STRONGHOLD
GRP ROOFING SYSTEM

STRONGHOLD ACETONE

SAFETY DATA SHEET

In accordance with Regulation (EC) No 1907/2006

Revision date: 4th January 2021

CONTENTS

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

1.1 Product identifier

Product name:	Stronghold Acetone 701
Chemical name:	Acetone
Product form:	Substance

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

Relevant identified uses:	Acetone cleaning agent 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.
Address:	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:	111 (NHS Direct)
UK Life-threatening emergency:	999

SECTION 2: Hazards Identification

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

Serious eye damage/eye irritation:	Category 2
Flammable liquids:	Category 2

Classification (67/548/EEC or 1999/45/EC)
F;R11 Xi;R36 R66 R67

Human health:
Irritating to eyes. May cause serious eye damage. Prolonged or repeated contact with skin may cause irritation, redness and dermatitis. May cause skin sensitisation or allergic reactions in sensitive individuals. Spray/mists may cause respiratory tract irritation. In high concentrations, vapours may be irritating to the respiratory system. In high concentrations, vapours and spray mists are narcotic and may cause headache, fatigue, dizziness and nausea. In case of overexposure, organic solvents may depress the central nervous system causing dizziness and intoxication, and at very high concentrations unconsciousness and death. See Section 11 for additional information on health hazards.

Environmental:
Not considered as an environmental hazard according to CLP criteria

Physicochemical:
The product is highly flammable. Vapours may form explosive mixtures with air. Vapours are heavier than air and may travel along the floor and accumulate in the bottom of containers. Vapours may be ignited by a spark, a hot surface or an ember.

2.2 Label elements

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

Signal word:	Danger
Hazard statements:	
Highly flammable liquid and vapour	H225
Causes serious eye irritation	H319
May cause drowsiness or dizziness	H336
Precautionary statements - Prevention:	
Keep away from heat/sparks/open flames/ hot surfaces – no smoking	P210
Ground/bond container and receiving equipment	P240
Use explosion proof electrical equipment	P241
Use only non-sparking tools.	P242
Take precautionary measures against static discharge.	P243
Avoid breathing vapour/spray.	P261
Wash hands thoroughly after handling	P264
Use only outdoors in a well ventilated area	P271
Wear protective gloves/protective clothing/eye protection/face protection	P280
Precautionary statements - Response:	
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.	P303+P361+P353
IF INHALED: Remove person to fresh air and keep comfortable for breathing.	P304+P340
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.	P305+P351+P338
If eye irritation persists: Get medical advice/attention.	P337+P313
In case of fire: Use foam, carbon dioxide, dry powder or water fog to extinguish.	P370+P378
Precautionary statements - Storage:	
Store in a well-ventilated place. Keep container tightly closed.	P403+P233
Store in a well-ventilated place. Keep cool.	P403+P235
Store locked up.	P405
Precautionary statements - Disposal:	
Dispose of contents/container in accordance with national regulations.	P501
Supplementary statements:	
Repeated exposure may cause skin dryness or cracking.	EUH066
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
Acetone	67-64-1 200-662-2 01-2119471330-49	NA	Eye Irrit. 2 - H319 STOT SE 3 - H336

SECTION 4: First Aid Measures

4.1 Description of first aid measures

General advice: Keep affected person under observation. Effects may be delayed. If in doubt, get medical attention promptly. Show this Safety Data Sheet to the medical personnel.

Eye Contact: Remove any contact lenses and open eyelids wide apart.
Continue to rinse for at least 15 minutes. Get medical attention immediately.

Skin contact: Remove affected person from source of contamination.
Remove contaminated clothing immediately and wash skin with soap and water.
Get medical attention promptly if symptoms occur after washing.

Inhalation: Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. If breathing stops, provide artificial respiration.
When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. Keep affected person under observation. Get medical attention if symptoms are severe or persist.
Show this Safety Data Sheet to the medical personnel.

Ingestion: Get medical attention immediately. Rinse mouth thoroughly with water.
DO NOT induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Keep affected person under observation.
Show this Safety Data Sheet to the medical personnel.

Protection of first-aiders: Always wear appropriate protective equipment during any rescue.

4.2 Most important symptoms and effects, both acute and delayed

General information: Get medical attention immediately.
The casualty should be transferred to hospital as soon as possible.

Eye contact: Causes serious eye irritation. Immediate first aid is imperative.
Vapour or spray in the eyes may cause irritation and smarting.

Skin contact: Prolonged contact may cause redness, irritation and dry skin.
Product has a defatting effect on skin.

Inhalation: Vapours/aerosol spray may irritate the respiratory system. In high concentrations, vapours are anaesthetic and may cause headache, fatigue, dizziness and central nervous system effects. Overexposure to organic solvents may depress the central nervous system, causing dizziness and intoxication and, at very high concentrations, unconsciousness and death.

Ingestion: Gastrointestinal symptoms, including upset stomach. Diarrhoea. Nausea, vomiting.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician:	No information available.

SECTION 5: Firefighting Measures

5.1 Extinguishing media

Suitable extinguishing media:	Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog.
Unsuitable extinguishing media:	DO NOT use water jet as an extinguisher, as this will spread the fire. Non-alcohol resistant foam

5.2 Special hazards arising from the substance or mixture

Fire hazard:	Vapours are heavier than air and may travel along the floor and accumulate in the bottom of containers. Solvent vapours may form explosive mixtures with air. May ignite at high temperature. Highly flammable liquid and vapour. Vapours may accumulate on the floor and in low-lying areas. Vapours are heavier than air and may spread near ground and travel a considerable distance to a source of ignition and flash back. Vapours may be ignited by a spark, a hot surface or an ember.
Explosion hazard:	Oxides of carbon. Acrid smoke or fumes.

5.3 Advice for firefighters

Protective equipment for firefighters:	Move containers from fire area if it can be done without risk. Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. Withdraw immediately in case of rising sound from venting safety device or any discolouration of tanks due to fire. For massive fire in cargo area, use unmanned hose holder or monitor nozzles, if possible. If not, withdraw and let fire burn out. Control run-off water by containing and keeping it out of sewers and watercourses. If risk of water pollution occurs, notify appropriate authorities.
Other information:	Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing. Firefighter's clothing conforming to European standard EN469 (including helmets, protective boots and gloves) will provide a basic level of protection for chemical incidents. Use protective equipment appropriate for surrounding materials.

SECTION 6: Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel:	Avoid inhalation of vapours and contact with skin and eyes. Provide adequate ventilation. If ventilation is inadequate, suitable respiratory protection must be worn. Take precautionary measures against static discharges. Take care as floors and other surfaces may become slippery. Follow precautions for safe handling described in this safety data sheet. For personal protection, see Section 8.

6.2 Environmental precautions

Environmental precautions:	Environmental Manager must be informed of all major spillages. DO NOT discharge into drains or watercourses or onto the ground. Avoid discharge to the aquatic environment. Spillages or uncontrolled discharges into watercourses must be reported immediately to the Environmental Agency or other appropriate regulatory body.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up:	Stop leak if possible without risk. Extinguish all ignition sources. Avoid sparks, flames, heat and smoking. Ventilate. Avoid the spillage or runoff entering drains, sewers or watercourses. Take care as floors and other surfaces may become slippery. Contain spillage with sand, earth or other suitable non-combustible material. Collect spillage for reclamation or disposal in sealed containers via a licensed waste contractor. Containers with collected spillage must be properly labelled with correct contents and hazard symbol. Dispose of contents/container in accordance with international regulations. Waste, residues, empty containers, discarded work clothes and contaminated cleaning materials should be collected in designated containers, labelled with their contents.

6.4 Reference to other sections

Wear protective clothing as described in Section 8 of this safety data sheet.
See Section 11 for additional information on health hazards.
Collect and dispose of spillage as indicated in Section 13.

SECTION 7: Handling and Storage

7.1 Precautions for safe handling

Precautions for safe handling:	Avoid contact with skin, eyes and clothing. Avoid inhalation of vapours and spray/mists. Avoid spilling. Avoid release to the environment. Use only in well-ventilated areas. Use suitable respiratory protection if ventilation is inadequate. Take precautionary measures against static discharge. Earth container and transfer equipment to eliminate sparks from static electricity. Restrict line velocity during pumping in order to avoid generation of electrostatic discharge AVOID splash filling. DO NOT use compressed air for filling, discharging or handling operations.
Prevention of fire and explosion:	Keep away from heat, sparks and open flame. Use explosion-proof electrical, ventilating and lighting equipment.
Hygiene measures:	Eye wash facilities and emergency shower must be available when handling this product. Good personal hygiene procedures should be implemented. Wash at the end of each work shift and before eating, smoking and using the toilet. When using DO NOT eat, drink or smoke. Clean equipment and the work area every day. Contaminated clothing should be placed in a closed container for disposal or decontamination.

7.2 Conditions for safe storage, 3 including any incompatibilities

Technical measures & Storage conditions:	Keep away from oxidising materials, heat and flames. Store in tightly-closed, original container in a well-ventilated place. Bund storage facilities to prevent soil and water pollution in the event of spillage. Earth container and transfer equipment to eliminate sparks from static electricity. Storage tanks and other containers must be earthed. Only store in correctly labelled containers.
Materials to avoid:	Keep away from food, drink and animal feeding stuffs.
Packaging material:	Suitable container materials: Carbon steel. Mild steel. Stainless steel. May attack some plastics, rubber and coatings.

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

Occupational exposure limits

Chemical name	TWA – 8 hours	STEL – 15 mins
	WEL 500 1210 mg/m³	WEL 1500 3620 mg/m³

WEL = Workplace Exposure Limit

Derived no effect level (DNEL) according to Regulation (EC) No. 1907/2006

Substance name	End Use	Exposure routes	Potential health effects	Value
	Industry	Inhalation	Short term local effects	2420 mg/m3
	Industry	Dermal	Long-term systemic effects	186 mg/kg/day
	Industry	Inhalation	Long-term systemic effects	1210 mg/m3
	Consumers	Oral	Long-term systemic effects	62 mg/kg/day
	Consumers	Dermal	Long-term systemic effects	62 mg/kg/day
	Consumers	Inhalation	Long-term systemic effects	200 mg/m3

Predicted no effect concentration (PNEC) according to Regulation (EC) No. 1907/2006

Substance name	End Use	Environmental compartment	Potential health effects	Value
	Industry	Fresh water	Long-term	10.6 mg/L
	Industry	Marine water	Long-term	1.06 mg/L
	Industry	Intermittent release	Long-term	21 mg/L
	Industry	Sediment (Freshwater)	Long-term	30.4 mg/kg
	Industry	Sediment (Marine water)	Long-term	3.04 mg/kg
	Industry	Soil	Long-term	29.5 mg/kg
	Industry	STP	Long-term	100 mg/L

8.2 Exposure controls

Occupational exposure limits

Engineering measures:

As this product contains ingredients with exposure limits, process enclosures, local exhaust ventilation or other engineering controls should be used to keep worker exposure below any statutory or recommended limits, if use generates dust, fumes, gas, vapour or mist. Ensure the ventilation system is regularly maintained and tested. Use explosion-proof electrical, ventilating and lighting equipment.
This product must not be handled in a confined space without adequate ventilation. In case of insufficient ventilation, wear suitable respiratory equipment.

Personal protective equipment

General Information:	Use personal protective equipment.
Respiratory protection:	If ventilation is inadequate, suitable respiratory protection must be worn. Wear a respirator fitted with the following cartridge: Organic vapour filter. Ensure all respiratory protective equipment is suitable for its intended use and is 'CE'-marked. Gas and combination filter cartridges should comply with European Standard EN14387. Change filter cartridge on respirator daily. Check that the respirator fits tightly and the filter is changed regularly. Respirator selection must be based on exposure levels, the hazards of the product and the safe working limits of the selected respirator. When spraying, wear a suitable supplied-air respirator.
Eye protection:	Wear eye protection. If risk of splashing, wear safety goggles or face shield. Personal protective equipment for eye and face protection should comply with European Standard EN166.
Skin and body protection:	Wear appropriate clothing to prevent any possibility of liquid contact and repeated or prolonged vapour contact. Provide eyewash station and safety shower.
Hand protection:	Wear protective gloves. To protect hands from chemicals, gloves should comply with European Standard EN374. The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material. For exposure up to 8 hours, wear gloves made of the following material: Butyl rubber. Polyethylene. Polytetrafluoroethylene (PTFE, Teflon). For short-term the following are recommended for splash protection: Viton rubber (fluoro rubber).
Hygiene measures:	DO NOT eat, drink or smoke when using this product. Wash at the end of each work shift and before eating, smoking and using the toilet. Remove contaminated clothing and protective equipment before entering eating areas. Contaminated clothing should be placed in a closed container for disposal or decontamination.

Environmental exposure controls

Environmental exposure controls:	Keep container tightly sealed when not in use.

SECTION 9: Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

Property	Values	Remark
Appearance	Colourless	
Physical state	Liquid	
Particle size	No data available	No data available
Odour	Ketonic	
Odour threshold	0.15 ppm	
pH	No data available	No data available
Melting point/range	-94.7°C	

Freezing point	No data available	No data available
Boiling point	56.05°C @ 1013 hPa	
Flash point	-17°C (Closed cup)	
Evaporation rate	5.6 BuAc=1	
Flammability limits in air		
Upper	14 %	
Lower	2.5 %	
Vapour pressure	24 kPa @ 25°C	
Vapour density	2	
Density	0.791 kg/l @ 20°C	
Water solubility	Soluble in water	
Partition coefficient	Log Pow: - 0.24	
n-octanol/water		No data available
Solubility in other solvents	Miscible – Organic solvents	
Auto ignition temperature	465 °C	
Decomposition temperature	No data available	No data available
Viscosity, kinematic	No data available	No data available
Viscosity, dynamic	0.33 mPa s @ 20°C	
Explosive properties	No data available	No data available
Oxidizing properties	No data available	No data available

Other safety information

Property	Values	Remark
Refractive index	1.359	
Molecular weight	58.08	
Volatility	100	

SECTION 10: Stability and Reactivity

10.1 Reactivity

The following materials may react with the product: Strong oxidising agents. Alkalis. Amines.

10.2 Chemical stability

Stable at normal ambient temperatures and when used as recommended.

10.3 Possibility of hazardous reactions

Reacts with strong oxidising agents Alkalis. Amines.

10.4 Conditions to avoid

Avoid heat, flames and other sources of ignition.
Avoid heat.
Static electricity and formation of sparks must be prevented.
Avoid the accumulation of vapours in low or confined areas.

10.5 Incompatible materials

Strong oxidising agents. Alkalis. Amines.

10.6 Hazardous decomposition products

Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours. Acrid smoke or fumes.

SECTION 11: Toxicological Information

11.1 Information on toxicological effects

Acute toxicity

Inhalation:	Vapours/aerosol spray may irritate the respiratory system. In high concentrations, vapours are narcotic and may cause headache, fatigue, dizziness and nausea. Prolonged inhalation of high concentrations may damage respiratory system. Overexposure may depress the central nervous system, causing dizziness and intoxication. Extensive use of the product in areas with inadequate ventilation may result in the accumulation of hazardous vapour concentrations.
Ingestion:	Gastrointestinal symptoms, including upset stomach. Diarrhoea. Aspiration into the lungs when swallowed or vomited may cause chemical pneumonitis which can be fatal.
Skin contact:	Prolonged or repeated contact with skin may cause irritation, redness and dermatitis. Product has a defatting effect on skin. May cause skin sensitisation or allergic reactions in sensitive individuals.
Eye contact:	Causes serious eye irritation. Repeated exposure may cause chronic eye irritation. Risk of serious damage to eyes.
Acute and chronic health hazards:	Irritating to eyes.
Route of entry:	Central nervous system Eyes Gastro-intestinal tract Skin
Medical symptoms:	Central nervous system depression. Confusion, agitation and/or excitation. Gastrointestinal symptoms, including upset stomach. Diarrhoea. Dizziness. Nausea, vomiting. Irritation of eyes and mucous membranes.
Medical considerations:	Central nervous system depression. Splash in eye requires examination by eye specialist. Persons with rash are directed to skin expert for examination of allergic eczema.

Chemical name	LD50 Oral	LD50 Dermal	LC50 Inhalation
	5,800 mg/kg, Rat	>15,800 mg/kg/day, Rat	LC50 76 mg/L (4h/day), Rat

Skin corrosion/irritant:	Animal data. Not classified as irritating to skin.
Serious Eye Damage/Eye Irritation:	Classified as irritating to eyes.
Respiratory or skin sensitisation:	Not classified as a respiratory or skin sensitiser.
Mutagenic effects:	Does not contain any substances known to be mutagenic.
Carcinogenicity:	Does not contain any substances known to be carcinogenic.
Reproductive toxicity:	Based on available data the classification criteria are not met. This substance has no evidence of toxicity to reproduction.
Specific target organ toxicity (single exposure):	Brain/ Central nervous system May cause drowsiness or dizziness.
Specific target organ toxicity (repeated exposure):	Brain/ Central nervous system Based on available data the classification criteria are not met.
Aspiration hazard:	Entry into the lungs following ingestion or vomiting may cause chemical pneumonitis.
General information:	Prolonged and repeated contact with solvents over a long period may lead to permanent health problems.

SECTION 12: Ecological Information

12.1 Toxicity

The product components are not classified as environmentally hazardous. However, large or frequent spills may have hazardous effects on the environment.

Acute aquatic toxicity – component information

Chemical name	Toxicity to aquatic plants	Toxicity to daphnia and other aquatic invertebrates	Toxicity to fish	Toxicity to microorganisms
	EC50 (96 h) > 100 mg/L Scenedesmus subspicatus	EC50 (48 h) 8800 mg/L Daphnia magna	LC50 (96 h) 5540 mg/L Onchorhynchus mykiss (Rainbow trout)	EC50 1000 mg/L Activated sludge

Chronic aquatic toxicity – component information

Chemical name	Toxicity to daphnia and other aquatic invertebrates
	NOEC (28 d) 2212 mg/L Daphnia magna

12.2 Persistence and degradability

Readily biodegradable Oxidises rapidly by photochemical reactions in air.

Biodegradation:	water - Degradation (%) 91: 28d
Chemical oxygen demand:	2.21 g O2/g substance

12.3 Bio accumulative potential

Does not bio accumulate significantly

Partition coefficient:	log Pow: - 0.24

12.4 Mobility in soil

The product is water-soluble and may spread in water systems. Large volumes may penetrate soil and could contaminate groundwater If product enters soil it will be mobile and may contaminate groundwater.

Henry's law constant:	2.929 - 3.070 Pa m3/mol @ 25°C
Surface tension:	22.8 mN/m @ 20°C

12.5 Results of PBT and vPvB assessment

This product does not contain any substances classified as PBT or vPvB.

12.6 Other adverse effects

The product contains a substance or substances that will contribute to global warming (greenhouse effect).
Not expected to have ozone depletion potential

SECTION 13: Disposal Considerations

13.1 Waste treatment methods

Waste from residues / unused:	Disposal to licensed waste disposal site in accordance with the local Waste Disposal Authority. Collect and place in suitable waste disposal containers and seal securely.
Products:	Avoid the spillage or runoff entering drains, sewers or watercourses. Waste is classified as hazardous waste. Empty containers or liners may retain some product residues and hence be potentially hazardous. Label the containers containing waste and contaminated materials and remove from the area as soon as possible.
Contaminated packaging:	Contaminated packages must be completely emptied before sending away for laundering and re-use. When handling waste, the safety precautions applying to handling of the product should be considered.
Other information:	Waste, residues, empty containers, discarded work clothes and contaminated cleaning materials should be collected in designated containers, labelled with their contents. Disposal of this product, process solutions, residues and by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any local authority requirements. Confirm disposal procedures with environmental engineer and local regulations.

SECTION 14: Transport Information

ADR/RID	IMDG/IMO	ICAO/IATA	ADN

14.1 UN Number

UN1090	UN1090	UN1090	UN1090

14.2 UN proper shipping name

ACETONE	ACETONE	ACETONE	ACETONE

14.3 Transport hazard class

Hazard class 3	Hazard class 3	Hazard class 3	Hazard class 3

14.4 Packing group

II	II	II	II

14.5 Environmental hazards

No	No	No	No

Marine pollutant: No

14.6 Special precautions for user

ADR/RID	Transport category	2
	Emergency Action Code	2
	Hazard Identification Number	33
	Tunnel restriction code:	(D/E)
IMDG/IMO	EmS:	F-E, S-D
Special precautions for users:	No information available	

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

Cat Z

SECTION 15: Regulatory Information

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

National regulations:

Health and Safety at Work etc. Act 1974 (as amended).

Control of Substances Hazardous to Health Regulations 2002 (as amended).

Dangerous Substances and Explosive Atmospheres Regulations 2002.

The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2009 (SI 2009 No. 1348) (as amended) ["CDG 2009"].

EU legislation:

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended).

Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended).

Commission Decision 2000/532/EC as amended by Decision 2001/118/EC establishing a list of wastes and hazardous waste pursuant to Council Directive 75/442/EEC on waste and Directive 91/689/EEC on hazardous waste with amendments.

Guidance:

Workplace Exposure Limits EH40.
Introduction to Local Exhaust Ventilation HS(G)37.
Safety Data Sheets for Substances and Preparations.

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

A chemical safety assessment has been carried out.
Inventories
EU - EINECS/ELINCS
All the ingredients are listed or exempt.

SECTION 16: Other Information

None.

Disclaimer

The information provided in this Material 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 Material Safety Data Sheet