, supply and use) of plastics, synthetic rubber and man-made fibres, 07 02 13 Waste plastic, acrylate co-polymers.

Always check the given waste code according to the actual conditions of manufacturing, formulation or use in your facility.

14. TRANSPORT INFORMATION

14.1. UN number -

14.2. UN proper shipping name

Land Transport ADR/GGVSEB	-
Land Transport RID/GGVSEB	-
Inland Waterway Transport ADNR/GGVSEB	-
Shipment by Sea IMDG/GGVSee	-
Marine pollutant	No
Air Transport ICAO/IATA	

14.3. Transport hazard class(es)

Product not classified as hazardous for transport.

14.4. Packing group

None

14.5. Environmental hazards

Refer to section 14.2, not applicable if unmentioned

14.6. Special precautions for user

Refer to section 14.2

14.7. Transport in bulk according to the IBC code

N/a

15. REGULATORY INFORMATION

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

National Legislation

COMMISSION REGULATION (EU) 2015/830 of 28 May 2015 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).

REGULATION (EC) No 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC.

15.2. Chemical safety assessment

A Chemical Safety Assessment has not been carried out by the supplier.

16. OTHER INFORMATION

The substance is supplied in a stabilised form. These data are based on our current knowledge and experience, however do not constitute a guarantee for any specific product feature.

The instructions given here are valid only for the substance as supplied, not for derivatives resulting from its use.

Revision: Version 1

16.2 Date of the latest revision of the SDS

Revision Date:	18/10/2023
Revision:	V4
Next Review Date:	18/10/2026

This datasheet has been re-written and replaces all previous versions. The information and all further technical advice is based on current knowledge and experience. The purpose of this Safety Data Sheet is to describe the substances in terms of their safety and handling requirements. The instructions given here are valid only for the product as supplied, not for derivatives resulting from its use. It implies no liability or other legal responsibility on our part. In particular, no warranty, whether expressed or implied, or guarantee of product properties in the legal sense is intended or implied. We reserve the right to make any changes according to technological progress or further developments. The customer is not released from the obligation to conduct careful inspection of incoming goods.

END OF SAFETY DATA SHEET