



ACCORDING TO EC-REGULATIONS 1907/2006 (REACH), 1272/2008 (CLP) & 2015/830

1. SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

Product Name	Tetrahydrofuran
Trade Name	Not known.
Product code	Not known.
CAS No.	109-99-9
EC No.	Not applicable.
REACH Registration No.	01-2119444314-46

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

Identified Use(s)	Not known.
Uses Advised Against	Not known.

1.3 Details of the supplier of the safety data sheet

Manufacturer	
Company Identification	Rathburn Chemicals Ltd
Address of Manufacturer	6 Caberston Road Walkerburn Peeblesshire Scotland EH43 6AU
Postal code	EH43 6AU
Telephone:	00 (44) (0) 1 896 870 651
Fax	00 (44) (0) 1 896 870 633
E-mail	sales@rathburn.co.uk
Office hours	09.00-17.00

Supplier	
Company Identification	Rathburn Chemicals Ltd
Address of Supplier	6 Caberston Road Walkerburn Peeblesshire Scotland EH43 6AU
Postal code	EH43 6AU
Telephone:	00 (44) (0) 1 896 870 651
Fax	00 (44) (0) 1 896 870 633
E-mail	sales@rathburn.co.uk
Office hours	09.00-17.00

1.4 Emergency telephone number

Emergency Phone No.	00 (44) (0) 1 896 870 651
Contact	No information available.

2. SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Regulation (EC) No. 1272/2008 (CLP)	Eye Irrit. 2A : Causes serious eye irritation. Flam. Liq. 2 : Highly flammable liquid and vapour.
-------------------------------------	--

2.2 Label elements

Product Name	According to Regulation (EC) No. 1272/2008 (CLP) Tetrahydrofuran
--------------	---



Hazard Pictogram(s)



GHS02



GHS07

Signal Word(s)

Danger

Hazard Statement(s)

H225: Highly flammable liquid and vapour.
 H319: Causes serious eye irritation.
 EUH019: May form explosive peroxides.

Precautionary Statement(s)

None.

2.3 Other hazards

Not known.

2.4 Additional Information

For full text of H/P Statements see section 16.

3. SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

HAZARDOUS INGREDIENT(S)	CAS No.	EC No. REACH Registration No.	%W/W Hazard Statement(s)	Hazard Pictogram(s)
Tetrahydrofuran	109-99-9	203-726-8 01-2119444314-46	100 Flam. Liq. 2 Eye Irrit. 2 STOT SE 3	H225 GHS02 H319 GHS07 H335

3.2 Mixtures

Not applicable.

4. SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

Inhalation	If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
Skin Contact	Wash skin with water.
Eye Contact	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
Ingestion	Wash out mouth with water.

4.2 Most important symptoms and effects, both acute and delayed

May cause irritation.

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

5. SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable Extinguishing media As appropriate for surrounding fire.

Unsuitable extinguishing media Water jet spray

5.2 Special hazards arising from the substance or mixture

May decompose in a fire, giving off toxic and irritant vapours.

5.3 Advice for fire-fighters



Fire fighters should wear complete protective clothing including self-contained breathing apparatus. If it is safe to do so, containers should be removed from fire area because they are likely to rupture under fire conditions.

6. SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Provide adequate ventilation. Use non-sparking ventilation systems, approved explosion-proof equipment, and intrinsically safe electrical systems. Wear suitable protective clothing, gloves and eye/face protection.

6.2 Environmental precautions

Do not allow to enter drains, sewers or watercourses.

6.3 Methods and material for containment and cleaning up

Sweep up spilled substance and remove to safe place. Use vacuum equipment for collecting spilt materials, where practicable. Containers must not be punctured or destroyed by burning, even when empty.

6.4 Reference to other sections

See Also Section 8, 13.

7. SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Wash hands and exposed skin thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep container tightly closed. Use explosion-proof electrical/ventilating/lighting/equipment. Use only non-sparking tools. Take precautionary measures against static discharge.

7.2 Conditions for safe storage, including any incompatibilities

Store in a well-ventilated place. Keep cool.

Storage temperature

Storage life

Stable under normal conditions.

Incompatible materials

None known.

7.3 Specific end use(s)

Not known.

8. SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Occupational Exposure Limits

Occupational Exposure Limits

SUBSTANCE.	CAS No.	LTEL (8 hr TWA ppm)	LTEL (8 hr TWA mg/m ³)	STEL (ppm)	STEL (mg/m ³)	Note
Tetrahydrofuran	109-99-9	50	150	100	300	Sk
Tetrahydrofuran	109-99-9	50	150	100	300	IOELV, Skin

Remark

Footnote

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.

IOELV

IOELV: Indicative Occupational Exposure Limit Value

Skin

The possibility of significant uptake through the skin.



8.2 Exposure controls

Appropriate engineering controls Use non-sparking ventilation systems, approved explosion-proof equipment, and intrinsically safe electrical systems. Ensure adequate ventilation. A washing facility/water for eye and skin cleaning purposes should be present.

Personal protection equipment



Eye Protection

Wear eye protection with side protection (EN166).



Skin protection

Wear protective clothing and gloves: Impervious gloves (EN 374).



Respiratory protection

Normally no personal respiratory protection is necessary.

Thermal hazards

None known.

Environmental Exposure Controls Avoid release to the environment.

9. SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance	Liquid.
Colour	Colour : <w:r><w:t>Colourless</w:t></w:r><w:r><w:t> </w:t></w:r>
Odour	Not known.
Odour threshold	Not known.
pH	Not known.
Melting point/freezing point	-108C
Initial boiling point and boiling range	66C
Flash Point	-20C
Evaporation rate	Not known.
Flammability (solid, gas)	Not known.
Upper/lower flammability or explosive limits	Not known.
Vapour pressure	Not known.
Vapour density	Not known.
Density (g/ml)	0.89g/ml
Relative density	Not known.
Solubility(ies)	Solubility (Water) : Completely soluble in water. Solubility (Other) : Not known.
Partition coefficient: n-octanol/water	Not known.
Auto-ignition temperature	Not known.
Decomposition Temperature (°C)	Not known.
Viscosity	Not known.
Explosive properties	Not known.
Oxidising properties	Not known.
9.2 Other information	Not known.

10. SECTION 10: STABILITY AND REACTIVITY



Reactivity	None anticipated.
Chemical Stability	Stable under normal conditions.
Possibility of hazardous reactions	No hazardous reactions known if used for its intended purpose.
Conditions to avoid	Avoid friction, sparks, or other means of ignition.
Incompatible materials	Not known.
Hazardous decomposition product(s)	None known.

11. SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity - Ingestion	Low acute toxicity
Acute toxicity - Skin Contact	Low acute toxicity
Acute toxicity - Inhalation	Low acute toxicity
Skin corrosion/irritation	Non-irritant
Serious eye damage/irritation	Self classification: Causes serious eye irritation.
Skin sensitization data	Not classified
Respiratory sensitization data	Self classification: H335: May cause respiratory irritation.
Germ cell mutagenicity	There is no evidence of mutagenic potential.
Carcinogenicity	No evidence of carcinogenicity.
Reproductive toxicity	Not classified
Lactation	Not classified
STOT - single exposure	Not classified
STOT - repeated exposure	Not classified
Aspiration hazard	Not classified

11.2 Other information

Not known.

12. SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

Toxicity - Aquatic invertebrates	Low toxicity to invertebrates.
Toxicity - Fish	Low toxicity to fish.
Toxicity - Algae	Low toxicity to algae.
Toxicity - Sediment Compartment	Not classified.
Toxicity - Terrestrial Compartment	Not classified.
12.2. Persistence and Degradation	Not known.
12.3. Bioaccumulative potential	Not known.
12.4. Mobility in soil	Not known.
12.5. Results of PBT and vPvB assessment	Not known.
12.6 Other adverse effects	Not known.

Not known.

13. SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Dispose of contents in accordance with local, state or national legislation. Recycle only completely emptied packaging. Containers must not be punctured or destroyed by burning, even when empty. Do not allow to enter drains, sewers or watercourses. Do NOT landfill. Normal disposal is via incineration operated by an accredited disposal contractor. Send to a licensed recycler, reclaimer or incinerator.

13.2 Additional Information

Disposal should be in accordance with local, state or national legislation.



14. SECTION 14: TRANSPORT INFORMATION

14.1 UN number	
UN No.	2056
14.2 UN proper shipping name	
UN proper shipping name	TETRAHYDROFURAN
14.3 Transport hazard class(es)	
ADR/RID Class	3
IMDG Class	3
IMDG EMS	Not available
ICAO/IATA	
Excepted Quantities	E2
Passenger and Cargo Aircraft	Y341
Limited Quantities Packing	
Instructions	
Passenger and Cargo Aircraft	1L
Limited Quantities Max net Qty	
Passenger and Cargo Aircraft	353
Packing Instructions	
Passenger and Cargo Aircraft	5L
Max net Qty	
Cargo Aircraft Packing	364
Instructions	
Cargo Aircraft Max net Qty	60L
Special Provisions	Not applicable
Emergency Response	3H
Guidebook (ERG) Code	
ADR Classification Code	F1
ADR HIN	33
ADR Transport Category	2
Tunnel Restriction Code	D/E
Emergency Action Code	•2YE
Advice on Additional Personal	Not applicable
Protection (APP)	
14.4 Packing group	
Packing group	II
Labels	3



Special Provisions	Not applicable
Limited Quantities	1 L
Excepted Quantities	E2
Mixed Packing Instructions for	P001 IBC02 R001
Packages	
Special Packing Provisions for	Not applicable
Packages	
Mixed Packing Instructions for	MP19
Packages	
14.5 Environmental hazards	
Environmental hazards	Not known.
14.6 Special precautions for user	
Special precautions for user	Not known.



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

Packing Instructions for Portable Tanks T4

Tanks

Special Provisions for Portable Tanks TP1

Tanks

Tank Code for Tanks LGBF

Special Provisions for Tanks Not applicable

Vehicle for Tank Carriage FL

Special Provisions for Carriage - Packages Not applicable

Packages

Special Provisions for Carriage - Bulk Not applicable

Bulk

Special Provisions for Carriage - Loading, Unloading and Handling Not applicable

Special Provisions for Carriage - Operation S2 S20

Special Provisions for Carriage - Operation

15. SECTION 15: REGULATORY INFORMATION

15.1 European Regulations

Authorisations and/or Restrictions On Use

Candidate List of Substances of Very High Concern for Authorisation All chemicals are not listed

Authorisation

REACH: ANNEX XIV list of substances subject to authorisation All chemicals are not listed

REACH: Annex XVII Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles All chemicals are not listed

Community Rolling Action Plan (CoRAP) Tetrahydrofuran (109-99-9)

Regulation (EC) N° 850/2004 of the European Parliament and of the Council on persistent organic pollutants Not listed

Regulation (EC) N° 2037/2000 on substances that deplete the ozone layer Not listed

Regulation (EU) N° 649/2012 of the European Parliament and of the Council concerning the export and import of hazardous chemicals Not listed

15.2 National regulations

Other Not known.

16. SECTION 16: OTHER INFORMATION

The following sections contain revisions or new statements:

LEGEND

Hazard Pictogram(s)



GHS02



GHS07

Hazard Statement(s)

H225: Highly flammable liquid and vapour.
 H319: Causes serious eye irritation.
 EUH019: May form explosive peroxides.

Precautionary Statement(s)

P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 P233: Keep container tightly closed.
 P240: Ground/bond container and receiving equipment.
 P241: Use explosion-proof electrical/ventilating/lighting/equipment.
 P242: Use only non-sparking tools.
 P243: Take precautionary measures against static discharge.
 P264: Wash hands and exposed skin thoroughly after handling.
 P280: Wear protective gloves/protective clothing/eye protection/face protection.
 P303+P361+P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
 P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P337+P313: If eye irritation persists: Get medical advice/attention.
 P370+P378: In case of fire: Use water to extinguish.
 P403+P235: Store in a well-ventilated place. Keep cool.
 P501: Dispose of contents in accordance with local, state or national legislation.

Disclaimers

Information contained in this publication or as otherwise supplied to Users is believed to be accurate and is given in good faith, but it is for the Users to satisfy themselves of the suitability of the product for their own particular purpose. Rathburn Chemicals Ltd gives no warranty as to the fitness of the product for any particular purpose and any implied warranty or condition (statutory or otherwise) is excluded except to the extent that exclusion is prevented by law. Rathburn Chemicals Ltd accepts no liability for loss or damage (other than that arising from death or personal injury caused by defective product, if proved), resulting from reliance on this information. Freedom under Patents, Copyright and Designs cannot be assumed.