



Safety Data Sheet

HiTrace 5 Liquid

1. Identification of Substance & Company

Product

Product name	HiTrace 5 Liquid
Product codes	595200
HSNO approval	HSR002521
Approval description	Animal Nutritional and Animal Care Products Group Standard 2020
UN number	3077
DG class	9
Proper Shipping Name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, n.o.s. (contains zinc sulphate, copper sulphate)
Packaging group	III
Hazchem code	2Z
Uses	Supplement for animal food

Company Details

Company	Nutritech International
Physical Address	6 Aintree Avenue Airport Oaks, Mangere Auckland New Zealand
Postal Address	PO Box 201 231 Auckland Airport 2150 New Zealand
Telephone	0800 736 336 (0800 REMEDY)
Email	customerservices@nutritech.co.nz
Website	www.nutritech.co.nz

Emergency Telephone Number: 0800 764 0766

2. Hazard Identification

Approval in New Zealand

This product is an approved substance under the Hazardous Substances and New Organisms Act (HSNO, Approval HSR002521, Animal Nutritional and Animal Care Products Group Standard 2020): The substance has been classified as hazardous according to the criteria in the Hazardous Substances (Hazard Classification) Notice 2020.

GHS 7 Classes

Acute toxicity category 4 (oral)
Eye irritant category 2
Skin sensitiser category 1
STOT* repeated exposure category 2
Chronic aquatic category 1
Acute aquatic category 1

Hazard Statements

H302 - Harmful if swallowed.
H319 - Causes serious eye irritation.
H317 - May cause an allergic skin reaction.
H373 - May cause damage to organs through prolonged or repeated exposure.
H410 - Very toxic to aquatic life with long lasting effects.
H400 - Very toxic to aquatic life.



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SYMBOLS

WARNING



Other Classifications

There are no other classifications that are known to apply.

Precautionary Statements

Prevention	<p>P102 - Keep out of reach of children. P103 - Read label before use. P260 - Do not breathe mist/vapours. P264 - Wash hands thoroughly after handling. P270 - Do not eat, drink or smoke when using this product. P272 - Contaminated work clothing should not be allowed out of the workplace. P273 - Avoid release to the environment.</p>
Response	<p>P280 - Wear protective gloves/protective clothing/eye protection/face protection. P101 - If medical advice is needed, have product container or label at hand. P301+P312 - IF SWALLOWED: Call a POISON CENTRE or doctor/physician if you feel unwell. P330 - Rinse mouth. P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337+P313 - If eye irritation persists: Get medical advice/attention. P302+P352 - IF ON SKIN: Wash with plenty of soap and water. P333+P313 - If skin irritation or rash occurs: Get medical advice/attention. P363 - Wash contaminated clothing before reuse. P309+P311 - IF exposed or if you feel unwell: Call a POISON CENTRE or doctor/physician. P391 - Collect spillage.</p>
Storage	P405 - Store locked up.
Disposal	P501 - Dispose of contents/container in accordance with local/regional/national/international regulation.

3. Composition / Information on Ingredients

Component	CAS/ Identification	Conc (%)
Zinc sulphate monohydrate	7446-19-7	1-3%
copper sulphate	7758-98-7	1-10%
Cobalt Sulphate Heptahydrate	10026-24-1	<0.1%
potassium iodate	7758-05-6	0.1-1%
sodium selenite	10102-18-8	<0.1%
ingredients not contributing to HSNO classes	mixture	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 or irritated by this product. The number is 0800 764 766 (0800 POISON) (24 hr emergency service). IF exposed or concerned: Get medical advice/ attention.



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Recommended first aid facilities

Ready access to running water is required. Accessible eyewash is required.

Exposure

Swallowed

IF SWALLOWED: Call a POISON CENTRE or doctor/physician if you feel unwell. Rinse mouth. Do NOT induce vomiting. Give a glass of water to drink. Contact a doctor if experiencing any symptoms.

Eye contact

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Skin contact

IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse.

Inhaled

IF INHALED: If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. If experiencing respiratory symptoms: Call a POISON CENTRE 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. Carbon dioxide, extinguishing powder, foam, fog sprays.

Suitable extinguishing substances:

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:

2Z

6. Accidental Release Measures

Containment

If greater than 100kg 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 storm water.

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. Shut off all possible sources of ignition. 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. 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.



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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	Ingredient	WES-TWA	WES-STEL
	copper sulphate as Cu	0.01 mg/m ³ (dsen)	-
	Cobalt Sulphate Heptahydrate as Co	0.02mg/m ³ (carc 2, bio)	-
	sodium selenite as Se	0.02mg/m ³ (skin)	-

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

General

Personal Protective Equipment (PPE) should not be used as the primary means of exposure protection, except in the event of an accident or emergency situation or where all other means of protection have proven inadequate. Clean PPE after use or dispose of as appropriate. Store PPE for re-use in a clean place. Regular training on the correct use of PPE should be provided. In particular the correct fitting and use of respirators and where applicable the cleaning of respirators should be undertaken.

Eyes



Avoid contact with eyes. Use safety glasses and or chemical splash goggles if splashes are possible. Select eye protection in accordance with AS/NZS 1337.

Skin



Avoid repeated or prolonged skin contact. Wear overalls, rubber boots and impervious gloves. Nitrile or rubber gloves are recommended. Protective gloves or suitably resistant material must comply with AS 2161. Replace frequently. Gloves should be checked for tears or holes before use. Protective clothing must comply with AS 2919, AS3765.1 or AS3765.2. PVC or rubber boots must comply with AS/NZS 2210.2 and selected and maintained in accordance with AS/NS2210.1. Remove protective clothing and wash exposed areas with soap and water prior to eating, drinking or smoking. Wash hands after handling.

Respiratory

A respirator when airborne concentrations approach the WES (section 8). Respirators must have filters appropriate to the duty and comply with AS/NZS1716 and selected, used and maintained in accordance with AS/NS 1715. Use a 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. Fit testing and clear guidelines and training for use and maintenance of PPE are necessary.

WES Additional Information

Not applicable



9. Physical & Chemical Properties

Appearance	liquid
Odour	not specified
Odour Threshold	no data
pH	no data
Freezing/melting point	no data
Boiling Point	no data
Flashpoint	no data
Flammability	no data
Upper & lower flammable limits	no data
Vapour pressure	no data
Vapour density	no data
Specific gravity/density	~1
Solubility	soluble in water
Partition coefficient	no data
Auto-ignition temperature	no data
Decomposition temperature	no data
Viscosity	no data
Particle Characteristics	no data

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 and strong oxidisers
Substance Specific Incompatibility	none known
Hazardous decomposition products	none known
Hazardous reactions	none known

11. Toxicological Information

Summary

IF SWALLOWED: may cause irritation, nausea, stomach pains and/or vomiting.

IF IN EYES: may cause eye serious eye damage.

IF ON SKIN: sensitised individuals may experience an allergic skin reaction. Dust may be irritating to the skin.

IF INHALED: no effect expected.

CHRONIC TOXICITY: repeated exposure may be harmful to kidneys (copper sulphate), heart and pancreas. Cobalt sulphate may damage fertility and is suspected carcinogen.

Supporting Data

Acute	Oral	Using LD ₅₀ 's for ingredients, the Acute Toxicity Estimate (ATE) (oral) for the mixture is >5,000 mg/kg. Data considered includes: Zinc sulphate monohydrate 1891mg/kg (mouse), copper sulphate 125mg/kg (rabbit), Cobalt Sulphate Heptahydrate 330mg/kg (sheep), sodium selenite 2.19mg/kg).
	Dermal	No evidence of dermal toxicity.
	Inhaled	No evidence of acute inhalation toxicity.
	Eye	The mixture is considered to be an eye irritant, because some of the ingredients present are considered eye irritants in more concentrated form.
Chronic	Skin	The mixture is not considered to be a skin irritant.
	Sensitisation	The mixture is considered to be a contact sensitizer, because Copper sulphate in greater than 0.1% is known to be a contact 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	No ingredient present at concentrations > 0.1% is considered a reproductive or developmental toxicant or have any effects on or via lactation.



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Systemic

The mixture is considered to be a known or presumed target organ toxicant. Copper sulphate is considered to be considered harmful with repeated exposure.

Aggravation of existing conditions

None known.

12. Ecological Data

Summary

This mixture is considered toxic towards aquatic organisms with long lasting effects and harmful towards terrestrial vertebrates.

Supporting Data

Aquatic

Using EC₅₀'s for ingredients, the calculated EC₅₀ for the mixture is < 1 mg/L. Data considered includes: Cobalt Sulphate Heptahydrate EC₅₀ 0.4-72 mg/L (72hr, Algae), Copper sulphate 0.0028mg/L (acute, 96hr, Fathead minnow), 0.0014mg/L (48hr, waterflea), 0.005mg/L (72hr, seawater algae), Zinc sulphate 98.77ug/L (96hr, Oncorhynchus mykiss), 0.09877mg/L (48hr, Daphnia hyalina), 0.02469mg/L (5d, Ditylum brightwellii Diatom).

Bioaccumulation

No data

Degradability

No data

Soil

No data

Terrestrial vertebrate

See acute toxicity.

Terrestrial invertebrate

No data

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 Hazardous Substances (Disposal) Notice 2017 and 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

Disposal of contaminated packaging must comply with the Hazardous Substances (Disposal) Notice 2017 clause 12. Ensure that the package is rendered incapable of containing any substance and is disposed in a manner that is consistent with the requirements of the substance it contained and the material of the package. If possible reuse or recycle packaging.

14. Transport Information

Land Transport Rule: Dangerous Goods 2005 - NZS 5433:2007

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

UN number: 3082

Proper shipping name:

ENVIRONMENTALLY HAZARDOUS
SUBSTANCE, LIQUID, n.o.s.
(contains zinc sulphate, copper
sulphate)

Class(es)

9

Packing group:

III

Precautions:

Marine pollutant

Hazchem code:

2Z

..IMDG

UN number:

3082

Proper shipping name:

ENVIRONMENTALLY HAZARDOUS
SUBSTANCE, LIQUID, n.o.s.
(contains zinc sulphate, copper
sulphate)

Class(es)

9

Packing group:

III

Precautions:

Marine pollutant

EmS

F-A, S-F



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IATA			
UN number:	3082	Proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, n.o.s. (contains zinc sulphate, copper sulphate)
Class(es)	9	Packing group:	III
Precautions:	Marine pollutant		

15. Regulatory Information

This product is an approved substance under the Hazardous Substances and New Organisms Act (HSNO). Approval code: HSR002521, Animal Nutritional and Animal Care Products Group Standard 2020. All ingredients appear on the New Zealand Inventory of Chemicals NZIoC.

Specific Controls

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 sub-manufactured for own use or have been supplied.
Labelling	Must comply with the Hazardous Substances (Labelling) Notice 2017.
Emergency plan	Required if > 100kg is stored.
Certified handler	Not required.
Tracking	Not required.
Bundling & secondary containment	Required if > 100kg is stored.
Signage	Required if > 100kg 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.

16. Other Information

Abbreviations

Approval Code	Approval HSR002521, Animal Nutritional and Animal Care Products Group Standard 2020 Controls, EPA. www.epa.govt.nz
CAS Number	Unique Chemical Abstracts Service Registry Number
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)
GHS	Globally Harmonised System of Classification and Labelling of Chemicals, 7 th revised edition, 2017, published by the United Nations.
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)
LEL	Lower Explosive Limit
LD₅₀	Lethal Dose 50% – dose which is fatal to 50% of a test population (usually rats).



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LC₅₀	Lethal Concentration 50% – concentration in air which is fatal to 50% of a test population (usually rats)
NZIoC	New Zealand Inventory of Chemicals
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
STOT RE	Specific Target Organ Toxicity – Repeated Exposure
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).
Controls	EPA notices, www.epa.govt.nz , Health and Safety at Work (Hazardous Substances) Regulations 2017, www.legislation.govt.nz
WES	The latest NZ Workplace Exposure Standards, published by WorkSafe NZ and available on their web site – www.worksafe.govt.nz .
Other References:	Suppliers SDS, EU ECHA, ingredients SDS's, ChemIDplus

Review

Date	Reason for review
January 2021	Not applicable – new SDS
February 2025	yearly update, HSNO to GHS 7, update to WES

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 GHS 7 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 21 1040951.

