



Safety Data Sheet

Bomacaine

1. IDENTIFICATION OF SUBSTANCE & COMPANY

Product information

Product name	Bomacaine
Other names	None
ACVM approval	A006498
HSNO approval	HSR002330
Approval description	Liquid containing 1.5 - 2.5% lignocaine
UN number	NA
Proper Shipping Name	NA
Packaging group	NA
Hazchem code	1T (recommended)

Uses For animal treatment only. For epidural, nerve block and infiltration local anaesthesia in horses, cattle, deer, sheep, goats, pigs and cats.

Company Details

Company	Bayer New Zealand Ltd
Address	3 Argus Place, Hillcrest, Auckland 0627 New Zealand.
Telephone	0800 652 488
Facsimile	0800 229 838

Emergency Telephone Number: 0800 734 607

2. HAZARD IDENTIFICATION

Approval

This product has been approved under the Hazardous Substances and New Organisms Act (HSNO, Approval HSR002330, Liquid containing 1.5 - 2.5% lignocaine), and is classified as follows:

Classes	Hazard Statements
6.3B	Causes mild skin irritation.
6.6B	Suspected of causing genetic defects
6.7B	Suspected of causing cancer
6.9B	May cause damage to organs

SYMBOLS

WARNING



Other Classifications

ACVM registration number: A006498

There are no other Classifications that are known to apply.



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Precautionary Statements

Read label before use.
Store locked up.
Obtain special instructions before use.
Use personal protective equipment as required.
Do not handle until all safety precautions have been read and understood.
Do not breathe fumes/vapour.
Wash hands thoroughly after handling.
Do not eat, drink or smoke when using this product.

Further precautionary statements can be found in Section 4 – First Aid.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Component	CAS/ Identification	Concentration
Lignocaine	6108-05-0	20g/L
Ingredients not contributing to HSNO classification	NA	<1%
Water	7732-18-5	balance

This is a commercial product whose exact ratio of components may vary. Trace quantities of impurities are also likely.

4. FIRST AID

General Information

You should call the National Poisons Centre if you feel that you may have been harmed or irritated by this product. The number is 0800 764 766 (0800 POISON) (24 hr emergency service). If medical advice is needed, have product container or label at hand. IF exposed or concerned: Get medical advice.

Recommended first aid facilities Ready access to running water is required. Accessible eyewash is required.

Exposure

Swallowed

Do NOT induce vomiting. Give a glass of water to drink. Contact a doctor.

Eye contact

If product gets in eyes, wash material from them with running water for several minutes. If symptoms persist, seek medical advice.

Skin contact

IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: get medical advice/attention. Take off contaminated clothing and wash before re-use.

Inhaled

Generally, inhalation of fumes is unlikely to result in adverse health effects. If coughing, dizziness or shortness of breath is experienced, remove the patient to fresh air immediately. If patient is unconscious, place in the recovery position (on the side) for transport and contact a doctor.

Advice to Doctor

Treat symptomatically

5. FIREFIGHTING MEASURES

Fire and explosion hazards:

There are no specific risks for fire/explosion for this chemical. It is non-flammable.

Suitable extinguishing substances:

Carbon dioxide, extinguishing powder, foam, fog sprays, water jets.

Unsuitable extinguishing substances:

Unknown.

Products of combustion:

Carbon dioxide, and if combustion is incomplete, carbon monoxide and smoke. Water. May form toxic mixtures in air and may accumulate in sumps, pits and other low-lying spaces, forming potentially explosive mixtures.

Protective equipment:

Self-contained breathing apparatus. Safety boots, non-flammable overalls, gloves, hat



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Hazchem code: and eye protection.
1T (recommended)

6. ACCIDENTAL RELEASE MEASURES

Containment	If greater than 10000L is stored, secondary containment and emergency plans to manage any potential spills must be in place. In all cases design storage to prevent discharge to stormwater.
Emergency procedures	In the event of spillage alert the fire brigade to location and give brief description of hazard. Stop the source of the leak, if safe to do so. Wear protective equipment to prevent skin, eye and respiratory exposure. Clear area of any unprotected personnel. Contain using sand, earth or vermiculite. Prevent by whatever means possible any spillage from entering drains, sewers, or water courses. (If this occurs contact your regional council immediately).
Clean-up method	Use absorbent (soil, sand or other inert material). Rags are not recommended for the clean-up of spills, as they may create fire or environmental hazard. Collect and seal in properly labelled containers or drums for disposal. If contamination of crops, sewers or waterways has occurred advise local emergency services.
Disposal	Mop up and collect recoverable material into labelled containers for recycling or salvage. Recycle containers wherever possible. This material may be suitable for approved landfill. Dispose of only in accord with all regulations.
Precautions	Wear protective equipment to prevent skin and eye contamination and the inhalation of vapours. Work up wind or increase ventilation.

7. STORAGE & HANDLING

Storage	Avoid storage of harmful substances with food. Store out of reach of children. Containers should be kept closed in order to minimise contamination. Keep from extreme heat and open flames. Avoid contact with incompatible substances as listed in Section 10.
Handling	Keep exposure to a minimum, and minimise the quantities kept in work areas. See section 8 with regard to personal protective equipment requirements. Avoid skin and eye contact and inhalation of vapour, mist or aerosols.

8. EXPOSURE CONTROLS / PERSONAL PROTECTIVE EQUIPMENT

Workplace Exposure Standards

A workplace exposure standard (WES) has not been established by the NZ Department of Labour for this product. There is a general limit of 10mg/m³ for dusts and mists when limits have not otherwise been established.

NZ Workplace Exposure Stds (OSH – DoL 2011)	Ingredient	WES-TWA	WES-STEL
	No ingredients listed		

Engineering Controls

In industrial situations, it is expected that employee exposure to hazardous substances will be controlled to a level as far below the WES as practicable by applying the hierarchy of control required by the Health and Safety in Employment Act 1992 (HSE). Exposure can be reduced by process modification, use of local exhaust ventilation, capturing substances at the source, or other methods. If you believe air borne concentrations of mists, dusts or vapours are high, you are advised to modify processes or increase ventilation.



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Personal Protective Equipment

Eyes	Protective eyewear is not normally necessary when using this product. However, it always prudent to use protective eyewear if splashes are likely.
Skin	If discomfort is felt (e.g., if pre-existing conditions exist, such as dermatitis, cuts or sensitive skin), gloves may be helpful. If you suffer from dermatitis type skin conditions, use gloves. (INSERT TYPE OF GLOVE) are recommended. Replace frequently. Gloves should be checked for tears or holes before use.
Respiratory	A respirator when airborne concentrations approach the WES (section 8). Use a respirator with an organic vapour cartridge. If using a respirator, ensure that the cartridges are correct for the potential air contamination and are in good working order.

WES Additional Information

Not applicable

9. PHYSICAL & CHEMICAL PROPERTIES

Appearance	clear colourless liquid
Odour	faint odour
pH	no data
Vapour pressure	no data
Viscosity	no data
Boiling point	no data
Volatile materials	no data
Freezing / melting point	no data
Solubility	soluble in water
Specific gravity / density	no data
Flash point	non flammable
Danger of explosion	not explosive
Auto-ignition temperature	no data
Upper & lower flammable limits	no data
Corrosiveness	non corrosive

10. STABILITY & REACTIVITY

Stability	Stable
Conditions to be avoided	Containers should be kept closed in order to avoid contamination. Keep from extreme heat and open flames.
Incompatible groups	None known
Substance Specific Incompatibility	None known
Hazardous decomposition products	None known
Hazardous reactions	none known



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11. TOXICOLOGICAL INFORMATION

Summary

IF SWALLOWED: May cause numbness of the tongue and perioral region. Systemic toxicity may occur. Excitation of the central nervous system may be manifested by yawning, restlessness, excitement, nervousness, dizziness, blurred vision, nausea and vomiting, muscle twitching and tremors and convulsions.

IF IN EYES: May cause transient stinging or redness and interfere with colour vision.

IF ON SKIN: May cause skin irritation and/or allergy in susceptible individuals.

IF INHALED: Can be harmful if inhaled. Side effects are the same as when swallowed.

Supporting Data

Acute	Oral	Using LD ₅₀ 's for ingredients, the calculated LD ₅₀ (oral, rat) for the mixture is >5,000 mg/kg. Data considered includes: Lignocaine 292mg/kg (mouse).
	Dermal	No evidence of dermal toxicity.
	Inhaled	No evidence of inhalation toxicity.
	Eye	The mixture is not considered to be an eye irritant.
Chronic	Skin	The mixture is considered to be a skin irritant, Lignocaine present is considered a skin irritant in more concentrated form.
	Sensitisation	No ingredient present at concentrations > 0.1% is considered a sensitizer.
	Mutagenicity	The mixture is considered to be a suspected mutagen, based on a metabolite of Lignocaine (2,6-xylidine), which has shown to be mutagenic in bacteria and/or yeasts.
	Carcinogenicity	The mixture is considered to be a suspected carcinogen. Lignocaine is not listed by IARC, however EPA have classified Lignocaine as a suspected carcinogen based on a metabolite of Lignocaine (2,6-xylidine). 2,6-xylidine is classed Group 2B possibly carcinogenic to humans (IARC).
	Reproductive / Developmental Systemic	No ingredient present at concentrations > 0.1% is considered a reproductive or developmental toxicant or have any effects on or via lactation. The mixture is considered to be a suspected target organ toxicant. The substance may be toxic to cardiovascular system, central nervous system (CNS). Repeated or prolonged exposure to the substance can produce target organs damage.
	Aggravation of existing conditions	None known.

12. ECOLOGICAL DATA

Summary

This mixture is not considered ecotoxic towards aquatic or terrestrial organisms.

Supporting Data

Aquatic	No evidence
Bioaccumulation	No data. Not expected to bioaccumulate.
Degradability	Readily biodegradable.
Soil	No evidence of soil toxicity.
Terrestrial vertebrate	See acute toxicity.
Terrestrial invertebrate	No evidence of toxicity towards terrestrial invertebrates.
Biocidal	no data
Environmental effect levels	No EELs are available for this mixture or ingredients



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13. DISPOSAL CONSIDERATIONS

Restrictions	There are no product-specific restrictions, however, local council and resource consent conditions may apply, including requirements of trade waste consents.
Disposal method	Disposal of this product must comply with the requirements of the Resource Management Act for which approval should be sought from the Regional Authority. The substance must be treated and therefore rendered non-hazardous before discharge to the environment.
Contaminated packaging	Rinse containers with water before disposal. Preferably re-cycle container, otherwise send to landfill or similar.

14. TRANSPORT INFORMATION

There are no specific restrictions for this product (not a dangerous good).

UN number:	NA	Proper shipping name:	NA
Class(es):	NA	Packing group:	NA
Precautions:	Not applicable.	Hazchem code:	1T (recommended)

15. REGULATORY INFORMATION

This product is an approved substance under the Hazardous Substances and New Organisms Act (HSNO). Approval code: HSR002330, Liquid containing 1.5 - 2.5% lignocaine.

Specific Workplace Controls (as per HSNO approval referenced to Controls Matrix)

Key workplace requirements are:

MSDS	To be available within 10 minutes in workplaces storing > 1L.
Labelling	No removal of labels and/or decanting of product into other containers can occur.
Emergency plan	Required if > 10000L is stored.
Approved handler	Not required.
Tracking	Not required.
Bunding & secondary containment	Required if > 10000L is stored.
Signage	Not required.
Location test certificate	Not required.
Flammable zone	Not required.
Fire extinguisher	Not required.

Note: The above workplace requirements apply if only this particular substance is present. The complete set of controls for a location will depend on the classification and total quantities of other substances present in that location.

Other Legislation

In New Zealand, the use of this product may come under the Resource Management Act and Regulations, the Health, Safety in Employment Act and Regulations, local Council Rules and Regional Council Plans. ACVM registration number: A006498



16. OTHER INFORMATION

Abbreviations

Approval Code	Approval HSR002330, Liquid containing 1.5 - 2.5% lignocaine Controls, EPA. www.epa.govt.nz
ACVM	Agricultural Compounds and Veterinary Medicines
ARTG	Australian Register of Therapeutic Goods
CAS Number	Unique Chemical Abstracts Service Registry Number
Ceiling	Ceiling Exposure Value: The maximum airborne concentration of a biological or chemical agent to which a worker may be exposed at any time.
Controls Matrix	List of default controls linking regulation numbers to Matrix code (e.g. T1, I16).
EC₅₀	Ecotoxic Concentration 50% – concentration in water which is fatal to 50% of a test population (e.g. daphnia, fish species)
ERMA	Environmental Risk Management Authority (now EPA)
EPA	Environmental Protection Agency (previously known as ERMA)
HAZCHEM Code	Emergency action code of numbers and letters that provide information to emergency services, especially fire fighters
HSNO	Hazardous Substances and New Organisms (Act and Regulations)
IARC	International Agency for Research on Cancer
LEL	Lower Explosive Limit
LD₅₀	Lethal Dose 50% – dose which is fatal to 50% of a test population (usually rats).
LC₅₀	Lethal Concentration 50% – concentration in air which is fatal to 50% of a test population (usually rats)
MSDS	Material Safety Data Sheet (or Safety Data Sheet)
OSH - DoL	The Occupational Safety and Health Service of the Department of Labour (NZ)
STEL	Short Term Exposure Limit - The maximum airborne concentration of a chemical or biological agent to which a worker may be exposed in any 15 minute period, provided the TWA is not exceeded
TWA	Time Weighted Average – generally referred to WES averaged over typical work day (usually 8 hours)
UEL	Upper Explosive Limit
UN Number	United Nations Number
WES	Workplace Exposure Standard - The airborne concentration of a biological or chemical agent to which a worker may be exposed.

References

Data	Unless otherwise stated comes from the EPA HSNO chemical classification information database (CCID) http://www.epa.govt.nz/hs/compliance/chemicals.html for specific chemicals.
EPA Transfer Gazettes	Classifications and controls assigned for specific ingredients (consolidated gazette, 2004)
Controls Matrix	Part of the EPA New Zealand User Guide to the HSNO Control Regulations
WES 2011	The NZ Workplace Exposure Standards Effective from 2011, published by OSH – DoL and available on their web site – www.osh.dol.govt.nz .
Other References:	Suppliers MSDS

Review

Date	Reason for review
September 2012	Not applicable – new MSDS

Disclaimer

This MSDS was prepared by Datachem LTD and is based on our current state of knowledge, including information obtained from suppliers. The MSDS is given in good faith and constitutes a guideline (not a guarantee of safety). The level of risk each substance poses is relevant to its properties (as summarised in the MSDS) AND HOW THE SUBSTANCE IS USED. While guidelines are given for personal protective equipment, such precautions must be relevant to the use. The likely HSNO classifications, are based on our experience, EPA Guidelines and international classifications. This MSDS is copyright Datachem and must not be edited without the permission of the copyright holder or used for other than intended purpose. To contact the MSDS author, email info@datachem.co.nz or phone: (09) 940 30 80.

