

1. Identification of Substance & Company

Product

Product name	Hornex
Product code	201749
HSNO approval	HSR100757
Approval description	Veterinary Medicine (Limited Pack Size, Finished Dose) Standard 2017
UN number	1759
DG class	8
Proper Shipping Name	CORROSIVE SOLID, n.o.s. (contains sodium hydroxide)
Packaging group	II
Hazchem code	2R
Uses	Calf dehorning paste

Company Details

Company	Shoof International Ltd	
Address	P.O. Box 522, Cambridge 3450 New Zealand	224 Laurent Road Cambridge 3493 New Zealand
Telephone	+64 7 827 3902	
Fax	+64 7 823 0651	
Website	www.shoof.co.nz	

Emergency Telephone Number: 0800 POISON (0800 764 766)

2. Hazard Identification

Approval

This product has been approved under the Hazardous Substances and New Organisms Act (HSNO, Approval HSR100757, Veterinary Medicine (Limited Pack Size, Finished Dose) Standard 2012), and is classified as follows:

Classes

6.1D (oral)
6.1E (dermal)
8.1A
8.2B
8.3A
6.9A
9.1D
9.3C

Hazard Statements

H302 - Harmful if swallowed.
H313 - May be harmful in contact with skin.
H290 - May be corrosive to metals.
H314 - Causes severe skin burns and eye damage.
H318 - Causes serious eye damage.
H372 - Causes damage to organs through prolonged or repeated exposure.
H402 - Harmful to aquatic life.
H433 - Harmful to terrestrial vertebrates.

SYMBOLS

DANGER



Other Classifications

There are no other classifications that are known to apply.

Precautionary Statements

P101 - If medical advice is needed, have product container or label at hand.
P102 - Keep out of reach of children.
P103 - Read label before use.
P234 - Keep only in original container.
P260 - Do not breathe fume/vapours.
P264 - Wash hands thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.
P273 - Avoid release to the environment.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P390 - Absorb spillage to prevent material damage.

P301+P312 - IF SWALLOWED: Call a POISON CENTRE or doctor/physician if you feel unwell.
 P330 - Rinse mouth.
 P312 - Call a POISON CENTRE or doctor/physician if you feel unwell.
 P303+P361+P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
 P363 - Wash contaminated clothing before reuse.
 P304+340 - IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.
 P310 - Immediately call a POISON CENTRE or doctor/physician.
 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 CENTRE or doctor/physician.
 P308+P313 - IF exposed or concerned: Get medical advice/ attention.
 P314 - Get medical advice/attention if you feel unwell.
 P406 - Store in a corrosive resistant container with a resistant inner liner.
 P405 - Store locked up

3. Composition / Information on Ingredients

Component	CAS/ Identification	Concentration(w/w)
Sodium hydroxide	1310-73-2	30-60%
Acetylsalicylic acid	50-78-2	10-20%
Ingredients not contributing to HSNO classes.	Proprietary	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

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

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

Exposure

Swallowed IF SWALLOWED: Do NOT induce vomiting. Rinse mouth. If vomiting occurs, place victim face downwards, with the head turned to the side and lower than the hips to prevent vomit entering the lungs. If patient is conscious, give a glass of water to drink. Call a POISON CENTER immediately.

Eye contact IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Apply continuous irrigation with water for at least 15 minutes holding eyelids apart. Immediately call a POISON CENTER or doctor/physician.

Skin contact IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse.

Inhaled IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.

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.

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 and eye protection.

Hazchem code: 2R

6. Accidental Release Measures

Containment	If greater than 1000kg 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 a large spillage (>100kg) 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. Do not use sawdust on concentrate. 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	Collect unopened/undamaged tubes for recycling. Damage tubes should be collected mechanically and sealed 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	Store locked up. 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 WorkSafe NZ for this product. There is a general limit of 3mg/m³ for respirable particulates and 10mg/m³ for inhalable particulates when limits have not otherwise been established.


NZ Workplace Exposure Stds (2016)	Ingredient	WES-TWA*	WES-STEL
	Sodium hydroxide	Ceiling 2 mg/m ³	data unavailable
	Acetyl salicylic acid	5mg/m ³	data unavailable


* These workplace exposure standards are also Prescribed Exposure Standards (PES) under the Health and Safety at Work (General Risk and Workplace Management) Regulations 2016.

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 at Work Act (2015) and the Health and Safety at Work (General Risk and Workplace Management) Regulations 2016. 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.

Personal Protective Equipment

Eyes  Protect eyes with goggles, safety glasses or full face mask. Avoid wearing contact lenses.

Skin  Avoid repeated or prolonged skin contact. Wear overalls, rubber boots and impervious gloves. Nitrile, neoprene, rubber or PVC are recommended. PVA gloves are not recommended. Replace frequently. Gloves should be checked for tears or holes before use. Remove protective clothing and wash exposed areas with soap and water prior to eating, drinking or smoking.



Respiratory A respirator when airborne concentrations approach the WES (section 8). Use respirator with a particulate filter. 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	brown paste in a clear plastic squeeze tube (20gm) with screw top
Odour	no data
pH	>12
Vapour pressure	no data
Viscosity	paste
Boiling point	no data
Volatile materials	no data
Freezing / melting point	no data
Solubility	soluble in water
Specific gravity / density	no data
Flash point	no data
Danger of explosion	not explosive
Auto-ignition temperature	not known
Upper & lower flammable limits	no data
Corrosiveness	corrosive skin and eyes, corrosive to some metals.

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	Acids.
Substance Specific Incompatibility	May be corrosive towards aluminium.
Hazardous decomposition products	Oxides of carbon.
Hazardous reactions	Reaction with acids.

11. Toxicological Information

Summary

This product is corrosive to skin and eye, contact may cause burns to the skin and permanent damage to the eyes. It may be harmful if swallowed, ingestion may cause serious damage of the mouth, throat and stomach. Inhalation of dusts or vapours of this product may cause irritation of the respiratory tract.

Supporting Data

Acute	Oral	Aqueous solutions of sodium hydroxide (>5%) are classed by EPA as 6.1D (oral), based on NaOH prior scheduling as a S4 poison. If ingested: may cause severe and permanent damage to the digestive tract. Concentrated solutions of NaOH may be fatal if swallowed.
	Dermal	Using LD ₅₀ 's for ingredients, the calculated LD ₅₀ (dermal, rat) for the mixture is >2000 - 5000mg/kg. Data considered includes: Sodium hydroxide 1349 mg/kg.
	Inhaled	No evidence of inhalation toxicity. Dusts of NaOH may be irritation to respiratory tract.
	Eye	The mixture is considered to be corrosive to the eye. The pH of the mixture is >12. Aqueous solutions of sodium hydroxide (>5%) are considered eye corrosive (Draize test, rabbit, eye: 1% Severe).
	Skin	The mixture is considered to be corrosive to the skin The pH of the mixture is >12. Aqueous solution of sodium hydroxide (>5%) is considered a skin corrosive (PG II). (Draize test, rabbit, skin: 500 mg/24H Severe)
Chronic	Sensitisation	No ingredient present at concentrations > 0.1% is considered a sensitizer.
	Mutagenicity	No ingredient present at concentrations > 0.1% is considered a mutagen.
	Carcinogenicity	No ingredient present at concentrations > 0.1% is considered a carcinogen.
	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.
	Aggravation of existing conditions	Vapours and dusts of this product may cause irritation to the upper respiratory tract, if inhaled. None known.

12. Ecological Data

Summary

This mixture is harmful in the aquatic environment and harmful towards terrestrial vertebrates.

Supporting Data

Aquatic	Using EC ₅₀ 's for ingredients, the calculated EC ₅₀ for the mixture is between 1 and 100 mg/L. Data considered includes: Sodium hydroxide 45.4 mg/l (96hr, fish), 40.38 mg/l (48hr, water flea).
Bioaccumulation	No data for mixture. Ingredients not likely to bioaccumulate.
Degradability	No data
Soil	No evidence of soil toxicity.
Terrestrial vertebrate	The mixture is considered harmful to terrestrial vertebrates. 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

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

Transport according to NZS 5433 (Transport of Hazardous Substances on Land). Considered a dangerous good for transport.

UN number:	1759	Proper shipping name:	CORROSIVE SOLID, n.o.s. (contains sodium hydroxide)
Class(es)	8	Packing group:	II
Precautions:	Corrosive	Hazchem code:	2R

15. Regulatory Information

This product is an approved substance under the Hazardous Substances and New Organisms Act (HSNO). Approval code: HSR100757, Veterinary Medicine (Limited Pack Size, Finished Dose) Standard 2017.

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

Key workplace requirements are:

SDS	To be available within 10 minutes in workplaces storing any quantity.
Inventory	An inventory of all hazardous substances must be prepared and maintained.
Packaging	All hazardous substances should be appropriately packaged including substances that have been decanted, transferred or manufactured for own use or have been supplied
Labelling	Must comply with the Hazardous Substances (Labelling) Notice 2017.
Emergency plan	Required if > 1000kg is stored.
Certified handler	Not required.
Tracking	Not required.
Bundling & secondary containment	Required if > 1000kg is stored.
Signage	Required if > 250kg is stored.
Location compliance 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 and Safety at Work Act 2015 and the Health and Safety at Work (General Risk and Workplace Management) Regulations 2016, local Council Rules and Regional Council Plans.

This product may be subject to requirements under Agricultural Compounds and Veterinary Medicines (ACVM) Act 1997.

16. Other Information

Abbreviations

Approval Code	Approval HSR100757, Veterinary Medicine (Limited Pack Size, Finished Dose) Standard 2017 Controls, EPA. www.epa.govt.nz
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)
EPA	Environmental Protection Authority (New Zealand)
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 (SDS)	Material Safety Data Sheet (or Safety Data Sheet)
PES	Prescribed Exposure Standard means a WES or a biological exposure standard that is prescribed in a regulation, a safe work instrument or an approval under HSNO (including group standards).
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 during work hours (usually 8 hours, 5 days a week). The WES relates to exposure that has been measured by personal monitoring using procedures that gather air samples in the worker's breathing zone.

References

Data	Unless otherwise stated comes from the EPA HSNO chemical classification information database (CCID).
EPA Notice	www.epa.govt.nz
WES 2016	The NZ Workplace Exposure Standards Effective from 2016, published by WorkSafe NZ and available on their web site – www.worksafe.govt.nz .
Other References:	Suppliers SDS

Review

Date	Reason for review
November 2012	Not applicable – new SDS
February 2018	5 yearly update

Disclaimer

This SDS was prepared by Datachem LTD and is based on our current state of knowledge, including information obtained from suppliers. The SDS 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 SDS) 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 for this SDS have been estimated based on general information from the supplier (e.g., hazard, toxicological). This SDS is copyright Datachem and must not be copied, edited or used for other than intended purpose. To contact the SDS author, email info@datachem.co.nz or phone: +64 9 940 30 80.

