

SAFETY DATA SHEET

SECTION 1 Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier:

➤ Substance Name: **PPA 742ES**
(Includes all Colours as Stated on Packing Product Label)

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

Relevant identified uses:

Thermoplastic coating powders for application by electrostatic spray or flock spraying.

Uses advised against:

Any process which would require the product to be at temperatures above 300°C for prolonged periods.

Reasons why used advised against:

The product will degrade in these conditions.

1.3 Details of the Supplier of the Safety Data Sheet:

Plascoat Systems Limited
Farnham Trading Estate
Farnham
Surrey
GU9 9NY
United Kingdom

Email address:

sales@plascoat.com
(This email will only be checked during office hours Monday to Friday
08.30 to 17.00 GMT)

1.4 Emergency Telephone Number:

+44 (0)1252 733777
(Available during office hours Monday to Friday 08.30 to 17.00 GMT)

SECTION 2 Hazards identification

2.1 Classification of the substance or mixture:

Product definition : Mixtures

Classification according to Regulation (EC) No. 1272(2008) [CLP/GHS]

Aquatic Chronic 3, H412

The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended. See Section 16 for the full text of the H statements declared above. See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

Hazard pictograms	: Not applicable
Signal word	: No signal word
Hazard statements	: H412 – Harmful to aquatic life with long lasting effects.
<u>Precautionary statements</u>	
Prevention	: P273 – Avoid release to the environment
Response	: Not applicable
Storage	: Not applicable
Disposal	P501 – Disposal of contents and container in accordance with all local, regional, national and international regulations.
Supplemental label elements	➤ Safety data sheet available on request. Warning! Hazardous respirable dust may be formed when used. Do not breathe dust.
Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles	: Not applicable

SECTION 3. Composition / information on ingredients

3.2 Mixtures: Mixture

Product/ingredient name	Identifiers	%	Regulation (EC) No. 1272/2008 (CLP)	Type
Titanium dioxide	EC: 236-675-5 CAS: 13463-67-7 Index: 022-006-0 REACH #: 01-2119978231-37 EC: 264-513-3 CAS: 63843-89	<7	Carc. 2, H351 (inhalation)	[1] [2] [*]
bis(1,2,2,6,6-pentamethyl-4-piperidyl) [[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]methyl] butylmalonate	REACH #: 01-2119967768-13 EC: 500-181-0 CAS: 68002-42-6	<0.2	Acute Tox. 4, H302 STOT RE 1, H372 (lymphatic system) Aquatic Chronic 1, H410 (M=10)	[1]
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, reaction products with 2-methylimidazole		<0.1	Skin Sens. 1B, H317 See Section 16 for the full text of the H statements declared above	[1]

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

Type

[1] Substance classified with a physical, health or environmental hazard

[2] Substance with a workplace exposure limit

[3] Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII

[4] Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII

[5] Substance of equivalent concern

[6] Additional disclosure due to company policy

[*] The classification as a carcinogen by inhalation applies only to mixtures placed on the market in powder form containing 1% or more of titanium dioxide particles with diameter $\leq 10 \mu\text{m}$ not bound within a matrix.

Occupational exposure limits, if available, are listed in Section 8.

SECTION 4 First aid measures

4.1 Description of first aid measures

Inhalation: In case of adverse exposure to vapours formed at elevated temperatures, remove victim from exposure. Administer artificial respiration if breathing has stopped. Call for medical attention.

Skin Contact: Powder should be washed off with soap and water.

Eye Contact: Remove contact lenses, irrigate copiously with clean, fresh water, holding the eyelids apart for at least 10 minutes and seek immediate medical advice.

Ingestion: For accidental ingestion of small quantities first aid is not normally required. If large quantities are accidentally ingested, request medical advice.

4.2 Most important symptoms and effects, both acute and delayed

See section 11.

4.3 Indication of any immediate medical attention and special treatment needed

Not applicable.

SECTION 5 Firefighting measures

5.1 Extinguishing media:

Suitable extinguishing media: Low pressure systems such as foam (AFFF), powder, water spray or mist.

Unsuitable extinguishing media: High pressure systems such as inert gas or water jets.

5.2 Special hazards arising from the substance or mixture:

Hazardous combustion products: May include carbon monoxide, carbon dioxide, hydrocarbons, aldehydes, ketones, organic acids, smoke and fumes.

5.3 Advice for fire-fighters:

For large fires breathing apparatus is required.

SECTION 6 Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

If spillage is large and dust levels are high, dust masks should be worn, and in enclosed spaces take precautions against dust explosion hazards.

6.2 Environmental precautions:

No hazard involved but since powder floats on water and is unsightly, prevent from entering water courses.

6.3 Method and materials for containment and cleaning up:

Vacuum up dust. The use of brushes may cause dust cloud formations and potential dust explosion hazards.

6.4 Reference to other sections:

See section 8.

SECTION 7 Handling and storage

7.1 Precautions for safe handling:

When emptying bags avoid dust cloud formation and/or static build up to prevent potential dust explosion hazards. In case of large amounts of dust, wear respiratory protection. During processing provide adequate local exhaust ventilation (LEV).

7.2 Conditions for safe storage, including any incompatibilities:

Store in a well ventilated dry environment.

7.3 Specific end use(s)

See section 1.2.

SECTION 8 Exposure controls / personal protection

8.1 Control parameters:

Powder in air should be treated as a dust as recommended in HSE Publication EH40/2005. Thus the "Time Weighted Average 8 hours" should be kept below 10 mg/m³ of total inhalable dust, or 4 mg/m³ of respirable dust.

8.2 Exposure controls:

8.2.1 Appropriate engineering controls: LEV suitable for "Dust" and "Fume" extraction shall be used. See section 8.1

8.2.2 Personal protection equipment:

8.2.2.1 Eyes and face protection: Not normally necessary but if very dusty wear safety goggles.

8.2.2.2 Skin protection: Hands protection: During processing heat resistant gloves should be worn.
8.2.2.3 Respiratory protection: If dusty wear dust masks. If local exhaust ventilation is inadequate wear fume mask.

SECTION 9 Physical and chemical properties

9.1 Information on basic physical and chemical properties:

Appearance:	Powder
Colour:	Various : As stated on the Product Label
Odour:	Waxy
Specific Gravity:	1.14 – 1.16
Melting Point:	90 - 130°C
Boiling Point:	Not relevant
Solubility in Water:	Not soluble
Vapour Pressure:	Not relevant
Flammability:	Only flammable at high temperatures (see 10.4)

9.2 Dust explosion data

Maximum Explosion Pressure:	6.2 bar g	(BS EN 14034-1:2004)
K _{st} Value:	40-60 bar.m.s ⁻¹	(BS EN 14034-2:2006)
St Class:	1	(BS EN 14034-2:2006)
Minimum Ignition Energy:	100 - 500 mJ	(BS EN 13821:2002)
Minimum Ignition Temperature:	460°C *	(BS EN 50281-2-1:1999)
Minimum Explosive Concentration (MEC)		
➤ PPA 742ES	- 140 g/m ³ *	(BS EN 14034-3: 2006)
➤ PPA 742ES	- 200 g/m ³ *	(BS EN 14034-3: 2006)

*These figures are based on tests performed on a similar product.

SECTION 10 Stability and reactivity

10.1 Reactivity:

At ambient temperatures the substance is stable.

10.2 Chemical stability:

At ambient temperatures the substance is stable

10.3 Possibility of hazardous reactions:

At ambient temperatures the substance is stable

10.4 Conditions to avoid:

Prolonged exposure to temperatures in excess of 300°C (See 10.1)

10.5 Incompatible materials:

Strong oxidising agents.

10.6 Hazardous decomposition products

From Processing: Fumes contain low molecular weight aliphatic hydrocarbons, fatty acids and fatty acid esters and other organic acids.

SECTION 11 Toxicological information

11.1 Information on toxicological effects

There are no data available on the mixture itself. The mixture has been assessed following the conventional method of the CLP Regulation (EC) No 1272/2008 and is classified for toxicological properties accordingly. See Sections 2 and 3 for details.

This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

Coating powders can cause localised skin irritation in folds of the skin or under tight clothing.

Based on the properties of the epoxy constituent(s) and considering toxicological data on similar mixtures, this mixture may be a skin sensitiser and an irritant. It contains low molecular weight epoxy constituents which are irritating to eyes, mucous membrane and skin. Repeated skin contact may lead to irritation and to sensitisation, possibly with cross-sensitisation to other epoxies. Skin contact with the mixture and exposure to spray mist and vapour should be avoided.

Contains 4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, reaction products with 2-methylimidazole. May produce an allergic reaction.

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
bis(1,2,2,6,6-pentamethyl-4-piperidyl) [[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]methyl] butylmalonate	LD50 Oral	Rat	1500 mg/kg	-

Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapours) (mg/l)	Inhalation (dusts and mists) (mg/l)
bis(1,2,2,6,6-pentamethyl-4-piperidyl) [[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]methyl] butylmalonate	1500	N/A	N/A	N/A	N/A

Irritation/Corrosion

Sensitisation

Carcinogenicity

Reproductive toxicity

Teratogenicity

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Product/ingredient name	Category	Route of exposure	Target organs
bis(1,2,2,6,6-pentamethyl-4-piperidyl) [[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]methyl]butylmalonate	Category 1	-	Lymphatic system

Aspiration hazard

Not available.

Other information : Not available.

SECTION 12 Ecological information

12.1 Toxicity:

There are no data available on the mixture itself.

Coating powder residues should not be allowed to enter drains or watercourses or be deposited where they could affect ground or surface waters.

The mixture has been assessed following the summation method of the CLP Regulation (EC) No 1272/2008 and is classified for eco-toxicological properties accordingly. See Sections 2 and 3 for details.

Product/ingredient name	Result	Species	Exposure
Titanium dioxide	Acute LC50 >1000000 µg/l Marine water	Fish - Fundulus heteroclitus	96 hours
bis(1,2,2,6,6-pentamethyl-4-piperidyl) [[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]methyl]butylmalonate	EC50 61 mg/l	Aquatic plants - Desmodesmus subspicatus	72 hours
	NOEC 0.002 mg/l		21 DAYS

Conclusion/Summary : Not available

12.2. Persistence and degradability

Conclusion/Summary : Not available

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
bis(1,2,2,6,6-pentamethyl-4-piperidyl) [[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]methyl] butylmalonate	Fresh water 2688.5 days, pH 7, 25°C	-	Not readily

12.3. Bio-accumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
bis(1,2,2,6,6-pentamethyl-4-piperidyl) [[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]methyl] butylmalonate	6.4	49.3 to 437.1	Not readily

12.4. Mobility in soil

Soil/water partition Coefficient (K_{oc}) : Not available

Mobility : Not available

12.5. Results of PBT and vPvB Assessment

Does not contain any substances that are assessed to be a PBT or a vPvB.

12.6. Other adverse effects

No adverse effects are expected.

SECTION 13 Disposal consideration

13.1. Waste treatment methods

European waste catalogue (EWC)

The European Waste Catalogue classification of this product, when disposed of as waste, is:

Waste code	Waste designation
08 02 01	waste coating powders

Packaging

Methods of disposal : The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

Disposal considerations : Using information provided in this safety data sheet, advice should be
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obtained from the relevant waste authority on the classification of empty containers.
Empty containers must be scrapped or reconditioned.
Dispose of containers contaminated by the product in accordance with local or national legal provisions.

Type of packaging :	European waste catalogue (EWC)
CEPE Guidelines	15 01 10* packaging containing residues of or contaminated by hazardous substances

Special precautions : This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewer

SECTION 14 Transport

14.1. UN number

ADR/RID, ADN, IMDG & IATA: Not regulated

14.2. UN proper shipping name

ADR/RID, ADN, IMDG & IATA: Not applicable

14.3. Transport hazard class(es)

ADR/RID, ADN, IMDG & IATA: Not applicable

14.4. Packing group

Not applicable

14.5. Environmental hazards

Not applicable

14.6. Special precautions for user

Not applicable

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15 Regulatory information

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

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorisation

Annex XIV

None of the components are listed.

Substances of very high concern

None of the components are listed.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles : Not applicable

Other EU regulations **Seveso Directive**

This product may add to the calculation for determining whether a site is within the scope of the Seveso Directive on major accident hazards.

National regulations

Industrial use : The information contained in this safety data sheet does not constitute the user's own assessment of workplace risks, as required by other health and safety legislation. The provisions of the national health and safety at work regulations apply to the use of this product at work

15.2. Chemical Safety Assessment

No Chemical Safety Assessment has been carried out for this mixture by the supplier.

SECTION 16 Other information

Abbreviations and acronym : ATE = Acute Toxicity Estimate
CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
DMEL = Derived Minimal Effect Level
DNEL = Derived No Effect Level
EUH statement = CLP-specific Hazard statement
N/A = Not available
PBT = Persistent, Bioaccumulative and Toxic PNEC = Predicted No Effect Concentration
RRN = REACH Registration Number
vPvB = Very Persistent and Very Bioaccumulative

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification
Aquatic Chronic 2, H411	Calculation method

Full text of abbreviated H statements

H302	Harmful if swallowed.
H317	May cause an allergic skin reaction. H351 Suspected of causing cancer.
H372	Causes damage to organs through prolonged or repeated exposure.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.

Full text of classifications [CLP/GHS]

Acute Tox. 4	ACUTE TOXICITY - Category 4
Aquatic Chronic 1	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 1
Aquatic Chronic 2	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2
Carc. 2	CARCINOGENICITY - Category 2
Skin Sens. 1B	SKIN SENSITISATION - Category 1B
STOT RE 1	SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 1

Notice to reader

- I. The issue number and Date compiled are indicated in the page footers.
- II. Modifications to the previous issue of this SDS are indicated by "➤"
- III. The information presented here is given in good faith and to the best of our knowledge, true and accurate.
- IV. This information may be subject to modification from time to time in the light of: legislation, our experience and our policy of continuous development.
- V. It is the user's responsibility to verify that they are using the latest issue of the SDS in conjunction with the latest copy of our Technical Data Sheet.
- VI. Conditions under which our materials may be used are beyond our control. Hence, no responsibility or liability, expressed or implied, can be accepted by Plascoat for any problems which may arise as a result of any actions or decisions that may be taken by the coating applicator, or by any other party that may be involved with specifying or using the material.
- VII. The product should not be used for purposes other than those shown in Section 1 without first referring to the supplier and obtaining written handling instructions. As the specific conditions of use of the product are outside the supplier's control, the user is responsible for ensuring that the requirements of relevant legislation are complied with.
- VIII. The information in this safety data sheet is based on the present state of knowledge and current legislation. It provides guidance on health, safety and environmental aspects of the product and should not be construed as any guarantee of technical performance or suitability for particular applications.