

# SAFETY DATA SHEET: AD19 FUSION POWDER

REVISION DATE: 19.6.2015

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## 1. SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

### 1.1 Product identifier

Product Name FUSION POWDER  
Product Description AD19

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

Identified use(s) Component of Modelling Adhesive  
Uses advised against None known.

### 1.3 Details of the supplier of the safety data sheet

Deluxe Materials Ltd  
Unit 13, Cufaude Business Park, Cufaude Lane, Bramley, Hampshire RG26 5DL United Kingdom  
[info@deluxematerials.com](mailto:info@deluxematerials.com)

1.4 Emergency telephone number +44 (0) 1256 883 944 office hours only

## 2. SECTION 2: HAZARDS IDENTIFICATION

### 2.1 Classification of the substance or mixture

According to Regulation (EC) No. 1272/2008 (CLP).

Skin sensitisation Category 1.

H317

Hazardous to the aquatic environment - Acute hazard Category 1.

H400

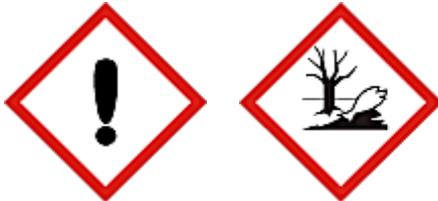
According to Directive 67/548/EEC & Directive 1999/45/EC

Xi, N

R43 R50

For full text of H/R phrases see section 16.

### 2.2 Label elements



Signal word

Warning

Hazard statement(s)

H317: May cause an allergic skin reaction.

H400: Very toxic to aquatic life.

Precautionary statement(s)

P261: Avoid breathing dust.

P273: Avoid release to the environment.

P280: Wear protective gloves/protective clothing/eye protection/face protection.

P302+P352: IF ON SKIN: Wash with plenty of water.

P333+P313: If skin irritation or rash occurs: Get medical advice/attention.

P501: Dispose of contents/container to hazardous waste in accordance with local, state or national legislation. Incinerate under approved controlled conditions, using incinerators suitable for the disposal of noxious chemical waste.

### 2.3 Other hazards

Not classified as PBT or vPvB. Combustible but not readily ignited. May form explosible dust clouds in air.

## 3. SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

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### 3.1 Substances

### 3.2 Mixtures

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

According to Regulation (EC) No. 1272/2008 (CLP).

Hazardous Ingredient(s)	%W/W	EC No.	REACH Registration No.	Hazard Class and Category Code(s)	Hazard statement Code(s)
Dibenzoyl peroxide	<5	202-327-6	01-2119511472-50-XXXX	Org. Perox. B Skin Sens. 1 Eye Irrit. 2 Aquatic Acute 1	H241 H317 H319 H400

According to Directive 67/548/EEC & Directive 1999/45/EC

Hazardous Ingredient(s)	%W/W	EC No.	REACH Registration No.	Classification
Dibenzoyl peroxide	<5	202-327-6	01-2119511472-50-XXXX	E, O, Xi, N; R3 R7 R36 R43 R50

For full text of H/R phrases see section 16.

## 4. SECTION 4: FIRST AID MEASURES

### 4.1 Description of first aid measures

Inhalation	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
Skin Contact	IF ON SKIN: Wash with plenty of water. If skin irritation or rash occurs: Get medical attention.
Eye Contact	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Ingestion	Do not induce vomiting. Rinse mouth. Obtain medical attention if ill effects occur.

### 4.2 Most important symptoms and effects, both acute and delayed

May cause an allergic skin reaction.

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

None necessary.

## 5. SECTION 5: FIRE-FIGHTING MEASURES

### 5.1 Extinguishing media

Suitable Extinguishing Media	Water spray, foam, dry powder or CO <sub>2</sub>
Unsuitable Extinguishing Media	Do not use water jet.

### 5.2 Special hazards arising from the substance or mixture

Combustible but not readily ignited. Combustion or thermal decomposition will evolve toxic, irritant and flammable vapours. May form flammable dust clouds in air. 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).

### 5.3 Advice for fire-fighters

A self contained breathing apparatus and suitable protective clothing should be worn in fire conditions.

## 6. SECTION 6: ACCIDENTAL RELEASE MEASURES

### 6.1 Personal precautions, protective equipment and emergency procedures

Caution - spillages may be slippery.

### 6.2 Environmental precautions

Avoid release to the environment. Spillages or uncontrolled discharges into watercourses must be alerted to the appropriate regulatory body.

### 6.3 Methods and material for containment and cleaning up

Collect in containers for disposal using approved dust respirator.

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### 6.4 Reference to other sections

See Section: 8, 13

## 7. SECTION 7: HANDLING AND STORAGE

### 7.1 Precautions for safe handling

Do not eat, drink or smoke at the work place.

Product as supplied: Avoid contact with skin and eyes. Unlikely to represent a dust hazard under normal handling conditions.

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.

### 7.2 Conditions for safe storage, including any incompatibilities

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 (°C): Ambient.

Incompatible materials: Polymer contains residual benzoyl peroxide. This may react with oxidising agents, reducing agents, acids, bases and amines leading to decomposition.

### 7.3 Specific end use(s)

Repair systems for dental materials.

Not intended for thermal processing.

## 8. SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1 Control parameters

Substance	CAS No.	LTEL ppm (8Hr TWA)	LTEL mg/m <sup>3</sup> (8Hr TWA)	STEL ppm	STEL mg/m <sup>3</sup>	Notes
Dibenzoyl peroxide	000094-36-0		5			WEL
Dust (total inhalable dust) (respirable dust)			10 4			

### 8.2 Exposure controls

Appropriate engineering controls

Do not eat, drink or smoke at the work place. 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.

Individual protection measures, such as personal protective equipment (PPE)

Eye/face protection



Wear eye/face protection. Safety spectacles/goggles/full face shield.

Skin protection



Wear suitable gloves. Gloves of Butyl rubber are suitable.

Respiratory protection



A suitable dust mask or dust respirator with filter type P3 or FFP3 (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.

## 9. SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

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### 9.1 Information on basic physical and chemical properties

Form	Fine beads.
Colour.	White.
Odour	Typically methacrylate.
pH (Value)	Not applicable.
Boiling Point (°C)	Not applicable.
Flash Point (°C)	Not available.
Relative Evaporation Rate (Ether = 1)	Not applicable.
Flammable Limits	Not applicable.
Vapour pressure (Pascal)	Not applicable.
Vapour Density (Air=1)	Not applicable.
Solubility (Water)	Negligible.
Solubility (Other)	Not available.
Partition Coefficient (n-Octanol/water)	Not applicable.
Auto Ignition Temperature (°C)	Not available.
Viscosity (mPa. s)	Not available.
Explosive properties	Not available.
Oxidising Properties	Not applicable.
Density (g/ml)	1.1-1.18
Bulk Density (g/ml)	0.55 - 0.75

### 9.2 Other information

St Class	1
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## 10. SECTION 10: STABILITY AND REACTIVITY

### 10.1 Reactivity

Non-reactive material.

### 10.2 Chemical stability

Stable under normal conditions.

### 10.3 Possibility of hazardous reactions

None known.

### 10.4 Conditions to avoid

Avoid dust generation.

### 10.5 Incompatible materials

Polymer contains residual benzoyl peroxide. This may react with oxidising agents, reducing agents, acids, bases and amines leading to decomposition.

### 10.6 Hazardous decomposition product(s)

Methyl methacrylate, Styrene, Dibenzoyl peroxide, Carbon dioxide, Carbon monoxide.

## 11. SECTION 11: TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

#### Acute toxicity

Ingestion	Low oral toxicity.
Inhalation	Unlikely to be hazardous by inhalation.
Skin Contact	Unlikely to cause skin irritation.
Eye Contact	Dust may cause irritation.

#### Sensitisation

Skin sensitization data	Dibenzoyl peroxide : May cause sensitization by skin contact. Contains greater than 0.1% residual (Methyl methacrylate). 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.
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### 12. SECTION 12: ECOLOGICAL INFORMATION

#### 12.1 Toxicity

Very toxic to aquatic life.

#### 12.2 Persistence and degradability

The product is non-biodegradable in soil. There is no evidence of degradation in soil and water.

#### 12.3 Bioaccumulative potential

The product has low potential for bioaccumulation.

#### 12.4 Mobility in soil

The product is predicted to have low mobility in soil.

#### 12.5 Results of PBT and vPvB assessment

Not classified as PBT or vPvB.

#### 12.6 Other adverse effects

None known.

### 13. SECTION 13: DISPOSAL CONSIDERATIONS

Avoid release to the environment. Clean scrap may be reprocessed. Certain packages are returnable. Please consult your local office for further details. Ensure that all packaging is disposed of safely.

#### 13.1 Waste treatment methods

Dispose of contents/container to hazardous waste in accordance with local, state or national legislation. Incineration may be used to recover energy value. Allocation of a waste code number, according to the European Waste Catalogue, should be carried out in agreement with the regional waste disposal company.

### 14. SECTION 14: TRANSPORT INFORMATION

#### UN NUMBER 3077 IN LIMITED QUANTITIES IS NOT HAZARDOUS FOR TRANSPORT

#### 14.1 UN number 3077

#### 14.2 UN Proper Shipping Name

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. ( Dibenzoyl peroxide )

#### 14.3 Transport hazard class(es)

Class	9
IMDG Class	9
IMDG EMS	F-A, S-F
IATA	9
ADR Classification Code	M7
ADR HIN	90
ADR Transport Category	3
Tunnel Restriction Code	E
UK CDG Road: Emergency Action Code	2Z

#### 14.4 Packing group

III

#### 14.5 Environmental hazards

Classified as a Marine Pollutant.

#### 14.6 Special precautions for user

Not applicable.

#### 14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not applicable.

### 15. SECTION 15: REGULATORY INFORMATION

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

Regulation (EC) No 1272/2008 (Classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006).

### 15.2 Chemical Safety Assessment

A Chemical Safety Assessment has not been carried out for this substance/mixture.

## 16. SECTION 16: OTHER INFORMATION

This Safety Data Sheet was prepared in accordance with EC Regulation (EC) No. 453/2010.

Date of preparation: 6 -October- 2014

### Inventory Status

European Union	To the best of our knowledge all chemicals in this product comply with REACH regulations.
United States (TSCA)	Listed in TSCA
Canada (DSL/NDSL)	Listed in DSL
Japan (ENCS)	Listed in ENCS
Philippines (PICCS)	Listed in PICCS
Australia (AICS)	Listed in AICS
South Korea (KECI)	Listed in KECI
China (IECSC)	Listed in IECSC

Compliance with other Regulatory Chemical Inventories cannot be assumed, please contact supplier for further information.

### LEGEND

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

Full text of H/P/R phrases

H241: Heating may cause a fire or explosion.

H317: May cause an allergic skin reaction.

H319: Causes serious eye irritation.

H400: Very toxic to aquatic life.

R3: Extreme risk of explosion by shock, friction, fire or other sources of ignition.

R7: May cause fire.

R36: Irritating to eyes.

R43: May cause sensitization by skin contact.

R50: Very toxic to aquatic organisms.

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

Subject to the exclusions and limitations set out below the Information contained in this publication or as otherwise supplied to the User is believed to be accurate and has been given in good faith. It is for the User to use the Information contained in this publication or as otherwise supplied to the User with care and satisfy itself of the suitability of the product for their intended use and the applicability of the advice given. Except to the extent that exclusion is prevented by applicable law Deluxe Materials 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 and 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.