

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

1.1. Product identifier

Product name: BUTAN-1-OL

CAS number: 71-36-3

EINECS number: 200-751-6

Index number: 603-004-00-6

Product code: A66552

Synonyms: BUTYRIC ALCOHOL

N-BUTYL ALCOHOL

N-BUTANOL

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

Use of substance / mixture: Laboratory Chemicals, Manufacture of Substances.

1.3. Details of the supplier of the safety data sheet

Company name: PHILIP HARRIS

2 Gregory Street

Hyde

Cheshire

SK14 4HR

United Kingdom

Tel: +44 (0)845 1200 506

Fax: +44 (0)161 367 2140

Email: enquiries@philipharris.co.uk

1.4. Emergency telephone number

Emergency tel: +44 (0) 845 1200 506

Section 2: Hazards identification

2.1. Classification of the substance or mixture

Classification under CHIP: -: R10; Xn: R22

Classification under CLP: STOT SE 3: H336; Acute Tox. 4: H302; Eye Dam. 1: H318; Flam. Liq. 3: H226; Skin Irrit. 2: H315; STOT SE 3: H335

Most important adverse effects: Flammable. Harmful if swallowed.

2.2. Label elements

Label elements:

Hazard statements: H226: Flammable liquid and vapour.

H302: Harmful if swallowed.

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H315: Causes skin irritation.

H318: Causes serious eye damage.

H336: May cause drowsiness or dizziness.

H335: May cause respiratory irritation.

Signal words: Danger

Hazard pictograms: GHS02: Flame

GHS05: Corrosion

GHS07: Exclamation mark



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

P241: Use explosion-proof electrical/ventilating/lighting/.. equipment.

P280: Wear protective gloves/protective clothing/eye protection/face protection.

P301+312: IF SWALLOWED: Call a POISON CENTER/doctor/ if you feel unwell.

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

P303+361+353: IF ON SKIN (or hair): Take off immediately all contaminated clothing.

Rinse skin with water/shower.

Label elements under CHIP:

Hazard symbols: Harmful.



Risk phrases: R10: Flammable.

R22: Harmful if swallowed.

2.3. Other hazards

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

Section 3: Composition/information on ingredients

3.1. Substances

Chemical identity: BUTAN-1-OL

CAS number: 71-36-3

EINECS number: 200-751-6

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. Consult a doctor.

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

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Ingestion: Wash out mouth with water. Do not induce vomiting. If conscious, give half a litre of water to drink immediately. Transfer to hospital as soon as possible.

Inhalation: Remove casualty from exposure ensuring one's own safety whilst doing so. If breathing is irregular or stopped, administer artificial respiration. Consult a doctor.

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

Skin contact: There may be irritation and redness at the site of contact.

Eye contact: There may be pain and redness. The eyes may water profusely. There may be severe pain. The vision may become blurred. 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: The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

Section 5: Fire-fighting measures

5.1. Extinguishing media

Extinguishing media: Suitable extinguishing media for the surrounding fire should be used. CO₂, extinguishing powder or water jet. Fight larger fires with water jet or alcohol-resistant foam. Use water spray to cool containers.

5.2. Special hazards arising from the substance or mixture

Exposure hazards: In combustion emits toxic fumes. In combustion emits toxic fumes of carbon dioxide / carbon monoxide. Flash back possible over considerable distance.

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: Mark out the contaminated area with signs and prevent access to unauthorised personnel. Do not attempt to take action without suitable protective clothing - see section 8 of SDS. Turn leaking containers leak-side up to prevent the escape of liquid. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas. Refer to section 8 of SDS for personal protection details.

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6.2. Environmental precautions

Environmental precautions: Do not discharge into drains or rivers. Discharge into the environment must be avoided.
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. Contain spillage, and then collect with an electronically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13).

6.4. Reference to other sections

Reference to other sections: Refer to section 8 of SDS. Refer to section 13 of SDS.

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.
Avoid the formation or spread of mists in the air.

7.2. Conditions for safe storage, including any incompatibilities

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

7.3. Specific end use(s)

Specific end use(s): Apart from uses mentioned in section 1.2 no other specific uses are stipulated.

Section 8: Exposure controls/personal protection

8.1. Control parameters

Workplace exposure limits:

State	Respirable dust			
	8 hour TWA	15 min. STEL	8 hour TWA	15 min. STEL
UK	-	154 mg/m ³	-	-

Hazardous ingredients:

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Workplace exposure limits:

State	Respirable dust			
	8 hour TWA	15 min. STEL	8 hour TWA	15 min. STEL
UK	-	154 mg/m ³	-	-

DNEL/PNEC Values

DNEL / PNEC No data available.

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8.2. Exposure controls

Engineering measures: Ensure there is sufficient ventilation of the area. Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Respiratory protection: Where risk assessment shows air-purifying respirators are appropriate use a full face respirator with multi purpose combination (US) or type AXBEK (EN14387 respirator cartridges as a back up to engineering controls. Self-contained breathing apparatus must be available in case of emergency.

Hand protection: Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching the gloves outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use.

Wash and dry hands. Full contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Material tested: Dermatril® (KCL 740 / Aldrich Z677272, Size M) Splash contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Material tested: Dermatril® (KCL 740 / Aldrich Z677272, Size M)

Eye protection: Tightly fitting safety goggles. Faceshield (8-inch minimum). Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN166(EU). Ensure eye bath is to hand.

Skin protection: Protective clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Environmental: Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

Section 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

State: Liquid

Colour: Colourless

Odour: No data available

Evaporation rate: No data available.

Oxidising: No data available.

Solubility in water: No data available.

Viscosity: No data available.

Boiling point/range°C: 117.6

Melting point/range°C: -89

Flammability limits %: lower: No data available.

upper: No data available.

Flash point°C: 23 - 60

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Autoflammability°C: 340

Relative density: No data available.

VOC g/l: No data available.

Part.coeff. n-octanol/water: 0.88 (20OC)

Vapour pressure: No data available.

pH: No data available.

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: Exposure to moisture. Heat. Sparks Flames.

10.5. Incompatible materials

Materials to avoid: Strong oxidising agents. Strong acids. Alkali metals. Bases. Halogens.

10.6. Hazardous decomposition products

Haz. decomp. products: In combustion emits toxic fumes.

Section 11: Toxicological information

11.1. Information on toxicological effects

Toxicity values:

Route	Species	Test	Value	Units
ORL	RAT	LD50	790	mg/kg
ORL	MUS	LD50	2680	mg/kg
IVN	RAT	LD50	310	mg/kg

Hazardous ingredients:

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IVN	RAT	LD50	310	mg/kg
ORL	MUS	LD50	2680	mg/kg

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ORL	RAT	LD50	790	mg/kg
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Relevant hazards for substance:

Hazard	Route	Basis
Acute toxicity (ac. tox. 4)	ING	Hazardous: calculated
Skin corrosion/irritation	DRM	Hazardous: calculated
Serious eye damage/irritation	OPT	Hazardous: calculated
STOT-single exposure	INH	Hazardous: calculated

Symptoms / routes of exposure

Skin contact: There may be irritation and redness at the site of contact.

Eye contact: There may be pain and redness. The eyes may water profusely. There may be severe pain. The vision may become blurred. 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:

Species	Test	Value	Units
FISH	96H LC50	1840	mg/l
DAPHNIA	48H EC50	1983	mg/l

Hazardous ingredients:

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DAPHNIA	48H EC50	1983	mg/l
FISH	96H LC50	1840	mg/l

12.2. Persistence and degradability

Persistence and degradability: Biodegradable.

12.3. Bioaccumulative potential

Bioaccumulative potential: No bioaccumulation potential.

12.4. Mobility in soil

Mobility: Readily absorbed into soil.

12.5. Results of PBT and vPvB assessment

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

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12.6. Other adverse effects

Other adverse effects: Negligible ecotoxicity.

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: Arrange for collection by specialised disposal company.

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

Section 14: Transport information

14.1. UN number

UN number: UN1120

14.2. UN proper shipping name

Shipping name: BUTANOLS

14.3. Transport hazard class(es)

Transport class: 3

14.4. Packing group

Packing group: II

14.5. Environmental hazards

Environmentally hazardous: No

Marine pollutant: No

14.6. Special precautions for user

Special precautions: No special precautions.

Tunnel code: D/E

Transport category: 2

Section 15: Regulatory information

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

Specific regulations: Not applicable.

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

[cont...]

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453/2010.

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

Phrases used in s.2 and s.3: 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.

R10: Flammable.

R22: Harmful if swallowed.

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. This company shall not be held liable for any damage resulting from handling or from contact with the above product.