



Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830 Date of issue: 7/26/2001 Revision date: 1/23/2019 Supersedes: 1/10/2019 Version: 4.3

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

1.1. Product identifier

Product form : Mixture

Product name : Potassium tert-butoxide, pure, 1.6-1.7M (20 wt.%) solution in THF

 CAS-No.
 : 865-47-4

 Product code
 : 90026339

 Formula
 : C4H9KO

 Product group
 : Blend

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

1.2.1. Relevant identified uses

Industrial/Professional use spec : Industrial

For professional use only Laboratory chemicals

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Scafell Organics Lingfield Way

Yarm Road Business Park DL1 4XX Darlington - UK T +44 (0) 1949 823777

info@scafellorganics.com - www.scafellorganics.com

1.4. Emergency telephone number

Emergency number : +44 7590 545705

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Flammable liquids, Category 2

Skin corrosion/irritation, Category 1B

Carcinogenicity, Category 2

H351

Specific target organ toxicity — Single exposure, Category 3,

H335

Respiratory tract irritation

Full text of H statements : see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

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

Hazard pictograms (CLP) :





GHS02

GHS05

GHS08

Signal word (CLP) : Danger

Hazard statements (CLP) : H225 - Highly flammable liquid and vapour.

H314 - Causes severe skin burns and eye damage.

H335 - May cause respiratory irritation. H351 - Suspected of causing cancer.

Precautionary statements (CLP) : P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.

No smoking.

P223 - Do not allow contact with water.

P280 - Wear protective clothing, eye protection, face protection.

P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing.

Rinse skin with water or shower.

P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing. P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove

contact lenses, if present and easy to do. Continue rinsing. P312 - Call a doctor, a POISON CENTER if you feel unwell.

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2.3. Other hazards

Other hazards not contributing to the classification : Contact with water liberates extremely flammable gases. May form explosive peroxides.

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII

This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Tetrahydrofuran	(CAS-No.) 109-99-9 (EC-No.) 203-726-8 (EC Index-No.) 603-025-00-0	75 - 85	Flam. Liq. 2, H225 Carc. 2, H351 Eye Irrit. 2, H319 STOT SE 3, H335
POTASSIUM T-BUTOXIDE	(CAS-No.) 865-47-4 (EC-No.) 212-740-3	15 - 25	Flam. Sol. 1, H228 Self-heat. 2, H252 Skin Corr. 1A, H314
Specific concentration limits:			
Name	Product identifier	Specific concentration limits	
Tetrahydrofuran	(CAS-No.) 109-99-9 (EC-No.) 203-726-8 (EC Index-No.) 603-025-00-0	(C >= 25) STOT SE 3, H335 (C >= 25) Eye Irrit. 2, H319	

Full text of H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general

: If possible show this sheet, if not available show packaging or label. Do not leave affected person unattended. Never give anything by mouth to an unconscious person.

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. Give oxygen or artificial

respiration if necessary. Get immediate medical advice/attention.

First-aid measures after skin contact : After contact with skin, take off immediately all contaminated clothing, and wash

immediately with plenty of water. Do not remove clothing if it sticks to the skin. Seek

medical attention if burns develop.

First-aid measures after eye contact : In case of contact with eyes, rinse immediately with plenty of water and seek medical

advice. Remove contact lenses, if present and easy to do. Continue rinsing.

First-aid measures after ingestion : Rinse mouth out with water. Get immediate medical advice/attention. Do not induce

vomiting. Do not give an unconscious person anything to drink.

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

Symptoms/effects : Causes severe skin burns and eye damage.

Symptoms/effects after inhalation : Inhalation may cause irritation (cough, short breathing, difficulty in breathing).

Symptoms/effects after skin contact : May produce skin irritation, blistering, ulcers, and deep scarring. Causes severe burns. Symptoms/effects after eye contact : Causes eye irritation. redness, itching, tears. Direct contact may result in corneal injury.

Symptoms/effects after ingestion : Symptoms of ingestion include drowsiness, weakness, headache, dizziness, nausea, vomiting. Burns or irritation of the linings of the mouth, throat, and gastrointestinal tract.

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

Get immediate medical advice/attention.

SECTION 5: Firefighting measures

5.1. Extinguishing media

: Dry powder. Carbon dioxide. Sand. Suitable extinguishing media

Unsuitable extinguishing media : Do not use water.

5.2. Special hazards arising from the substance or mixture

: Highly flammable liquid and vapour. Fire hazard

Explosion hazard : May form flammable/explosive vapour-air mixture. : When heated to decomposition, emits toxic fumes. Hazardous decomposition products in case of fire

5.3. Advice for firefighters

: Exposure to fire/heat: seal off low-lying areas. Keep container tightly closed and away from Precautionary measures fire

heat, sparks and flame. Keep away from combustible materials.

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Firefighting instructions : Eliminate all ignition sources if safe to do so. Evacuate area. Warn all persons of corrosive

and toxic hazard. Keep upwind.

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures

: Remove ignition sources. Use special care to avoid static electric charges. No open

flames. No smoking.

6.1.1. For non-emergency personnel

Protective equipment : Wear recommended personal protective equipment.

: Evacuate unnecessary personnel. Do not get in eyes, on skin, or on clothing. Do not touch **Emergency procedures**

or walk on the spilled product. Only qualified personnel equipped with suitable protective

equipment may intervene.

Measures in case of dust release : Shelter from vapours by keeping upwind. Ventilate area.

6.1.2. For emergency responders

Protective equipment : Use self-contained breathing apparatus and chemically protective clothing

: Ventilate area. Prevent from entering sewers, basements and workpits, or any place where **Emergency procedures** its accumulation can be dangerous. All equipment used when handling the product must be

grounded. Use non-sparking tools.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

: Collect leaking and spilled liquid in sealable containers as far as possible. Contain the For containment

spilled material by bunding.

Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed : Handle empty containers with care because residual vapours are flammable.

Precautions for safe handling : Do not allow contact with water. Provide local exhaust or general room ventilation.

Ground/bond container and receiving equipment. Do not handle until all safety precautions

have been read and understood.

: Take off immediately all contaminated clothing and wash it before reuse. Wash hands and Hygiene measures other exposed areas with mild soap and water before eating, drinking or smoking and when

leaving work. Do not eat, drink or smoke when using this product. Contaminated work

clothing should not be allowed out of the workplace.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures Proper grounding procedures to avoid static electricity should be followed. Use explosion-

proof electrical/ventilating/lighting equipment. Handle and store contents under inert gas.

Storage conditions : Keep only in the original container in a cool, well ventilated place away from : Heat

sources, Direct sunlight. Keep container tightly closed.

Incompatible products : Water. Oxidising agents.

Incompatible materials : Sources of ignition. Heat sources. Moisture. Water, humidity.

Storage area : Store at ambient temperature. Store in dry protected location to prevent any moisture

contact. Keep in fireproof place.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

Tetrahydrofuran (109-99-9)		
United Kingdom	Local name	Tetrahydrofuran
United Kingdom	WEL TWA (mg/m³)	150 mg/m³
United Kingdom	WEL TWA (ppm)	50 ppm
United Kingdom	WEL STEL (mg/m³)	300 mg/m³
United Kingdom	WEL STEL (ppm)	100 ppm

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Tetrahydrofuran (109-99-9)		
United Kingdom		Sk (Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity)
United Kingdom	Regulatory reference	EH40. HSE

8.2. Exposure controls

Appropriate engineering controls:

Both local exhaust and good general room ventilation must be provided not only to control exposure but also to prevent formation of flammable mixtures. Floors should be impervious, resistant to liquids and easy to clean. Use spark-/explosionproof appliances and lighting system.

Personal protective equipment:

Avoid contact with skin and eyes. Avoid inhalation of vapours. Wear recommended personal protective equipment. Avoid all unnecessary exposure.

Hand protection:

Always wash hands after handling the product. The protective gloves to be used must comply with the specifications of the regulation 2016/425 and the resultant standard EN 374

Туре	Material	Permeation	Thickness (mm)	Penetration	Standard
	Nitrile rubber (NBR), Butyl rubber	6 (> 480 minutes)	0.7mm minimum		EN 374

Eye protection:

Emergency eye wash fountains should be available in the immediate vicinity of any potential exposure. Use eye protection according to EN 166, designed to protect against liquid splashes.

Туре	Use	Characteristics	Standard
Face shield, Safety glasses		With side shields	EN 166
Safety goggles		tightly fitting safety goggles	EN 166

Skin and body protection:

Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Emergency safety showers should be available in the immediate vicinity of any potential exposure

Туре	Standard
Total impervious protective suits, gloves, and boots must be worn to	EN 14605
prevent any contact with the product	

Respiratory protection:

Keep self contained breathing apparatus readily available for emergency use. Where exposure through inhalation may occur from use, respiratory protection equipment is recommended

Device	Filter type	Condition	Standard
Respiratory protective device with a particle filter	ABEK	Protection for Liquid particles, Vapour protection	EN 14387

Environmental exposure controls:

Avoid formation of vapours. Prevent entry to sewers and public waters.

Other information:

Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid

Molecular mass : 112.21 g/mol

Colour : Yellow-orange.

Odour : ethereal.

Odour threshold : No data available pH : No data available Relative evaporation rate (butylacetate=1) : No data available Melting point : No data available Freezing point : No data available : No data available

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: No data available Boiling point Flash point : -19 °C closed cup : No data available Auto-ignition temperature Decomposition temperature No data available Flammability (solid, gas) : No data available Vapour pressure : No data available Relative vapour density at 20 °C : No data available Relative density : 0.929 g/ml at 25.C

: Reacts with water. Soluble in ether. Solubility Log Pow · No data available Viscosity, kinematic : No data available Viscosity, dynamic No data available Explosive properties No data available Oxidising properties : No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Explosive limits

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

10.2. Chemical stability

Stable under recommended handling and storage conditions (see section 7).

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

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

: No data available

10.5. Incompatible materials

water. Oxidising agents.

10.6. Hazardous decomposition products

Thermal decomposition generates: Toxic fumes.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified Acute toxicity (dermal) : Not classified Acute toxicity (inhalation) : Not classified

POTASSIUM T-BUTOXIDE (865-47-4)

LD50 oral rat 690 mg/kg

Tetrahydrofuran (109-99-9)	
LD50 oral rat	1650 mg/kg
LD50 dermal rat	> 2000 mg/kg
LC50 inhalation rat (mg/l)	14.7 mg/l 6h
Skin correction/irritation	· Causes sovers akin hurns and ave demage

Skin corrosion/irritation : Causes severe skin burns and eye damage. Serious eye damage/irritation : Serious eye damage, category 1, implicit

Respiratory or skin sensitisation : Not classified

Additional information : Based on available data, the classification criteria are not met

Germ cell mutagenicity : Not classified

Additional information : Based on available data, the classification criteria are not met

Carcinogenicity : Suspected of causing cancer.

Reproductive toxicity Not classified

Additional information : Based on available data, the classification criteria are not met

STOT-single exposure : May cause respiratory irritation.

STOT-repeated exposure : Not classified

Additional information : Based on available data, the classification criteria are not met

Aspiration hazard : Not classified

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Additional information : Based on available data, the classification criteria are not met

Potential adverse human health effects and : Based on available data, the classification criteria are not met.

symptoms

SECTION 12: Ecological information

12.1. Toxicity Acute aquatic toxicity : Not classified Chronic aquatic toxicity : Not classified

Tetrahydrofuran (109-99-9)	
LC50 fish 1	2160 mg/l Pimephales promelas (fathead marrow)
EC50 Daphnia 1	382 mg/l 24h

12.2. Persistence and degradability

Potassium tert-butoxide, pure, 1.6-1.7M (20 wt.%) solution in THF (865-47-4)

Persistence and degradability Biodegradable.

POTASSIUM T-BUTOXIDE (865-47-4)

Persistence and degradability Biodegradable.

Tetrahydrofuran (109-99-9)

Persistence and degradability Not biodegradable.

12.3. Bioaccumulative potential

Potassium tert-butoxide, pure, 1.6-1.7M (20 wt.%) solution in THF (865-47-4)

Bioaccumulative potential No data available

POTASSIUM T-BUTOXIDE (865-47-4)

Bioaccumulative potential No bioaccumulation data available.

Tetrahydrofuran (109-99-9)

Log Pow	0.46
Bioaccumulative potential	Not potentially bioaccumulable.

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

Potassium tert-butoxide, pure, 1.6-1.7M (20 wt.%) solution in THF (865-47-4)

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII

This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

Component

Tetrahydrofuran (109-99-9)

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII
This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

12.6. Other adverse effects

Additional information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product/Packaging disposal recommendations : Dispose of contents/container to hazardous or special waste collection point, in accordance

with local, regional, national and/or international regulation.

Additional information : Handle empty containers with care because residual vapours are flammable.

Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

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

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ADR	IMDG	IATA	ADN	RID	
14.1. UN number					
2924	2924	2924	2924	2924	
14.2. UN proper shipping	g name				
FLAMMABLE LIQUID, CORROSIVE, N.O.S.	FLAMMABLE LIQUID, CORROSIVE, N.O.S.	Flammable liquid, corrosive, n.o.s.	FLAMMABLE LIQUID, CORROSIVE, N.O.S.	FLAMMABLE LIQUID, CORROSIVE, N.O.S.	
Transport document descri	ption				
UN 2924 FLAMMABLE LIQUID, CORROSIVE, N.O.S. (Potassium tert- butoxide, pure, 1.6-1.7M (20 wt.%) solution in THF), 3 (8), II, (D/E)	UN 2924 FLAMMABLE LIQUID, CORROSIVE, N.O.S. (Potassium tert- butoxide, pure, 1.6-1.7M (20 wt.%) solution in THF), 3 (8), II	UN 2924 Flammable liquid, corrosive, n.o.s. (Potassium tert-butoxide, pure, 1.6-1.7M (20 wt.%) solution in THF), 3 (8), II	UN 2924 FLAMMABLE LIQUID, CORROSIVE, N.O.S. (Potassium tert- butoxide, pure, 1.6-1.7M (20 wt.%) solution in THF), 3 (8), II	UN 2924 FLAMMABLE LIQUID, CORROSIVE, N.O.S. (Potassium tert- butoxide, pure, 1.6-1.7M (20 wt.%) solution in THF), 3 (8), II	
14.3. Transport hazard c	lass(es)				
3 (8)	3 (8)	3 (8)	3 (8)	3 (8)	
3				3	
14.4. Packing group	14.4. Packing group				
II	II	II	II	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	
No supplementary informatio	n available				

14.6. Special precautions for user

Overland transport

: FC Classification code (ADR) Special provisions (ADR) : 274 Limited quantities (ADR) : 11 Excepted quantities (ADR) : E2

Packing instructions (ADR) : P001, IBC02 Mixed packing provisions (ADR) : MP19 Portable tank and bulk container instructions : T11

(ADR)

Portable tank and bulk container special provisions : TP2, TP27

(ADR)

Tank code (ADR) : L4BH Vehicle for tank carriage : FL Transport category (ADR) : 2 Special provisions for carriage - Operation (ADR) : S2, S20

Hazard identification number (Kemler No.) : 338

Orange plates

: D/E Tunnel restriction code (ADR) EAC code : •3WE APP code : A(fl)

Transport by sea

Special provisions (IMDG) : 274 Packing instructions (IMDG) : P001 IBC packing instructions (IMDG) : IBC02

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Tank instructions (IMDG) : T11

Tank special provisions (IMDG) : TP2, TP27

EmS-No. (Fire) : F-E

EmS-No. (Spillage) : S-C

Stowage category (IMDG) : B

Stowage and handling (IMDG) : SW2

Properties and observations (IMDG) : Causes burns to skin, eyes and mucous membranes.

Air transport

PCA Excepted quantities (IATA) : E2 PCA Limited quantities (IATA) : Y340 PCA limited quantity max net quantity (IATA) : 0.5L PCA packing instructions (IATA) : 352 PCA max net quantity (IATA) : 1L CAO packing instructions (IATA) . 363 CAO max net quantity (IATA) : 5L Special provisions (IATA) : A3, A803 ERG code (IATA) : 3CH

Inland waterway transport

Classification code (ADN) : FC
Special provisions (ADN) : 274
Limited quantities (ADN) : 1 L
Excepted quantities (ADN) : E2
Carriage permitted (ADN) : T

Equipment required (ADN) : PP, EP, EX, A

Ventilation (ADN) : VE01 Number of blue cones/lights (ADN) : 1

Rail transport

Classification code (RID) : FC
Special provisions (RID) : 274
Limited quantities (RID) : 1L
Excepted quantities (RID) : E2

Packing instructions (RID) : P001, IBC02
Mixed packing provisions (RID) : MP19
Portable tank and bulk container instructions (RID) : T11
Portable tank and bulk container special provisions : TP2, TP27

(RID)

Tank codes for RID tanks (RID): L4BHTransport category (RID): 2Colis express (express parcels) (RID): CE7Hazard identification number (RID): 338

14.7. Transport in bulk according to Annex II of Marpol 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

Contains no REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

Directive 2012/18/EU (SEVESO III)

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No chemical safety assessment has been carried out for the substance or the mixture by the supplier

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SECTION 16: Other information

Data sources : 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, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

Other information : None.

Full text of H- and EUH-statements	
Carc. 2	Carcinogenicity, Category 2
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Flam. Liq. 2	Flammable liquids, Category 2
Flam. Sol. 1	Flammable solids, Category 1
Self-heat. 2	Self-Heating Substances and Mixtures, Category 2
Skin Corr. 1A	Skin corrosion/irritation, Category 1A
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation
H225	Highly flammable liquid and vapour.
H228	Flammable solid.
H252	Self-heating in large quantities; may catch fire.
H314	Causes severe skin burns and eye damage.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H351	Suspected of causing cancer.

SDS EU (REACH Annex II)

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

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