

Kanamycin Acid Sulfate Formulation

Version	Revision Date:	SDS Number:	Date of last issue: 15.12.2023
4.0	14.04.2025	11272710-00005	Date of first issue: 18.09.2023

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1 Product identifier**

Trade name : Kanamycin Acid Sulfate Formulation

1.2 Relevant identified uses of the substance or mixture and uses advised against

Use of the Sub-
stance/Mixture : Veterinary product

Recommended restrictions
on use : Not applicable

1.3 Details of the supplier of the safety data sheet

Company : MSD
20 Spartan Road
1619 Spartan, South Africa

Telephone : +27119239300

E-mail address of person
responsible for the SDS : EHSDATASTEWARD@msd.com

1.4 Emergency telephone number

+1-908-423-6000

SECTION 2: Hazards identification**2.1 Classification of the substance or mixture****Classification (REGULATION (EC) No 1272/2008)**

Specific target organ toxicity - repeated exposure, Category 1	H372: Causes damage to organs through prolonged or repeated exposure.
Short-term (acute) aquatic hazard, Category 1	H400: Very toxic to aquatic life.
Long-term (chronic) aquatic hazard, Category 1	H410: Very toxic to aquatic life with long lasting effects.

2.2 Label elements**Labelling (REGULATION (EC) No 1272/2008)**

Hazard pictograms :



Signal word : Danger

Hazard statements : H372 Causes damage to organs through prolonged or re-

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peated exposure.

H410 Very toxic to aquatic life with long lasting effects.

Precautionary statements :

Prevention:

P264 Wash skin thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P273 Avoid release to the environment.

Response:

P314 Get medical advice/ attention if you feel unwell.

P391 Collect spillage.

Hazardous components which must be listed on the label:

Kanamycin acid sulfate

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients**3.2 Mixtures****Components**

Chemical name	CAS-No. EC-No. Index-No. Registration number	Classification	Concentration (% w/w)
Kanamycin acid sulfate	64013-70-3	STOT RE 1; H372 (Auditory system) Aquatic Acute 1; H400 Aquatic Chronic 1; H410 M-Factor (Acute aquatic toxicity): 10	≥ 20 - < 25
Phenol	108-95-2 203-632-7 604-001-00-2	Acute Tox. 3; H301 Acute Tox. 3; H331 Acute Tox. 3; H311 Skin Corr. 1B; H314 Eye Dam. 1; H318 Muta. 2; H341 STOT RE 2; H373 (Central nervous system, Kidney, Liver, Skin) Aquatic Chronic 2; H411	$\geq 0,1$ - $< 0,25$

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For explanation of abbreviations see section 16.

SECTION 4: First aid measures

4.1 Description of 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. |
| 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). |
| 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. |

4.2 Most important symptoms and effects, both acute and delayed

- | | |
|-------|---|
| Risks | : Causes damage to organs through prolonged or repeated exposure. |
|-------|---|

4.3 Indication of any immediate medical attention and special treatment needed

- | | |
|-----------|---|
| Treatment | : Treat symptomatically and supportively. |
|-----------|---|

SECTION 5: Firefighting measures

5.1 Extinguishing media

- | | |
|--------------------------------|--|
| Suitable extinguishing media | : Water spray
Alcohol-resistant foam
Carbon dioxide (CO ₂)
Dry chemical |
| Unsuitable extinguishing media | : None known. |

5.2 Special hazards arising from the substance or mixture

- | | |
|---------------------------------------|--|
| Specific hazards during fire-fighting | : Exposure to combustion products may be a hazard to health. |
|---------------------------------------|--|

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Hazardous combustion products : Carbon oxides

5.3 Advice for firefighters

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

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 so. Evacuate area.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

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

6.2 Environmental precautions

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.

6.3 Methods and material for containment and cleaning up

Methods for 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.

6.4 Reference to other sections

See sections: 7, 8, 11, 12 and 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Technical measures : See Engineering measures under EXPOSURE

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Local/Total ventilation : CONTROLS/PERSONAL PROTECTION section.
 Advice on safe handling : Use only with adequate ventilation.
 : 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. 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.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : Keep in properly labelled containers. Store in accordance with the particular national regulations.

Advice on common storage : Do not store with the following product types:
 Strong oxidizing agents
 Self-reactive substances and mixtures
 Organic peroxides
 Explosives
 Gases

7.3 Specific end use(s)

Specific use(s) : No data available

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
Kanamycin acid sulfate	64013-70-3	TWA	100 µg/m ³ (OEB 2)	Internal
Phenol	108-95-2	OEL-RL	10 ppm	ZA OEL
Further information: danger of cutaneous absorption, Occupational Exposure Limits - Restricted Limits For Hazardous Chemical Agents				
		TWA	2 ppm 8 mg/m ³	2009/161/EU
		STEL	4 ppm 16 mg/m ³	2009/161/EU

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Biological occupational exposure limits

Substance name	CAS-No.	Control parameters	Sampling time	Basis
Phenol	108-95-2	Phenol: 250 mg/g creatinine (Urine)	End of shift	ZA BEI

Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006

Substance name	End Use	Exposure routes	Potential health effects	Value
Phenol	Workers	Inhalation	Long-term systemic effects	8 mg/m ³
	Workers	Inhalation	Acute local effects	16 mg/m ³
	Workers	Skin contact	Long-term systemic effects	1,23 mg/kg bw/day
	Consumers	Inhalation	Long-term systemic effects	1,32 mg/m ³
	Consumers	Skin contact	Long-term systemic effects	0,4 mg/kg bw/day
	Consumers	Ingestion	Long-term systemic effects	0,4 mg/kg bw/day

Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006

Substance name	Environmental Compartment	Value
Phenol	Fresh water	0,0077 mg/l
	Marine water	0,00077 mg/l
	Intermittent use/release	0,031 mg/l
	Sewage treatment plant	2,1 mg/l
	Fresh water sediment	0,0915 mg/kg
	Marine sediment	0,00915 mg/kg
	Soil	0,136 mg/kg

8.2 Exposure controls**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

Eye/face 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.

Hand protection
 Material : Chemical-resistant gloves

Skin and body protection : Work uniform or laboratory coat.

Respiratory protection : If adequate local exhaust ventilation is not available or exposure assessment demonstrates exposures outside the rec-

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Filter type : Recommended guidelines, use respiratory protection.
: Particulates type (P)

SECTION 9: Physical and chemical properties**9.1 Information on basic 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
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.

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9.2 Other information

Molecular weight : No data available

Particle size : Not applicable

SECTION 10: Stability and reactivity

10.1 Reactivity

Not classified as a reactivity hazard.

10.2 Chemical stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

Hazardous reactions : Can react with strong oxidizing agents.

10.4 Conditions to avoid

Conditions to avoid : None known.

10.5 Incompatible materials

Materials to avoid : Oxidizing agents

10.6 Hazardous decomposition products

No hazardous decomposition products are known.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Information on likely routes of exposure : Inhalation
Skin contact
Ingestion
Eye contact

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

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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

Phenol:

Acute oral toxicity	:	LD50 (Rat): 650 mg/kg Method: OECD Test Guideline 401
		Acute toxicity estimate (Humans): 140 - 290 mg/kg Method: Expert judgement
Acute inhalation toxicity	:	LC0 (Rat): 0,9 mg/l Exposure time: 8 h Test atmosphere: dust/mist Assessment: Corrosive to the respiratory tract.
		Acute toxicity estimate (Humans): > 0,9 mg/l Exposure time: 4 h Test atmosphere: dust/mist Method: Expert judgement
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
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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
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Phenol:

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

Respiratory or skin sensitisation**Skin sensitisation**

|| Not classified based on available information.

Respiratory sensitisation

|| Not classified based on available information.

Components:**Kanamycin acid sulfate:**

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

Phenol:

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

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 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

Phenol:

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

Carcinogenicity

Not classified based on available information.

Components:

Phenol:

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

Reproductive toxicity

Not classified based on available information.

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
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Phenol:

Effects on fertility	: Test Type: Two-generation reproduction toxicity study
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<div style="border-left: 3px double black; height: 150px; margin-left: 5px;"></div>	Species: Rat Application Route: Ingestion Method: OECD Test Guideline 416 Result: negative
<div style="border-left: 3px double black; height: 150px; margin-left: 5px;"></div>	Effects on foetal development : Test Type: Embryo-foetal development Species: Mouse Application Route: Ingestion Method: OECD Test Guideline 414 Result: negative

STOT - single exposure
 Not classified based on available information.
STOT - repeated exposure
 Causes damage to organs through prolonged or repeated exposure.
Components:**Kanamycin acid sulfate:**

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

Phenol:

	Target Organs	: Central nervous system, Kidney, Liver, Skin
	Assessment	: May cause damage to organs through prolonged or repeated exposure.

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

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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

Phenol:

Species	: Rat
LOAEL	: 300 mg/kg
Application Route	: Ingestion
Exposure time	: 90 Days
Method	: OECD Test Guideline 408

Species	: Rat
NOAEL	: $\geq 0,1$ 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
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SECTION 12: Ecological information**12.1 Toxicity****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 aquatic invertebrates	: EC50 (Daphnia magna (Water flea)): > 100 mg/l Exposure time: 48 h

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	Method: OECD Test Guideline 202
Toxicity to algae/aquatic plants	: EC50 (Pseudokirchneriella subcapitata (green algae)): 0,74 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
	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.

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 microorganisms	: IC50 (Nitrosomonas sp.): 21 mg/l Exposure time: 24 h
Toxicity to fish (Chronic toxicity)	: NOEC: 0,077 mg/l Exposure time: 60 d

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

Components:

Kanamycin acid sulfate:

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

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

Components:

Phenol:

Bioaccumulation	: Species: Fish Bioconcentration factor (BCF): 17,5 Method: OECD Test Guideline 305
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Partition coefficient: n-octanol/water	: log Pow: 1,47
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12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

Product:

Assessment	: This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.
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12.6 Other adverse effects

Product:

Endocrine disrupting potential	: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.
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SECTION 13: Disposal considerations**13.1 Waste treatment methods**

Product	:	Dispose of in accordance with local regulations. According to the European Waste Catalogue, Waste Codes are not product specific, but application specific. Waste codes should be assigned by the user, preferably in discussion with the waste disposal authorities. Do not dispose of waste into sewer.
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**14.1 UN number**

ADN	:	UN 3082
ADR	:	UN 3082
RID	:	UN 3082
IMDG	:	UN 3082
IATA	:	UN 3082

14.2 UN proper shipping name

ADN	:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Kanamycin acid sulfate)
ADR	:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Kanamycin acid sulfate)
RID	:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Kanamycin acid sulfate)
IMDG	:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Kanamycin acid sulfate)
IATA	:	Environmentally hazardous substance, liquid, n.o.s. (Kanamycin acid sulfate)

14.3 Transport hazard class(es)

	Class	Subsidiary risks
ADN	:	9
ADR	:	9
RID	:	9
IMDG	:	9
IATA	:	9

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14.4 Packing group**ADN**

Packing group	: III
Classification Code	: M6
Hazard Identification Number	: 90
Labels	: 9

ADR

Packing group	: III
Classification Code	: M6
Hazard Identification Number	: 90
Labels	: 9
Tunnel restriction code	: (-)

RID

Packing group	: III
Classification Code	: M6
Hazard Identification Number	: 90
Labels	: 9

IMDG

Packing group	: III
Labels	: 9
EmS Code	: F-A, S-F

IATA (Cargo)

Packing instruction (cargo aircraft)	: 964
Packing instruction (LQ)	: Y964
Packing group	: III
Labels	: Miscellaneous

IATA (Passenger)

Packing instruction (passenger aircraft)	: 964
Packing instruction (LQ)	: Y964
Packing group	: III
Labels	: Miscellaneous

14.5 Environmental hazards**ADN**

Environmentally hazardous	: yes
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ADR

Environmentally hazardous	: yes
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RID

Environmentally hazardous	: yes
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IMDG

Marine pollutant	: yes
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IATA (Passenger)

Environmentally hazardous	: yes
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IATA (Cargo)

Environmentally hazardous	: yes
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14.6 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.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

Remarks : Not applicable for product as supplied.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

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

AICS : not determined

DSL : not determined

IECSC : not determined

15.2 Chemical safety assessment

A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

Other information : Items where changes have been made to the previous version are highlighted in the body of this document by two vertical lines.

Full text of H-Statements

H301	: Toxic if swallowed.
H311	: Toxic in contact with skin.
H314	: Causes severe skin burns and eye damage.
H318	: Causes serious eye damage.
H331	: Toxic if inhaled.
H341	: Suspected of causing genetic defects.
H372	: Causes damage to organs through prolonged or repeated exposure if swallowed.
H373	: May cause damage to organs through prolonged or repeated exposure.
H400	: Very toxic to aquatic life.
H410	: Very toxic to aquatic life with long lasting effects.
H411	: Toxic to aquatic life with long lasting effects.

Full text of other abbreviations

Acute Tox.	: Acute toxicity
Aquatic Acute	: Short-term (acute) aquatic hazard
Aquatic Chronic	: Long-term (chronic) aquatic hazard
Eye Dam.	: Serious eye damage
Muta.	: Germ cell mutagenicity
Skin Corr.	: Skin corrosion

Kanamycin Acid Sulfate Formulation

Version	Revision Date:	SDS Number:	Date of last issue: 15.12.2023
4.0	14.04.2025	11272710-00005	Date of first issue: 18.09.2023

STOT RE	:	Specific target organ toxicity - repeated exposure
2009/161/EU	:	Europe. COMMISSION DIRECTIVE 2009/161/EU establishing a third list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC and amending Commission Directive 2000/39/EC
ZA BEI	:	South Africa. The Regulations for Hazardous Chemical Agents, Biological Exposure Indices
ZA OEL	:	South Africa. The Regulations for Hazardous Chemical Agents, Occupational Exposure Limits
2009/161/EU / TWA	:	Limit Value - eight hours
2009/161/EU / STEL	:	Short term exposure limit
ZA OEL / OEL-RL	:	Occupational Exposure Limit Restricted limit - 8- hour exposure or equivalent (12 hour shifts)

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; 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; 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; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; 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; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of very high concern; TCSI - Taiwan Chemical Substance Inventory; 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

Further information

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/
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Classification of the mixture:

STOT RE 1	H372
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Classification procedure:

Calculation method

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Aquatic Acute 1	H400	Calculation method
Aquatic Chronic 1	H410	Calculation method

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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 material 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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