



HMG Powder Coatings Limited

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Material Safety Data Sheet SDS1037

This Safety Data Sheet is prepared in accordance with Regulation (EC) No 1907/2006 as amended by 453/2010/EC

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

1.1 Product identifier

All products packaged in containers labelled "SDS1037".

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

Coating powder for electrostatic spray or fluidised bed application. This product is only for industrial and/or professional use, not for any private consumer use.

1.3 Details of the supplier of the safety data sheet

HMG Powder Coatings Limited
Dill Road, Castlereagh Industrial Estate, Belfast, BT6 9HU
e-mail: sds@hmgpowdercoatings.co.uk

1.4 Emergency telephone number

HMG Powder Coatings Ltd +44 28 9079 4930 (office hours 9:00am to 4:00pm GMT Monday to Friday)
National Poisons information Service <http://www.npis.org/>
England, Wales and Scotland: Dial 111
Northern Ireland: Contact local GP or pharmacist
Republic of Ireland: 01 809 2166

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Product Definition: mixture

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

This mixture is not classified as hazardous according to Regulation (EC) No 1272/2008

Classification according to Directive 1999/45/EC [DPD]

This mixture is not classified as hazardous according to Directive 1999/45/EC

2.2 Label Elements

Labelling according to Regulation (EC) No 1272/2008

Hazard Pictograms

(none)

Signal Word

(none)

Hazard Statements

(none)

Precautionary Statements

(none)

Supplemental Hazard Information (EU)

EUH204	Contains isocyanates. May produce an allergic reaction.
EUH210	Safety data sheet available on request

2.3 Other Hazards

May form an explosive dust-air mixture if dispersed.

3. COMPOSITION / INFORMATION ON INGREDIENTS

3.1 Substances

This product is a mixture. Health hazard information is based on its components.

3.2 Mixtures

Chemical characterisation

Mixture of synthetic resins and pigments.

Hazardous Components

Substances presenting a health or environmental hazard within the meaning of Directive 67/548/EEC.

(None)

¹See Section 16 for full text of H-statements.

Substances presenting a health or environmental hazard within the meaning of Regulation (EC) No 1272/2008

The product contains no substances classified as hazardous to health in concentrations which should be taken into account. Up to the given revision date of this safety data sheet no REACH registration numbers are assigned to the chemical substances used in this preparation.

¹See Section 16 for full text of H-statements.

4. FIRST AID MEASURES

4.1 Description of first aid measures

General Advice

In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person.

Inhalation:

Avoid breathing dust. Inhalation of dust may cause shortness of breath, tightness of chest, a sore throat and cough. Remove to fresh air, keep patient warm and at rest. If breathing is irregular or stopped, administer artificial respiration. If symptoms persist, call a physician.

Skin contact:

Remove contaminated clothing and shoes immediately. Wash skin thoroughly with soap and water or use recognised skin cleanser. Do NOT use solvents or thinners. If skin irritation persists, call a physician.

Eye contact:

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

Ingestion:

If swallowed rinse the mouth with plenty of water (only in the person is conscious) and obtain immediate medical attention. Keep at rest. Do NOT induce vomiting.

4.2 Most important symptoms and effects, both acute and delayed

Please see practical experience in Section 11

4.3 Indication of any immediate medical attention and special treatment needed

If unconscious place in recovery position and seek medical advice.

5. FIRE-FIGHTING MEASURES

5.1 Extinguishing media

Suitable Extinguishing Media

Recommended: alcohol resistant foam, CO₂ blanket, water spray/mist

Extinguishing media which shall not be used for safety reasons

High pressure inert gas (e.g. CO₂), water jet

5.2 Special hazards arising from the substance or mixture:

Hazardous combustion products

Fire will produce dense black smoke containing hazardous combustion products. Exposure to decomposition products may cause a health hazard. Appropriate breathing apparatus may be required.

Hazardous decomposition products

When exposed to high temperatures may produce hazardous decomposition products such as carbon monoxide and dioxide, smoke, oxides of nitrogen.

5.3 Advice for Firefighters

Cool closed containers exposed to fire with water. Do not allow run-off from fire fighting to enter drains or water courses.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal Precautions, protective equipment and emergency services

Exclude sources of ignition and ventilate the area. Avoid breathing dust. Refer to protective measures listed in sections 7 and 8.

6.2 Environmental Precautions

Do not allow to enter drains or watercourses. If the product contaminates lakes, rivers or waste water systems, inform appropriate authorities in accordance with local regulations.

6.3 Methods and material for containment and cleaning up

Contain and collect spillage with an electrically protected vacuum cleaner or by wet brushing and place in container for disposal according to local regulations (see section 13). Do not use a dry brush as dust clouds or static can be created.

6.4 Reference to other sections

Comply with safety directives (see Sections 7 and 8).

7. HANDLING AND STORAGE

Advice should be taken from a competent occupational health practitioner on the assessment of employees with skin or respiratory complaints before the individual is exposed to the uncured product.

7.1 Precautions for safe handling

Safe handling advice

Precautions should be taken to prevent the formation of dusts in concentrations above flammable, explosive or occupational exposure limits. Electrical equipment and lighting should be protected to appropriate standards and to prevent dust coming into contact with hot surfaces, sparks or other ignition sources. The mixture may charge electrostatically: always use earthing leads when transferring from one container to another. Operators should wear anti-static footwear and clothing and floors should be of the conducting type. Isolate from sources of heat, sparks and open flame. Avoid skin and eye contact. Avoid the inhalation of dust, particulates and spray mist arising from the application of this mixture. If material is a coating, do not sand, flame cut, braze or weld dry coating without an appropriate respirator or appropriate ventilation. Smoking, eating and drinking should be prohibited in application area. For personal protection see Section 8. Comply with the health and safety at work laws. Do not allow to enter drains or water courses.

When operators, whether spraying or not, have to work inside the spray booth, ventilation is unlikely to be sufficient to control particulates in all cases. In such circumstances they should wear a cartridge respirator with a particulate filter selected in accordance with EN 529 during the spraying process and until such time as the particulates have fallen below the exposure limits.

During stoving/curing caprolactam will be released. Efficient oven extraction must be provided to safely discharge caprolactam from the workplace.

Welding, grinding and other hot work on the already coated substrate may cause free isocyanates to be formed and released.

Advice on protection against fire and explosion

Always keep in containers made of same material as the original supply container. The accumulation of contaminated rags may result in spontaneous combustion. Good housekeeping standards and regular safe removal of waste materials will minimize the risks of spontaneous combustion and other fire hazards.

7.2 Conditions for safe storage, including any incompatibilities

The principles contained in the HSE guidance note Storage of Packaged Dangerous Substances should be observed when storing this product.

Requirements for storage areas and containers

Observe the label precautions. Store between 5 and 25°C in a dry, well ventilated place away from sources of heat, ignition and direct sunlight. Keep container tightly closed. No smoking. Prevent unauthorised access. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Advice on common storage

Store separately from oxidising agents and strongly alkaline or acidic materials. Do not store together with explosives, compressed, liquefied and pressurised gases, aerosols, flammable liquids, oxidising products, non-combustible toxic products and infectious products.

7.3 Specific end use(s)

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Limits for occupational exposure and/or biological limit values

DNEL

No information available

PNEC

No information available

Community / National occupational exposure limits

The product contains no substances classified as hazardous to health by an OEL value in concentrations which should be taken into account.

United Kingdom

Substance	WEL LTEL ⁽¹⁾		WEL STEL ⁽²⁾		Notations ⁽³⁾
	ppm ⁽⁴⁾	mg.m ⁻³ ⁽⁴⁾	ppm ⁽⁴⁾	mg.m ⁻³ ⁽⁴⁾	
Caprolactam (1,6-Hexanolactam) as dust		1 (OES)		3 (OES)	
Caprolactam (1,6-Hexanolactam) as vapour		10 (OES)		20 (OES)	

European Union

Substance	BOELV ⁽¹⁾		STEL ⁽²⁾		Notations ⁽³⁾
	ppm ⁽⁴⁾	mg.m ⁻³ ⁽⁴⁾	ppm ⁽⁴⁾	mg.m ⁻³ ⁽⁴⁾	
Caprolactam (1,6-Hexanolactam) as dust		1 (OES)		3 (OES)	
Caprolactam (1,6-Hexanolactam) as vapour		10 (OES)		20 (OES)	

⁽¹⁾ WEL LTEL: Workplace Exposure Limit Long Term Exposure Limit / BOELV: Binding Occupational Exposure Limit Value – 8-hour Time Weighted Average (TWA)

⁽²⁾ WEL STEL: Workplace Exposure Limit Short Term Exposure Limit - 15 minute reference period

⁽³⁾ 'SK' indicates a risk of absorption through the skin. 'SEN' indicates a respiratory sensitizer

⁽⁴⁾ 'OES' indicates an Occupational Exposure Standard. 'MEL' indicates a Maximum Exposure Limit.

OELs are taken from the current version of EH40, except those marked 'SUP', which are assigned by the supplier of the substance

8.2 Exposure Controls

Appropriate engineering controls

Avoid the inhalation of dusts. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of dusts below the occupational exposure limit (OEL), suitable respiratory protective equipment must be worn.

Occupational Exposure Controls

Respiratory protection:

If workers are exposed to concentrations above the exposure limit they should use a cartridge respirator with a particulate filter selected in accordance with EN 529.

Hand protection:

There is no one glove material or combination of materials that will give unlimited resistance to any individual or combination of chemicals. The breakthrough time of gloves is unknown for the product itself. The glove material given is recommended on basis of the substances in the preparation.

Glove Material	Glove thickness (mm)	Breakthrough time (min)
Nitrile rubber	0.33	>240

The protective gloves should be checked in each case for their work-specific suitability (e.g. mechanical stability, product compatibility and anti-static properties). After contamination, the glove has to be changed. Care should be taken when working with sharp edged articles as these can easily damage the gloves and make them ineffective. The instructions and information provided by the glove supplier on use, storage, maintenance and replacement must be followed. Damaged gloves or those showing signs of wear should be replaced immediately. Preventative skin protection such as skin protective cream is recommended. Barrier creams may help to protect the exposed areas of the skin, but are not substitutes for full physical protection. They should however not be applied once exposure has occurred. Work tasks should be arranged in such a way that gloves do not have to be worn continuously. Wear suitable gloves tested to EN 374.

Protective equipment

Personal protective equipment should be worn to prevent contact with eyes, skin or clothing.

Eye protection

Use suitable eye protection according to EN 166.

Skin and body protection

Personnel should wear suitable protective clothing (EN ISO 13982-1, EN 1149-1). Care should be taken in the selection of protective clothing to ensure that inflammation and irritation of the skin at neck and wrists through contact with the powder are avoided. Wear suitable gloves tested to EN 374.

Hygiene measures

Wash skin thoroughly with soap and water or use recognised skin cleanser. Do not use organic solvents!

Environmental exposure controls

Do not let water enter drains. For ecological information refer to Section 12.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Property	Value	Method
Physical state	Solid - powder. Colour will vary.	
Odour	Odourless	
pH	not applicable	
flash point	not applicable	DIN 53213/ISO 1523
flammability (solid)	no data available	
lower explosion limit	20 g.m ⁻³	
upper explosion limit	70 g.m ⁻³	
Relative density	1.2 – 1.9 g.cm ⁻³	DIN 53217/ISO 2811
Solubility (water)	Insoluble in cold water and hot water	
Minimum ignition energy (MIE) [†]	15 – 60 mJ	

[†]In operations where the powder is recovered for reuse, the average particle size may change and this in turn can lead to an alteration in MIE.

9.2 Other information

Content of volatile components (including water): 0.0%

10. STABILITY AND REACTIVITY

10.1 Reactivity

Keep away from oxidising agents, strongly alkaline and strongly acidic materials in order to avoid exothermic reactions

10.2 Chemical stability

The product is chemically stable under recommended storage and handling conditions (see section 7).

10.3 Possibility of hazardous reactions

No dangerous reaction known under conditions of normal use

10.4 Conditions to avoid

Stable under the recommended storage and handling conditions (see section 7).

10.5 Incompatible materials to avoid

Not required under normal use

10.6 Hazardous decomposition products

Not known

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

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

Caprolactam is hazardous to human health and the effects are described by the following hazard statements:

H302 + H332	Harmful if swallowed or if inhaled
H315	Causes skin irritation
H319	Causes serious eye irritation
H335	May cause respiratory irritation

Practical experience

Swallowing may cause nausea, diarrhoea, vomiting and gastrointestinal irritation. Coatings powders can cause localised skin irritation in folds of the skin or under tight clothing.

12. ECOLOGICAL INFORMATION

There is no data available on the mixture itself. Coatings powder residues should not be allowed to enter drains or water courses or be deposited where they can affect ground or surface waters. The data in this section is consistent with data from chemical safety reports available at the date of revision.

12.1 Toxicity

The mixture has been assessed following the summation method of the CLP Regulation (EC) No 1272/2008 and is not classified as hazardous to the environment.

12.2 Persistence and degradability

No information available

12.3 Bioaccumulative potential

No information available

12.4 Mobility in soil

No information available

12.5 Results of PBT and vPvB assessment

Based on available data no ingredient is classified for this hazard property (please see section 3)

12.6 Other adverse effects

The preparation was evaluated in accordance with the conventional method of the preparation directive 1999/45/EC and was not classified as environmentally dangerous.

Adsorbed organic bound halogens (AOX)

The product does not contain organic linked halogens contributing to AOX.

13. DISPOSAL CONSIDERATIONS**13.1 Waste treatment methods**

Dispose of in accordance with local regulations. Do not allow to enter drains or water courses.

Product

Recommendation: A disposal process that converts the waste into energy is recommended. Can be landfilled or incinerated, when in compliance with local regulations.

Hazardous waste: No

Uncleaned Packaging

Recommendation: empty containers can be landfilled, when in accordance with the local regulations. Properly emptied composite packaging is to be disposed of as commercial waste.

European Waste Catalogue (EWC)

Waste Key Number	Description
08 02 01	Waste Coating Powders
15 01 15	Composite Packaging

If this product is mixed with other wastes, the original waste product code may no longer apply and the appropriate code should be assigned. For further information contact your local waste authority.

14. TRANSPORT INFORMATION

This section contains basic transport classification information only, and provides no guarantee that the product is correctly packaged for transport by any mode. Refer to the relevant transport documentation.

Not classified as dangerous in the meaning of transport regulations

14.1 UN Number

Not applicable

14.2 UN Proper Shipping Name

Not applicable

14.3 Transport Hazard Class(es)

Not applicable

14.4 Packaging Group

Not applicable

14.5 Environmental hazards

ADR/RID; IMDG; ICAO/IATA: none

Marine Pollutant

IMDG no

14.6 Special precautions for user**Transport within the user's premises**

Always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

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

Deliveries shall only be made based on appropriate packaging and in compliance with traffic laws.

15. REGULATORY INFORMATION

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

Restricted to professional users.

The information in this safety data sheet has been prepared according to United Kingdom legislation. The product is labelled according to the Chemicals (Hazard Information and Packaging for Supply) Regulations 2002 as amended (CHIP Regulations). The risk associated with the use of this product must be assessed in accordance with the Control of Substances Hazardous to Health (COSHH) Regulations and the Dangerous Substances and Explosive Atmospheres Regulations.

15.2 Chemical Safety Assessment

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

16. OTHER INFORMATION

The information contained in this safety data sheet is based on the present state of our 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. 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. 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.

Further information and advice can be found in:

The Application of Powder Coatings by Electrostatic Spraying (Code of Safe Practice) from British Coatings Federation, www.coatings.org.uk

Health & Safety Executive GB Website (www.hse.gov.uk)

Health & Safety Executive NI Website (www.hseni.gov.uk)

Health & Safety Authority (Ireland) Website (www.hsa.ie)

European Agency for Safety and Health at Work (OSHA) (<https://osha.europa.eu/en>)

European Chemicals Agency (ECHA) (<http://echa.europa.eu>)

CAS information (www.cas.org)

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