

SAFETY DATA SHEET

TLock1 (ANAEROBIC RETAINER)

Page: 1

Compilation date: 19/09/2012

Revision date: 08/11/2013

Revision No: 4

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

1.1. Product identifier

Product name: TLock1

Product code: TLK2001

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

Use of substance / mixture: Anaerobic retainer based on (meth)acrylates.

1.3. Details of the supplier of the safety data sheet

Company name: Tough Technology Products Limited

Eaton Place Business Centre

114 Washway Road

Sale

Cheshire

M33 7RF

United Kingdom

Tel: +44 800 772 0996

Email: sales@ttproducts.com

1.4. Emergency telephone number

Emergency tel: +44 800 772 0996 (9am - 5.30pm)

Section 2: Hazards identification

2.1. Classification of the substance or mixture

Classification under CHIP: Xn: R20; Xi: R37/38; Xi: R41; Sens.: R43

Classification under CLP: * STOT SE 3: H335; Eye Dam. 1: H318; Skin Irrit. 2: H315; Skin Sens. 1: H317; -: EUH208

Most important adverse effects: Harmful by inhalation. Irritating to respiratory system and skin. Risk of serious damage to eyes. May cause sensitisation by skin contact.

2.2. Label elements

Label elements under CLP:

Hazard statements: * H315: Causes skin irritation.

H317: May cause an allergic skin reaction.

H318: Causes serious eye damage.

H335: May cause respiratory irritation.

EUH208: Contains 1-acetyl-2-phenylhydrazine. May produce an allergic reaction.

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SAFETY DATA SHEET
TLock1 (ANAEROBIC RETAINER)

Page: 2

Signal words: * Danger

Hazard pictograms: * GHS05: Corrosion

GHS07: Exclamation mark



Precautionary statements: * P261: Avoid breathing vapours.

P271: Use only outdoors or in a well-ventilated area.

P280: Wear protective gloves/eye protection.

P302+352: IF ON SKIN: Wash with plenty of soap and water.

P304+340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P308+313: IF exposed or concerned: Get medical advice/attention.

P333+313: If skin irritation or rash occurs: Get medical.

P362: Take off contaminated clothing and wash before reuse.

Label elements under CHIP:

Hazard symbols: Harmful.



Risk phrases: R20: Harmful by inhalation.

R37/38: Irritating to respiratory system and skin.

R41: Risk of serious damage to eyes.

R43: May cause sensitisation by skin contact.

Safety phrases: * S23: Do not breathe vapour.

S24/25: Avoid contact with skin and eyes.

S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S37/39: Wear suitable gloves and eye / face protection.

Precautionary phrases: Contains 1-acetyl-2-phenylhydrazine. May produce an allergic reaction.

2.3. Other hazards

PBT: This product is not identified as a PBT substance.

Section 3: Composition/information on ingredients

3.2. Mixtures

[cont...]

SAFETY DATA SHEET
TLock1 (ANAEROBIC RETAINER)

Page: 3

Hazardous ingredients:

ALIPHATIC POLYESTER URETHANE ACRYLATE

EINECS	CAS	CHIP Classification	CLP Classification	Percent
PROPRIETARY	PROPRIETARY	Xi: R36/38	Skin Irrit. 2: H315; Eye Irrit. 2: H319	25-50%

2-HYDROXYPROPYLMETHACRYLATE (MIXTURE OF ISOMERS) - REACH registered number(s): 01-2119490226-37

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248-666-3	27813-02-1	Xi: R36; Sens.: R43	Eye Irrit. 2: H319; Skin Sens. 1: H317	10-25%
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ACRYLIC ACID - REACH registered number(s): 01-2119452449-31-...

201-177-9	79-10-7	-: R10; Xn: R20/21/22; C: R35; N: R50	Flam. Liq. 3: H226; Acute Tox. 4: H332; Acute Tox. 4: H312; Acute Tox. 4: H302; Skin Corr. 1A: H314; Aquatic Acute 1: H400	3-5%
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2,2-BIS(ACRYLOYLOXYMETHYL)BUTYL ACRYLATE - REACH registered number(s): 01-2119489896-11-...

239-701-3	15625-89-5	Xi: R36/38; Sens.: R43	Eye Irrit. 2: H319; Skin Irrit. 2: H315; Skin Sens. 1: H317	1-3%
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CUMENE HYDROPEROXIDE - REACH registered number(s): 01-211947596-19-...

201-524-7	80-15-9	O: R7; Xn: R21/22; T: R23; C: R34; Xn: R48/20/22; N: R51/53	Org. Perox. EF: H242; Acute Tox. 3: H331; Acute Tox. 4: H312; Acute Tox. 4: H302; STOT RE 2: H373; Skin Corr. 1B: H314	1-3%
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N,N-DIMETHYL-P-TOLUIDINE - REACH registered number(s): 01-2119937766-23-...

202-805-4	99-97-8	T: R23/24/25; Xn: R33; -: R52/53	Acute Tox. 3: H331; Acute Tox. 3: H311; Acute Tox. 3: H301; STOT RE 2: H373; Aquatic Chronic 3: H412	<1%
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Non-hazardous ingredients:

1-ACETYL-2-PHENYLHYDRAZINE

EINECS	CAS	CHIP Classification	CLP Classification	Percent
204-055-3	114-83-0	Xn: R20/21/22; Xn: R40; Xi: R36/37/38; Sens.: R43	Acute Tox. 3: H301; Skin Irrit. 2: H315; STOT SE 3: H335; Eye Irrit. 2: H319; Skin Sens. 1: H317	<1%

Section 4: First aid measures

4.1. Description of first aid measures

Skin contact: Remove all contaminated clothes and footwear immediately unless stuck to skin. Wash immediately with plenty of soap and water. If irritation persists, obtain medical attention.

Eye contact: Bathe the eye with running water for 15 minutes. Transfer to hospital for specialist examination.

Ingestion: Do not induce vomiting. Wash out mouth with water. If conscious, give half a litre of water to drink immediately. Consult a doctor.

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SAFETY DATA SHEET

TLock1 (ANAEROBIC RETAINER)

Page: 4

Inhalation: Remove casualty from exposure ensuring one's own safety whilst doing so.

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

Skin contact: There may be irritation and redness at the site of contact. An itchy rash may occur at the site of contact.

Eye contact: There may be irritation and pain. The eyes may water profusely. Corneal burns may occur. May cause permanent damage.

Ingestion: There may be soreness and redness of the mouth and throat. Nausea and stomach pain may occur.

Inhalation: There may be irritation of the throat with a feeling of tightness in the chest.

Delayed / immediate effects: Immediate effects can be expected after short-term exposure.

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

Immediate / special treatment: Eye bathing equipment should be available on the premises.

Section 5: Fire-fighting measures

5.1. Extinguishing media

Extinguishing media: Dry chemical powder. Alcohol resistant foam. Carbon dioxide. Use water spray to cool containers.

5.2. Special hazards arising from the substance or mixture

Exposure hazards: In combustion emits toxic fumes of carbon dioxide / carbon monoxide. In combustion emits toxic fumes of nitrogen oxides.

5.3. Advice for fire-fighters

Advice for fire-fighters: Wear self-contained breathing apparatus. Wear protective clothing to prevent contact with skin and eyes.

Section 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions: Refer to section 8 of SDS for personal protection details. Evacuate the area immediately. Mark out the contaminated area with signs and prevent access to unauthorised personnel. Turn leaking containers leak-side up to prevent the escape of liquid.

6.2. Environmental precautions

Environmental precautions: Do not discharge into drains or rivers. Contain the spillage using bunding.

6.3. Methods and material for containment and cleaning up

Clean-up procedures: Absorb into dry earth or sand. Transfer to a closable, labelled salvage container for disposal by an appropriate method.

6.4. Reference to other sections

Reference to other sections: Refer to section 8 of SDS.

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SAFETY DATA SHEET
TLock1 (ANAEROBIC RETAINER)

Page: 5

Section 7: Handling and storage

7.1. Precautions for safe handling

Handling requirements: Avoid direct contact with the substance. Ensure there is sufficient ventilation of the area.
Do not handle in a confined space. Avoid the formation or spread of mists in the air.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions: Store in cool, well ventilated area. Keep away from sources of ignition. Keep away from direct sunlight. Keep container tightly closed.

Suitable packaging: Must only be kept in original packaging.

7.3. Specific end use(s)

Specific end use(s): No data available.

Section 8: Exposure controls/personal protection

8.1. Control parameters

Hazardous ingredients:

ACRYLIC ACID

Workplace exposure limits:

Respirable dust

State	8 hour TWA	15 min. STEL	8 hour TWA	15 min. STEL
UK	30 mg/m ³	60 mg/m ³	-	-

8.1. DNEL/PNEC Values

DNEL / PNEC No data available.

8.2. Exposure controls

Engineering measures: Ensure there is sufficient ventilation of the area. Ensure all engineering measures mentioned in section 7 of SDS are in place.

Respiratory protection: Self-contained breathing apparatus must be available in case of emergency. Gas/vapour filter, type A: organic vapours (EN141).

Hand protection: Neoprene gloves. Nitrile gloves. Do not use PVC gloves, as they absorb (meth)acrylates.

Eye protection: Safety glasses with side-shields. Ensure eye bath is to hand.

Skin protection: Protective clothing.

Section 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

State: Liquid

Colour: Dark green

Odour: Characteristic odour

Evaporation rate: Negligible

Oxidising: Non-oxidising (by EC criteria)

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SAFETY DATA SHEET
TLock1 (ANAEROBIC RETAINER)

Page: 6

Solubility in water: Insoluble

Also soluble in: Acetone.

Viscosity: Viscous

Kinematic viscosity: ~ 2500 cPs

Viscosity test method: Rotational viscometer

Flammability limits %: lower: n/a

upper: n/a

Flash point°C: >100

Part.coeff. n-octanol/water: n/e

Vapour pressure: ~0.1mmHg @ 20oC

Relative density: ~1.08

pH: ~3-5

9.2. Other information

Other information: No data available.

Section 10: Stability and reactivity

10.1. Reactivity

Reactivity: Stable under recommended transport or storage conditions.

10.2. Chemical stability

Chemical stability: Stable under normal conditions.

10.3. Possibility of hazardous reactions

Hazardous reactions: Hazardous reactions will not occur under normal transport or storage conditions.
Decomposition may occur on exposure to conditions or materials listed below.

10.4. Conditions to avoid

Conditions to avoid: Heat. Sources of ignition. Direct sunlight.

10.5. Incompatible materials

Materials to avoid: Strong oxidising agents. Strong acids. Free-radical initiators. Copper.

10.6. Hazardous decomposition products

Haz. decomp. products: In combustion emits toxic fumes. In combustion emits toxic fumes of carbon dioxide / carbon monoxide. In combustion emits toxic fumes of nitrogen oxides.

Section 11: Toxicological information

11.1. Information on toxicological effects

Hazardous ingredients:

2-HYDROXYPROPYLMETHACRYLATE (MIXTURE OF ISOMERS)

ORL	MUS	LD50	7964	mg/kg
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SAFETY DATA SHEET
TLock1 (ANAEROBIC RETAINER)

Page: 7

ACRYLIC ACID

IPR	RAT	LD50	22	mg/kg
ORL	MUS	LD50	830	mg/kg
ORL	RAT	LD50	1250	mg/kg
SCU	MUS	LD50	1590	mg/kg

2,2-BIS(ACRYLOYLOXYMETHYL)BUTYL ACRYLATE

IPR	RAT	LD50	55	mg/kg
ORL	RAT	LD50	5190	µl/kg

CUMENE HYDROPEROXIDE

ORL	MUS	LDLO	5	gm/kg
ORL	RAT	LD50	382	mg/kg
SCU	RAT	LD50	382	mg/kg
VAPOURS	RAT	4H LC50	220	ppmV

N,N-DIMETHYL-P-TOLUIDINE

IPR	MUS	LD50	212	mg/kg
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Relevant effects for mixture:

Effect	Route	Basis
Acute toxicity (harmful)	INH	Hazardous: calculated
Irritation	OPT INH DRM	Hazardous: calculated
Sensitisation	DRM	Hazardous: calculated

Symptoms / routes of exposure

Skin contact: There may be irritation and redness at the site of contact. An itchy rash may occur at the site of contact.

Eye contact: There may be irritation and pain. The eyes may water profusely. Corneal burns may occur. May cause permanent damage.

Ingestion: There may be soreness and redness of the mouth and throat. Nausea and stomach pain may occur.

Inhalation: There may be irritation of the throat with a feeling of tightness in the chest.

Delayed / immediate effects: Immediate effects can be expected after short-term exposure.

Section 12: Ecological information

12.1. Toxicity

Ecotoxicity values: No data available.

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SAFETY DATA SHEET
TLock1 (ANAEROBIC RETAINER)

Page: 8

12.2. Persistence and degradability

Persistence and degradability: Biodegradable.

12.3. Bioaccumulative potential

Bioaccumulative potential: No bioaccumulation potential.

12.4. Mobility in soil

Mobility: Non-volatile. Heavier than water.

12.5. Results of PBT and vPvB assessment

PBT identification: This product is not identified as a PBT substance.

12.6. Other adverse effects

Section 13: Disposal considerations

13.1. Waste treatment methods

Disposal operations: Transfer to a suitable container and arrange for collection by specialised disposal company.

Disposal of packaging: Dispose of as normal industrial waste.

NB: The user's attention is drawn to the possible existence of regional or national regulations regarding disposal.

Section 14: Transport information

Transport class: This product does not require a classification for transport.

Section 15: Regulatory information

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

15.2. Chemical Safety Assessment

Chemical safety assessment: A chemical safety assessment has not been carried out for the substance or the mixture by the supplier.

Section 16: Other information

Other information

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

* indicates text in the SDS which has changed since the last revision.

Phrases used in s.2 and 3: EUH208: Contains <name of sensitising substance>. May produce an allergic reaction.

H226: Flammable liquid and vapour.

H242: Heating may cause a fire.

H301: Toxic if swallowed.

H302: Harmful if swallowed.

H311: Toxic in contact with skin.

[cont...]

SAFETY DATA SHEET
TLock1 (ANAEROBIC RETAINER)

Page: 9

H312: Harmful in contact with skin.

H314: Causes severe skin burns and eye damage.

H315: Causes skin irritation.

H317: May cause an allergic skin reaction.

H318: Causes serious eye damage.

H319: Causes serious eye irritation.

H331: Toxic if inhaled.

H332: Harmful if inhaled.

H335: May cause respiratory irritation.

H373: May cause damage to organs <or state all organs affected, if known> through prolonged or repeated exposure <state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard>.

H400: Very toxic to aquatic life.

H412: Harmful to aquatic life with long lasting effects.

R7: May cause fire.

R10: Flammable.

R20/21/22: Harmful by inhalation, in contact with skin and if swallowed.

R20: Harmful by inhalation.

R21/22: Harmful in contact with skin and if swallowed.

R23/24/25: Toxic by inhalation, in contact with skin and if swallowed.

R23: Toxic by inhalation.

R33: Danger of cumulative effects.

R34: Causes burns.

R35: Causes severe burns.

R36/37/38: Irritating to eyes, respiratory system and skin.

R36/38: Irritating to eyes and skin.

R36: Irritating to eyes.

R37/38: Irritating to respiratory system and skin.

R40: Limited evidence of a carcinogenic effect.

R41: Risk of serious damage to eyes.

R43: May cause sensitisation by skin contact.

R48/20/22: Harmful: danger of serious damage to health by prolonged exposure through inhalation and if swallowed.

R50: Very toxic to aquatic organisms.

R51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R52/53: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Legal disclaimer: The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. Tough Technology Products Ltd. and/or its agents cannot accept

any [cont...]

SAFETY DATA SHEET

TLock1 (ANAEROBIC RETAINER)

Page: 10

liability for the use of information contained in this data sheet or for the use, application or processing of the product described in this data sheet. Users should note the possibility of hazards occurring due to improper uses of the product.