



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 Butanols
 CAS No. 71-36-3
 EC No. 200-751-6
 REACH Registration No.

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
 Postal code EH43 6AU
 Telephone: 00 (44) (0) 1 896 870 651
 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
 Postal code EH43 6AU
 Telephone: 00 (44) (0) 1 896 870 651
 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 or 07807 520501
 Contact Roddy Stoddart

2. SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Regulation (EC) No. 1272/2008 (CLP) Acute Tox. 4 :Harmful if swallowed.
 Eye Dam. 1 :Causes serious eye damage.
 Flam. Liq. 3 :Flammable liquid and vapour.
 Skin Irrit. 2 :Causes skin irritation.
 STOT SE 3 :May cause respiratory irritation. May cause drowsiness or dizziness.

2.2 Label elements

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

Hazard Pictogram(s)



GHS02



GHS05



GHS07

Signal Word(s)

Danger

Hazard Statement(s)

H226: Flammable liquid and vapour.
 H302: Harmful if swallowed.
 H315: Causes skin irritation.



H318: Causes serious eye damage.
 H335: May cause respiratory irritation.
 H336: May cause drowsiness or dizziness.

Precautionary Statement(s) P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 P280: Wear eye protection/ face protection.
 P301 + P312 + P330: IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. Rinse mouth.
 P304 + P340 + P312: IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell.
 P305 + P351 + P338 + P310: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.
 P403 + P235: Store in a well-ventilated place. Keep cool.

2.3 Other hazards None 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)
butan-1-ol n-butanol	71-36-3	200-751-6	100	Flam. Liq. 3 H226 Acute Tox. 4 H302 Skin Irrit. 2 H315 Eye Dam. 1 H318 STOT SE 3 H335 STOT SE 3 H336	GHS02 GHS07 GHS05

3.2 Mixtures Not applicable.

4. SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures
 Inhalation Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell.
 Skin Contact Take off contaminated clothing and wash it before reuse. If skin irritation occurs: Get medical advice/attention. Specific treatment (see Medical Advice on this label). Take off immediately all contaminated clothing. Rinse skin with water/shower.
 Eye Contact Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.
 Ingestion Rinse mouth. Immediately call a POISON CENTER/doctor.

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

4.3 Indication of any immediate medical attention and special treatment needed Specific treatment (see Medical Advice on this label). Immediately call a POISON CENTER/doctor. Treat symptomatically.

5. SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media
 Suitable Extinguishing media In case of fire, use: Foam, {CO\SUB 2\NOSUPERSUB } or dry powder.
 Unsuitable extinguishing media Water jet spray

5.2 Special hazards arising from the substance or mixture Flammable liquid and vapour. Combustion or thermal decomposition will evolve toxic and irritant vapours.

5.3 Advice for firefighters



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
Spillages or uncontrolled discharges into watercourses must be alerted to the appropriate regulatory body.
- 6.3 Methods and material for containment and cleaning up
Adsorb spillages onto sand, earth or any suitable adsorbent material. 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
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. Wear protective gloves/protective clothing/eye protection/face protection. Wash hands and exposed skin thoroughly after handling. Do not eat, drink or smoke when using this product. Avoid breathing dust/fume/gas/mist/vapours/spray. Use only outdoors or in a well-ventilated area.
- 7.2 Conditions for safe storage, including any incompatibilities
Store in a well-ventilated place. Keep cool. Keep container tightly closed. Store locked up.
- Storage temperature
Ambient.
- 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
8.1.1 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
Butan-1-ol	71-36-3			50	154	Sk

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.

- 8.2 Exposure controls
8.2.1. Appropriate engineering controls
Use non-sparking ventilation systems, approved explosion-proof equipment, and intrinsically safe electrical systems. Use with ventilation, local exhaust ventilation or breathing protection. A washing facility/water for eye and skin cleaning purposes should be present.
- 8.2.2. 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

A suitable mask with filter type A (EN14387 or EN405) may be appropriate.

Thermal hazards

None known.

8.2.3. 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.
Odour	Colour : Colourless
Odour threshold	specific
pH	Not known.
Melting point/freezing point	-89.5c
Initial boiling point and boiling range	117c
Flash Point	30c
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)	0.81g/ml
Relative density	Not known.
Solubility(ies)	Solubility (Water) : Not known.
	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	None.

10. SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity	None anticipated.
10.2 Chemical Stability	Stable under normal conditions.
10.3 Possibility of hazardous reactions	No hazardous reactions known if used for its intended purpose.
10.4 Conditions to avoid	Avoid friction, sparks, or other means of ignition.
10.5 Incompatible materials	Not known.
10.6 Hazardous decomposition products	No hazardous decomposition products known.



11. SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity - Ingestion	Harmful if swallowed.
Acute toxicity - Skin Contact	Low acute toxicity
Acute toxicity - Inhalation	Low acute toxicity
Skin corrosion/irritation	Causes skin irritation.
Serious eye damage/irritation	Causes serious eye damage.
Skin sensitization data	Not classified
Respiratory sensitization data	Not classified
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	May cause respiratory irritation. May cause drowsiness or dizziness.
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.

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. Dispose of this material and its container to hazardous or special waste collection point.

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. 1120

14.2 UN proper shipping name

UN proper shipping name BUTANOLS

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 Limited	Y341
Quantities Packing Instructions	
Passenger and Cargo Aircraft Limited	1L
Quantities Max net Qty	
Passenger and Cargo Aircraft Packing	353
Instructions	
Passenger and Cargo Aircraft Max net	5L
Qty	
Cargo Aircraft Packing Instructions	364
Cargo Aircraft Max net Qty	60L
Special Provisions	A3
Emergency Response Guidebook (ERG)	3L
Code	
ADR Classification Code	F1
ADR HIN	33
ADR Transport Category	2
Tunnel Restriction Code	D/E
Emergency Action Code	•2YE
APP 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 Packages	P001 IBC02 R001
Special Packing Provisions for Packages	Not applicable
Mixed Packing Instructions for Packages	MP19
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 and the IBC Code	
Packing Instructions for Portable Tanks	T4
Special Provisions for Portable Tanks	TP1 TP29
Tank Code for Tanks	LGBF
Special Provisions for Tanks	Not applicable
Vehicle for Tank Carriage	FL
Special Provisions for Carriage -	Not applicable
Packages	
Special Provisions for Carriage - Bulk	Not applicable
Special Provisions for Carriage - Loading,	Not applicable
Unloading and Handling	
Special Provisions for Carriage -	S2 S20
Operation	

15. SECTION 15: REGULATORY INFORMATION

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

European Regulations - Authorisations and/or Restrictions On Use

Candidate List of Substances of Very High Concern for Authorisation Not listed

REACH: ANNEX XIV list of substances subject to authorisation Not listed

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

Community Rolling Action Plan (CoRAP) Not listed



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
National regulations	
Other	Not known.
15.2 Chemical Safety Assessment	A REACH chemical safety assessment has not been carried out.

16. SECTION 16: OTHER INFORMATION

The following sections contain revisions or new statements:

LEGEND

Hazard Pictogram(s)



GHS02



GHS05



GHS07

Hazard Statement(s)

H226: Flammable liquid and vapour.
 H302: Harmful if swallowed.
 H315: Causes skin irritation.
 H318: Causes serious eye damage.
 H335: May cause respiratory irritation.
 H336: May cause drowsiness or dizziness.

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.
 P261: Avoid breathing dust/fume/gas/mist/vapours/spray.
 P264: Wash hands and exposed skin thoroughly after handling.
 P270: Do not eat, drink or smoke when using this product.
 P271: Use only outdoors or in a well-ventilated area.
 P280: Wear protective gloves/protective clothing/eye protection/face protection.
 P301+P312: IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
 P302+P352: IF ON SKIN: Wash with plenty of water.
 P303+P361+P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/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.
 P310: Immediately call a POISON CENTER/doctor.
 P312: Call a POISON CENTER/doctor if you feel unwell.
 P321: Specific treatment (see Medical Advice on this label).
 P330: Rinse mouth.
 P332+P313: If skin irritation occurs: Get medical advice/attention.



P362+P364: Take off contaminated clothing and wash it before reuse.
P370+P378: In case of fire: Use water to extinguish.
P403+P233: Store in a well-ventilated place. Keep container tightly closed.
P403+P235: Store in a well-ventilated place. Keep cool.
P405: Store locked up.
P501: Dispose of contents in accordance with local, state or national legislation.

Disclaimers

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