Date: 15.01.2015 Replaces: 25.07.2013 Ref: 0013.11.DBA/GH

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

· 1.1 Product identifier

· Trade name: TECTANE Penetrating Oil

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

No further relevant information available.

- · Application of the substance / the mixture Penetrating oil
- · 1.3 Details of the supplier of the safety data sheet
- · Manufacturer/Supplier:

Siroflex Limited

Dodworth Business Park

Dodworth Barnsley

Tel.: +44 01226 771600 Fax.: +44 01226 771601

www.siroflex.co.uk

· Further information obtainable from:

www.siroflex.co.uk

info@siroflex.co.uk

E-Mail: technical@siroflex.co.uk

· 1.4 Emergency telephone number: Tel: +44 01226 771600 (office hours only).

SECTION 2: Hazards identification

- 2.1 Classification of the substance or mixture
- · Classification according to Regulation (EC) No 1272/2008



GHS02 flame

Flam. Aerosol 1 H222-H229 Extremely flammable aerosol. Pressurised container: May burst if heated.



GHS07

Skin Irrit. 2	H315	Causes skin irritation.
STOT SE 3	Н336	May cause drowsiness or dizziness.
Asp. Tox. 1	H304	May be fatal if swallowed and enters airways.
Aquatic Chronic 3	<i>H412</i>	Harmful to aquatic life with long lasting effects.

· Classification according to Directive 67/548/EEC or Directive 1999/45/EC



F+; Extremely flammable

R12: Extremely flammable.

R52/53-66: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Repeated exposure may cause skin dryness or cracking.

· Information concerning particular hazards for human and environment:

The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

At long or repeated contact with skin it may cause dermatitis due to the degreasing effect of the solvent. Harmful: may cause lung damage if swallowed.

· Classification system:

The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

- · 2.2 Label elements
- · Labelling according to Regulation (EC) No 1272/2008

The product is classified and labelled according to the CLP regulation.

(Contd. on page 2)

(Contd. of page 1)

Safety data sheet according to 1907/2006/EC, Article 31

Date: 15.01.2015 Replaces: 25.07.2013 Ref: 0013.11.DBA/GH

Trade name: TECTANE Penetrating Oil

· Hazard pictograms





GHS02 GHS07

· Signal word Danger

· Hazard-determining components of labelling:

Kerosine (petroleum), hydrodesulfurized

Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cycloalkanes, aromatics (2-25%)

Distillates (petroleum), hydrotreated light naphthenic

Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cycloalkanes, aromatics (2-25%)

· Hazard statements

H222-H229 Extremely flammable aerosol. Pressurised container: May burst if heated.

H315 Causes skin irritation.

H336 May cause drowsiness or dizziness.

H412 Harmful to aquatic life with long lasting effects.

· Precautionary statements

P101 If medical advice is needed, have product container or label at hand.

P102 Keep out of reach of children.

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P211 Do not spray on an open flame or other ignition source.

P251 Do not pierce or burn, even after use.

P261 Avoid breathing vapours or spray.

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

P280 Wear protective gloves.

P312 Call a POISON CENTER/doctor if you feel unwell.

P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C.

P501 Dispose of contents/container to hazardous or special waste collection point.

Additional information:

Buildup of explosive mixtures possible without sufficient ventilation.

- · 2.3 Other hazards
- · Results of PBT and vPvB assessment
- · PBT: Not applicable.
- · vPvB: Not applicable.

SECTION 3: Composition/information on ingredients

· 3.2 Mixtures

· Description: Mixture of substances listed below with nonhazardous additions.

· Dangerous components:		
CAS: 75-28-5	isobutane	10-20%
EINECS: 200-857-2	▶ F+ R12	
Reg.nr.: 01-2119485395-27-xxxx	Flam. Gas 1, H220; Press. Gas C, H280	
EC number: 925-653-7	Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cycloalkanes, aromatics (2-25%)	10-20%
	Xn R65 R52/53-66	
	& Asp. Tox. 1, H304; Aquatic Chronic 3, H412	
CAS: 64742-81-0	Kerosine (petroleum), hydrodesulfurized	10-20%
EINECS: 265-184-9	★ Xn R65	
	♦ Asp. Tox. 1, H304; ♦ Aquatic Chronic 2, H411; ♦ Skin Irrit. 2, H315; STOT SE 3, H336	

(Contd. on page 3)

Date: 15.01.2015 Replaces: 25.07.2013 Ref: 0013.11.DBA/GH

Trade name: TECTANE Penetrating Oil

CAS: 64742-53-6	Distillates (petroleum), hydrotreated light naphthenic	td. of page 2
EINECS: 265-156-6	♦ Asp. Tox. 1, H304	
Reg.nr.: 01-2119480375-34-xxxx	V 1357, 100, 1, 110, 1	
CAS: 74-98-6	propane	10-20%
EINECS: 200-827-9	F+ R12	
Reg.nr.: 01-2119486944-21-xxxx	🏇 Flam. Gas 1, H220; Press. Gas C, H280	
EC number: 919-164-8	Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cycloalkanes,	10-20%
	aromatics (2-25%)	
	★ Xn R65	
	R5 2/53-66	
	Asp. Tox. 1, H304; Aquatic Chronic 3, H412	
CAS: 106-97-8	butane	2.5-10%
EINECS: 203-448-7	♦ F+ R12	
Reg.nr.: 01-2119474691-32-xxxx	📀 Flam. Gas 1, H220; Press. Gas C, H280	
EC number: 926-141-6	Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cycloalkanes,	1.0-2.5%
Reg.nr.: 01-2119456620-43-xxxx	<2% aromatics	
	X Xn R65	
	R66	
	♦ Asp. Tox. 1, H304	
CAS: 111-76-2	2-butoxyethanol	1.0-2.5%
EINECS: 203-905-0	X Xn R20/21/22; X Xi R36/38	
Reg.nr.: 01-2119475108-36-xxxx	(1) Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319	
Regulation (EC) No 648/2004 on	detergents / Labelling for contents	
aliphatic hydrocarbons		≥ 30%
aromatic hydrocarbons		5 - 15%

SECTION 4: First aid measures

- · 4.1 Description of first aid measures
- · After inhalation:

Supply fresh air; consult doctor in case of complaints.

Take affected persons into fresh air and keep quiet.

· After skin contact:

Immediately wash with water and soap and rinse thoroughly.

Immediately remove any clothing soiled by the product.

· After eye contact:

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

- · After swallowing: Do not induce vomiting; call for medical help immediately.
- 4.2 Most important symptoms and effects, both acute and delayed No further relevant information available.
- · 4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

SECTION 5: Firefighting measures

- · 5.1 Extinguishing media
- · Suitable extinguishing agents:

Foam

Fire-extinguishing powder

Carbon dioxide

- · For safety reasons unsuitable extinguishing agents: Water with full jet
- 5.2 Special hazards arising from the substance or mixture

Can form explosive gas-air mixtures.

(Contd. on page 4)

Date: 15.01.2015 Replaces: 25.07.2013 Ref: 0013.11.DBA/GH

Trade name: TECTANE Penetrating Oil

(Contd. of page 3)

Formation of toxic gases is possible during heating or in case of fire.

- 5.3 Advice for firefighters
- · Protective equipment: Wear self-contained respiratory protective device.
- · Additional information

Cool endangered receptacles with water spray.

Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

SECTION 6: Accidental release measures

· 6.1 Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation

Keep away from ignition sources.

· 6.2 Environmental precautions:

Do not allow product to reach sewage system or any water course.

Inform respective authorities in case of seepage into water course or sewage system.

Do not allow to enter sewers/surface or ground water.

· 6.3 Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Ensure adequate ventilation.

• **6.4 Reference to other sections** See Section 13 for disposal information.

SECTION 7: Handling and storage

· 7.1 Precautions for safe handling

Ensure good ventilation/exhaustion at the workplace.

Avoid contact with skin and eyes.

· Information about fire - and explosion protection:

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

Pressurised container: protect from sunlight and do not expose to temperatures exceeding 50 °C, i.e. electric lights. Do not pierce or burn, even after use.

Do not spray onto a naked flame or any incandescent material.

- · 7.2 Conditions for safe storage, including any incompatibilities
- · Storage:
- · Requirements to be met by storerooms and receptacles:

Store in a cool location.

Observe official regulations on storing packagings with pressurised containers.

- · Information about storage in one common storage facility: Not required.
- Further information about storage conditions: Protect from heat and direct sunlight.
- · 7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

- · Additional information about design of technical facilities: No further data; see item 7.
- · 8.1 Control parameters
- · Ingredients with limit values that require monitoring at the workplace:

106-97-8 butane

WEL Short-term value: 1810 mg/m³, 750 ppm Long-term value: 1450 mg/m³, 600 ppm Carc (if more than 0.1% of buta-1.3-diene)

(Contd. on page 5)

Date: 15.01.2015 Replaces: 25.07.2013 Ref: 0013.11.DBA/GH

Trade name: TECTANE Penetrating Oil

(Contd. of page 4)

111-76-2 2-butoxyethanol

WEL Short-term value: 246 mg/m³, 50 ppm Long-term value: 123 mg/m³, 25 ppm

Sk, BMGV

· Ingredients with biological limit values:

111-76-2 2-butoxyethanol

BMGV 240 mmol/mol creatinine

Medium: urine

Sampling time: post shift Parameter: butoxyacetic acid

- · Additional information: The lists valid during the making were used as basis.
- · 8.2 Exposure controls
- · Personal protective equipment:
- · General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Do not inhale gases / fumes / aerosols.

Avoid contact with the eyes and skin.

· Respiratory protection:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

- Recommended filter device for short term use: Filter AX
- Protection of hands:



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

· Material of gloves

Nitrile rubber, NBR

Recommended thickness of the material: ≥ 0.45 mm

· Penetration time of glove material

≥240 min

The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

· Eye protection:



Tightly sealed goggles

· **Body protection:** Protective work clothing

SECTION 9: Physical and chemical properties

- · 9.1 Information on basic physical and chemical properties
- · General Information
- · Appearance:

Form: Aerosol
Colour: Yellowish
Odour: Petroleum-like

· Change in condition

Melting point/Melting range: Undetermined.

(Contd. on page 6)

Date: 15.01.2015 Replaces: 25.07.2013 Ref: 0013.11.DBA/GH

Trade name: TECTANE Penetrating Oil

(Contd. of page 5)

Boiling point/Boiling range:	Not applicable, as aerosol.
· Flash point:	Not applicable, as aerosol.
· Ignition temperature:	>200 °C
Danger of explosion:	Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
· Density at 20 °C:	$0.70482 \ g/cm^3$
· Solubility in / Miscibility with	
water:	Not miscible or difficult to mix.
Organic solvents:	85.5 %
VOC (EC)	602.6 g/l
9.2 Other information	No further relevant information available.

SECTION 10: Stability and reactivity

- · 10.1 Reactivity
- · 10.2 Chemical stability
- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- · 10.3 Possibility of hazardous reactions No dangerous reactions known.
- · 10.4 Conditions to avoid No further relevant information available.
- · 10.5 Incompatible materials: No further relevant information available.
- · 10.6 Hazardous decomposition products:

Aldehyde

Carbon monoxide and carbon dioxide

SECTION 11: Toxicological information

- · 11.1 Information on toxicological effects
- · Acute toxicity:

· LD/LC50	values rele	vant for classification:
75-28-5 is	sobutane	
Inhalative	LC50/4 h	>50 mg/l (rat)
74-98-6 p	ropane	
Inhalative	LC50/4 h	20 mg/l (rat)
106-97-8	butane	
Inhalative	LC50/4 h	658 mg/l (rat)
111-76-2	2-butoxyetl	ranol
Oral	LD50	1480 mg/kg (rat)
Dermal	LD50	400 mg/kg (rab)
. Drimary i	rritant offo	ot•

- · Primary irritant effect:
- on the skin: Irritant to skin and mucous membranes.
- on the eye: No irritating effect.
- · Sensitisation: No sensitising effects known.
- · Additional toxicological information: Vapours have narcotic effect.

SECTION 12: Ecological information

- · 12.1 Toxicity
- · Aquatic toxicity: No further relevant information available.
- · 12.2 Persistence and degradability No further relevant information available.
- · 12.3 Bioaccumulative potential No further relevant information available.

(Contd. on page 7)

Date: 15.01.2015 Replaces: 25.07.2013 Ref: 0013.11.DBA/GH

Trade name: TECTANE Penetrating Oil

(Contd. of page 6)

- · 12.4 Mobility in soil No further relevant information available.
- · Additional ecological information:
- · General notes:

Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage

- · 12.5 Results of PBT and vPvB assessment
- · PBT: Not applicable.
- · vPvB: Not applicable.
- · 12.6 Other adverse effects No further relevant information available.

SECTION 13: Disposal considerations

- · 13.1 Waste treatment methods
- · Recommendation

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

· European waste catalogue

16 05 04 gases in pressure containers (including halons) containing dangerous substances

15 01 04 metallic packaging

- · Uncleaned packaging:
- · Recommendation: Disposal must be made according to official regulations.

14.1 UN-Number ADR, IMDG, IATA	UN1950	
14.2 UN proper shipping name		
ADR	1950 AEROSOLS	
IMDG	AEROSOLS	
IATA	AEROSOLS, flammable	
14.3 Transport hazard class(es)		
ADR		
Class	2 5F Gases.	
Label	2.1	
IMDG, IATA		
Class	2.1	
Label	2.1	
14.4 Packing group		
ADR, IMDG, IATA	Void	
14.5 Environmental hazards:		
Marine pollutant:	No	
14.6 Special precautions for user	Warning: Gases.	

Date: 15.01.2015 Replaces: 25.07.2013 Ref: 0013.11.DBA/GH

Trade name: TECTANE Penetrating Oil

	(Contd.	of pag
Danger code (Kemler):	-	
EMS Number:	F- D , S - U	
14.7 Transport in bulk according to Anne	ex II of	
MARPOL73/78 and the IBC Code	Not applicable.	
Transport/Additional information:		
ADR		
Limited quantities (LQ)	IL	
Excepted quantities (EQ)	Code: E0	
	Not permitted as Excepted Quantity	
Transport category	2	
Tunnel restriction code	D	
IMDG		
Limited quantities (LQ)	IL	
Excepted quantities (EQ)	Code: E0	
- · · · · · · · · · · · · · · · · · · ·	Not permitted as Excepted Quantity	
UN "Model Regulation":	UN1950, AEROSOLS, 2.1	

SECTION 15: Regulatory information

- · 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture No further relevant information available.
- · 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· Relevant phrases

- H220 Extremely flammable gas.
- H280 Contains gas under pressure; may explode if heated.
- H302 Harmful if swallowed.
- H304 May be fatal if swallowed and enters airways.
- H312 Harmful in contact with skin.
- H315 Causes skin irritation.
- H319 Causes serious eye irritation.
- H332 Harmful if inhaled.
- H336 May cause drowsiness or dizziness.
- H411 Toxic to aquatic life with long lasting effects.
- H412 Harmful to aquatic life with long lasting effects.
- R12 Extremely flammable.
- R20/21/22 Harmful by inhalation, in contact with skin and if swallowed.
- R36/38 Irritating to eyes and skin.
- R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- R65 Harmful: may cause lung damage if swallowed.
- R66 Repeated exposure may cause skin dryness or cracking.

· Abbreviations and acronyms:

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

ICAO: International Civil Aviation Organisation

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

(Contd. on page 9)

(Contd. of page 8)

Safety data sheet according to 1907/2006/EC, Article 31

Date: 15.01.2015 Replaces: 25.07.2013 Ref: 0013.11.DBA/GH

Trade name: TECTANE Penetrating Oil

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

VOC: Volatile Organic Compounds (USA, EU) LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

Flam. Gas 1: Flammable gases, Hazard Category 1

Flam. Aerosol 1: Flammable aerosols, Hazard Category 1 Press. Gas C: Gases under pressure: Compressed gas

Acute Tox. 4: Acute toxicity, Hazard Category 4

Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2
Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2

STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3

Asp. Tox. 1: Aspiration hazard, Hazard Category 1

Aquatic Chronic 2: Hazardous to the aquatic environment - Chronic Hazard, Category 2 Aquatic Chronic 3: Hazardous to the aquatic environment - Chronic Hazard, Category 3

* * Data compared to the previous version altered.