



NV V.A.M. Injection

Safety Data Sheet

according to the Model Work Health and Safety Regulations
Issue date: 31/07/2021 Revision date: 11/02/2022 Supersedes: 31/07/2021 Version: 3.0

SECTION 1: Product identifier

1.1. GHS Product identifier

Name : NV V.A.M. Injection
Product code : APVMA No: 50147

1.2. Other means of identification

Synonyms : VAM Injection

1.3. Recommended use of the chemical and restrictions on use

Recommended use : Pharmaceuticals
A supplementary source of vitamins, amino acids and minerals for horses, cattle and dogs
Restrictions on use : Not to be used for any purpose other than the one the product was designed for

1.4. Details of manufacturer or importer

CEVA ANIMAL HEALTH, PTY LTD
11 Moores Road
Glenorie NSW 2157
AUSTRALIA
T +61 (0) 2 9652 7000 - F +61 (0) 2 9652 7001
regulatory.au@ceva.com

1.5. Emergency phone number

Emergency number : +61 (0) 2 9652 7000 (Office hours)
Poisons Information Centre (24 h): 13 11 26

SECTION 2: Hazard identification

2.1. Classification of the hazardous chemical

Classification according to the model Work Health and Safety Regulations (WHS Regulations)

Serious eye damage/eye irritation, Category 2A H319

2.2. GHS Label elements, including precautionary statements

Hazard pictograms (GHS AU) :



Exclamation
mark

Signal word (GHS AU) :

Warning

Contains

: Nicotinamide (10 – 30 %); Glycine (< 10 %); L-Lysine Hydrochloride (< 10 %); DL-Methionine (< 10 %); Ferric Ammonium Citrate (< 10 %); d-Panthenol (< 10 %); Riboflavin (< 10 %); Pyridoxine Hydrochloride (< 10 %); Inositol (< 10 %); Choline Bitartrate (< 10 %); Cyanocobalamin (< 10 %); Copper (II) Sulphate Pentahydrate (< 10 %); Biotin (< 10 %)

Hazard statements (GHS AU) :

: H319 - Causes serious eye irritation

Precautionary statements (GHS AU) :

: P101 - If medical advice is needed, have product container or label at hand.

P102 - Keep out of reach of children.

P103 - Read carefully and follow all instructions.

P201 - Obtain special instructions before use.

P280 - Wear eye protection.

P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

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2.3. Other hazards which do not result in classification

No additional information available

SECTION 3: Composition and information on ingredients

Name	CAS-No.	%
3-Pyridinecarboxamide ; Niacinamide, Nicotinic acid amide, Nicotinamide (Active ingredient)	98-92-0	10 – 30
Aminoacetic acid ; Glycine (Active ingredient)	56-40-6	< 10
L-Lysine hydrochloride ; Lysine hydrochloride (Active ingredient)	657-27-2	< 10
DL-Methionine (Active ingredient)	59-51-8	< 10
Ammonium iron(3+) citrate (Active ingredient)	1185-57-5	< 10
(2R)-2,4-dihydroxy-N-(3-hydroxypropyl)-3,3-dimethylbutanamide (Active ingredient)	81-13-0	< 10
7,8-Dimethyl-10-(D-ribo-2,3,4,5-tetrahydroxypentyl)isoalloxazine ; Vitamine B2, Riboflavin (Active ingredient)	83-88-5	< 10
5-Hydroxy-6-methyl-3,4-pyridinedimethanol hydrochloride ; Pyridoxine hydrochloride (Active ingredient)	58-56-0	< 10
Inocitol ; myo-Inositol (Active ingredient)	87-89-8	< 10
Choline Bitartrate (Active ingredient)	87-67-2	< 10
5,6-Dimethylbenzimidazolyl cyanocobamide ; Vitamin B12 (Active ingredient)	68-19-9	< 10
copper sulphate pentahydrate (Active ingredient)	7758-99-8	< 10
Biotin (Active ingredient)	58-85-5	< 10

Comments : Active ingredients in the preparation.

SECTION 4: First aid measures

4.1. Description of necessary first-aid measures

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact : Wash skin with plenty of water.
First-aid measures after eye contact : Rinse immediately with plenty of water. Removal of contact lenses after an eye injury should only be undertaken by skilled personnel. If eye irritation persists: Get medical advice/attention.
First-aid measures after ingestion : Call a poison center or a doctor if you feel unwell.

4.2. Symptoms caused by exposure

Symptoms/effects after eye contact : Eye irritation.

4.3. Medical attention and special treatment

Other medical advice or treatment : Treat symptomatically.

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SECTION 5: Fire-fighting measures

5.1. Extinguishing media

- Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.
Unsuitable extinguishing media : Unsuitable extinguishing media are not known.

5.2. Specific hazards arising from the chemical

- General measures : No action shall be taken without appropriate training or involving any personal risk. Notify authorities if product enters sewers or public waters.
Hazardous decomposition products in case of fire : Thermal decomposition can lead to the release of irritating gases and vapours. Water vapours are released.

5.3. Special protective equipment and precautions for fire-fighters

- Firefighting instructions : Exercise caution when fighting any chemical fire. Keep upwind. Fight fire from safe distance and protected location.
Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- General measures : No action shall be taken without appropriate training or involving any personal risk. Notify authorities if product enters sewers or public waters.

6.1.1. For non-emergency personnel

- Emergency procedures : Ventilate spillage area. Avoid contact with skin and eyes.

6.1.2. For emergency responders

- Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and materials for containment and cleaning up

- Methods for cleaning up : Take up liquid spill into absorbent material.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Ensure good ventilation of the work station. Avoid contact with skin and eyes. Wear personal protective equipment.
Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

- Technical measures : Does not require any specific or particular technical measures.
Storage conditions : Store in a well-ventilated place. Keep cool.
Storage temperature : < 25 °C
Information on mixed storage : Store away from incompatible materials and products. Refer to the detailed list of incompatible materials in section 10 Stability/Reactivity.
Conditions for safe storage, including any incompatibilities : Check containers and packaging regularly for leaks and damage.
Storage area : Protect from light.
Special rules on packaging : Position containers so that any labeling information is visible. Keep packaging closed when not in use.

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Packaging materials : Keep only in original packaging.

SECTION 8: Exposure controls and personal protection

8.1. Control parameters - exposure standards

No additional information available

8.2. Monitoring methods

Monitoring methods : Workplace exposure - General requirements for the performance of procedures for the measurement of chemical agents.

8.3. Engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.

8.4. Individual protection measures, such as personal protective equipment (PPE)

Personal protective equipment : Personal protective equipment (PPE) must be suited to the nature of the work and any hazard associated with the work as identified by the risk assessment conducted.
Avoid all unnecessary exposure. Ocular shower with suitable liquid.

Hand protection : In case of repeated or prolonged contact wear gloves

Eye protection : Wear eye protection: Chemical goggles or safety glasses

Respiratory protection : If mist is formed : Disposable half mask

Personal protective equipment symbol(s)



Consumer exposure controls

Other information

: Personal protective equipment (PPE) is not required when handling individual retail pack.

: The following Australian and New Zealand Standards will provide general advice regarding safety clothing and equipment: Respiratory equipment: AS/NZS 1715, Protective Gloves: AS 2161, Industrial Clothing: AS2919, Industrial Eye Protection: AS1336 and AS/NZS 1337, Occupational Protective Footwear: AS/NZS2210.

SECTION 9: Physical and chemical properties

Physical state : Liquid
Appearance : No data available
Colour : Colourless
Odour : characteristic
Odour threshold : No data available
pH : No data available
Relative evaporation rate (butylacetate=1) : No data available
Melting point / Freezing point : Melting point: Not applicable
Boiling point : No data available
Flash point : No data available
Auto-ignition temperature : No data available
Flammability (solid, gas) : No data available
Vapour pressure : No data available
Relative density : No data available
Density : No data available
Solubility : No data available
Partition coefficient n-octanol/water (Log Pow) : No data available
Explosive properties : No data available
Explosive limits : No data available
Minimum ignition energy : No data available
Fat solubility : No data available

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SECTION 10: Stability and reactivity

Reactivity	: The product is non-reactive under normal conditions of use, storage and transport.
Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: No dangerous reactions known under normal conditions of use.
Conditions to avoid	: None under recommended storage and handling conditions (see section 7).
Incompatible materials	: Strong acids. Strong bases. Strong oxidizers.
Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

Ammonium iron(3+) citrate (1185-57-5)	
LD50 oral rat	2800 mg/kg Source: ECHA
LD50 dermal rabbit	> 7940 mg/kg Source: ECHA
3-Pyridinecarboxamide ; Niacinamide, Nicotinic acid amide, Nicotinamide (98-92-0)	
LD50 oral rat	> 2500 mg/kg bodyweight Animal: rat, Guideline: EU Method B.1 tris (Acute Oral Toxicity - Acute Toxic Class Method), Guideline: OECD Guideline 423 (Acute Oral toxicity - Acute Toxic Class Method)
LD50 dermal rabbit	> 2000 mg/kg Source: International Uniform Chemical Information Database
LC50 Inhalation - Rat	> 3.8 mg/l air Animal: rat, Guideline: OECD Guideline 436 (Acute Inhalation Toxicity: Acute Toxic Class Method)
Aminoacetic acid ; Glycine (56-40-6)	
LD50 oral rat	7930 – 9550 mg/kg (Rat, Male / female, Experimental value, Oral, 7 day(s))
7,8-Dimethyl-10-(D-ribo-2,3,4,5-tetrahydroxypentyl)isoalloxazine ; Vitamine B2, Riboflavin (83-88-5)	
LD50 oral rat	> 40000 mg/kg bodyweight (Rat, Male / female, Experimental value, Oral)
5-Hydroxy-6-methyl-3,4-pyridinedimethanol hydrochloride ; Pyridoxine hydrochloride (58-56-0)	
LD50 oral rat	4000 mg/kg (Rat, Experimental value, Oral)
LD50 dermal	3000 mg/kg bodyweight (Experimental value)
(2R)-2,4-dihydroxy-N-(3-hydroxypropyl)-3,3-dimethylbutanamide (81-13-0)	
LD50 oral rat	> 10000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity)
LD50 dermal rat	> 2000 mg/kg bodyweight Animal: rat, Guideline: EU Method B.3 (Acute Toxicity (Dermal))
L-Lysine hydrochloride ; Lysine hydrochloride (657-27-2)	
LD50 oral rat	10600 mg/kg (Rat, Male / female, Experimental value, Oral, 14 day(s))
Inocitol ; myo-Inositol (87-89-8)	
LD50 oral rat	19483.68 mg/kg bodyweight Animal: rat, Remarks on results: other:
DL-Methionine (59-51-8)	
LD50 oral rat	> 5000 mg/kg (Rat, Oral)
copper sulphate pentahydrate (7758-99-8)	
LD50 oral rat	482 mg/kg bodyweight (OECD 401: Acute Oral Toxicity, Rat, Male / female, Experimental value, Anhydrous form, Oral, 14 day(s))

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copper sulphate pentahydrate (7758-99-8)	
LD50 dermal rat	> 2000 mg/kg bodyweight (OECD 402: Acute Dermal Toxicity, 24 h, Rat, Male / female, Experimental value, Anhydrous form, Dermal, 14 day(s))
LC50 Inhalation - Rat	9.92 mg/l Source: GESTIS
Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Causes serious eye irritation.
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified
3-Pyridinecarboxamide ; Niacinamide, Nicotinic acid amide, Nicotinamide (98-92-0)	
NOAEL (oral, rat, 90 days)	215 mg/kg bodyweight Animal: rat, Guideline: EU Method B.7 (Repeated Dose (28 Days) Toxicity (Oral)), Guideline: OECD Guideline 407 (Repeated Dose 28-Day Oral Toxicity Study in Rodents)
Aminoacetic acid ; Glycine (56-40-6)	
NOAEL (oral, rat, 90 days)	≥ 2000 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: other:
(2R)-2,4-dihydroxy-N-(3-hydroxypropyl)-3,3-dimethylbutanamide (81-13-0)	
NOAEL (oral, rat, 90 days)	1000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)
Aspiration hazard	: Not classified

SECTION 12: Ecological information

12.1. Ecotoxicity

Ecology - general	: The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.
Hazardous to the aquatic environment, short-term (acute)	: Not classified
Hazardous to the aquatic environment, long-term (chronic)	: Not classified

Ammonium iron(3+) citrate (1185-57-5)	
LC50 - Fish [1]	> 100 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Static system, Fresh water, Experimental value)
EC50 - Crustacea [1]	275 mg/l (48 h, Daphnia magna, Static system, Fresh water, Experimental value)
ErC50 algae	> 100 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Static system, Fresh water, Experimental value)
3-Pyridinecarboxamide ; Niacinamide, Nicotinic acid amide, Nicotinamide (98-92-0)	
LC50 - Fish [1]	> 1000 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Poecilia reticulata, Static system, Fresh water, Experimental value)
LC50 - Fish [2]	4.2 g/l Test organisms (species): Poecilia reticulata
EC50 - Crustacea [1]	> 1000 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 24 h, Daphnia magna, Static system, Fresh water, Experimental value)
ErC50 algae	> 1000 mg/l Source: OECD Screening Information Data Set
BCF - Fish [1]	3.162 l/kg

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Aminoacetic acid ; Glycine (56-40-6)	
LC50 - Fish [1]	> 1000 mg/l (Equivalent or similar to OECD 203, 96 h, Oryzias latipes, Static system, Fresh water, Experimental value, Lethal)
EC50 - Crustacea [1]	≥ 220 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Semi-static system, Fresh water, Experimental value, Locomotor effect)
BCF - Fish [1]	0.893 – 3.16 (Estimated value)
7,8-Dimethyl-10-(D-ribo-2,3,4,5-tetrahydroxypentyl)isoalloxazine ; Vitamine B2, Riboflavin (83-88-5)	
LC50 - Fish [1]	42620.367 mg/l Source: Ecological Structure Activity Relationships
5-Hydroxy-6-methyl-3,4-pyridinedimethanol hydrochloride ; Pyridoxine hydrochloride (58-56-0)	
LC50 - Fish [1]	> 100 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Oncorhynchus mykiss, Static system, Fresh water, Experimental value, GLP)
EC50 - Crustacea [1]	> 100 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, GLP)
ErC50 algae	72 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Desmodesmus subspicatus, Static system, Fresh water, Experimental value, GLP)
(2R)-2,4-dihydroxy-N-(3-hydroxypropyl)-3,3-dimethylbutanamide (81-13-0)	
LC50 - Fish [1]	> 1000 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Oncorhynchus mykiss, Static system, Fresh water, Experimental value, GLP)
EC50 - Crustacea [1]	> 100 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, Lethal)
LOEC (chronic)	> 100 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC (chronic)	≥ 100 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
L-Lysine hydrochloride ; Lysine hydrochloride (657-27-2)	
LC50 - Fish [1]	13500000 mg/l Source: Ecological Structure Activity Relationships
EC50 - Crustacea [1]	> 106 mg/l Test organisms (species): Daphnia magna
Inocitol ; myo-Inositol (87-89-8)	
LC50 - Fish [1]	914000 mg/l Source: Ecological Structure Activity Relationships
DL-Methionine (59-51-8)	
LC50 - Fish [1]	> 3200 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Brachydanio rerio)
EC50 - Crustacea [1]	324 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna)
ErC50 algae	> 1000 mg/l Source: NITE
copper sulphate pentahydrate (7758-99-8)	
LC50 - Fish [1]	38.4 – 256.2 µg/l (96 h, Pimephales promelas, Flow-through system, Fresh water, Read-across, Lethal)
ErC50 algae	0.368 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Read-across, Anhydrous form)
Biotin (58-85-5)	
LC50 - Fish [1]	> 104 mg/l (96 h, Brachydanio rerio, Literature study)
12.2. Persistence and degradability	
Ammonium iron(3+) citrate (1185-57-5)	
Persistence and degradability	Readily biodegradable in water.

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3-Pyridinecarboxamide ; Niacinamide, Nicotinic acid amide, Nicotinamide (98-92-0)	
Persistence and degradability	Readily biodegradable in water.
Aminoacetic acid ; Glycine (56-40-6)	
Persistence and degradability	Readily biodegradable in water.
BOD (% of ThOD)	0.86 (5 day(s), Literature study)
7,8-Dimethyl-10-(D-ribo-2,3,4,5-tetrahydroxypentyl)isoalloxazine ; Vitamine B2, Riboflavin (83-88-5)	
Persistence and degradability	Biodegradability in water: no data available. Not readily biodegradable in water.
5-Hydroxy-6-methyl-3,4-pyridinedimethanol hydrochloride ; Pyridoxine hydrochloride (58-56-0)	
Persistence and degradability	Readily biodegradable in water.
(2R)-2,4-dihydroxy-N-(3-hydroxypropyl)-3,3-dimethylbutanamide (81-13-0)	
Persistence and degradability	Readily biodegradable in water.
L-Lysine hydrochloride ; Lysine hydrochloride (657-27-2)	
Persistence and degradability	Readily biodegradable in water.
Inocitol ; myo-Inositol (87-89-8)	
Persistence and degradability	Biodegradability in water: no data available.
DL-Methionine (59-51-8)	
Persistence and degradability	Readily biodegradable in water.
copper sulphate pentahydrate (7758-99-8)	
Persistence and degradability	Biodegradability: not applicable.
Chemical oxygen demand (COD)	Not applicable (inorganic)
ThOD	Not applicable (inorganic)
Biotin (58-85-5)	
Persistence and degradability	Not readily biodegradable in water.
12.3. Bioaccumulative potential	
Ammonium iron(3+) citrate (1185-57-5)	
Partition coefficient n-octanol/water (Log Pow)	-0.737 (Calculated, 25 °C)
Bioaccumulative potential	Not bioaccumulative.
3-Pyridinecarboxamide ; Niacinamide, Nicotinic acid amide, Nicotinamide (98-92-0)	
BCF - Fish [1]	3.162 l/kg
Partition coefficient n-octanol/water (Log Pow)	-0.38 (Practical experience/observation, OECD 117: Partition Coefficient (n-octanol/water), HPLC method, 21 °C)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).
Aminoacetic acid ; Glycine (56-40-6)	
BCF - Fish [1]	0.893 – 3.16 (Estimated value)
Partition coefficient n-octanol/water (Log Pow)	-3.21 (Practical experience/observation)
Bioaccumulative potential	Not bioaccumulative.
7,8-Dimethyl-10-(D-ribo-2,3,4,5-tetrahydroxypentyl)isoalloxazine ; Vitamine B2, Riboflavin (83-88-5)	
Partition coefficient n-octanol/water (Log Pow)	-1.46 (Experimental value, KOWWIN)
Bioaccumulative potential	Not bioaccumulative.

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5-Hydroxy-6-methyl-3,4-pyridinedimethanol hydrochloride ; Pyridoxine hydrochloride (58-56-0)	
Partition coefficient n-octanol/water (Log Pow)	-0.7 (Experimental value, OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method, 20 °C)
Bioaccumulative potential	Not bioaccumulative.
(2R)-2,4-dihydroxy-N-(3-hydroxypropyl)-3,3-dimethylbutanamide (81-13-0)	
Partition coefficient n-octanol/water (Log Pow)	-1.06 (Experimental value, EU Method A.8: Partition Coefficient, 22 °C)
Bioaccumulative potential	Not bioaccumulative.
L-Lysine hydrochloride ; Lysine hydrochloride (657-27-2)	
Partition coefficient n-octanol/water (Log Pow)	< -3.3 (Experimental value, OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method, 24 °C)
Bioaccumulative potential	Not bioaccumulative.
Inocitol ; myo-Inositol (87-89-8)	
Partition coefficient n-octanol/water (Log Pow)	-2.08 Source: ChemIDplus
Bioaccumulative potential	No bioaccumulation data available.
DL-Methionine (59-51-8)	
Partition coefficient n-octanol/water (Log Pow)	-1.87
Bioaccumulative potential	Not bioaccumulative.
copper sulphate pentahydrate (7758-99-8)	
Partition coefficient n-octanol/water (Log Pow)	-0.2 (Literature)
Bioaccumulative potential	Not bioaccumulative.
Biotin (58-85-5)	
Partition coefficient n-octanol/water (Log Pow)	0.39 (Estimated value)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).
5,6-Dimethylbenzimidazolyl cyanocobamide ; Vitamin B12 (68-19-9)	
Partition coefficient n-octanol/water (Log Pow)	3.57 Source: ECHA
12.4. Mobility in soil	
Ammonium iron(3+) citrate (1185-57-5)	
Ecology - soil	No (test)data on mobility of the substance available.
3-Pyridinecarboxamide ; Niacinamide, Nicotinic acid amide, Nicotinamide (98-92-0)	
Mobility in soil	2.64 Source: SIDS
Aminoacetic acid ; Glycine (56-40-6)	
Surface tension	No data available in the literature
Ecology - soil	Highly mobile in soil.
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	0 (log Koc, SRC PCKOCWIN v2.0, QSAR)
7,8-Dimethyl-10-(D-ribo-2,3,4,5-tetrahydroxypentyl)isoalloxazine ; Vitamine B2, Riboflavin (83-88-5)	
Ecology - soil	No (test)data on mobility of the substance available.
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	-0.774 (log Koc, SRC PCKOCWIN v2.0, Calculated value)

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5-Hydroxy-6-methyl-3,4-pyridinedimethanol hydrochloride ; Pyridoxine hydrochloride (58-56-0)	
Surface tension	73.4 mN/m (20 °C, 1 g/l, OECD 115: Surface Tension of Aqueous Solutions)
Ecology - soil	No (test)data on mobility of the substance available.
(2R)-2,4-dihydroxy-N-(3-hydroxypropyl)-3,3-dimethylbutanamide (81-13-0)	
Ecology - soil	Highly mobile in soil.
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	1 (log Koc, SRC PCKOCWIN v2.0, Calculated value)
L-Lysine hydrochloride ; Lysine hydrochloride (657-27-2)	
Ecology - soil	Highly mobile in soil.
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	1.25 (log Koc, SRC PCKOCWIN v2.0, Calculated value)
DL-Methionine (59-51-8)	
Mobility in soil	0.1258
copper sulphate pentahydrate (7758-99-8)	
Surface tension	No data available in the literature
Ecology - soil	No (test)data on mobility of the substance available. Toxic to flora.
Biotin (58-85-5)	
Ecology - soil	No (test)data on mobility of the substance available.
12.5. Other adverse effects	
Ozone	: Not classified
Other adverse effects	: No additional information available
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Fluorinated greenhouse gases	False
Ammonium iron(3+) citrate (1185-57-5)	
Fluorinated greenhouse gases	False
3-Pyridinecarboxamide ; Niacinamide, Nicotinic acid amide, Nicotinamide (98-92-0)	
Fluorinated greenhouse gases	False
Aminoacetic acid ; Glycine (56-40-6)	
Fluorinated greenhouse gases	False
7,8-Dimethyl-10-(D-ribo-2,3,4,5-tetrahydroxypentyl)isoalloxazine ; Vitamine B2, Riboflavin (83-88-5)	
Fluorinated greenhouse gases	False
5-Hydroxy-6-methyl-3,4-pyridinedimethanol hydrochloride ; Pyridoxine hydrochloride (58-56-0)	
Fluorinated greenhouse gases	False
(2R)-2,4-dihydroxy-N-(3-hydroxypropyl)-3,3-dimethylbutanamide (81-13-0)	
Fluorinated greenhouse gases	False
L-Lysine hydrochloride ; Lysine hydrochloride (657-27-2)	
Fluorinated greenhouse gases	False
Inocitol ; myo-Inositol (87-89-8)	
Fluorinated greenhouse gases	False

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DL-Methionine (59-51-8)	
Fluorinated greenhouse gases	False
copper sulphate pentahydrate (7758-99-8)	
Fluorinated greenhouse gases	False
Choline Bitartrate (87-67-2)	
Fluorinated greenhouse gases	False
Biotin (58-85-5)	
Fluorinated greenhouse gases	False
5,6-Dimethylbenzimidazolyl cyanocobamide ; Vitamin B12 (68-19-9)	
Fluorinated greenhouse gases	False

SECTION 13: Disposal considerations

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

SECTION 14: Transport information

ADG	IMDG	IATA
14.1. UN number		
Not regulated	Not applicable	Not applicable
14.2. UN Proper Shipping Name		
Not regulated	Not applicable	Not applicable
14.3. Transport hazard class(es)		
Not regulated	Not applicable	Not applicable
14.4. Packing group		
Not regulated	Not applicable	Not applicable
14.5. Environmental hazards		
Not regulated	Not applicable	Not applicable

14.6. Special precautions for user

Specific storage requirement : No data available
Shock sensitivity : No data available

14.7. Additional information

Other information : No supplementary information available

Transport by road and rail

Not regulated

Transport by sea

Not applicable

Air transport

Not applicable

14.8. Hazchem or Emergency Action Code

Hazchem Code : Not applicable

NV V.A.M. Injection

Safety Data Sheet

according to the Model Work Health and Safety Regulations

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations specific for the product in question

Australian Industrial Chemicals Introduction Scheme (AICIS)

Australian Inventory of Industrial Chemicals (AICIS : All the chemicals contained in this product are listed introductions Inventory) status

Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP)

Relevant Poisons Schedule number : Unscheduled

Australian Pesticides and Veterinary Medicines Authority (APVMA)

APVMA approval number : 50147

15.2. International agreements

No additional information available

SECTION 16: Other information

Indication of changes:

Update of the SDS from former GHS version to the 7th edition of the GHS (GHS 7).

Indication of changes			
Section	Changed item	Change	Comments
	Supersedes	Added	
	Revision date	Added	
15.1	Relevant Poisons Schedule number	Modified	

Data sources

: Safe Work Australia - Code of Practice - Preparation of Safety Data Sheets for Hazardous Chemicals
Safe Work Australia - Code of Practice - Labelling of Workplace Hazardous Chemicals
Safe Work Australia - Workplace Exposure Standards for Airborne Contaminants
Safe Work Australia - Hazardous Chemical Information System (HCIS)
Australian Inventory of Industrial Chemicals (AICIS Inventory)
Environmental Protection Authority - Hazardous Substances (Hazard Classification) Notice 2020
Environmental Protection Authority - Hazardous Substances (Safety Data Sheets) Notice 2017
Environmental Protection Authority - Hazardous Substances (Labelling) Notice 2017
New Zealand - Chemical Classification and Information Database (CCID)
New Zealand - Inventory of Chemicals (NZIoC)
European Chemicals Agency (ECHA) - Annex VI (C&L Inventory)
European Chemicals Agency (ECHA) - REACH Study Results
European Chemicals Agency (ECHA) - REACH Registration Dossiers
United Nations - Globally Harmonised System of Classification and Labelling of Chemicals (GHS)
Uniform Scheduling of Medicines and Poisons (SUSMP)
United Nations Recommendations on the Transport of Dangerous Goods (UNRTDG Model Regulation)
Australian Dangerous Goods Code (ADG Code)
International Air Transport Association Dangerous Goods Regulations (IATA DGR)
International Maritime Dangerous Goods (IMDG Code).

Revision date

: 11/02/2022

Classification

Eye Irrit. 2A	H319
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NV V.A.M. Injection

Safety Data Sheet

according to the Model Work Health and Safety Regulations

Full text of H-statements	
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Acute Tox. 5 (Dermal)	Acute toxicity (dermal), Category 5
Acute Tox. 5 (Oral)	Acute toxicity (oral), Category 5
Aquatic Acute 1	Hazardous to the aquatic environment — Acute Hazard, Category 1
Aquatic Acute 3	Hazardous to the aquatic environment — Acute Hazard, Category 3
Aquatic Chronic 1	Hazardous to the aquatic environment — Chronic Hazard, Category 1
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2A	Serious eye damage/eye irritation, Category 2A
H302	Harmful if swallowed
H303	May be harmful if swallowed
H313	May be harmful in contact with skin
H318	Causes serious eye damage
H319	Causes serious eye irritation
H400	Very toxic to aquatic life
H402	Harmful to aquatic life
H410	Very toxic to aquatic life with long lasting effects

Safety Data Sheet (SDS), Australia

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.