Safety Data Sheet
according to Regulation (EC) No. 2015/830

SECTION 1: Identification of the Substance/Mixture and the Company/Undertaking

1.1 Product Identifier

Product Name: Flowfast Catalyst

Revision Date: 19/01/2017

Supercedes Date: 15/07/2015

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

Coatings and paints, thinners, paint removers. Hand-mixing with intimate contact and only PPE available. Wide dispersive indoor use resulting in inclusion into or onto a matrix. Wide dispersive outdoor use resulting in inclusion into or onto a matrix. For use by appropriately trained applicators. Roller application or brushing. Low energy spreading of coatings. Advised against: Home DIY applications, because of the health hazards and training required.

1.3 Details of the supplier of the safety data sheet

Supplier:

Flowcrete UK Ltd.
The Flooring Technology Centre
Booth Lane
Moston, Sandbach, Cheshire. UK
CW11 3QF

Tel: +44 (0)1270 753000
Fax: +44 (0)1270 753333
ehs.uk@flowcrete.com
http://www.flowcrete.co.uk

Datasheet Produced by: ehs.uk@flowcrete.com

1.4 Emergency telephone number:

CHEMTREC +001 703 5273887 (Outside US)
CHEMTREC 1-800-424-9300 (Inside US)

SECTION 2: Hazard Identification

2.1 Classification of the substance or mixture

Classification according to Classification, Labeling & Packaging Regulation (EC) 1272/2008

HAZARD STATEMENTS

Organic Peroxide, categories C, D	H242-CD
Skin Sensitizer, category 1	H317
Eye Irritation, category 2	H319
Reproductive Toxicity, category 2	H361

Hazardous to the aquatic environment, Acute, category 1	H400
Hazardous to the aquatic environment, Chronic, category 1	H410

2.2 Label elements

Symbol(s) of Product

Signal Word

Danger

Named Chemicals on Label

Dicyclohexyl phthalate, Dibenzoyl-peroxide

HAZARD STATEMENTS

Organic Peroxide, categories C, D	H242-CD	Heating may cause a fire.
Skin Sensitizer, category 1	H317	May cause an allergic skin reaction.
Eye Irritation, category 2	H319	Causes serious eye irritation.
Reproductive Toxicity, category 2	H361	Suspected of damaging fertility or the unborn child.
Hazardous to the aquatic environment, Acute, category 1	H400	Very toxic to aquatic life.
Hazardous to the aquatic environment, Chronic, category 1	H410	Very toxic to aquatic life with long lasting effects.

PRECAUTION PHRASES

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P234	Keep only in original container.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/ face protection.
P284	Wear respiratory protection.
P302+352	IF ON SKIN: Wash with plenty of soap and water.
P305+351+338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing.
P308+P313	IF exposed or concerned: Get medical advice/attention
P333+313	If skin irritation or rash occurs: Get medical advice/attention.
P391	Collect spillage.
P403+235	Store in a well-ventilated place. Keep cool.

2.3 Other hazards

No Information

Results of PBT and vPvB assessment:

The product does not meet the criteria for PBT/VPvB in accordance with Annex XIII.

SECTION 3: Composition/Information On Ingredients

3.2 Mixtures

Hazardous Ingredients

CAS-No.	EINEC No.	Name According to EEC	%
94-36-0	202-327-6	Dibenzoyl-peroxide	25-50
84-61-7	201-545-9	Dicyclohexyl phthalate	25-50

CAS-No.	REACH Reg No.	CLP Symbols	CLP Hazard Statements	M-Factors
84-61-7	01-2119978223-34	GHS07-GHS08	H317-361-412	
94-36-0	01-2119511472-50	GHS07-GHS09	H317-319-400-410	

Additional Information: The text for CLP Hazard Statements shown above (if any) is given in Section 16.

SECTION 4: First-aid Measures

4.1 Description of First Aid Measures

GENERAL NOTES: When symptoms persist or in all cases of doubt seek medical advice. Show this safety data sheet to the doctor in attendance. Remove contaminated clothing and shoes.
AFTER INHALATION: Move to fresh air.
AFTER SKIN CONTACT: Use a mild soap if available. Wash off immediately with soap and plenty of water.
AFTER EYE CONTACT: Keep eye wide open while rinsing. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses. If eye irritation persists, consult a specialist.
AFTER INGESTION: Gently wipe or rinse the inside of the mouth with water. Never give anything by mouth to an unconscious person. If swallowed, call a poison control centre or doctor immediately. DO NOT induce vomiting unless directed to do so by a physician or poison control center.

Self protection of the first aider:

No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

4.2 Most important symptoms and effects, both acute and delayed

No Information

4.3 Indication of any immediate medical attention and special treatment needed

No information available on clinical testing and medical monitoring. Specific toxicological information on substances, if available, can be found in section 11.

SECTION 5: Fire-fighting Measures

5.1 Extinguishing Media:

Carbon Dioxide, Dry Chemical, Foam, Water Fog

FOR SAFETY REASONS NOT TO BE USED: Alcohol, Alcohol based solutions, any other media not listed above.

5.2 Special hazards arising from the substance or mixture

Heating may cause a fire or explosion.

5.3 Advice for firefighters

Keep containers and surroundings cool with water spray. Fire will produce dense black smoke containing hazardous combustion products (see section 10). In the event of fire, wear self-contained breathing apparatus. Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

SECTION 6: Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Avoid dust formation. Use personal protective equipment. Keep people away from and upwind of spill/leak. Remove all sources of ignition.

6.2 Environmental precautions

Do not allow material to contaminate ground water system. Prevent product from entering drains. May cause long-term adverse effects in the aquatic environment.

6.3 Methods and material for containment and cleaning up

Pick up and transfer to properly labelled containers. Do not let product enter drains. After cleaning, flush away traces with water. Avoid breathing dust.

6.4 Reference to other sections

FURTHER INSTRUCTIONS: Please refer to EU disposal requirements or country specific disposal requirements for this material. See Section 13 for further information.

SECTION 7: Handling and Storage

7.1 Precautions for safe handling

Electrical equipment should be protected to the appropriate standard. Wear personal protective equipment. Use only in well-ventilated areas. Keep product and empty container away from heat and sources of ignition. Dust can form an explosive mixture in air. Keep away from sources of ignition - No smoking. Avoid contact with skin and eyes.
Repeated or prolonged skin contact may cause skin irritation and/or dermatitis and sensitization of susceptible persons. In the case of sensitisation to any of the ingredients, it is inadvisable to work with the product. Handle in accordance with good industrial hygiene and safety practice. Keep working clothes separately. Keep away from food, drink and animal feeding stuffs. Do not breathe dust. When using, do not eat, drink or smoke. Wash hands and face before breaks and immediately after handling the product.

7.2 Conditions for safe storage, including any incompatibilities

CONDITIONS TO AVOID: Avoid temperatures above 40 °C, direct sunlight and contact with sources of heat. Heat, flames and sparks.
STORAGE CONDITIONS: Store at room temperature in the original container. Keep tightly closed in a dry and cool place. Keep locked up or in an area accessible only to qualified or authorised persons. Keep container closed when not in use.

7.3 Specific end use(s)

Component of a resin flooring product. The mixing and application to be in accordance with the technical data sheets.

SECTION 8: Exposure Controls/Personal Protection

8.1 Control parameters

Ingredients with Occupational Exposure Limits
(UK WELS)

Name	CAS-No.	LTEL ppm	STEL ppm	STEL mg/m3	LTEL mg/m3
Dibenzoyl-peroxide	94-36-0				5
Dicyclohexyl phthalate	84-61-7				5

Name	CAS-No.	OEL Note
Dicyclohexyl phthalate	84-61-7	
Dibenzoyl-peroxide	94-36-0	

FURTHER ADVICE: Refer to the regulatory exposure limits for the workforce enforced in each country. Some components may not have been classified under the EU CLP Regulation.

8.2 Exposure controls

Personal Protection
RESPIRATORY PROTECTION: Effective dust mask.
EYE PROTECTION: Eye wash bottle with pure water. Safety goggles. Safety glasses with side-shields conforming to EN166.
HAND PROTECTION: Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough. Rubber or plastic gloves. Take note of the information given by the producer concerning permeability and break through times, and of special workplace conditions (mechanical strain, duration of contact). Long sleeved clothing. Remove and wash contaminated clothing before re-use. Remove contaminated clothing and protective equipment before entering eating areas.
OTHER PROTECTIVE EQUIPMENT: No Information
ENGINEERING CONTROLS: As a rule, at least 10 air changes per hour are recommended at the workplace. Avoid contact with skin, eyes and clothing. Ensure adequate ventilation, especially in confined areas.

Chemical Name:

Dibenzoyl-peroxide

EC No.: 202-327-6

CAS-No.: 94-36-0

DNELs - Derived no effect level

	Workers				Consumers			
Route of Exposure	Acute effect local	Acute effects systemic	Chronic effects local	Chronic effects systemic	Acute effect local	Acute effects systemic	Chronic effects local	Chronic effects systemic
Oral	Not required							1.65 mg/kg bw/d
Inhalation				11.75 mg/m³				2.9 mg/m³
Dermal				6.6 mg/kg bw/d				3.3 mg/kg bw/d

PNEC's - Predicted no effect concentration

Environmental protection target	PNEC
Fresh water	0.000602 mg/l
Fresh water sediments	0.338 mg/kg
Marine water	0.0000602 mg/l
Marine sediments	
Food chain	6.67 mg/kg food
Microorganisms in sewage treatment	0.35 mg/l
soil (agricultural)	0.0758 mg/kg
Air	

Chemical Name:

Dicyclohexyl phthalate

EC No.: 201-545-9

CAS-No.: 84-61-7

DNELs - Derived no effect level

	Workers				Consumers			
Route of Exposure	Acute effect local	Acute effects systemic	Chronic effects local	Chronic effects systemic	Acute effect local	Acute effects systemic	Chronic effects local	Chronic effects systemic
Oral	Not required							0.25 mg/kg bw/d
Inhalation		35.2 mg/m³		35.2 mg/m³	0.87 mg/m³			0.87 mg/m³
Dermal		0.5 mg/kg bw/d		0.5 mg/kg bw/d				0.25 mg/kg bw/d

PNEC's - Predicted no effect concentration

Environmental protection target	PNEC
Fresh water	0.00362 mg/l
Fresh water sediments	1.06 mg/kg
Marine water	0.000362 mg/l
Marine sediments	0.106 mg/kg
Food chain	133 mg/kg food
Microorganisms in sewage treatment	10 mg/l
soil (agricultural)	0.21 mg/kg
Air	

SECTION 9: Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

Appearance: white powder

Physical State Solid

Odor faint odor

Odor threshold Not determined

pH	Not determined
Melting point / freezing point (°C)	Not determined
Boiling point/range (°C)	100 - N.D.
Flash Point, (°C)	>63
Evaporation rate	Not determined
Flammability (solid, gas)	Decomposition products may be flammable.
Upper/lower flammability or explosive limits	Not determined
Vapour Pressure	Not determined
Vapour density	Not applicable
Relative density	1.23
Solubility in / Miscibility with water	Insoluble
Partition coefficient: n-octanol/water	Not determined
Auto-ignition temperature (°C)	Not determined
Decomposition temperature (°C)	55
Viscosity	Not determined
Explosive properties	explosive
Oxidising properties	Not determined

9.2 Other information

VOC Content g/l: <10

This is a calculated maximum VOC content for the mixed ready to use product (to Directive 2004/42/EC).

SECTION 10: Stability and Reactivity

10.1 Reactivity
Explosive reaction may occur on heating or burning.

10.2 Chemical stability
Self-Accelerating decomposition temperature (SADT)**:** 55°C. Lowest temperature at which the tested package size will undergo a self-accelerating decomposition reaction. This reaction will generate flammable vapors which may autoignite. The length of time to generate a decomposition reaction, after the SADT has been reached or exceeded, is dependent upon how much the SADT has been exceeded and the length of time needed for the reaction exotherm to initiate a rapid decomposition reaction. Typically, SADT is inversely proportional to package size. Larger packages will have a lower SADT due to smaller ratio of heat transfer area to volume of product. No decomposition if stored and applied as directed.

10.3 Possibility of hazardous reactions
Hazardous polymerisation does not occur.

10.4 Conditions to avoid
Avoid temperatures above 40 °C, direct sunlight and contact with sources of heat. Heat, flames and sparks.

10.5 Incompatible materials
Heavy metal compounds. Strong oxidizing agents. Acids and bases. Amines. Reducing agents.

10.6 Hazardous decomposition products
In case of fire **hazardous decomposition products** may be produced such as**:** Carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke). Benzoic acid.

SECTION 11: Toxicological Information

11.1 Information on toxicological effects

Acute Toxicity:

Oral LD50: No Information

Inhalation LC50: No Information

Irritation: No information available.

Corrosivity: No information available.

Sensitization: Prolonged or repeated skin contact may result in allergic eczema.

Repeated dose toxicity: No information available.

Carcinogenicity: No information available.

Mutagenicity: No information available.

Toxicity for reproduction: No information available.

STOT-single exposure: No information available.

STOT-repeated exposure: No information available.

Aspiration hazard: No information available.

If no information is available above under Acute Toxicity then the acute effects of this product have not been tested. Data on individual components are tabulated below:

CAS-No.	Name According to EEC	Oral LD50	Dermal LD50	Vapor LC50
84-61-7	Dicyclohexyl phthalate	>2000 mg/kg (rat)	>2000 mg/kg (rat)	
94-36-0	Dibenzoyl-peroxide	>5000 mg/kg (rat)		

Additional Information:

In the case of sensitisation to any of the ingredients, it is inadvisable to work with the product. Repeated or prolonged skin contact may cause skin irritation and/or dermatitis and sensitization of susceptible persons.

SECTION 12: Ecological Information

12.1 Toxicity:

EC50 48hr (Daphnia): No information

IC50 72hr (Algae): No information

LC50 96hr (fish): No information

12.2 Persistence and degradability: No information

12.3 Bioaccumulative potential: No information

12.4 Mobility in soil: No information

12.5 Results of PBT and vPvB assessment: The product does not meet the criteria for PBT/VPvB in accordance with Annex XIII.

12.6 Other adverse effects: No information

CAS-No.	Name According to EEC	EC50 48hr	IC50 72hr	LC50 96hr
94-36-0	Dibenzoyl-peroxide	0.11 mg/l	0.06 mg/l	0.06 mg/l
84-61-7	Dicyclohexyl phthalate	> 2 mg/l	> 2 mg/l	> 2 mg/l

Further Ecological Information

Contains the following ingredients which are classified as water dangerous according to EEC directive No. 76/464/EEC in percentages > 1%.

CAS-No.	Name According to EEC
84-61-7	Dicyclohexyl phthalate
94-36-0	Dibenzoyl-peroxide

SECTION 13: Disposal Considerations

13.1 WASTE TREATMENT METHODS: Do not burn. Dispose of as hazardous waste in compliance with local and national regulations. Container hazardous when empty. Empty containers should be taken to an approved waste handling site for recycling or disposal. The product should not be allowed to enter drains, water courses or the soil.

European Waste Code: 080111*
Packaging Waste Code: 150110

SECTION 14: Transport Information

14.1 UN number 3106

14.2 UN proper shipping name Organic peroxide type D, solid

Technical name Dibenzoyl peroxide

14.3 Transport hazard class(es) 5.2

Subsidiary shipping hazard Not applicable

14.4 Packing group II

14.5 Environmental hazards Marine pollutant

14.6 Special precautions for user Not applicable

EmS-No.: F-J, S-R

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 for the substance or mixture:

National Regulations:

Denmark Product Registration Number: Not available

Danish MAL Code: Not available

Danish MAL Code - Mixture: Not available

Sweden Product Registration Number: Not available

Norway Product Registration Number: Not available

WGK Class: 1

15.2 Chemical Safety Assessment:

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

SECTION 16: Other Information

Text for CLP Hazard Statements shown in Section 3 describing each ingredient:

H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H361	Suspected of damaging fertility or the unborn child.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

Reasons for revision

Substance Chemical Name Changed
Substance and/or Product Properties Changed in Section(s):
02 - Hazards Identification
08 - Exposure Controls/Personal Protection
14 - Transportation Information
Statement(s) Changed

This Safety Data Sheet (SDS) has been revised to meet the new EU CLP requirements. There have been both formatting and content changes based on the CLP classification (if applicable), please review each section of the SDS for specific changes.

List of References:

This Safety Data Sheet was compiled with data and information from the following sources:

The Ariel Regulatory Database provided by the 3E Corporation in Copenhagen, Denmark;
European Union Commission Regulation No. 1907/2006 on REACH as amended within Commission Regulation (EU) 2015/830;
European Union (EC) Regulation No. 1272/2008 on the classification, labelling and packaging of substances and mixtures (CLP Regulation) and subsequent technical progress adaptations (ATP);
EU Council Decision 2000/532/EC and its Annex entitled "List of Wastes".

Acronym & Abbreviation Key:

CLP	Classification, Labeling & Packaging Regulation
EC	European Commission
EU	European Union
US	United States
CAS	Chemical Abstract Service
EINECS	European Inventory of Existing Chemical Substances
REACH	Registration, Evaluation, Authorization of Chemicals Regulation
GHS	Globally Harmonized System of Classification and Labeling of Chemicals
LTEL	Long term exposure limit
STEL	Short term exposure limit
OEL	Occupational exposure limit
ppm	Parts per million
mg/m3	Milligrams per cubic meter
TLV	Threshold Limit Value
ACGIH	American Conference of Governmental Industrial Hygienists
OSHA	Occupational Safety & Health Administration
PEL	Permissible Exposure Limits
VOC	Volatile organic compounds
g/l	Grams per liter
mg/kg	Milligrams per kilogram

N/A	Not applicable
LD50	Lethal dose at 50%
LC50	Lethal concentration at 50%
EC50	Half maximal effective concentration
IC50	Half maximal inhibitory concentration
PBT	Persistent bioaccumulative toxic chemical
vPvB	Very persistent and very bioaccumulative
EEC	European Economic Community
ADR	International Transport of Dangerous Goods by Road
RID	International Transport of Dangerous Goods by Rail
UN	United Nations
IMDG	International Maritime Dangerous Goods Code
IATA	International Air Transport Association
MARPOL	International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978
IBC	International Bulk Container
RTI	Respiratory Tract Irritation
NE	Narcotic Effects

For further information, please contact: Technical Services Department

The information on this sheet corresponds to our present knowledge. It is not a specification and it does not guarantee specific properties. The information is intended to provide general guidance as to health and safety based upon our knowledge of the handling, storage, and use of the product. It is not applicable to unusual or non-standard uses of the product or where instructions and recommendations are not followed.