according to GB/T 16483 and GB/T 17519



# **Nilvax Selenised Formulation**

Version Revision Date: SDS Number: Date of last issue: 2024/03/05 2.0 2024/09/28 11306356-00003 Date of first issue: 2023/12/04

#### 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Nilvax Selenised Formulation

Other means of identification : Nilvax Selenised (A3977)

Manufacturer or supplier's details

Company : MSD

Address : No. 485 Jing Tai Road

Pu Tuo District - Shanghai - China 200331

Telephone : +1-908-740-4000

Emergency telephone number : 86-571-87268110

E-mail address : EHSDATASTEWARD@msd.com

Recommended use of the chemical and restrictions on use

Recommended use : Veterinary product Restrictions on use : Not applicable

## 2. HAZARDS IDENTIFICATION

## **Emergency Overview**

Appearance: Aqueous solutionColour: No data availableOdour: No data available

May be harmful if swallowed. Suspected of damaging the unborn child.

**GHS Classification** 

Acute toxicity (Oral) : Category 5

Reproductive toxicity : Category 2

**GHS** label elements

Hazard pictograms :

Signal word : Warning

Hazard statements : H303 May be harmful if swallowed.

H361d Suspected of damaging the unborn child.

according to GB/T 16483 and GB/T 17519



# **Nilvax Selenised Formulation**

Version Revision Date: SDS Number: Date of last issue: 2024/03/05 2.0 2024/09/28 11306356-00003 Date of first issue: 2023/12/04

Precautionary statements : Prevention:

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read

and understood.

P280 Wear protective gloves/ protective clothing/ eye protec-

tion/ face protection.

Response:

P312 Call a POISON CENTER/ doctor if you feel unwell.

Storage:

P405 Store locked up.

Disposal:

P501 Dispose of contents/ container to an approved waste

disposal plant.

## Physical and chemical hazards

Not classified based on available information.

#### **Health hazards**

May be harmful if swallowed. Suspected of damaging the unborn child.

## **Environmental hazards**

Not classified based on available information.

#### Other hazards which do not result in classification

None known.

#### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

# Components

Chemical name	CAS-No.	Concentration (% w/w)
Antigen	Not Assigned	>= 1 -< 10
(S)-2,3,5,6-tetrahydro-6-phenylimidazo[2,1-	32093-35-9	>= 3 -< 10
b]thiazoletriylium phosphate		

#### 4. FIRST AID MEASURES

General advice : In the case of accident or if you feel unwell, seek medical ad-

vice immediately.

When symptoms persist or in all cases of doubt seek medical

advice.

If inhaled : If inhaled, remove to fresh air.

Get medical attention.

In case of skin contact : In case of contact, immediately flush skin with soap and plenty

of water.

according to GB/T 16483 and GB/T 17519



# Nilvax Selenised Formulation

Version Revision Date: SDS Number: Date of last issue: 2024/03/05 2.0 2024/09/28 11306356-00003 Date of first issue: 2023/12/04

Remove contaminated clothing and shoes.

Get medical attention. Wash clothing before reuse.

Thoroughly clean shoes before reuse. Flush eyes with water as a precaution.

In case of eye contact Get medical attention if irritation develops and persists.

If swallowed, DO NOT induce vomiting. If swallowed

Get medical attention.

Rinse mouth thoroughly with water.

Most important symptoms and effects, both acute and

delayed

May be harmful if swallowed.

Suspected of damaging the unborn child.

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).

Treat symptomatically and supportively. Notes to physician

#### 5. FIREFIGHTING MEASURES

Suitable extinguishing media Water spray

> Alcohol-resistant foam Carbon dioxide (CO2)

Dry chemical

Unsuitable extinguishing

media

None known.

Specific hazards during fire-

fighting

Exposure to combustion products may be a hazard to health.

Hazardous combustion prod: :

Carbon oxides

Specific extinguishing meth-

ods

Use extinguishing measures that are appropriate to local cir-

cumstances and the surrounding environment. Use water spray to cool unopened containers.

Remove undamaged containers from fire area if it is safe to do

Evacuate area.

Special protective equipment:

for firefighters

In the event of fire, wear self-contained breathing apparatus.

Use personal protective equipment.

# 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protec- :

tive equipment and emer-

gency procedures

Use personal protective equipment.

Follow safe handling advice (see section 7) and personal pro-

tective equipment recommendations (see section 8).

Environmental precautions Avoid release to the environment.

Prevent further leakage or spillage if safe to do so.

according to GB/T 16483 and GB/T 17519



# **Nilvax Selenised Formulation**

Version Revision Date: SDS Number: Date of last issue: 2024/03/05 2.0 2024/09/28 11306356-00003 Date of first issue: 2023/12/04

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 absor-

bent.

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 deter-

mine which regulations are applicable.

Sections 13 and 15 of this SDS provide information regarding

certain local or national requirements.

# 7. HANDLING AND STORAGE

Handling

Technical measures : See Engineering measures under EXPOSURE

CONTROLS/PERSONAL PROTECTION section.

Local/Total ventilation 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.

Handle in accordance with good industrial hygiene and safety practice, based on the results of the workplace exposure as-

sessment

Take care to prevent spills, waste and minimize release to the

environment.

Avoidance of contact : Oxidizing agents

Storage

Conditions for safe storage : Keep in properly labelled containers.

Store locked up.

Store in accordance with the particular national regulations.

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

Strong oxidizing agents

Packaging material : Unsuitable material: None known.

#### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Components with workplace control parameters

according to GB/T 16483 and GB/T 17519



# **Nilvax Selenised Formulation**

Version Revision Date: SDS Number: Date of last issue: 2024/03/05 2.0 2024/09/28 11306356-00003 Date of first issue: 2023/12/04

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis	
(S)-2,3,5,6-tetrahydro-6- phenylimidazo[2,1- b]thiazoletriylium phosphate	32093-35-9	TWA	20 μg/m3 (OEB 3)	Internal	
	Further information: Skin				
		Wipe limit	200 μg/100 cm <sup>2</sup>	Internal	

**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.

Containment technologies suitable for controlling compounds are required to control at source and to prevent migration of the compound to uncontrolled areas (e.g., open-face con-

tainment devices). Minimize open handling.

wiiriiriize open nai

Personal protective equipment

Respiratory protection : If adequate local exhaust ventilation is not available or expo-

sure assessment demonstrates exposures outside the rec-

ommended guidelines, use respiratory protection.

Filter type : Particulates type

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.

Skin and body protection : Work uniform or laboratory coat.

Additional body garments should be used based upon the task being performed (e.g., sleevelets, apron, gauntlets, dis-

posable suits) to avoid exposed skin surfaces.

Use appropriate degowning techniques to remove potentially

contaminated clothing.

Hand protection

Material : Chemical-resistant gloves

Remarks : Consider double gloving.

Hygiene measures : If exposure to chemical is likely during typical use, provide

eye flushing systems and safety showers close to the work-

ing 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,

according to GB/T 16483 and GB/T 17519



# **Nilvax Selenised Formulation**

Version Revision Date: SDS Number: Date of last issue: 2024/03/05 2.0 2024/09/28 11306356-00003 Date of first issue: 2023/12/04

industrial hygiene monitoring, medical surveillance and the use of administrative controls.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : Aqueous solution

Colour : No data available

Odour : No data available

Odour Threshold : No data available

pH : 3.4 - 3.9

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 : No data available

Solubility(ies)

Water solubility : No data available

Partition coefficient: n-

octanol/water

: Not applicable

Auto-ignition temperature : No data available

Decomposition temperature : No data available

Viscosity

according to GB/T 16483 and GB/T 17519



# Nilvax Selenised Formulation

Version Revision Date: SDS Number: Date of last issue: 2024/03/05 2024/09/28 2.0 11306356-00003 Date of first issue: 2023/12/04

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 characteristics

Particle size Not applicable

## 10. STABILITY AND REACTIVITY

Reactivity Not classified as a reactivity hazard. Chemical stability Stable under normal conditions. Possibility of hazardous reac- : Can react with strong oxidizing agents.

tions

Conditions to avoid : None known. Incompatible materials : Oxidizing agents

Hazardous decomposition

products

: No hazardous decomposition products are known.

# 11. TOXICOLOGICAL INFORMATION

Inhalation Exposure routes

Skin contact Ingestion Eye contact

**Acute toxicity** 

May be harmful if swallowed.

**Product:** 

Acute oral toxicity Acute toxicity estimate: 4,226 mg/kg

Method: Calculation method

## **Components:**

# (S)-2,3,5,6-tetrahydro-6-phenylimidazo[2,1-b]thiazoletriylium phosphate:

Acute oral toxicity LD50 (Rat): 180 mg/kg

LD50 (Mouse): 223 mg/kg

LD50 (Rabbit): 458 mg/kg

LD50 (Rat): 180 mg/kg

LD50 (Mouse): 223 mg/kg

LD50 (Rabbit): 458 mg/kg

according to GB/T 16483 and GB/T 17519



# **Nilvax Selenised Formulation**

Version Revision Date: SDS Number: Date of last issue: 2024/03/05 2.0 2024/09/28 11306356-00003 Date of first issue: 2023/12/04

Acute inhalation toxicity : Remarks: No data available

Acute dermal toxicity : Remarks: No data available

#### Skin corrosion/irritation

Not classified based on available information.

## **Components:**

# (S)-2,3,5,6-tetrahydro-6-phenylimidazo[2,1-b]thiazoletriylium phosphate:

Remarks : No data available

# Serious eye damage/eye irritation

Not classified based on available information.

## **Components:**

# (S)-2,3,5,6-tetrahydro-6-phenylimidazo[2,1-b]thiazoletriylium phosphate:

Remarks : No data available

# Respiratory or skin sensitisation

# Skin sensitisation

Not classified based on available information.

# Respiratory sensitisation

Not classified based on available information.

# **Components:**

# (S)-2,3,5,6-tetrahydro-6-phenylimidazo[2,1-b]thiazoletriylium phosphate:

Remarks : No data available

# Germ cell mutagenicity

Not classified based on available information.

## **Components:**

# (S)-2,3,5,6-tetrahydro-6-phenylimidazo[2,1-b]thiazoletriylium phosphate:

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

Result: negative

Test Type: Chromosome aberration test in vitro

Result: negative

## Carcinogenicity

Not classified based on available information.

according to GB/T 16483 and GB/T 17519



# **Nilvax Selenised Formulation**

Version Revision Date: SDS Number: Date of last issue: 2024/03/05 2.0 2024/09/28 11306356-00003 Date of first issue: 2023/12/04

#### **Components:**

## (S)-2,3,5,6-tetrahydro-6-phenylimidazo[2,1-b]thiazoletriylium phosphate:

Mouse Species Application Route Oral Exposure time 2 Years

NOAEL 80 mg/kg body weight

Remarks No significant adverse effects were reported

Species Rat : Oral Application Route : 2 Years Exposure time

NOAEL : 40 mg/kg body weight

Remarks : No significant adverse effects were reported

#### Reproductive toxicity

Suspected of damaging the unborn child.

#### Components:

## (S)-2,3,5,6-tetrahydro-6-phenylimidazo[2,1-b]thiazoletriylium phosphate:

Effects on fertility Test Type: Three-generation reproduction toxicity study

Species: Rat

Application Route: Oral

Result: No significant adverse effects were reported

Test Type: Three-generation reproduction toxicity study

Species: Rat

Application Route: Oral

Result: No significant adverse effects were reported

Effects on foetal develop-

ment

sessment

Test Type: Embryo-foetal development

Species: Rat

Application Route: Oral

Developmental Toxicity: NOAEL: 20 mg/kg body weight

Result: Fetotoxicity

Test Type: Embryo-foetal development

Species: Rabbit

Application Route: Oral

Developmental Toxicity: LOAEL: 40 mg/kg body weight

Result: Fetotoxicity

Reproductive toxicity - As-

Some evidence of adverse effects on development, based on

animal experiments.

## STOT - single exposure

Not classified based on available information.

according to GB/T 16483 and GB/T 17519



# **Nilvax Selenised Formulation**

Version Revision Date: SDS Number: Date of last issue: 2024/03/05 2.0 2024/09/28 11306356-00003 Date of first issue: 2023/12/04

#### STOT - repeated exposure

Not classified based on available information.

## **Components:**

# (S)-2,3,5,6-tetrahydro-6-phenylimidazo[2,1-b]thiazoletriylium phosphate:

Target Organs : Blood, Testis

Assessment : May cause damage to organs through prolonged or repeated

exposure.

## Repeated dose toxicity

## **Components:**

# (S)-2,3,5,6-tetrahydro-6-phenylimidazo[2,1-b]thiazoletriylium phosphate:

Species : Rat

NOAEL : 2.5 mg/kg

Application Route : Oral

Exposure time : 18 Months

Target Organs : Testis

Species: DogLOAEL: 20 mg/kgApplication Route: OralExposure time: 18 MonthsTarget Organs: Blood

Species: DogLOAEL: 40 mg/kgApplication Route: OralExposure time: 3 Months

## **Aspiration toxicity**

Not classified based on available information.

## **Experience with human exposure**

## **Components:**

# (S)-2,3,5,6-tetrahydro-6-phenylimidazo[2,1-b]thiazoletriylium phosphate:

Ingestion : Symptoms: Nausea, Vomiting, Headache, Dizziness, hypo-

tension

## 12. ECOLOGICAL INFORMATION

# **Ecotoxicity**

#### **Components:**

#### (S)-2,3,5,6-tetrahydro-6-phenylimidazo[2,1-b]thiazoletriylium phosphate:

Toxicity to fish : LC50 (Oryzias latipes (Japanese medaka)): 37.3 mg/l

according to GB/T 16483 and GB/T 17519



# **Nilvax Selenised Formulation**

Version Revision Date: SDS Number: Date of last issue: 2024/03/05 2.0 2024/09/28 11306356-00003 Date of first issue: 2023/12/04

Exposure time: 96 h

Method: OECD Test Guideline 203

Toxicity to daphnia and other :

aquatic invertebrates

EC50 (Daphnia magna (Water flea)): 64 mg/l

Exposure time: 48 h

Method: OECD Test Guideline 202

## Persistence and degradability

No data available

# **Bioaccumulative potential**

No data available

## Mobility in soil

No data available

#### Other adverse effects

No data available

#### 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 han-

dling site for recycling or disposal.

If not otherwise specified: Dispose of as unused product.

#### 14. TRANSPORT INFORMATION

#### International Regulations

#### **UNRTDG**

UN number : Not applicable
Proper shipping name : Not applicable
Class : Not applicable
Subsidiary risk : Not applicable
Packing group : Not applicable
Labels : Not applicable

Environmentally hazardous : no

**IATA-DGR** 

UN/ID No. : Not applicable
Proper shipping name : Not applicable
Class : Not applicable
Subsidiary risk : Not applicable
Packing group : Not applicable
Labels : Not applicable
Packing instruction (cargo : Not applicable

aircraft)

Packing instruction (passen: Not applicable

according to GB/T 16483 and GB/T 17519



# **Nilvax Selenised Formulation**

Version Revision Date: SDS Number: Date of last issue: 2024/03/05 2.0 2024/09/28 11306356-00003 Date of first issue: 2023/12/04

ger aircraft)

**IMDG-Code** 

UN number : Not applicable
Proper shipping name : Not applicable
Class : Not applicable
Subsidiary risk : Not applicable
Packing group : Not applicable
Labels : Not applicable
EmS Code : Not applicable

Marine pollutant : no

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

Not applicable for product as supplied.

**National Regulations** 

GB 6944/12268

UN number : Not applicable
Proper shipping name : Not applicable
Class : Not applicable
Subsidiary risk : Not applicable
Packing group : Not applicable
Labels : Not applicable

Marine pollutant : no

Special precautions for user

Not applicable

## 15. REGULATORY INFORMATION

# **National regulatory information**

Law on the Prevention and Control of Occupational Diseases

**Regulations on Safety Management of Hazardous Chemicals** 

Catalogue of Hazardous Chemicals : This product is not listed in the cata-

logue of hazardous chemicals, but it meets the definition of hazardous chemicals and its principles of de-

termination.

Identification of Major Hazard Installations for Hazardous Chemicals (GB : Not listed

18218)

Hazardous Chemicals for Priority Management under : Not listed

SAWS

Regulations on Labour Protection in Workplaces where Toxic Substances are Used

Catalogue of Highly Toxic Chemicals : Not listed

according to GB/T 16483 and GB/T 17519



# **Nilvax Selenised Formulation**

Version Revision Date: SDS Number: Date of last issue: 2024/03/05 2.0 2024/09/28 11306356-00003 Date of first issue: 2023/12/04

# Regulation of Environmental Management on the First Import of Chemicals and the Import and Export of Toxic Chemicals

China Severely Restricted Toxic Chemicals for Import : Not listed

and Export

#### **Regulation on the Administration of Precursor Chemicals**

Catalogue and Classification of Precursor Chemicals : Not listed

# **Yangtze River Protection Law**

This product contains one or more prohibited dangerous chemicals for inland river transport, but none of the three GHS hazard categories is Category 1.

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

AICS : not determined

DSL : not determined

IECSC : not determined

## **16. OTHER INFORMATION**

Revision Date : 2024/09/28

**Further information** 

Sources of key data used to compile the Safety Data

compile the Safety Data eChem Portal search results and European Chemicals Agen-Sheet cy, http://echa.europa.eu/

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

: Internal technical data, data from raw material SDSs, OECD

Date format : yyyy/mm/dd

## Full text of other abbreviations

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 Or-

according to GB/T 16483 and GB/T 17519



# **Nilvax Selenised Formulation**

Version Revision Date: SDS Number: Date of last issue: 2024/03/05 2.0 2024/09/28 11306356-00003 Date of first issue: 2023/12/04

ganisation 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

#### **Disclaimer**

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.

CN / EN