

SAFETY DATA SHEET

KEMAUS

BUTAN-1-OL AR

1. Identification of the substance/preparation and of the company or firm

1.1 Identification of the substance or preparation:

Catalogue no. : KA107

Product name : Butan-1-OL AR

Synonym : n-Butanol, n-Butyl alcohol

1.2 Use of the substance/preparation:

For laboratory utilisation, analysis, research and fine chemistry.

1.3 Identification of the company or firm:

Elago Enterprises Pty Ltd, 5 The Cloisters, Cherrybrook, N.S.W. 2126, Australia

Tel no. (61) 2 98998169

Fax no. (61) 2 98997976

1.4 Emergency telephone:

(61) 2 98998169 (9:00am - 5:00 pm) [Office hours]

2. Identification of dangers

2.1 Classification of the substance.

Hazard Class and Category Code(s), Regulation (EC) No 1272/2008 (CLP)

Flammable liquids, Category 3: Flammable liquid and vapour.

Acute toxicity , oral, Category 4: Harmful if swallowed.

Serious eye damage, Category 1: Causes serious eye damage.

Skin irritation, Category 2: Causes skin irritation.

Specific target organ toxicity, single exposure, Category 3: May cause respiratory irritation.

Specific target organ toxicity, single exposure, Category 3: May cause drowsiness or dizziness.

2.2 Label elements.

Hazard pictograms



Signal words : Danger.

Hazard statements (H) :

H226 : Flammable liquid and vapor.

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 statements (P) :

P233 : Keep container tightly closed.

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

P310 : Immediately call a POISON CENTER/doctor.

P301 + P312 : IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell.

P403+P233 : Store in a well-ventilated place. Keep container tightly closed.

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.

2.3 Other hazards.

None known.

3. Composition/information on ingredients

3.1 Substance / Preparation.

Butan-1-OL

Formular: $\text{CH}_3(\text{CH}_2)_3\text{OH}$

CAS No : 71-36-3

Molecular weight : 74.12

Contains no other components or impurities which will influence the classification of the product.

3.2 Mixture.

Not applicable.

4. First-aid measures

4.1 Description of first aid measures.

- Inhaling: Take the person out into the fresh air. If breathing is irregular or stops, perform artificial respiration. Seek medical assistance.
- Skin contact: Remove contaminated clothing. Wash skin with water and soap or a suitable skin cleaner.
- Eyes: Wash with plenty of water, keeping eyelids open and seek medical assistance.
- Ingestion: Rinse mouth. Never induce vomiting. Seek immediate medical attention

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

Corrosive Product, contact with eyes or skin can cause burns; ingestion or inhalation can cause internal damage. Prolonged exposure due to inhalation may cause Dizziness, Headache and Unconsciousness. Need immediate medical assistance.

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

In case of doubt or when symptoms of feeling unwell persist, get medical attention. Never administer anything orally to persons who are unconscious. Seek immediate medical advice.

5. Fire-fighting measures

5.1 Suitable extinguishing media.

Recommended extinguishing methods: Foam. Dry powder. Carbon dioxide. Water spray. Sand.

5.2 Special hazards arising from the substance.

Special risks: Under fire conditions, hazardous fumes will be present. Exposure to combustion or decomposition products can be harmful to your health.

5.3 Advice for firefighters.

Do not enter fire area without proper protective equipment, including respiratory protection. Fire protection equipment: According to the size of the fire, it may be necessary to use protective suits against the heat, individual breathing equipment, gloves, protective goggles or facemasks, and gloves.

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures.

For exposure control and individual protection measures, see section 8.

6.2 Environmental precautions.

Do not allow it to enter the drainage system. Avoid pollution of the soil, water supplies and drains.

6.3 Methods and material for containment and cleaning up.

The contaminated area should be immediately cleaned with an appropriate de-contaminator. Store away from other materials.

6.4 Reference to other sections.

For exposure control and individual protection measures, see section 8.

For later elimination of waste, follow the recommendations under section 13.

7. Handling and storage

7.1 Precautions for safe handling.

Ensure good ventilation and renewal of the air in the premises. Avoid breathing dust, fume, gas, mist, vapours, spray. Do not eat, drink or smoke when using this product. Keep the product in containers made of a material identical to the original.

7.2 Conditions for safe storage, including any incompatibilities.

Well sealed containers. Dry atmosphere. Away from sources of ignition and heat. Prevent the entry of non-authorised persons.

7.3 Specific end use(s).

None.

8. Exposure controls/personal protection

8.1 Control parameters.

The product contain substances with Professional Exposure Environmental Limit Values.

Butan-1- OL : TWA: 152 mg/m³, (50 ppm) (Worksafe Aust.)

A time weighted average (TWA) has been established for Butan-1-OL (Safe Work Australia) of 152 mg/m³. (50 ppm). The corresponding STEL level is 614 mg/m³, (250 ppm). The STEL (Short Term Exposure Limit) is an exposure value that should not be exceeded for more than 15 minutes and should not be repeated for more than 4 times per day. There should be at least 60 minutes between successive exposures at the STEL. The exposure value at the TWA is the average airborne concentration of a particular substance when calculated over a normal 8 hour working day for a 5 day working week.

The product does NOT contain substances with Biological Limit Values.

8.2 Exposure controls.

Personal protection : Avoid all unnecessary exposure.

Respiratory protection : Wear approved mask.

Hand protection : Wear protective gloves.

Eye protection : Chemical goggles or safety glasses.

Hygiene measures : Remove contaminated clothing. Wash hands before breaks and when the job is done.

9. Physical and chemical properties

9.1 Information on basic physical and chemical properties.

Appearance:	Liquid.
Colour:	Clear colourless liquid.
Odour:	Characteristic.
Odour threshold:	0.004 ppm
pH value:	7.0 (70 g/l, 20 °C)
Melting Point:	-90 °C
Boiling Point:	119 °C
Flash point:	35 °C
Flammability (solid, gas) :	No data available.
Evaporation rate :	No data available.
Vapour pressure:	< 10 hPa (20 °C).
Vapour density :	0.81 g/cm ³ (20 °C).
Lower Explosive Limit:	1.4% v/v
Upper Explosive Limit:	11.2% v/v
Solubility:	75 g/l (20 °C).
Density:	No data available.
Relative density	0.81 g/cm ³
Partition coefficient (n-octanol/water):	No data available.
Viscosity:	No data available.
Auto-ignition temperature:	No data available.
Decomposition temperature:	No data available.
Explosive properties:	No data available.
Oxidizing properties:	No data available.

9.2 Other information.

None.

10. Stability and reactivity

10.1 Reactivity.

The product does not present hazards by their reactivity.

10.2 Chemical stability.

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

10.3 Possibility of hazardous reactions.

Avoid oxidizing agents, acid and alkali metals.

10.4 Conditions to avoid.

Avoid strong heating.

10.5 Incompatible materials.

Keep away from explosives, flammable materials.

10.6 Hazardous decomposition products.

No decomposition if used for the intended uses.

11. Toxicological information

11.1 Information on toxicological effects.

Acute toxicity.	LD50 oral rat : 790 mg/kg LD50 dermal rabbit : 3400 mg/kg LC50 inhalation rat: 7500 mg/l; 8 h
Inhalation:	Based on available data, the classification criteria are not met.
Dermal:	Based on available data, the classification criteria are not met.
Ingestion:	Harmful if swallowed.
Corrosion:	Causes skin irritation.
Irritation:	Causes serious eye damage.
Sensitization:	Based on available data, the classification criteria are not met.
Mutagenicity:	Based on available data, the classification criteria are not met.
Carcinogenicity:	Based on available data, the classification criteria are not met.
Toxic for reproduction:	Based on available data, the classification criteria are not met.
STOT-single exposure:	May cause respiratory irritation. May cause drowsiness or dizziness.
STOT-repeated exposure:	Based on available data, the classification criteria are not met.
Aspiration hazard:	Based on available data, the classification criteria are not met.

12. Ecological information

12.1 Toxicity.

Toxicity to fish.

LC50 Pimephales promelas : 7376 mg/l ; 96 h

Toxicity to Aquatic invertebrates.

EC50 Daphnia magna : 1328 mg/l ; 48 h

12.2 Persistence and Degradability.

Biodegradable.

12.3 Bioaccumulative potential.

Not established.

12.4 Mobility in soil

Not established.

12.5 Results of PBT and vPvB assessment.

The substance does not fulfil the criteria to be identified as PBT substance or vPvB substance according to Annex XIII of Regulation REACH.

12.6 Other adverse effects.

No information is available about other adverse effects for the environment.

13. Disposal considerations

13.1 Waste treatment methods.

Avoid release to the environment. Dispose in a safe manner in accordance with local/national regulations.

14. Transport information

14.1 UN number.

UN No: UN1120

14.2 UN proper shipping name.

ADR: UN 1120, BUTANOLS, 3, PG III, (D/E)

IMDG: UN 1120, BUTANOLS, 3, PG III

ICAO: UN 1120, BUTANOLS, 3, PG III

14.3 Transport hazard class(es).

Class(es): 3

14.4 Packing group.

Packing group: III

14.5 Environmental hazards.

Marine pollutant: No

14.6 Special precautions for user.

Labels: 3

Hazard number: 33

ADR LQ: 5 L

IMDG LQ: 5 L

Provisions concerning carriage in bulk ADR: Not authorized carriage in bulk in accordance with ADR.

Transport by ship, FEm – Emergency sheets (F – Fire, S - Spills): F-E,S-D

Proceed in accordance with point 6.

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

The product is not transported in bulk.

15. Regulatory information

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

Ensure all national/local regulations are observed.

The product is not affected by REACH Restrictions - Annex XVII

The product is not affected by REACH Authorisation - Annex XIV

15.2 Chemical safety assessment.

Not Scheduled.

16. Other Information

Abbreviations and acronyms :

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.

EC50: Effective concentration, 50%

IC50: Inhibitory Concentration, 50%

LC50: Lethal concentration, 50%.

LD50: Lethal dose, 50%.

IATA: International Air Transport Association.

ICAO: International Civil Aviation Organization.

IMDG: International Maritime Code for Dangerous Goods.

PBT: persistent, bioaccumulative and toxic. vPvB: very persistent and very bioaccumulative.

Sources of key data used.

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.

Review number and date.

v. 1.0

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Further information.

None.

In accordance with REACH Regulation (CE) N° 1907/2006 and with CLP Regulation (CE) N° 1272/2008

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