

## Safety Data Sheet

According to Hazardous Substances (Safety Data Sheets) Notice 2017 and Amendments under New Zealand, Hazardous Substances and New Organisms Act 1996 and Amendments.

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### BENAKOR ORAL SOLUTION

#### SECTION 1: Identification

##### Product identifier

**Product name:** BENAKOR ORAL SOLUTION

**Synonyms:** APEX BENAZEPRIL ORAL SOLUTION

##### Recommended use and restriction on use:

**Recommended use:** VETERINARY USE: For the treatment of heart failure in dogs due to mitral regurgitation (endocardiosis) and dilated cardiomyopathy. For the treatment of chronic kidney disease in dogs and cats.

**Restrictions on use:** Not for human use.

##### Manufacturer or supplier details

###### Supplier

**Dechra Veterinary Products NZ Limited**

PO Box 1604,

Paraparaumu Beach, 5252

New Zealand

Phone: 0800 479 838

Email: [info.nz@dechra.com](mailto:info.nz@dechra.com)

Website: <http://www.dechra.co.nz/>

##### Emergency telephone number:

**New Zealand**

National Poisons Centre

0800 764 766

#### SECTION 2: Hazard identification

**Not Classified as a Dangerous Good according to NZS 5433:2020 Transport of Dangerous Goods on Land.**

**Classification in accordance with the Hazardous Substances (Hazard Classification) Notice 2020 and GHS Revision 7:**

##### Hazard classification:

Not a hazardous substance or mixture

##### Label elements

**Hazard pictogram(s):** None

**Signal word:** None

**Hazard statements:** None

**Precautionary statements:** None

##### Hazards not otherwise classified:

None.

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### SECTION 3: Composition/information on ingredients

#### Mixture:

Identification	Name	Weight %
CAS number: 56-81-5	Glycerol	>40
CAS number: 57-55-6	Propylene glycol	<10
CAS number: 86541-74-4	Benazepril hydrochloride	0.42

#### Additional information:

The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret under the provisions of section 55 (7) of the HSNO Act.

### SECTION 4: First-aid measures

For advice, contact a Poisons Information Center (e.g. phone Australia 131 126, New Zealand 0800 764 766) or a doctor.

#### Description of first aid measures

##### General notes:

Show this Safety Data Sheet to the doctor in attendance.

##### After inhalation:

If inhaled, remove person to fresh air and place in a position comfortable for breathing. If respiratory symptoms develop or persist, seek medical advice/attention.

##### After skin contact:

Wash affected area with plenty of soap and water. Remove contaminated clothing and launder before reuse. If skin irritation develops or persists, seek medical advice/attention.

##### After eye contact:

Immediately rinse eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 15 minutes. If eye irritation develops or persists, seek medical advice/attention.

##### After swallowing:

If swallowed, DO NOT induce vomiting unless told to do so by a physician or poison control center. Rinse mouth with water. Never give anything by mouth to an unconscious person. If spontaneous vomiting occurs, place on the left side with head down to prevent aspiration of liquid into the lungs. If symptoms develop or persist, seek medical advice/attention.

#### Most important symptoms and effects, both acute and delayed:

##### Acute symptoms and effects:

No significant acute symptoms or effects.

##### Delayed symptoms and effects:

No significant delayed symptoms or effects.

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### Immediate medical attention and special treatment:

#### Immediate medical attention:

Not determined or not applicable.

#### Special treatment:

Not determined or not applicable.

#### Notes for the doctor:

Treat symptomatically.

## SECTION 5: Fire-fighting measures

### Extinguishing media

#### Suitable extinguishing media:

Water mist/fog, carbon dioxide, dry chemical or alcohol resistant foam.

#### Unsuitable extinguishing media:

Do not use water jet.

### Specific hazards arising from the chemical:

Thermal decomposition may produce irritating/toxic fumes/gases.

### Special protective equipment and precautions for firefighters:

#### Protective equipment:

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA).

#### Precautions:

Avoid contact with skin, eyes, hair and clothing. Do not breathe fumes/gas/mists/aerosols/vapors/dusts.

Move containers from fire area if safe to do so. Use water spray/fog for cooling fire exposed containers.

Avoid unnecessary run-off of extinguishing media which may cause pollution.

## SECTION 6: Accidental release measures

### Personal precautions, protective equipment and emergency procedures:

Evacuate unnecessary personnel. Ventilate area. Extinguish any sources of ignition. Wear recommended personal protective equipment (see Section 8). Avoid contact with skin, eyes and clothing. Avoid breathing mist, vapor, dust, fume and spray. Do not walk through spilled material. Wash thoroughly after handling.

### Environmental precautions:

Prevent further leakage or spillage if safe to do so. Prevent from reaching drains, sewers and waterways. Discharge into the environment must be avoided.

### Advice on how to contain and clean up a spill or release:

Do not touch damaged containers or spilled material unless wearing appropriate personal protective clothing. Stop leak if you can do it without risk. Contain and collect spillage and place in suitable container for future disposal. Dispose of in accordance with all applicable regulations (see Section 13).

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### SECTION 7: Handling and storage

#### Precautions for safe handling:

Use appropriate personal protective equipment (see Section 8). Use only with adequate ventilation. Avoid breathing mist/vapor/spray/dust. Do not eat, drink, smoke, or use personal products when handling chemical substances. Avoid contact with skin, eyes and clothing. Wash affected areas thoroughly after handling. Keep away from incompatible materials (See Section 10). Keep containers tightly closed when not in use.

#### Conditions for safe storage, including any incompatibilities:

Store in cool, dry, well-ventilated location out of direct sunlight. Keep away from food and beverages. Protect from freezing and physical damage. Store away from heat, open flames and other sources of ignition. Keep container tightly sealed. Store away from incompatible materials (See Section 10).

Container type: HDPE bottle in carton

Storage temperature: Store below 25°C (air conditioning).

### SECTION 8: Exposure controls/personal protection

#### Occupational Exposure limit values:

Country (Legal Basis)	Substance	Identifier	Permissible concentration
New Zealand	Glycerol	56-81-5	8-Hour TWA: 10 mg/m <sup>3</sup> (mist)
	Propane-1,2-diol	57-55-6	8-Hour TWA: 10 mg/m <sup>3</sup> (particulates only)
	Propane-1,2-diol	57-55-6	8-Hour TWA: 474 mg/m <sup>3</sup> (150 ppm) (Particulates and vapor)

#### Biological limit values:

No biological exposure limits noted for the ingredient(s).

#### Engineering controls:

Emergency eye wash stations and safety showers should be available in the immediate vicinity of use or handling. Provide adequate ventilation to maintain the airborne concentrations of vapor, mists, and/or dusts below the applicable workplace exposure limits, while observing recognized national standards (or equivalent).

#### Personal protective equipment

##### Eye and face protection:

Safety glasses or goggles. Use eye protection equipment that has been tested and approved by recognized national standards (or equivalent).

##### Skin and body protection:

Chemical resistant, impervious gloves approved by the appropriate standards. Gloves must be inspected prior to use. Avoid skin contact with used gloves. Appropriate techniques should be used to remove used gloves and contaminated clothing. Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Ensure that all personal protective equipment is approved by recognized national standards (or equivalent).

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### Respiratory protection:

If engineering controls do not maintain airborne concentrations below the applicable workplace exposure limits, or to an acceptable level (if exposure limits have not been established), a respirator approved by recognized national standards (or equivalent) must be worn.

### General hygienic measures:

When handling chemical products, do not eat, drink or smoke. Wash hands after handling, before breaks, and at the end of the workday. Avoid contact with skin, eyes and clothing. Wash contaminated clothing before reuse. Perform routine housekeeping.

## SECTION 9: Physical and chemical properties

### Information on basic physical and chemical properties

<b>Appearance</b>	Liquid
<b>Odour</b>	Slight odour
<b>Odour threshold</b>	Not determined or not available.
<b>pH</b>	Not determined or not available.
<b>Melting point/freezing point</b>	Not determined or not available.
<b>Initial boiling point/range</b>	Not determined or not available.
<b>Flash point</b>	Not determined or not available.
<b>Flammability (solid, gas)</b>	Not determined or not available.
<b>Upper flammability/explosive limit</b>	Not determined or not available.
<b>Lower flammability/explosive limit</b>	Not determined or not available.
<b>Vapour pressure</b>	Not determined or not available.
<b>Vapour density</b>	Not determined or not available.
<b>Relative density</b>	Not determined or not available.
<b>Solubility(ies)</b>	Not determined or not available.
<b>Partition coefficient: n-octanol/water</b>	Not determined or not available.
<b>Auto-ignition temperature</b>	Not determined or not available.
<b>Decomposition temperature</b>	Not determined or not available.
<b>Kinematic viscosity</b>	Not determined or not available.
<b>Particle characteristics</b>	Not determined or not available.

**Other information:** No additional information.

## SECTION 10: Stability and reactivity

### Chemical reactivity:

Not reactive under recommended handling and storage conditions.

### Chemical stability:

Stable under recommended handling and storage conditions.

### Possibility of hazardous reactions:

Hazardous reactions are not anticipated under recommended conditions of handling and storage.

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### Conditions to avoid:

Extreme heat, open flames, hot surfaces, sparks, ignition sources and incompatible materials.

### Incompatible materials:

None known.

### Hazardous decomposition products:

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## SECTION 11: Toxicological information

### Acute toxicity:

**Assessment:** Based on available data, the classification criteria are not met.

**Product data:** No data available.

#### Substance data:

Name	Route	Result
Propane-1,2-diol	oral	LD50 Rat: 22,000 mg/kg
	dermal	LD50 Rabbit: >2000 mg/kg
	inhalation	LC50 Rat: > 44.9 mg/L (4hr [vapour])
Glycerol	oral	LD50 Rat: 27,200 mg/kg
	dermal	LD50 Guinea Pig: 56,750 mg/kg
	inhalation	LC50 Rat: > 5.85 mg/L (4 hr [Aerosol])

### Skin corrosion/irritation

**Assessment:** Based on available data, the classification criteria are not met.

**Product data:** No data available.

**Substance data:** No data available.

### Serious eye damage/irritation

**Assessment:** Based on available data, the classification criteria are not met.

**Product data:** No data available.

**Substance data:** No data available.

### Respiratory or skin sensitization:

**Assessment:** Based on available data, the classification criteria are not met.

**Product data:** No data available.

**Substance data:** No data available.

### Carcinogenicity

**Assessment:** Based on available data, the classification criteria are not met.

**Product data:** No data available.

**Substance data:** No data available.

**International Agency for Research on Cancer (IARC):** None of the ingredients are listed.

### Germ cell mutagenicity

**Assessment:** Based on available data, the classification criteria are not met.

**Product data:** No data available.

**Substance data:** No data available.

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### Reproductive toxicity

**Assessment:** Based on available data, the classification criteria are not met.

**Product data:** No data available.

**Substance data:**

Name	Result
Benazepril hydrochloride	Suspected of damaging fertility or the unborn child.

### Specific target organ toxicity (single exposure)

**Assessment:** Based on available data, the classification criteria are not met.

**Product data:** No data available.

**Substance data:** No data available.

### Specific target organ toxicity (repeated exposure)

**Assessment:** Based on available data, the classification criteria are not met.

**Product data:** No data available.

**Substance data:** No data available.

### Aspiration toxicity

**Assessment:** Based on available data, the classification criteria are not met.

**Product data:** No data available.

**Substance data:** No data available.

### Information on likely routes of exposure:

No data available

### Symptoms related to the physical, chemical and toxicological characteristics:

Refer to Section 4 of this SDS.

### Other information:

No data available.

## SECTION 12: Ecological information

### Ecotoxicity

#### Aquatic

##### Acute (short-term) toxicity

**Assessment:** Based on available data, the classification criteria are not met.

**Product data:** No data available.

**Substance data:**

Name	Result
Propane-1,2-diol	Fish LC50 <i>Oncorhynchus mykiss</i> : 51,600 mg/L (96 hr)
	Aquatic Plants EC50 <i>Raphidocelis subcapitata</i> : 19000 mg/L (96 hr [growth rate])
	Aquatic Invertebrates EC50 <i>Daphnia magna</i> : 43,500 mg/L (48 hr [Immobilisation])
Glycerol	Fish LC50 <i>Oncorhynchus mykiss</i> : 54,000 mg/L (96 hr)
	Aquatic Invertebrates LC50 <i>Daphnia magna</i> : >10,000 mg/L (24 hr [mobility])

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### Chronic (long-term) toxicity

**Assessment:** Based on available data, the classification criteria are not met.

**Product data:** No data available.

**Substance data:**

Name	Result
Propane-1,2-diol	Aquatic Invertebrates NOEC Ceriodaphnia sp.: 13020 mg/L (7 d [reproduction])

### Terrestrial

#### Acute (short-term) toxicity

**Assessment:** Based on available data, the classification criteria are not met.

**Product data:** No data available.

**Substance data:** No data available

#### Chronic (long-term) toxicity

**Assessment:** Based on available data, the classification criteria are not met.

**Product data:** No data available.

**Substance data:** No data available.

### Persistence and degradability

**Product data:** No data available.

**Substance data:**

Name	Result
Propane-1,2-diol	The substance is readily biodegradable. 81.7% degradation in water, measured by CO <sub>2</sub> evolution, after 28 days.
Glycerol	The substance is readily biodegradable. 94% degradation in water, measured by TOC removal, after 1 day.

### Bioaccumulative potential

**Product data:** No data available.

**Substance data:**

Name	Result
Propane-1,2-diol	The substance is not expected to bioaccumulate (BCF: 0.09).
Glycerol	The substance is not expected to bioaccumulate (log Pow: -1.75 at 25 °C).

### Mobility in soil

**Product data:** No data available.

**Substance data:**

Name	Result
Propane-1,2-diol	The substance is highly mobile, therefore, adsorption to soil and sediment is not expected (calculated Koc: 2.9).
Glycerol	The substance is highly mobile, therefore, adsorption to soil and sediment is not expected (Koc:1).

**Other adverse effects:** No additional information.

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### SECTION 13: Disposal considerations

#### Disposal methods:

It is the responsibility of the waste generator to properly characterize all waste materials according to applicable regulatory entities. Dispose of in accordance with all applicable local, regional, state and federal regulations.

#### Special precautions to be taken during disposal:

No additional information.

#### Disposal methods that should not be used:

No additional information.

### SECTION 14: Transportation information

#### Road/Rail transport: (NZS 5433)

UN number	Not regulated
UN proper shipping name	Not regulated
UN transport hazard class(es)	None
Packing group	None
Environmental hazards	None
Special precautions for user	None

#### International Air Transport Association Dangerous Goods Regulations (IATA-ICAO)

UN number	Not regulated
UN proper shipping name	Not regulated
UN transport hazard class(es)	None
Packing group	None
Environmental hazards	None
Special precautions for user	None

#### International Maritime Dangerous Goods (IMDG)

UN number	Not regulated
UN proper shipping name	Not regulated
UN transport hazard class(es)	None
Packing group	None
Environmental hazards	None
Special precautions for user	None

Transport in bulk according to Annex II of MARPOL and the IBC Code: Not Applicable

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### SECTION 15: Regulatory information

**New Zealand Inventory of Chemicals (NZIoC):** All ingredients are listed or exempt.

**HSNO approval number:** HSR100757.

**Group standard title:** Veterinary Medicines (Limited Pack Size, Finished Dose) Group Standard 2020.

**HSNO Controls:** Not determined.

**Approved handler test certificate:** Not determined.

**Tracking:** Not determined.

**Controlled substance license requirements:** Not applicable.

**Agricultural Compounds and Veterinary Medicines Act 1997:**

ACVM number

ACVM No A11430

**Montreal Protocol (Ozone Depleting Substances):** None of the ingredients are listed.

**Stockholm Convention (Persistent Organic Pollutants):** None of the ingredients are listed.

**Rotterdam Convention (Prior Informed Consent):** None of the ingredients are listed.

**Basel Convention (Hazardous Waste):** None of the ingredients are listed.

### SECTION 16: Other information

#### Abbreviations and Acronyms:

<b>ATE</b>	Acute Toxicity Estimate
<b>BCF</b>	Bioconcentration Factor
<b>CAS</b>	Chemical Abstracts Service
<b>EC50</b>	Effective Concentration of 50%
<b>GHS</b>	Globally Harmonized System
<b>HSNO</b>	Hazardous Substances and New Organisms
<b>IARC</b>	International Agency for Research on Cancer
<b>IATA</b>	International Air Transport Association
<b>IBC</b>	Intermediate Bulk Container
<b>ICAO</b>	International Civil Aviation Organization
<b>IMDG</b>	International Maritime Dangerous Goods
<b>LC50</b>	Lethal Concentration 50%
<b>LD50</b>	Lethal Dose 50%
<b>MARPOL</b>	International Convention for the Prevention of Pollution from Ships
<b>NZIoC</b>	New Zealand Inventory of Chemicals
<b>TWA</b>	Time Weighted Average
<b>UN</b>	United Nations
<b>VOC</b>	Volatile Organic Compounds

#### Disclaimer:

The information provided in this SDS is correct, to the best of our knowledge, based on information available. The information given is designed only as a guidance for safe handling, use, storage, transportation and disposal and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials, unless specified in the text. The responsibility to provide a safe workplace remains with the user.

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**Revision Notes:**

Revision Date	Notes
17-06-2025	Version 2 ; Supersedes Version 1 (21.09.2021)

**End of Safety Data Sheet**