Safety Data Sheet

In accordance with Regulation (EC) No 1907/2006

Stronghold Catalyst 601

Catalyst for Glass Reinforced Plastic GRP Roofing

The Glass Fibre Roofing Company Ltd

Revision date: 4th January 2021

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

1.1 Product identifier

Product name: Stronghold Catalyst 601

Chemical name: Organic Peroxide

Substance/Mixture: Mixture

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

Relevant identified uses:

Catalyst for Glass Reinforced Plastic GRP Roofing.

Contact the manufacturer for any other application.

1.3 Details of the Supplier of the safety data sheet

Manufacturer/Supplier:

The Glass Fibre Roofing Company Ltd, Unit 33 Pontygwindy Industrial Estate, Caerphilly CF83 3HU

Telephone number: 02920 888020

E-mail: sales@strongholdgrp.co.uk

This document is available online at http://www.strongholdgrp.co.uk

1.4 Emergency telephone numbers

UK telephone number: 02920 888020 (Office hours only)

UK Urgent medical problem, NHS Direct: 111

UK Life-threatening emergency: 999

SECTION 2: Hazards identification

2.1 Classification according to Regulation (EC) No 1272/2008 (CLP)

Flammable liquids	Category 3	H226: Flammable liquid and vapour.
Organic peroxides	Type D	H242: Heating may cause a fire.
Acute toxicity	Category 4	H302: Harmful if swallowed.
Skin corrosion	Category 1B	H314: Causes severe skin burns and eye damage.

Classification (67/548/EEC, 1999/45/EC)

Oxidising	R 7: May cause fire. R10: Flammable.
Corrosive	R34: Causes burns.
Harmful	R22: Harmful if swallowed.

2.2 Label elements

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

Hazard pictograms

Signal word: Danger

Hazard statements:

H226 Flammable liquid and vapour

H242 Heating may cause a fire

H302 Harmful if swallowed

H314 Causes severe skin burns and eye damage

Precautionary statements:

P210 Keep away from heat/sparks/open flames/ hot surfaces – no smoking

P220 Keep/Store away from clothing/ strong acids, bases, heavy metal salts and other reducing substances /combustible materials

P235 Keep cool

P262 Do not get in eyes, on skin, or on clothing

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

Response

P303 + P361 + P353 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

P315 Get immediate medical advice/ attention

P378 Use dry sand, dry chemical or alcohol-resistant foam for extinction

Storage

P403 + P233 Store in a well-ventilated place. Keep container tightly closed

Disposal

P501 Dispose of contents/ container to an approved waste disposal plant

Other hazards

No information available.

SECTION 3: Composition/information on ingredients

3.1 Substances

Chemical name	CAS-No. EC-No. REACH Registration No.	% Weight	GHS Classification
methylethylketoneperoxide	1338-23-4 215-661-2 01-211951469143-0000	>=25 - <35	Org. Perox. C; H242 Acute Tox. 4; H302 Skin Corr. 1B; H314
4-hydroxy-4methylpentan-2-one	123-42-2 204-626-7	>=12.5 - <15	Eye Irrit. 2; H319
butanone	78-93-3 201-159-0	>= 3 - < 5	Flam. Liq. 2; H225 Eye Irrit. 2; H319 STOT SE 3; H336
hydrogen peroxide solution	7722-84-1 231-765-0	>= 3 - < 5	Ox. Liq. 1; H271 Acute Tox. 4; H332 Acute Tox. 4; H302 Skin Corr. 1A; H314

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice	Take off all contaminated clothing immediately. Never give anything by mouth to an unconscious person. Remove from exposure, and lie down. In the case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
Eye Contact	In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
Skin contact	Wash off immediately with soap and plenty of water.
Inhalation	Move to fresh air. Consult a physician immediately.
Ingestion	Clean mouth with water and drink afterwards plenty of water. If a person vomits when lying on his back, place him in the recovery position. Do NOT induce vomiting. If swallowed, seek medical advice immediately and show this container or label.

4.2 Most important symptoms and effects, both acute and delayed

No data available

4.3 Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Extinguishing media which must not be used for Safety Reasons	Do not use a solid water stream as it may scatter and spread fire.

5.2 Special hazards arising from the substance or mixture

Special exposure hazards arising from the substance or preparation itself, combustion products, resulting gases	Cool closed containers exposed to fire with water spray. Do not allow run-off from fire-fighting to enter drains or water courses.

5.3 Advice for firefighters

Special protective equipment for fire-fighters	Use personal protective equipment.

Other information	Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Wear respiratory protection. Wear personal protective equipment.

6.2 Environmental precautions

Avoid subsoil penetration. Do not allow material to contaminate ground water system. Do not contaminate water. If the product contaminates rivers and lakes or drains inform respective authorities. Do not let product enter drains.

6.3 Methods and material for containment and cleaning up

Remove mechanically and with care (e.g. with clean polyethylene plastic shovel). Contain and collect spillage with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations.

6.4 Reference to other sections

See sections 7, 8, 11, 12 and 13 for more information.

6.5 Other information

Never add other substances or waste material to product residue. Move product residue to a safe place and dispose of properly.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Precautions for safe handling	For personal protection see section 8.
Dust explosion class	No data available

7.2 Conditions for safe storage, 3 including any incompatibilities

Technical measures/Storage conditions	Electrical installations / working materials and containers must comply with the technological safety standards. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Keep containers tightly closed. No smoking.
Further information on storage conditions	Avoid impurities (e.g. rust, dust, ash), risk of decomposition.
Storage temperature	< 30 °C
Other data	Storing temperature for reasons of quality. Liquid up to -25 °C.

7.3 Specific end use(s)

The identified uses for this product are detailed in Section 1.2.

SECTION 8: Exposure controls / personal protection

8.1 Control parameters

Components	CAS-No.	Control parameters	Basis	Update
4-hydroxy-4methylpentan-2-one (diacetone alcohol)	123-42-2	AGW: 96 mg/m3, 20 ppm	DE TRGS 900	01-2006
methylethylketone	78-93-3	AGW: 600 mg/m3, 200 ppm	DE TRGS 900	01-2006
4-hydroxy-4-methylpentan-2-one	123-42-2	AGW: 96 mg/m3, 20 ppm DFG, H,	DE TRGS 900	2006-01-01
butanone	78-93-3	AGW: 600 mg/m3, 200 ppm DFG, H, Y,	DE TRGS 900	2006-01-01
butanone	78-93-3	TWA: 600 mg/m3, 200 ppm STEL: 900 mg/m3, 300 ppm	2000/39/EC	2000-06-16

Other information on limit values: see chapter 16

Biological occupational exposure limits - TRGS903

Substance name	CAS-No.	Control parameters	Sampling time	Update
butanone	78-93-3	2-butanon: 5 mg/l (U)	a	2004-08-01

Remarks:

a No time limit

b Immediately after exposition or after working hours

c In case of long-term exposition: after more than one shift

d Before the next shift

8.2 Exposure controls

Occupational exposure controls

Engineering measures	Provide adequate ventilation.

Personal protective equipment

Respiratory protection	Short duration filter unit: Filter A
Hand protection	Material: butyl-rubber

	Glove thickness: 0,5 mm Break through time: >= 8 h
Remarks	Skin should be washed after contact.
Eye protection	Tightly fitting safety goggles Face protection.
Skin and body protection	Protective suit Remove and wash contaminated clothing before re-use.
Hygiene measures	Wash hands before breaks and immediately after handling the product. Keep away from food, drink and animal feeding stuffs.

Environmental exposure controls

Environmental exposure controls	Avoid subsoil penetration. Do not allow material to contaminate ground water system. Do not contaminate water. If the product contaminates rivers and lakes or drains inform respective authorities. Do not let product enter drains.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Property	Values
Appearance	Colourless
Physical state	Liquid
Odour	Characteristic
Odour threshold	Not relevant
pH	Not relevant
Melting point/Freezing point	<-25°C
Boiling point	145°C
Flash point	57°C
Evaporation rate	Not relevant
Flammability limits in air	Not applicable
Upper	Not applicable
Lower	Not applicable
Vapour pressure	0.184 Pa @ 25°C
Vapour density	No data available
Density	1.01 g/cm³ @ 20°C
Water solubility	Ca. 6.5 g/l at 20°C
Partition coefficient	Log Pow: <0.3 at 25°C
n-octanol/water	
Solubility in other solvents	Mixable Medium – Phthalates
Auto ignition temperature	Not applicable Decomposes on heating
Decomposition temperature	ca. 60 °C, SADT (UN test H.4), SADT possible at temperatures above approximately 60 °C.
Viscosity, kinematic	No data available
Viscosity, dynamic	13 mPa.s at 20 °C
Explosive properties	No data available
Oxidizing properties	Organic peroxide

Other safety information

Property	Values
Refractive index	1,431 at 20 °C

SECTION 10: Stability and reactivity

10.1 Reactivity

Stable under recommended storage conditions.

10.2 Chemical stability

Contact with incompatible substances can cause disintegration at or below SADT.

10.3 Possibility of hazardous reactions

Vapours may form explosive mixture with air.

10.4 Conditions to avoid

Keep away from heat and sources of ignition.

10.5 Incompatible materials

Accelerators, strong acids and bases, heavy metals and heavy metal salts, reducing agents, Avoid impurities (e.g. rust, dust, ash), risk of decomposition.

10.6 Hazardous decomposition products

Irritant, caustic, flammable, noxious/toxic gases and vapours can develop in the case of fire and decomposition.

Thermal decomposition: ca. 60 °C Method: SADT (UN test H.4)

Note: SADT possible at temperatures above approximately 60 °C.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Inhalation	LC50 rat: 17 mg/l Exposure time: 4 h Test substance: methylethylketoneperoxide (40% in dimethylphthalate) Note: Aerosol Nominal concentration
Oral	LD50 rat: 1.017 mg/kg Test substance: methylethylketoneperoxide (40% in dimethylphthalate)
Dermal	LD50 rat: 4.000 mg/kg Test substance: methylethylketoneperoxide (40% in dimethylphthalate)

Skin corrosion/irritant: Causes burns

Serious Eye Damage/Eye Irritation: Causes burns

Respiratory or skin sensitisation:

Method: Maximisation Test

Test substance: methylethylketoneperoxide (60% in dimethylphtha-

late/diacetone alcohol)

Did not cause sensitization on laboratory animals.

Germ cell mutagenicity

Genotoxicity in vitro: Not mutagenic in Ames Test.

Carcinogenicity: No data available

Reproductive toxicity: No data available

Teratogenicity: no data available

Specific target organ toxicity (single exposure): No data available

Specific target organ toxicity (repeated exposure): No data available

Aspiration hazard: No data available.

Other information

Butanone: Inhalation of high vapour concentrations can cause CNS-depression and narcosis. Inhalation of vapours in high concentration may cause shortness of breath (lung oedema).

SECTION 12: Ecological Information

12.1 Toxicity

Toxicity to fish	LC50 (Poecilia reticulata (guppy)): 44,2 mg/l Exposure time: 96 h Test substance: methylethylketoneperoxide (33% in dimethylphthalate)
Toxicity to daphnia and other aquatic invertebrates.	EC50 (Daphnia): 39 mg/l Exposure time: 48 h Test substance: methylethylketoneperoxide (40% in dimethylphthalate)
Toxicity to algae	EC50 (Pseudokirchneriella subcapitata): 5,6 mg/l Exposure time: 72 h Test substance: methylethylketoneperoxide (40% in dimethylphthalate)
Toxicity to bacteria	EC50 (Bacteria): 48 mg/l Exposure time: 30 min Test substance: methylethylketoneperoxide (33% in dimethylphtha-late)

12.2 Persistence and degradability

Biodegradability:

Readily biodegradable.

Method: Closed Bottle Test

Test substance: methylethylketoneperoxide (MEKP)

12.3 Bio accumulative potential

No data available

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

This mixture contains no substance considered to be persistent, bioaccumulating nor toxic (PBT).

12.6 Other adverse effects

No data available

SECTION 13: Disposal considerations

Waste treatment methods

Advice on disposal and packaging	Disposal: Dispose of in conjunction with appropriate waste disposal authorities and in accordance with disposal regulations. Waste codes should be assigned by the user based on the application for which the product was used.

SECTION 14: Transport information

ADR

UN number	:	3105
Description of the goods	:	ORGANIC PEROXIDE TYPE D, LIQUID (methylethylketoneperoxide)
Class	:	5.2
Packing group	:	--
Classification Code	:	P1
Labels	:	5.2
Limited quantity	:	LQ16
Tunnel restriction code	:	(D)
Environmentally hazardous	:	no

RID

UN number	:	3105
Description of the goods	:	ORGANIC PEROXIDE TYPE D, LIQUID (methylethylketoneperoxide)
Class	:	5.2
Packing group	:	--
Classification Code	:	P1
Hazard identification No	:	539
Labels	:	5.2
Limited quantity	:	LQ16
Environmentally hazardous	:	no

IATA

UN number	:	3105
Description of the goods	:	Organic peroxide type D, liquid (methylethylketoneperoxide)

Class	:	5.2
Packing group	:	--
Labels	:	5.2 (HEAT)
Packing instruction (cargo air-craft)	:	570
Environmentally hazardous	:	no
Packing instruction (passenger 570 aircraft)	:	

IMDG

UN number	:	3105
Description of the goods	:	ORGANIC PEROXIDE TYPE D, LIQUID (methylethylketoneperoxide)
Class	:	5.2
Packing group	:	--
Labels	:	5.2
EmSNumber 1	:	F-J
EmS Number 2	:	S-R
Marine pollutant	:	no

Special precautions for users

See chapter 6, 7 and 8.

SECTION 15: Regulatory information

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

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

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

Regulation (EU) No. 830/2015

Directive 88/642/EEC

Directive 98/24/EC

Directive 1999/92/EC

Directive 2012/18/EU

SECTION 16: Other information

None.

Disclaimer

The information provided in this Safety Data Sheet Is correct to the best of our knowledge, in formation and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet