

Kanamycin Acid Sulfate Formulation

Version	Revision Date:	SDS Number:	Date of last issue: 25.10.2023
2.1	15.12.2023	11272793-00004	Date of first issue: 18.09.2023

Section 1: Identification

Product name : Kanamycin Acid Sulfate Formulation

Manufacturer or supplier's details

Company : MSD

Address : 33 Whakatiki Street - Private Bag 908
Upper Hutt - New Zealand

Telephone : 0800 800 543

Emergency telephone number : 0800 764 766 (0800 POISON) 0800 243 622 (0800 CHEMCALL)

E-mail address : EHSDATASTEWARD@msd.com

Recommended use of the chemical and restrictions on use

Recommended use : Veterinary product

Restrictions on use : Not applicable

Section 2: Hazard identification

GHS Classification

Respiratory sensitisation : Category 1

Skin sensitisation : Category 1

Carcinogenicity : Category 1

Reproductive toxicity : Category 2

Specific target organ toxicity - repeated exposure (Oral) : Category 1 (Auditory system)

Hazardous to the aquatic environment - acute hazard : Category 1

Hazardous to the aquatic environment - chronic hazard : Category 1

GHS label elements

Hazard pictograms :



Kanamycin Acid Sulfate Formulation

Version	Revision Date:	SDS Number:	Date of last issue: 25.10.2023
2.1	15.12.2023	11272793-00004	Date of first issue: 18.09.2023

Signal word : Danger

Hazard statements : H317 May cause an allergic skin reaction.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H350 May cause cancer.
H361 Suspected of damaging fertility or the unborn child.
H372 Causes damage to organs (Auditory system) through prolonged or repeated exposure if swallowed.
H410 Very toxic to aquatic life with long lasting effects.

Precautionary statements : **Prevention:**
P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P260 Do not breathe mist or vapours.
P264 Wash skin 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.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
P284 Wear respiratory protection.

Response:
P302 + P352 IF ON SKIN: Wash with plenty of water.
P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P308 + P313 IF exposed or concerned: Get medical advice/ attention.
P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.
P342 + P311 If experiencing respiratory symptoms: Call a POISON CENTER/ doctor.
P391 Collect spillage.

Storage:
P405 Store locked up.

Disposal:
P501 Dispose of contents/ container to an approved waste disposal plant.

Other hazards which do not result in classification

None known.

Section 3: Composition/information on ingredients

Substance / Mixture : Mixture

Components

Kanamycin Acid Sulfate Formulation

Version	Revision Date:	SDS Number:	Date of last issue: 25.10.2023
2.1	15.12.2023	11272793-00004	Date of first issue: 18.09.2023

Chemical name	CAS-No.	Concentration (% w/w)
Kanamycin acid sulfate	64013-70-3	≥ 20 -< 25
Sulphuric acid	7664-93-9	≥ 0.1 -< 1
Sodium metabisulphite	7681-57-4	≥ 0.1 -< 1
Phenol	108-95-2	≥ 0.1 -< 0.25

Section 4: First-aid measures

General advice	: In the case of accident or if you feel unwell, seek medical advice immediately. When symptoms persist or in all cases of doubt seek medical advice.
If inhaled	: If inhaled, remove to fresh air. Get medical attention if symptoms occur.
In case of skin contact	: Wash with water and soap as a precaution. Get medical attention if symptoms occur.
In case of eye contact	: Flush eyes with water as a precaution. Get medical attention if irritation develops and persists.
If swallowed	: If swallowed, DO NOT induce vomiting. Get medical attention if symptoms occur. Rinse mouth thoroughly with water.
Most important symptoms and effects, both acute and delayed	: May cause an allergic skin reaction. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause cancer. Suspected of damaging fertility or the unborn child. Causes damage to organs through prolonged or repeated exposure if swallowed.
Protection of first-aiders	: First Aid responders should pay attention to self-protection, and use the recommended personal protective equipment when the potential for exposure exists (see section 8).
Notes to physician	: Treat symptomatically and supportively.

Section 5: Fire-fighting measures

Suitable extinguishing media	: Water spray Alcohol-resistant foam Carbon dioxide (CO ₂) Dry chemical
Unsuitable extinguishing media	: None known.
Specific hazards during fire-fighting	: Exposure to combustion products may be a hazard to health.
Hazardous combustion products	: Carbon oxides
Specific extinguishing methods	: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Use water spray to cool unopened containers. Remove undamaged containers from fire area if it is safe to do

Kanamycin Acid Sulfate Formulation

Version	Revision Date:	SDS Number:	Date of last issue: 25.10.2023
2.1	15.12.2023	11272793-00004	Date of first issue: 18.09.2023

so.
Evacuate area.

Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.
Use personal protective equipment.

Hazchem Code : 3Z

Section 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures : Use personal protective equipment.
Follow safe handling advice (see section 7) and personal protective equipment recommendations (see section 8).

Environmental precautions : Avoid release to the environment.
Prevent further leakage or spillage if safe to do so.
Prevent spreading over a wide area (e.g. by containment or oil barriers).
Retain and dispose of contaminated wash water.
Local authorities should be advised if significant spillages cannot be contained.

Methods and materials for containment and cleaning up : Soak up with inert absorbent material.
For large spills, provide dyking or other appropriate containment to keep material from spreading. If dyked material can be pumped, store recovered material in appropriate container.
Clean up remaining materials from spill with suitable absorbent.
Local or national regulations may apply to releases and disposal of this material, as well as those materials and items employed in the cleanup of releases. You will need to determine which regulations are applicable.
Sections 13 and 15 of this SDS provide information regarding certain local or national requirements.

Section 7: Handling and storage

Technical measures : See Engineering measures under EXPOSURE CONTROLS/PERSONAL PROTECTION section.

Local/Total ventilation : Use only with adequate ventilation.

Advice on safe handling : Do not breathe mist or vapours.
Do not swallow.
Avoid contact with eyes.
Avoid prolonged or repeated contact with skin.
Wash skin thoroughly after handling.
Handle in accordance with good industrial hygiene and safety practice, based on the results of the workplace exposure assessment.
Do not eat, drink or smoke when using this product.
Take care to prevent spills, waste and minimize release to the environment.

Hygiene measures : If exposure to chemical is likely during typical use, provide eye flushing systems and safety showers close to the working place.

Kanamycin Acid Sulfate Formulation

Version	Revision Date:	SDS Number:	Date of last issue: 25.10.2023
2.1	15.12.2023	11272793-00004	Date of first issue: 18.09.2023

When using do not eat, drink or smoke.
Wash contaminated clothing before re-use.
The effective operation of a facility should include review of engineering controls, proper personal protective equipment, appropriate degowning and decontamination procedures, industrial hygiene monitoring, medical surveillance and the use of administrative controls.

Conditions for safe storage : Keep in properly labelled containers.
Store in accordance with the particular national regulations.

Materials to avoid : Do not store with the following product types:
Strong oxidizing agents

Section 8: Exposure controls/personal protection

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Kanamycin acid sulfate	64013-70-3	TWA	100 µg/m ³ (OEB 2)	Internal
Sulphuric acid	7664-93-9	WES-TWA	0.1 mg/m ³	NZ OEL
Further information: Known or presumed human carcinogen				
		TWA (Thoracic particulate matter)	0.2 mg/m ³	ACGIH
Sodium metabisulphite	7681-57-4	WES-TWA	5 mg/m ³	NZ OEL
Further information: Skin sensitiser, Respiratory sensitiser				
		TWA	5 mg/m ³	ACGIH
Phenol	108-95-2	WES-TWA	1 ppm 3.8 mg/m ³	NZ OEL
Further information: Skin absorption				
		WES-STEL	2 ppm 7.7 mg/m ³	NZ OEL
Further information: Skin absorption				
		TWA	5 ppm	ACGIH

Biological occupational exposure limits

Components	CAS-No.	Control parameters	Biological specimen	Sampling time	Permissible concentration	Basis
Phenol	108-95-2	Total phenol	Urine	End of shift	100 mg/l	NZ BEI
		Phenol	Urine	End of shift (As soon as possible after exposure ceases)	250 mg/g creatinine	ACGIH BEI

Kanamycin Acid Sulfate Formulation

Version	Revision Date:	SDS Number:	Date of last issue: 25.10.2023
2.1	15.12.2023	11272793-00004	Date of first issue: 18.09.2023

Engineering measures : Use appropriate engineering controls and manufacturing technologies to control airborne concentrations (e.g., drip-less quick connections).
All engineering controls should be implemented by facility design and operated in accordance with GMP principles to protect products, workers, and the environment.
Laboratory operations do not require special containment.

Personal protective equipment

Respiratory protection : If adequate local exhaust ventilation is not available or exposure assessment demonstrates exposures outside the recommended guidelines, use respiratory protection.

Filter type : Particulates type

Hand protection

Material : Chemical-resistant gloves

Eye protection : Wear safety glasses with side shields or goggles.
If the work environment or activity involves dusty conditions, mists or aerosols, wear the appropriate goggles.
Wear a faceshield or other full face protection if there is a potential for direct contact to the face with dusts, mists, or aerosols.

Skin and body protection : Work uniform or laboratory coat.

Section 9: Physical and chemical properties

Appearance : liquid

Colour : colourless

Odour : characteristic

Odour Threshold : No data available

pH : 3.5 - 5.5

Melting point/freezing point : No data available

Initial boiling point and boiling range : No data available

Flash point : No data available

Evaporation rate : No data available

Flammability (solid, gas) : Not applicable

Flammability (liquids) : No data available

Upper explosion limit / Upper flammability limit : No data available

Kanamycin Acid Sulfate Formulation

Version	Revision Date:	SDS Number:	Date of last issue: 25.10.2023
2.1	15.12.2023	11272793-00004	Date of first issue: 18.09.2023

Lower explosion limit / Lower flammability limit	:	No data available
Vapour pressure	:	No data available
Relative vapour density	:	No data available
Relative density	:	No data available
Density	:	1.05 - 1.10 g/cm ³
Solubility(ies) Water solubility	:	soluble
Partition coefficient: n-octanol/water	:	Not applicable
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
Viscosity Viscosity, kinematic	:	No data available
Explosive properties	:	Not explosive
Oxidizing properties	:	The substance or mixture is not classified as oxidizing.
Molecular weight	:	No data available
Particle size	:	Not applicable

Section 10: Stability and reactivity

Reactivity	:	Not classified as a reactivity hazard.
Chemical stability	:	Stable under normal conditions.
Possibility of hazardous reactions	:	Can react with strong oxidizing agents.
Conditions to avoid	:	None known.
Incompatible materials	:	Oxidizing agents
Hazardous decomposition products	:	No hazardous decomposition products are known.

Section 11: Toxicological information

Exposure routes	:	Inhalation Skin contact Ingestion Eye contact
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Kanamycin Acid Sulfate Formulation

Version	Revision Date:	SDS Number:	Date of last issue: 25.10.2023
2.1	15.12.2023	11272793-00004	Date of first issue: 18.09.2023

Acute toxicity

Not classified based on available information.

Product:

Acute oral toxicity	:	Acute toxicity estimate: > 2,000 mg/kg Method: Calculation method
Acute inhalation toxicity	:	Acute toxicity estimate: > 5 mg/l Exposure time: 4 h Test atmosphere: dust/mist Method: Calculation method
Acute dermal toxicity	:	Acute toxicity estimate: > 2,000 mg/kg Method: Calculation method

Components:**Kanamycin acid sulfate:**

Acute oral toxicity	:	LD50 (Rat): > 4,000 mg/kg LD50 (Mouse): 12,000 mg/kg LD50 (Rabbit): > 3,000 mg/kg
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Sulphuric acid:

Acute oral toxicity	:	LD50 (Rat): 2,140 mg/kg
Acute inhalation toxicity	:	Acute toxicity estimate: 1.5 mg/l Exposure time: 4 h Test atmosphere: dust/mist Method: Expert judgement Remarks: Based on national or regional regulation.

Sodium metabisulphite:

Acute oral toxicity	:	LD50 (Rat): 1,540 mg/kg Method: OECD Test Guideline 401
Acute inhalation toxicity	:	LC50 (Rat): > 5.5 mg/l Exposure time: 4 h Test atmosphere: dust/mist Remarks: Based on data from similar materials
Acute dermal toxicity	:	LD50 (Rat): > 2,000 mg/kg Method: OECD Test Guideline 402 Remarks: Based on data from similar materials

Phenol:

Acute oral toxicity	:	LD50 (Rat): 650 mg/kg Method: OECD Test Guideline 401
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Kanamycin Acid Sulfate Formulation

Version	Revision Date:	SDS Number:	Date of last issue: 25.10.2023
2.1	15.12.2023	11272793-00004	Date of first issue: 18.09.2023

Acute toxicity estimate (Humans): 140 - 290 mg/kg
Method: Expert judgement

Acute inhalation toxicity : Acute toxicity estimate: 0.0501 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: Expert judgement
Remarks: Based on national or regional regulation.

Acute dermal toxicity : LD50 (Rabbit): 660 mg/kg
Method: OECD Test Guideline 402

Acute toxicity estimate (Humans): 300 mg/kg
Method: Expert judgement

Skin corrosion/irritation

Not classified based on available information.

Components:**Kanamycin acid sulfate:**

Remarks : No data available

Sulphuric acid:

Result : Corrosive after 3 minutes or less of exposure

Sodium metabisulphite:

Result : Skin irritation
Remarks : Based on national or regional regulation.

Phenol:

Species : Rabbit
Result : Corrosive after 3 minutes to 1 hour of exposure

Serious eye damage/eye irritation

Not classified based on available information.

Components:**Kanamycin acid sulfate:**

Remarks : No data available

Sulphuric acid:

Result : Irreversible effects on the eye

Sodium metabisulphite:

Species : Rabbit
Result : Irreversible effects on the eye

Kanamycin Acid Sulfate Formulation

Version	Revision Date:	SDS Number:	Date of last issue: 25.10.2023
2.1	15.12.2023	11272793-00004	Date of first issue: 18.09.2023

Method : OECD Test Guideline 405

Phenol:

Species : Rabbit
Result : Irreversible effects on the eye
Method : OECD Test Guideline 405

Respiratory or skin sensitisation**Skin sensitisation**

May cause an allergic skin reaction.

Respiratory sensitisation

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Components:**Kanamycin acid sulfate:**

Test Type : Maximisation Test
Species : Guinea pig
Assessment : Did not cause sensitisation on laboratory animals.
Result : negative

Sodium metabisulphite:

Assessment : Probability or evidence of skin sensitisation in humans
Remarks : Based on national or regional regulation.

Assessment : May cause sensitisation by inhalation.
Remarks : Based on national or regional regulation.

Phenol:

Test Type : Buehler Test
Exposure routes : Skin contact
Species : Guinea pig
Method : OECD Test Guideline 406
Result : negative

Chronic toxicity**Germ cell mutagenicity**

Not classified based on available information.

Components:**Kanamycin acid sulfate:**

Genotoxicity in vitro : Test Type: Ames test
Result: negative

Test Type: mitotic recombination assay
Test system: Escherichia coli

Kanamycin Acid Sulfate Formulation

Version	Revision Date:	SDS Number:	Date of last issue: 25.10.2023
2.1	15.12.2023	11272793-00004	Date of first issue: 18.09.2023

Result: negative

Test Type: DNA Repair
Test system: Escherichia coli
Result: negative

Genotoxicity in vivo : Test Type: Micronucleus test
Species: Mouse
Cell type: Bone marrow
Result: negative

Sulphuric acid:

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)
Result: negative

Sodium metabisulphite:

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)
Result: negative

Test Type: In vitro mammalian cell gene mutation test
Method: OECD Test Guideline 476
Result: negative

Genotoxicity in vivo : Test Type: Mammalian erythrocyte micronucleus test (in vivo cytogenetic assay)
Species: Mouse
Application Route: Subcutaneous
Method: OECD Test Guideline 474
Result: negative
Remarks: Based on data from similar materials

Phenol:

Genotoxicity in vitro : Test Type: Chromosome aberration test in vitro
Method: OECD Test Guideline 473
Result: positive

Genotoxicity in vivo : Test Type: Mammalian erythrocyte micronucleus test (in vivo cytogenetic assay)
Species: Mouse
Application Route: Intraperitoneal injection
Method: OECD Test Guideline 474
Result: positive
Remarks: Annex VI From 1272/2008

Germ cell mutagenicity - Assessment : Positive result(s) from in vivo mammalian somatic cell mutagenicity tests.

Kanamycin Acid Sulfate Formulation

Version	Revision Date:	SDS Number:	Date of last issue: 25.10.2023
2.1	15.12.2023	11272793-00004	Date of first issue: 18.09.2023

Carcinogenicity

May cause cancer.

Components:**Sulphuric acid:**

Carcinogenicity - Assessment : Positive evidence from human epidemiological studies

Sodium metabisulphite:

Species : Mouse
Application Route : Ingestion
Exposure time : 24 Months
Result : negative
Remarks : Based on data from similar materials

Phenol:

Species : Mouse
Application Route : Ingestion
Exposure time : 103 weeks
Method : OECD Test Guideline 451
Result : negative

Reproductive toxicity

Suspected of damaging fertility or the unborn child.

Components:**Kanamycin acid sulfate:**

Effects on foetal development : Test Type: Embryo-foetal development
Species: Rat
Application Route: Intravenous injection
Developmental Toxicity: 100 mg/kg body weight
Symptoms: No adverse effects

Test Type: reproductive and developmental toxicity study
Application Route: Intravenous injection
Developmental Toxicity: NOAEL: 400 mg/kg body weight
Symptoms: No adverse effects
Target Organs: Auditory system
Result: Post-natal toxicity

Test Type: Reproduction/Developmental toxicity screening test
Species: Guinea pig
Application Route: Intramuscular
Developmental Toxicity: NOAEL: > 100 mg/kg body weight
Target Organs: Auditory system
Remarks: Significant toxicity observed in testing

Kanamycin Acid Sulfate Formulation

Version	Revision Date:	SDS Number:	Date of last issue: 25.10.2023
2.1	15.12.2023	11272793-00004	Date of first issue: 18.09.2023

Sulphuric acid:

Effects on foetal development : Test Type: Embryo-foetal development
Species: Rabbit
Application Route: inhalation (dust/mist/fume)
Result: negative

Sodium metabisulphite:

Effects on fertility : Test Type: Three-generation study
Species: Rat
Application Route: Ingestion
Result: negative

Effects on foetal development : Test Type: Embryo-foetal development
Species: Rabbit
Application Route: Ingestion
Result: negative

Phenol:

Effects on fertility : Test Type: Two-generation reproduction toxicity study
Species: Rat
Application Route: Ingestion
Method: OECD Test Guideline 416
Result: negative

Effects on foetal development : Test Type: Embryo-foetal development
Species: Mouse
Application Route: Ingestion
Method: OECD Test Guideline 414
Result: negative

Reproductive toxicity - Assessment : Some evidence of adverse effects on sexual function and fertility, and/or on development, based on animal experiments.
Remarks: Based on national or regional regulation.

STOT - single exposure

Not classified based on available information.

STOT - repeated exposure

Causes damage to organs (Auditory system) through prolonged or repeated exposure if swallowed.

Components:**Kanamycin acid sulfate:**

Exposure routes : Oral
Target Organs : Auditory system
Assessment : Causes damage to organs through prolonged or repeated exposure.

Kanamycin Acid Sulfate Formulation

Version	Revision Date:	SDS Number:	Date of last issue: 25.10.2023
2.1	15.12.2023	11272793-00004	Date of first issue: 18.09.2023

Phenol:

Assessment	:	Causes damage to organs through prolonged or repeated exposure.
Remarks	:	Based on national or regional regulation.

Repeated dose toxicity**Components:****Kanamycin acid sulfate:**

Species	:	Rat
LOAEL	:	TDLo = 12000 mg/kg
Application Route	:	Intraperitoneal
Exposure time	:	30 d
Target Organs	:	Kidney, Ureter, Bladder
Remarks	:	Significant toxicity observed in testing

Species	:	Dog
LOAEL	:	TDLo= 6500 mg/kg
Application Route	:	Subcutaneous
Exposure time	:	17 d
Target Organs	:	Auditory system, Eye, Kidney, olfactory sense organs
Remarks	:	Significant toxicity observed in testing

Species	:	Guinea pig
NOAEL	:	100 mg/kg
LOAEL	:	> 200 mg/kg
Application Route	:	Intramuscular
Exposure time	:	4 Weeks
Target Organs	:	Auditory system
Remarks	:	Significant toxicity observed in testing

Species	:	Rabbit, male
LOAEL	:	> 50 mg/kg
Application Route	:	Intramuscular
Exposure time	:	30 d
Target Organs	:	Auditory system, Kidney
Remarks	:	Significant toxicity observed in testing

Sodium metabisulphite:

Species	:	Rat
NOAEL	:	110 mg/kg
LOAEL	:	220 mg/kg
Application Route	:	Ingestion
Exposure time	:	104 Weeks

Phenol:

Species	:	Rat
LOAEL	:	300 mg/kg
Application Route	:	Ingestion

Kanamycin Acid Sulfate Formulation

Version	Revision Date:	SDS Number:	Date of last issue: 25.10.2023
2.1	15.12.2023	11272793-00004	Date of first issue: 18.09.2023

Exposure time : 90 Days
Method : OECD Test Guideline 408

Species : Rat
NOAEL : ≥ 0.1 mg/l
Application Route : inhalation (vapour)
Exposure time : 74 Days

Species : Rabbit
LOAEL : 260 mg/kg
Application Route : Skin contact
Exposure time : 18 Days

Aspiration toxicity

Not classified based on available information.

Experience with human exposure**Components:****Kanamycin acid sulfate:**

General Information : Target Organs: Auditory system
Symptoms: Abdominal pain, altered taste, Dizziness
Remarks: The most common side effects are:
Target Organs: Kidney
Symptoms: Vomiting, skin rash, numbness

Section 12: Ecological information**Ecotoxicity****Components:****Kanamycin acid sulfate:**

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): > 100 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 203

Toxicity to daphnia and other : EC50 (Daphnia magna (Water flea)): > 100 mg/l
aquatic invertebrates : Exposure time: 48 h
Method: OECD Test Guideline 202

Toxicity to algae/aquatic : EC50 (Pseudokirchneriella subcapitata (green algae)): 0.74
plants : mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201

NOEC (Pseudokirchneriella subcapitata (green algae)): 0.31
mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201

Kanamycin Acid Sulfate Formulation

Version	Revision Date:	SDS Number:	Date of last issue: 25.10.2023
2.1	15.12.2023	11272793-00004	Date of first issue: 18.09.2023

EC50 (blue-green algae): 0.03 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201

NOEC (blue-green algae): 0.01 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201

M-Factor (Acute aquatic toxicity) : 10

Toxicity to microorganisms : EC50: > 461 mg/l
Exposure time: 3 h
Test Type: Respiration inhibition
Method: OECD Test Guideline 209

NOEC: 4.9 mg/l
Exposure time: 3 h
Test Type: Respiration inhibition
Method: OECD Test Guideline 209

Ecotoxicology Assessment

Acute aquatic toxicity : Very toxic to aquatic organisms.

Chronic aquatic toxicity : Very toxic to aquatic life with long lasting effects.

Sulphuric acid:

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 100 mg/l
Exposure time: 48 h
Method: OECD Test Guideline 202

Toxicity to microorganisms : NOEC: 88 mg/l
Exposure time: 21 d

Sodium metabisulphite:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 178 mg/l
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 89 mg/l
Exposure time: 48 h

Toxicity to algae/aquatic plants : ErC50 (Desmodesmus subspicatus (green algae)): 43.8 mg/l
Exposure time: 72 h

EC10 (Desmodesmus subspicatus (green algae)): 33.3 mg/l
Exposure time: 72 h

Toxicity to fish (Chronic toxicity) : NOEC (Danio rerio (zebra fish)): >= 316 mg/l
Exposure time: 34 d
Method: OECD Test Guideline 210
Remarks: Based on data from similar materials

Kanamycin Acid Sulfate Formulation

Version	Revision Date:	SDS Number:	Date of last issue: 25.10.2023
2.1	15.12.2023	11272793-00004	Date of first issue: 18.09.2023

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Daphnia magna (Water flea)): ≥ 10 mg/l
Exposure time: 21 d

Toxicity to microorganisms : EC10 (Pseudomonas putida): 30.8 mg/l
Exposure time: 17 h

Phenol:

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): 24.9 mg/l
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Ceriodaphnia dubia (water flea)): 3.1 mg/l
Exposure time: 48 h

Toxicity to algae/aquatic plants : EC50 (Selenastrum capricornutum (green algae)): 61.1 mg/l
Exposure time: 96 h

Toxicity to fish (Chronic toxicity) : NOEC: 0.077 mg/l
Exposure time: 60 d

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Daphnia magna (Water flea)): 10 mg/l
Exposure time: 16 d

Toxicity to microorganisms : IC50 (Nitrosomonas sp.): 21 mg/l
Exposure time: 24 h

Persistence and degradability**Components:****Kanamycin acid sulfate:**

Biodegradability : Result: Not readily biodegradable.
Biodegradation: 0 %
Exposure time: 28 d
Method: OECD Test Guideline 301B

Phenol:

Biodegradability : Result: Readily biodegradable.
Biodegradation: 62 %
Exposure time: 10 d
Method: OECD Test Guideline 301C

Bioaccumulative potential**Components:****Phenol:**

Bioaccumulation : Species: Fish
Bioconcentration factor (BCF): 17.5
Method: OECD Test Guideline 305

Kanamycin Acid Sulfate Formulation

Version	Revision Date:	SDS Number:	Date of last issue: 25.10.2023
2.1	15.12.2023	11272793-00004	Date of first issue: 18.09.2023

Partition coefficient: n-octanol/water : log Pow: 1.47

Mobility in soil

No data available

Other adverse effects

No data available

Section 13: Disposal considerations**Disposal methods**

Waste from residues	:	Do not dispose of waste into sewer. Dispose of in accordance with local regulations.
Contaminated packaging	:	Empty containers should be taken to an approved waste handling site for recycling or disposal. If not otherwise specified: Dispose of as unused product.

Section 14: Transport information**International Regulations****UNRTDG**

UN number	:	UN 3082
Proper shipping name	:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Kanamycin acid sulfate)
Class	:	9
Packing group	:	III
Labels	:	9
Environmentally hazardous	:	yes

IATA-DGR

UN/ID No.	:	UN 3082
Proper shipping name	:	Environmentally hazardous substance, liquid, n.o.s. (Kanamycin acid sulfate)
Class	:	9
Packing group	:	III
Labels	:	Miscellaneous
Packing instruction (cargo aircraft)	:	964
Packing instruction (passenger aircraft)	:	964
Environmentally hazardous	:	yes

IMDG-Code

UN number	:	UN 3082
Proper shipping name	:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Kanamycin acid sulfate)
Class	:	9
Packing group	:	III

Kanamycin Acid Sulfate Formulation

Version	Revision Date:	SDS Number:	Date of last issue: 25.10.2023
2.1	15.12.2023	11272793-00004	Date of first issue: 18.09.2023

Labels : 9
EmS Code : F-A, S-F
Marine pollutant : yes

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

National Regulations**NZS 5433**

UN number : UN 3082
Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,
N.O.S.
(Kanamycin acid sulfate)
Class : 9
Packing group : III
Labels : 9
Hazchem Code : 3Z
Marine pollutant : yes

Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

Section 15: Regulatory information**Safety, health and environmental regulations/legislation specific for the substance or mixture****HSNO Approval Number**

HSR100759 Veterinary Medicines Non dispersive Open System Application Group Standard

HSW Controls

Certified handler certificate not required.

Tracking hazardous substance not required.

Refer to the Health and Safety at Work (Hazardous Substances) Regulations 2017, for further information.

The components of this product are reported in the following inventories:

AICS : not determined
DSL : not determined
IECSC : not determined

Section 16: Other information

Revision Date : 15.12.2023

Further information

Kanamycin Acid Sulfate Formulation

Version	Revision Date:	SDS Number:	Date of last issue: 25.10.2023
2.1	15.12.2023	11272793-00004	Date of first issue: 18.09.2023

Sources of key data used to compile the Safety Data Sheet : Internal technical data, data from raw material SDSs, OECD eChem Portal search results and European Chemicals Agency, <http://echa.europa.eu/>

Date format : dd.mm.yyyy

Full text of other abbreviations

ACGIH : USA. ACGIH Threshold Limit Values (TLV)
ACGIH BEI : ACGIH - Biological Exposure Indices (BEI)
NZ BEI : New Zealand. Biological Exposure Indices
NZ OEL : New Zealand. Workplace Exposure Standards for Atmospheric Contaminants

ACGIH / TWA : 8-hour, time-weighted average
NZ OEL / WES-TWA : Workplace Exposure Standard - Time Weighted average
NZ OEL / WES-STEL : Workplace Exposure Standard - Short-Term Exposure Limit

AIIC - Australian Inventory of Industrial Chemicals; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; Nch - Chilean Norm; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TDG - Transportation of Dangerous Goods; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative; WHMIS - Workplace Hazardous Materials Information System

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and shall not be considered a warranty or quality specification of any type. The information provided relates only to the specific material identified at the top of this SDS and may not be valid when the SDS mate-

Kanamycin Acid Sulfate Formulation

Version	Revision Date:	SDS Number:	Date of last issue: 25.10.2023
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rial is used in combination with any other materials or in any process, unless specified in the text. Material users should review the information and recommendations in the specific context of their intended manner of handling, use, processing and storage, including an assessment of the appropriateness of the SDS material in the user's end product, if applicable.

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