

Revision 3.1

Date Revised: January 2016

conforms to Regulation (EC) no 1907/2006

1. Identification of the substance/preparation and company

Product Name: Flowfast Catalyst

Application: Catalyst powder based on dibenzoyl peroxide. Used within Flowfast systems.

Manufacturer:

Flowcrete SA (Pty) Ltd., 176 Voortrekker Street, Jacobs, Durban 4052

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2. Hazards Identification

May cause fire.

Irritating to eyes.

May cause sensitisation by skin contact.

Repeated and /or prolonged exposure may cause an allergic eczema reaction/sensitisation.

Once sensitised, an individual may produce an allergic reaction every time they are in contact with this material.

3. Composition/information on constituents

Chemical Name	EINECS No.	CAS No.	% by weight	Symbols and Risk Phrases
Dibenzoyl peroxide	202-327-6	94-36-0	50	E; Xi; R2. R36. R43.
Dicyclohexyl phthalate	201-545-9	84-61-7	48.5	None

See section 16 Additional information, for full text regarding symbols and Risk phrases.

4. First Aid measures

General note:

In all cases of doubt, or when symptoms persist, seek medical attention.

Remove the affected person from the hazardous area. Immediately remove contaminated clothing.

May be irritating to the respiratory tract and cause symptoms of bronchitis.

After inhalation Move to fresh air. If breathing has stopped or is laboured give assisted respiration (e.g. mouth to mouth). If symptoms persist seek medical advice.
Prevent aspiration of vomit, turn victim's head to the side.

After skin contact Wash with plenty of water and soap.
If irritation persists or a rash develops, consult a physician. Launder clothes before reuse.

After eye contact Hold eyelids apart and immediately flush with plenty of water for at least 15 minutes.
If irritation persists, seek medical advice.

After swallowing Immediately seek medical advice. Do not induce vomiting (unless under medical supervision).
If a person vomits when lying on his back, place him in the recovery position.
Rinse mouth with water (do not swallow mouthwash).

Notes for the doctor Sensitisation through skin contact possible.
Symptomatic treatment is advised.

5. Fire-fighting measures

Suitable extinguishing agents: water in mist, dry powder, carbon dioxide (CO₂), foam, dry sand

Unsuitable extinguishing agent: Halones.

Special hazards:

CAUTION: re-ignition may occur. Decomposes under heating. In case of fire and/or explosion do not breathe fumes. Combustion and decomposition products lead to irritation or infection of the airways. The formation of vapour / air mixtures which can lead to flame or explosion is possible. Residues from fire and contaminated extinguishing agents must be disposed of according to the local official regulations.

Hazardous decomposition/combustion products: Carbon dioxide, carbon monoxide, Benzoic acid, Benzene, Phenyl benzoate.

Protective equipment: Wear suitable protective clothing. Wear self contained breathing apparatus.

Other information: Extinguish a small fire with powder or carbon dioxide then apply water to prevent re-ignition. Cool closed containers with water.

6. Accidental release measures

Personal precautions: Avoid contact to the skin and eyes. Make sure there is sufficient ventilation, do not breathe dust. Use personal protective clothing, see section 8. Avoid contact with skin and eyes.

Environmental protections: Do not allow materials to reach sewage water system, bodies of water or soil.

Method for cleaning up: First moisten with water to reduce dust generation, then sweep up and dispose of as hazardous waste in accordance with section 13. Flush area with plenty of water. Keep waste contents moist. Do not confine waste.

7. Handling and storage

Handling, notes for safe handling: Never weigh out in the storage room. When using do not eat, drink or smoke. Do not breathe dust. Handle only in well ventilated areas. Keep away from reducing agents (e. g. amines), acids, alkalis and heavy metal compounds (e. g. accelerators, driers, metal soaps). Keep the product and emptied container away from heat and sources of ignition. Confinement must be avoided. Do not allow to dry out. Avoid contact with skin and eyes.

Fire and explosion protection: Use explosion protected equipment. It is recommended to use electrical equipment of temperature group T3 – maximum permitted surface temperature of electrical equipment 200°C. Keep away from sources of ignition – NO smoking in the vicinity. Avoid dust generation, dust explosion possible in the presence of air.

Storage requirements: Store in accordance with local/national regulations. Keep away from food, drink and animal feeding stuffs. Store in a dry well ventilated place away from sources of heat and direct sunlight. Keep only in the original container. For maximum quality, store below 25°C. Must be stored below 45°C (SADT = 55°C, see section 10) at all times.

Other information: Wash hands thoroughly after handling or contact. Keep working clothing separate and do not take them home.

Storage with other materials: Do not store together with other flammable materials. Also see section 10. Store separate from foodstuffs.

8. Exposure controls/personal protection

Components with WEL (Workplace Exposure Limits):

CAS No.	Material	8 hr TWA	15 min STEL
94-36-0	Dibenzoyl peroxide	5 mg/m ³	-
84-71-7	Dicyclohexyl phthalate	5 mg/m ³	-

Engineering controls: Ensure good ventilation and local exhaustion of the working areas.
Explosion proof ventilation recommended.

Personal protective equipment:

Respiratory: Provide adequate ventilation. In case of insufficient ventilation wear suitable respiratory equipment (e.g. respirator with Filter P1 or an air fed hood).

Hand: Wear suitable protective gloves e.g. neoprene or synthetic rubber.
Check gloves regularly for degradation/holes and replace as necessary.
Barrier creams may also be used.

Eye: Closely fitting safety goggles. Keep an eye wash bottle for rinsing the eyes available.

Skin and Body: Wear suitable protective clothing.
Store work clothing separately, immediately change and clean dirty clothing.

Other information: Handle in accordance with good industrial hygiene and safety practice.
Wash hands before breaks and immediately after handling the product.
When using do not eat, drink or smoke.
Launder clothes before reuse.

9. Physical and chemical properties

Appearance	free flowing powder
Colour	white
Odour	faint

Boiling point/range	Not applicable. Do not distil - decomposes.
Melting point/range	> 40°C Tends to cake
Flash point	above the SADT value
SADT	55°C Also see section 10.
Flammability/Autoignition temperature	Test method not applicable
Explosion limits	not applicable
Oxidizing properties	not applicable
Vapour pressure	not determined
Relative Density (water = 1)	1.23 at 20°C
Bulk density	620 – 650 kg/m ³ at 20°C
Solubility in water	insoluble
pH value	weak acid
Partition coefficient n-octanol/water	not determined
Relative vapour density (air = 1)	not determined
Active oxygen content	3.3%
Peroxide content	49.0 – 51.0%

10. Stability and reactivity

SADT (Self Accelerating Decomposition Temperature) is the lowest temperature at which self accelerating decomposition may occur with a substance in the packaging as used in transport. A dangerous self-accelerating decomposition reaction and, under certain circumstances, explosion or fire can be caused by thermal decomposition at and above 55°C. Contact with incompatible substances can cause decomposition at or below the SADT.

- Conditions to avoid** : Avoid temperatures above 25°C.
Confinement must be avoided.
Do not allow to dry out - Explosive when dry.
- Materials to avoid** : Avoid contact with rust, iron and copper. Contact with incompatible materials such as acids, alkalis, heavy metals and reducing agents will result in hazardous decomposition.
Do not mix with peroxide accelerators.
Use only stainless steel 316, PVC, polyethylene or glass lined equipment.
- Hazardous decomposition products** : Decomposes under heating.
Carbon dioxide (CO₂), benzoic acid, benzene, phenyl benzoate.
- Other information:** Emergency procedures will vary depending on conditions.
The customer must have an emergency response plan in place.

11. Toxicological information

Information for Dibenzoyl peroxide 78%

Acute toxicity Oral LD 50: rat: > 5000 mg/kg
Inhalation LC 50: rat: > 24.3 mg/l; 4 hours exposure time max. attainable concentration

Irritation **Skin:** Non-irritating (4 hours exposure time)
Eye: Moderately irritating

Sensitisation Sensitisation possible by skin contact.

Mutagenicity : Ames test: Not mutagenic

Other toxicological information: not carcinogenic (Lit.)

12. Ecological information

Information for Dibenzoyl peroxide 78%

Ecotoxicity Fish: Acute toxicity, 96 h-LC₅₀ = 2.0 mg/l. (Poecilia reticulata.)
Bacteria: Activated sludge respiration inhibition test EC₅₀ = 35 mg/l.
Daphnia: 48 hr test, EC₅₀ = 2.91 mg/l

Persistence and degradability : Readily biodegradable (Closed bottle test).

13. Disposal considerations

Unused Product/waste from cleaning etc. : Dispose of in accordance with local and national regulations (most probably controlled incineration). Do not empty into drains, sewers or water courses.
EC Waste Catalogue (EWC) code: 08 01 11* (a hazardous waste)

Contaminated packaging : Untreated contaminated packaging to be disposed of as hazardous packaging waste.
Use EWC Code 150110*.

14. Transport information

Proper shipping name: Organic peroxide, type d, solid

UN No: 3106

Note: Refrigerated containers for transport are required where the ambient temperature may exceed 45°C.

ADR/RID

Class : 5.2 **ADR Classification Code** : P1
Packing Group : II
Contains : Dibenzoyl peroxide, powder, 50% with dicyclohexyl phthalate

IMO

Class : 5.2 **Marine Pollutant** : No
Packing Group : II
Contains : Dibenzoyl peroxide, powder, 50% with dicyclohexyl phthalate

IATA

Class : 5.2 **Packing Group** : II
Contains : Dibenzoyl peroxide, powder, 50% with dicyclohexyl phthalate

15. Regulatory information

Classification according to EEC directive:

Symbols:



Oxidising



Irritant

R-phrases

R7 : May cause fire.
R36 : Irritating to eyes.
R43 : May cause sensitization by skin contact.

S-phrases

S3/7 : Keep container tightly closed in a cool place.
S14 : Keep away from reducing agents (e.g. amines), acids, alkalis and heavy metal compounds (e.g. accelerators, driers, metal soaps).
S22 : Do not breathe dust.
S36/37/39 : Wear suitable protective clothing, gloves and eye/face protection.
S50d : Do not mix with peroxide-accelerators or reducing agents.

Special provisions statement : None.

Hazardous component(s) which must be listed on the label : Dibenzoyl peroxide, powder, 50% with dicyclohexyl phthalate

EC Directives: Dangerous Substances Directive, 67/548/EEC & adaptations.
Dangerous Preparations Directive, 1999/45/EC.
Safety Data Sheets Directive, 91/155/EEC and adaptations.

Statutory Instruments: Chemicals (Hazard Information & Packaging for Supply) Regs.
Control of Substances Hazardous to Health Regs.
Environmental Protection (Duty of Care) Regs.

Codes of Practice Waste Management. The Duty of Care.
Approved classification and labelling guide (Fifth edition). L131.
The compilation of safety data sheets (Third edition).

Guidance Notes Occupational Exposure Limits EH40
CHIP for Everyone HSG(108)

16. Other Information

The text has changed in Sections 1, 2, 3, 8 and 13.

Users of our products should take appropriate measures to ensure working practices are in accordance with the Control of Substances Hazardous to Health Regulations (COSHH).

This data sheet does not replace the obligation of the user to provide their own assessment of workplace risk as required by other Health & Safety legislation.

EC Directive relating to the classification, packaging and labelling of dangerous substances and preparations – Classification(s) and Risk (R) phrase(s) referred to in this document:-

Xi	:	Irritant	E	:	Explosive	O	:	Oxidising
R2	:	Risk of explosion by shock, friction, fire or other source of ignition.						
R7	:	May cause fire.						
R36	:	Irritating to eyes.						
R43	:	May cause sensitisation by skin contact.						

Training Advice

Applicators need to be trained in:-

- Handling and hygiene associated with use of industrial chemicals.
- Correct mixing and application of the product.
- Correct cleaning and disposal methods.

Restrictions on Use

The product is only intended for use by appropriately trained applicators in industrial situations. It is not suitable for use in home DIY applications, especially because of its hazardous nature and the protective measures required.

Notes

Do not use organic solvents for skin cleansing, it will lead to defatting of the skin, skin irritation and/or dermatitis.

Some solvents can be absorbed through the skin.

Beware of cross contamination where different products are in use in the same location.

Take into account the Manual Handling regulations when dealing with the mixed product.

This safety data sheet is based on our present knowledge and experience and is intended to serve as a guide for safe handling of the product regarding to health and environmental aspects.