Mianserin Formulation



Version **Revision Date:** SDS Number: Date of last issue: 04.04.2023 30.09.2023 1609327-00012 Date of first issue: 01.05.2017 2.8

SECTION 1. IDENTIFICATION

Product name Mianserin Formulation

Manufacturer or supplier's details

Company Organon & Co.

Address 30 Hudson Street, 33nd floor

Jersey City, New Jersey, U.S.A 07302

Telephone 1-551-430-6000

Emergency telephone 1-215-631-6999

E-mail address EHSSTEWARD@organon.com

Recommended use of the chemical and restrictions on use

Recommended use Pharmaceutical Restrictions on use Not applicable

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification

Reproductive toxicity Category 2

single exposure

Specific target organ toxicity - : Category 1 (Central nervous system)

GHS label elements

Hazard pictograms

Signal Word

Hazard Statements H361fd Suspected of damaging fertility. Suspected of damag-

ing the unborn child.

H370 Causes damage to organs (Central nervous system).

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 dust/ fume/ gas/ mist/ vapors/ spray.

P264 Wash skin thoroughly after handling.

P270 Do not eat, drink or smoke when using this product. P280 Wear protective gloves/ protective clothing/ eye protec-

Mianserin Formulation



Version **Revision Date:** SDS Number: Date of last issue: 04.04.2023 30.09.2023 1609327-00012 Date of first issue: 01.05.2017 2.8

tion/ face protection.

Response:

P308 + P311 IF exposed or concerned: Call a POISON

CENTER/ doctor.

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

Chemical name	CAS-No.	Concentration (% w/w)
mianserin hydrochloride	21535-47-7	>= 10 -< 20
Starch	9005-25-8	>= 10 -< 20

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.

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

of water.

Remove contaminated clothing and shoes.

Get medical attention. Wash clothing before reuse.

Thoroughly clean shoes before reuse.

In case of eye contact Flush eyes with water as a precaution.

Get medical attention if irritation develops and persists.

If swallowed, DO NOT induce vomiting. If swallowed

Get medical attention.

Rinse mouth thoroughly with water.

Never give anything by mouth to an unconscious person. Suspected of damaging fertility. Suspected of damaging the

Most important symptoms and effects, both acute and

delayed

Causes damage to organs.

First Aid responders should pay attention to self-protection, Protection of first-aiders

and use the recommended personal protective equipment when the potential for exposure exists (see section 8).

Treat symptomatically and supportively. Notes to physician

unborn child.

Mianserin Formulation



Version 2.8

Revision Date: 30.09,2023

SDS Number: 1609327-00012

Date of last issue: 04.04.2023 Date of first issue: 01.05.2017

SECTION 5. FIRE-FIGHTING 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-

ucts

Carbon oxides
Metal oxides

Oxides of phosphorus

Silicon 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

SO.

Evacuate area.

Special protective equipment :

for fire-fighters

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

Use personal protective equipment.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protec: :

tive 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. 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

Surround spill with absorbents and place a damp covering over the area to minimize entry of the material into the air. Add excess liquid to allow the material to enter into solution.

Soak up with inert absorbent material.

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.

Mianserin Formulation



 Version
 Revision Date:
 SDS Number:
 Date of last issue: 04.04.2023

 2.8
 30.09.2023
 1609327-00012
 Date of first issue: 01.05.2017

Advice on safe handling : Do not breathe dust, fume, gas, mist, vapors or spray.

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.

Conditions for safe storage : Keep in properly labeled 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

Self-reactive substances and mixtures

Organic peroxides

Explosives Gases

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis		
mianserin hydrochloride	21535-47-7	TWA	20 μg/m3 (OEB 3)	Internal		
	Further inform	Further information: Skin				
		Wipe limit	200 μg/100 cm ²	Internal		
Starch	9005-25-8	CMP	10 mg/m ³	AR OEL		
	Further inform	Further information: A4 - Not classifiable as a human carcinogen				
		TWA	10 mg/m ³	ACGIH		

Engineering measures : Ensure adequate ventilation, especially in confined areas.

Minimize workplace exposure concentrations.

Personal protective equipment

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

Particulates type

exposure assessment demonstrates exposures outside the

recommended guidelines, use respiratory protection.

Filter type :

Hand protection

Material

: Chemical-resistant gloves

Remarks : Choose gloves to protect hands against chemicals depending

on the concentration specific to place of work. Breakthrough time is not determined for the product. Change gloves often! For special applications, we recommend clarifying the resistance to chemicals of the aforementioned protective gloves with the glove manufacturer. Wash hands before

breaks and at the end of workday.





Version Revision Date: SDS Number: Date of last issue: 04.04.2023 2.8 30.09.2023 1609327-00012 Date of first issue: 01.05.2017

Eye protection : Wear the following personal protective equipment:

Safety glasses

Skin and body protection : Select appropriate protective clothing based on chemical

resistance data and an assessment of the local exposure

potential.

Skin contact must be avoided by using impervious protective

clothing (gloves, aprons, boots, etc).

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.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : Crystalline solid

Color : white to off-white

Odor : No data available

Odor Threshold : No data available

pH : No data available

Melting point/freezing point : No data available

Initial boiling point and boiling

range

No data available

Flash point : Not applicable

Evaporation rate : No data available

Flammability (solid, gas) : Not classified as a flammability hazard

Flammability (liquids) : No data available

Upper explosion limit / Upper

flammability limit

No data available

Lower explosion limit / Lower

flammability limit

No data available

Vapor pressure : No data available

Relative vapor density : No data available

Relative density : No data available

Density : No data available

Solubility(ies)

Water solubility : No data available

Mianserin Formulation



Version **Revision Date:** SDS Number: Date of last issue: 04.04.2023 30.09.2023 1609327-00012 Date of first issue: 01.05.2017 2.8

Partition coefficient: n-

octanol/water

No data available

Autoignition temperature No data available

Decomposition temperature No data available

Viscosity

No data available Viscosity, kinematic

Explosive properties Not explosive

Oxidizing properties The substance or mixture is not classified as oxidizing.

Molecular weight Not applicable

Particle size No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity Not classified as a reactivity hazard. Chemical stability Stable under normal conditions. Can react with strong oxidizing agents.

Possibility of hazardous reac-

Conditions to avoid None known. Incompatible materials Oxidizing agents

Hazardous decomposition

products

No hazardous decomposition products are known.

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of: Skin contact

exposure Ingestion

Eye contact

Acute toxicity

Not classified based on available information.

Product:

Acute oral toxicity Acute toxicity estimate: > 5.000 mg/kg

Method: Calculation method

Components:

mianserin hydrochloride:

Acute oral toxicity LD50 (Rat): 780 mg/kg

LD50 (Mouse): 224 mg/kg

Acute toxicity (other routes of :

administration)

LD50 (Mouse): 32 mg/kg Application Route: Intravenous

Starch:



Mianserin Formulation



 Version
 Revision Date:
 SDS Number:
 Date of last issue: 04.04.2023

 2.8
 30.09.2023
 1609327-00012
 Date of first issue: 01.05.2017

Acute oral toxicity : LD50 (Rat): > 5.000 mg/kg

Acute dermal toxicity : LD50 (Rabbit): > 2.000 mg/kg

Skin corrosion/irritation

Not classified based on available information.

Components:

mianserin hydrochloride:

Remarks : Not classified due to lack of data.

Serious eye damage/eye irritation

Not classified based on available information.

Components:

mianserin hydrochloride:

Remarks : Not classified due to lack of data.

Starch:

Species : Rabbit

Result : No eye irritation

Respiratory or skin sensitization

Skin sensitization

Not classified based on available information.

Respiratory sensitization

Not classified based on available information.

Components:

mianserin hydrochloride:

Remarks : Not classified due to lack of data.

Starch:

Test Type : Maximization Test
Routes of exposure : Skin contact
Species : Guinea pig
Result : negative

Germ cell mutagenicity

Not classified based on available information.

Components:

mianserin hydrochloride:

Genotoxicity in vitro : Test Type: gene mutation test

Result: positive

Test Type: Bacterial reverse mutation assay (AMES)

Mianserin Formulation



Version Revision Date: SDS Number: Date of last issue: 04.04.2023 2.8 30.09.2023 1609327-00012 Date of first issue: 01.05.2017

Result: negative

Remarks: Based on data from similar materials

Test Type: sister chromatid exchange assay

Result: negative

Remarks: Based on data from similar materials

Test Type: In vitro mammalian cell gene mutation test

Result: negative

Remarks: Based on data from similar materials

Test Type: unscheduled DNA synthesis assay

Result: negative

Remarks: Based on data from similar materials

Genotoxicity in vivo : Test Type: Micronucleus test

Species: Rat

Cell type: Bone marrow Application Route: Oral

Result: negative

Remarks: Based on data from similar materials

Starch:

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

Result: negative

Carcinogenicity

Not classified based on available information.

Components:

mianserin hydrochloride:

Remarks : Not classified due to lack of data.

Reproductive toxicity

Suspected of damaging fertility. Suspected of damaging the unborn child.

Components:

mianserin hydrochloride:

Effects on fertility : Test Type: Fertility

Species: Rat, male

Fertility: NOAEL: 100 mg/kg body weight

Result: No effects on fertility., No effects on mating

performance.

Test Type: Fertility Species: Rat, female

Fertility: LOAEL: 30 mg/kg body weight

Result: Preimplantation loss., ovarian dysfunction, Effect on

estrous cycle

Effects on fetal development : Test Type: Development

Species: Rat





 Version
 Revision Date:
 SDS Number:
 Date of last issue: 04.04.2023

 2.8
 30.09.2023
 1609327-00012
 Date of first issue: 01.05.2017

Application Route: Subcutaneous

Developmental Toxicity: LOAEL: 10 mg/kg body weight

Result: Effects on postnatal development.

Test Type: Development

Species: Rat

Developmental Toxicity: LOAEL: 3 mg/kg body weight Result: Embryolethal effects., No teratogenic effects.

Test Type: Development

Species: Rabbit

Result: Reduced fetal weight., No teratogenic effects.

Test Type: Development

Species: Mouse

Developmental Toxicity: NOAEL: 30 mg/kg body weight

Result: No effects on fetal development.

Reproductive toxicity - As-

sessment

Suspected of damaging fertility. Suspected of damaging the

unborn child.

STOT-single exposure

Causes damage to organs (Central nervous system).

Components:

mianserin hydrochloride:

Target Organs : Central nervous system Assessment : Causes damage to organs.

STOT-repeated exposure

Not classified based on available information.

Repeated dose toxicity

Components:

mianserin hydrochloride:

Species : Rat
NOAEL : 30 mg/kg
Application Route : Oral
Exposure time : 6 Months

Remarks : No significant adverse effects were reported

Species : Dog

LOAEL : 3 - 30 mg/kg

Application Route : Oral Exposure time : 6 Months

Symptoms : Reduced body weight

Starch:

Species : Rat

NOAEL : >= 2.000 mg/kg Application Route : Skin contact



Mianserin Formulation



 Version
 Revision Date:
 SDS Number:
 Date of last issue: 04.04.2023

 2.8
 30.09.2023
 1609327-00012
 Date of first issue: 01.05.2017

Exposure time : 28 Days

Method : OECD Test Guideline 410

Aspiration toxicity

Not classified based on available information.

Experience with human exposure

Components:

mianserin hydrochloride:

Inhalation : Remarks: May be harmful if inhaled.

May cause irritation of respiratory tract.

Skin contact : Remarks: Can be absorbed through skin.

May irritate skin.

Eye contact : Remarks: May irritate eyes.

Ingestion : Symptoms: central nervous system effects, dry mouth, consti-

pation, Headache, Tremors

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

No data available

Persistence and degradability

No data available

Bioaccumulative potential

Components:

mianserin hydrochloride:

Partition coefficient: n-

octanol/water

: log Pow: 3,36

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

Mianserin Formulation



Version Revision Date: SDS Number: Date of last issue: 04.04.2023 2.8 30.09.2023 1609327-00012 Date of first issue: 01.05.2017

Not regulated as a dangerous good

IATA-DGR

Not regulated as a dangerous good

IMDG-Code

Not regulated as a dangerous good

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

Not applicable for product as supplied.

Special precautions for user

Not applicable

SECTION 15. REGULATORY INFORMATION

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

Argentina. Carcinogenic Substances and Agents

Registry.

: Not applicable

Control of precursors and essential chemicals for the

preparation of drugs.

Not applicable

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

AICS : not determined

DSL : not determined

IECSC : not determined

SECTION 16. OTHER INFORMATION

Revision Date : 30.09.2023 Date format : dd.mm.yyyy

Further information

Sources of key data used to

compile the Material Safety Data Sheet Internal technical data, data from raw material SDSs, OECD eChem Portal search results and European Chemicals Agen-

cy, http://echa.europa.eu/

Full text of other abbreviations

ACGIH : USA. ACGIH Threshold Limit Values (TLV)
AR OEL : Argentina. Occupational Exposure Limits

ACGIH / TWA : 8-hour, time-weighted average AR OEL / CMP : TLV (Threshold Limit Value)

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

Mianserin Formulation



 Version
 Revision Date:
 SDS Number:
 Date of last issue: 04.04.2023

 2.8
 30.09.2023
 1609327-00012
 Date of first issue: 01.05.2017

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 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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