

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

1.1. Product identifier

Product form : Mixture
Name : Smart Fabric
Product code : I1 v2

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

1.2.1. Relevant identified uses

Intended for general public
Main use category : Consumer use, Professional use, Industrial use
Use of the substance/mixture : Textile impregnation

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

GTECHNIQ LTD Unit
2 Langfurlong Upper
Heyford
Northampton
Northamptonshire
NN7 3FA
United Kingdom

Tel: +44 (0)1604 962 553

1.4. Emergency telephone number

Emergency number : +44 (0)1604 962553

Country	Organisation/Company	Address	Emergency number
Ireland	National Poisons Information Centre Beaumont Hospital	Beaumont Hospital Beaumont Road 9 Dublin	: +353 1 8379964
United Kingdom	National Poisons Information Service (NHS Direct)	http://www.npis.org	111 (England & Wales only) or 112 (EU) or 08454 24 24 24 (Scotland)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Flamm. Liq. 2: H225;
Eye Irrit. 2: H319;
STOT SE 3: H336

Adverse physicochemical, human health and environmental effects

Highly flammable liquid and vapour. Causes serious eye irritation. May cause drowsiness or dizziness.

2.2. Label elements

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

Hazard statements : H225: Highly flammable liquid and vapour.
H319: Causes serious eye irritation.
H336: May cause drowsiness or dizziness.

Signal words : Warning

Hazard pictograms : GHS02: Flame
GHS07: Exclamation mark



Precautionary statements (CLP) : P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P261: Avoid breathing vapours.

P280: Wear protective gloves/protective clothing/eye protection/face protection.
 P337+313: If eye irritation persists: get medical advice/attention.
 P271: Use only outdoors or in a well-ventilated area.
 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.

Supplemental hazard information (EU) : EUH208: Contains zirconium tetrabutanolate. May produce an allergic reaction.

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

PROPAN-2-OL

EINECS	CAS	PBT / WEL	CLP Classification	Percent
200-661-7	67-63-0	-	Flam. Liq. 2: H225; Eye Irrit. 2: H319; STOT SE 3: H336	50-100

ZIRCONIUM TETRABUTANOLATE

EINECS	CAS	PBT / WEL	CLP Classification	Percent
213-995-3	1071-76-7	-	Eye Irrit. 2: H319; Skin Sens. 1: H317	0.5-1

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures after inhalation : Remove casualty to fresh air and keep warm and at rest. In case of irregular breathing or respiratory arrest provide artificial respiration.

First-aid measures after skin contact : Remove contaminated, saturated clothing immediately. After contact with skin, wash immediately with plenty of water and soap. Do not use solvents or thinners.

First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing. Seek medical advice immediately.

First-aid measures after ingestion : If swallowed, rinse mouth with water (only if person is conscious). Seek medical advice immediately. Keep victim calm. Do NOT induce vomiting.

4.2. Most important symptoms and effects, both acute and delayed

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

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Alcohol-resistant foam, carbon dioxide, powder, spray mist, (water)

Unsuitable extinguishing media : Strong water jet.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire : Dense black smoke. Inhaling hazardous decomposing products can cause serious health damage.

5.3. Advice for firefighters

Protection during firefighting : Provide a conveniently located respiratory protective device. Do not allow water used to extinguish fire to enter drains, ground or waterways. Treat runoff as hazardous. Cool closed containers that are near the source of the fire.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions : Keep away from sources of ignition. Ventilate affected area. Do not breathe vapours.

6.2. Environmental precautions

Do not allow to enter into surface water or drains. If the product contaminates lakes, rivers or sewages, inform competent authorities in accordance with local regulations.

6.3. Methods and material for containment and cleaning up

Isolate leaked material using non-flammable absorption agent (e.g. sand, earth, vermiculite, diatomaceous earth) and collect it for disposal in appropriate containers in accordance with the local regulations (see

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Ensure good ventilation of the work station. Wear personal protective equipment.
Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

- Storage conditions : Store in a well-ventilated place. Keep cool.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Hazardous ingredients:

PROPAN-2-OL

Workplace exposure limits:

State	8hourTWA	15min.STEL
UK	999 mg/m ³	1250 mg/m ³

Respirable dust:

8hourTWA	15min.STEL
400 ppm	500 ppm

8.2. Exposure controls

- Appropriate engineering controls : Ensure good ventilation of the work station. Provide adequate general and local exhaust ventilation.
Personal protective equipment : Protective clothing. Protective goggles. Gloves.
Hand protection : Protective gloves
Eye protection : Safety glasses
Skin and body protection : Wear suitable protective clothing
Respiratory protection : Where exposure through inhalation may occur from use, respiratory protection equipment is recommended



- Environmental exposure controls : Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

- Physical state : Liquid
Colour : Colourless
Odour : Like organic solvents
Odour threshold : No data available
pH : 5
Relative evaporation rate (butylacetate=1) : No data available
Melting point : Not applicable
Freezing point : No data available
Boiling point : 82°C

Flash point	: 10°C
Auto-ignition temperature	: 425°C
Decomposition temperature	: No data available
Flammability (solid, gas)	: Not applicable
Vapour pressure	: 45.79 mbar
Relative vapour density at 20 °C	: No data available
Relative density	: 0.78 g/cm ³
Solubility	: Completely miscible.
Log Pow	: No data available
Viscosity, kinematic	: <10 mPa-s
Viscosity, dynamic	: <10 mPa-s
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: 2-12% vol.

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity**10.1. Reactivity**

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable when applying the recommended regulations for storage and handling. Further information on correct storage: refer to chapter 7.

10.3. Possibility of hazardous reactions

Keep away from strong acids, strong bases and strong oxidising agents to avoid exothermic reactions.

10.4. Conditions to avoid

Hazardous decomposition byproducts may form with exposure to high temperatures.

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Hazardous decomposition byproducts may form with exposure to high temperatures, e.g. carbon dioxide, carbon monoxide, smoke, nitrogen oxides.

SECTION 11: Toxicological information**11.1. Information on toxicological effects**

Acute toxicity	: Not classified
Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
Specific target organ toxicity (single exposure)	: Not classified
Specific target organ toxicity (repeated exposure)	: Not classified
Aspiration hazard	: Not classified

Other observations:

Inhaling of solvent components above the MWC-value can lead to health damage, e.g. irritation of the mucous membrane and respiratory organs, as well as damage to the liver, kidneys and the central nervous system. Indications of this are: headache, dizziness, fatigue, amyosthenia, drowsiness and, in serious cases, unconsciousness. Solvents may cause some of the aforementioned effects through skin resorption. Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin, resulting in non-allergic contact dermatitis and/or absorption through skin. Splashing may cause eye irritation and reversible damage.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Classification for mixtures and used evaluation method according to regulation (EC) 1207/2008 [CLP]: There is no information available on the preparation itself. Do not allow to enter into surface water or drains.

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.
 Waste disposal recommendations : Do not allow to enter into surface water or drains. This material and its container must be disposed of in a safe way. Waste disposal according to irective 2008/98/EC, covering waste and dangerous waste.
 Ecology - waste materials : Avoid release to the environment.
 Proposed EWC waste codes/designations : 190208 – liquid combustible wastes containing dangerous substances
 200113 – solvents
 Packaging recommendation : Non-contaminated packages may be recycled. Vessels not properly emptied are special waste.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

ADR	IMDG	IATA	ADN	RID
14.1. UN number				
1219				
14.2. UN proper shipping name				
Isopropanol mixture	ISOPROPANOL (ISOPROPYL ALCOHOL) MIXTURE	Isopropanol Alcohol	Not applicable	Isopropanol mixture
14.3. Transport hazard class(es)				
3				
14.4. Packing group				
II				
14.5. Environmental hazards				
Dangerous for the environment : No	Dangerous for the environment : No Marine pollutant : No	Dangerous for the environment : No	Dangerous for the environment : No	Dangerous for the environment : No

14.6. Special precautions for user

Always transport in closed, upright and safe containers. Make sure that persons transporting the product know what to do in case of an accident or leakage. Advice on safe handling : see sections 6-8.

14.6.1. Overland transport

Tunnel restriction code : D/E

14.6.2. Transport by sea

EmS-No. : F-E, S-D

14.6.3. Air transport

14.6.4. Inland waterway transport

Carriage prohibited (ADN) : No

Not subject to ADN : No

14.6.5. Rail transport

Carriage prohibited (RID) : No

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 specific for the substance or mixture****15.1.1. EU-Regulations****VOC Switzerland**

Weight fraction in % : 100.00

15.1.2. National regulations**Restrictions of occupation**

Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers. Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC).

15.2. Chemical safety assessment

Chemical safety assessments for substances in this preparation have not been carried out.

SECTION 16: Other information

Other information: This safety data sheet is prepared in accordance with Commission Regulation (EU) No 453/2010.

Phrases used in s.2 and s.3:

H225: Highly flammable liquid and vapour.
H317 : May cause an allergic skin reaction.
H319: Causes serious eye irritation.
H336: May cause drowsiness or dizziness.

SDS EU_NSC

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.