

Benserazide hydrochloride

Version: 5.3

Revision Date: 22.01.2025

SDS Number: 100000000590

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Trade name : Benserazide hydrochloride
REACH Registration Number : NA
CAS-No. : 14919-77-8
EC-No. : 238-991-9
Unique Formula Identifier : -

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

Use of the Sub-
stance/Mixture : Active pharmaceutical ingredients

Recommended restrictions : No data available
on use

1.3 Details of the supplier of the safety data sheet

Company : Fermion Oy
Street address : Koivu-Mankkaan tie 6 A
Post-office box: : P.O. Box 28
Postcode : 02101 Espoo, Finland
Telephone : +358 10 4261
E-mail address of person : chemicalsafety@orion.fi
responsible for the SDS
VAT Reg. No: : FI18552129

1.4 Emergency telephone number

Poison Center : +358 800 147111
+358 9 471 977

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture


Classification (REGULATION (EC) No 1272/2008)

Eye irritation, Category 2 H319: Causes serious eye irritation.
Specific target organ toxicity - single ex- H335: May cause respiratory irritation.
posure, Category 3

For explanation of abbreviations see section 16.

2.2 Label elements

Labeling (REGULATION (EC) No 1272/2008)

Hazard pictograms : 

Signal Word : Warning

Hazard Statements

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H319	Causes serious eye irritation.
H335	May cause respiratory irritation.

Precautionary Statements

General:

P261 Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
P312 Call a POISON CENTER or doctor/ physician if you feel unwell.
P501 Dispose of contents according to national and local law.

Storage:

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

2.3 Other hazards

Other hazards : -

PBT : No data available

vPvB : No data available

Endocrine disrupting properties : Ecological information: No data available
Toxicological information: No data available

SECTION 3: Composition/information on ingredients

3.1 Substances

Chemical name	CAS-No. EC-No. Registration-No	Concentration (% w/w)	M-Factor, SCL, ATE
Benserazide hydrochloride	14919-77-8 238-991-9		

Other information :

3.2 Mixtures

Not applicable

SECTION 4: First aid measures

4.1 Description of first-aid measures

General advice : Helpers should ensure their own protection.
Get medical advice/attention if you feel unwell.

If inhaled : IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
If appropriate, give artificial respiration.
Get medical advice/attention.

In case of skin contact : Wash off with soap and water.

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		Rinse continuously with water for several minutes. If skin irritation occurs: Get medical advice/ attention.
In case of eye contact	:	IF IN EYES: Immediately rinse with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/ attention.
If swallowed	:	Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Rinse mouth. If the patient is conscious, give plenty of water (2 - 4 glasses). Get medical advice/attention.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms	:	May irritate eyes. Nausea Vomiting respiratory irritation mucous membrane irritation
Risks	:	No data available

4.3 Indication of any immediate medical attention and special treatment needed

Treatment	:	Treat symptomatically.
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SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media	:	Water spray Alcohol-resistant foam Powder Carbon dioxide (CO ₂)
Unsuitable extinguishing media	:	No data available

5.2 Special hazards arising from the substance or mixture

Specific hazards during fire fighting	:	May emit toxic fumes of hydrogen chloride and oxides of carbon and nitrogen during heating or fire.
Hazardous combustion products	:	No data available

5.3 Advice for firefighters

Special protective equipment for fire-fighters	:	Isolating breathing apparatus eg. compressed breathing apparatus and protective clothing.
Specific extinguishing methods	:	No data available
Further information	:	No data available

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SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Use personal protective equipment as required.
Avoid dust formation.
Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.
Provide sufficient ventilation.

6.2 Environmental precautions

Environmental precautions : Do not put into water system, drain or soil.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up : Collect spilled powder without dusting into tight closed container.
Collect up into tightly sealable containers for disposal.

6.4 Reference to other sections

See Section 8 and 13

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling : Do not get in eyes, on skin, or on clothing.
Avoid dust formation.
Handle in well-ventilated space.
Normal measures for preventive fire protection.
Do not eat, drink or smoke at workplace. Wash hands after working with substance.
Wash hands thoroughly after handling.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : Keep cool.
Store in a well ventilated place.
Keep in a dry place.
Keep container tightly closed.
Store separately from food products, animal feedstuff and beverages.
Protect from light.
Recommended storage temperature: 25 °C.
See incompatible materials in section 10.5.

Packaging material : Suitable material: No data available
Unsuitable material: No data available

7.3 Specific end use(s)

Specific use(s) : No information identified.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Contains no substances with occupational exposure limit values.

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8.2 Exposure controls

Engineering measures : Handle in accordance with good industrial hygiene and safety procedures.
Wash hands thoroughly after handling.
Handle in closed systems or use an efficient local exhaust if dust, vapours or mists may release into workplace air. If technical measures cannot prevent exposure, wear personal protective equipment.

Personal protective equipment

Respiratory protection : In open handling use respirator (P3) with a minimum protection factor of 20.
See standard working procedures/instructions or department's instructions for more detailed protection measures.

Eye/face protection : Use protective goggles.

Hand protection
Remarks : Use protective gloves (e.g. nitrile or neopren gloves).

Skin and body protection : Wear protective clothing.

Protective measures : No data available

Environmental exposure controls : No data available

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Form : Crystalline powder

Physical state : solid

Color : white, Yellowish

Odor : Nearly odourless

Odor Threshold : No data available

Melting point/range : No data available

Boiling point/boiling range : No data available

Flammability : No data available

Upper explosion limit / Upper flammability limit : No data available

Lower explosion limit / Lower flammability limit : No data available

Flash point : No data available

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Autoignition temperature	:	No data available
Decomposition temperature	:	No data available
Self-Accelerating decomposition temperature (SADT)	:	No data available
pH	:	No data available
Viscosity		
Viscosity, dynamic	:	No data available
Viscosity, kinematic	:	No data available
Flow time	:	No data available
Solubility(ies)		
Water solubility	:	soluble
Solubility in other solvents	:	No data available
Dissolution Rate	:	No data available
Partition coefficient: n-octanol/water	:	No data available
Dispersion Stability	:	No data available
Vapor pressure	:	No data available
Relative density	:	No data available
Density	:	No data available
Bulk density	:	No data available
Relative vapor density	:	No data available
Dissociation constant	:	No data available
Particle characteristics	:	No data available

9.2 Other information

Self-ignition	:	No data available
Molecular weight	:	293,7 g/mol
Hygroscopic properties	:	No data available
Henry's Constant	:	No data available
Further information	:	No data available

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SECTION 10: Stability and reactivity

10.1 Reactivity

Stable when stored and handled according to instructions of use.

10.2 Chemical stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

Hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

10.4 Conditions to avoid

Conditions to avoid : Protect from sunlight.
Heat.

10.5 Incompatible materials

Materials to avoid : Strong oxidants
Metals
Acids
Bases
Reductants

10.6 Hazardous decomposition products

May emit toxic fumes of hydrogen chloride and oxides of carbon and nitrogen during heating or fire.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

Health hazard information : Based on available data, the classification criteria are not met.

Acute oral toxicity : LD50 (Rat): 5 300 mg/kg

Acute inhalation toxicity : No data available

Acute dermal toxicity : No data available

Acute toxicity (other routes of administration) : Symptoms: May cause respiratory irritation.

Skin corrosion/irritation

Remarks : Based on available data, the classification criteria are not met.
Long term or frequent contact may cause irritation.

Serious eye damage/eye irritation

Remarks : Causes serious eye irritation.

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Respiratory or skin sensitization

Result : May cause respiratory irritation.

Germ cell mutagenicity

Genotoxicity in vitro : Based on available data, the classification criteria are not met.

Genotoxicity in vivo : No data available

Carcinogenicity

Remarks : Based on available data, the classification criteria are not met.

Reproductive toxicity

Effects on fertility : Based on available data, the classification criteria are not met.

Effects on fetal development : No data available

STOT-single exposure

Assessment : May cause respiratory irritation.

STOT-repeated exposure

Assessment : Based on available data, the classification criteria are not met.

Repeated dose toxicity

No data available

Aspiration toxicity

Based on available data, the classification criteria are not met.

11.2 Information on other hazards

Endocrine disrupting properties

No data available

Experience with human exposure

General Information : No data available

Inhalation : No data available

Skin contact : No data available

Eye contact : No data available

Ingestion : No data available

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Toxicology, Metabolism, Distribution

Remarks : No data available

Neurological effects

Remarks : No data available

Further information

Remarks : May cause respiratory irritation.

Other Health Hazards

No data available

SECTION 12: Ecological information

12.1 Toxicity

Toxicity to fish : No data available

Toxicity to daphnia and other aquatic invertebrates : No data available

Toxicity to algae/aquatic plants : No data available

Toxicity to fish (Chronic toxicity) : No data available

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : No data available

Toxicity to microorganisms : No data available

Toxicity to soil dwelling organisms : No data available

Plant toxicity : No data available

Sediment toxicity : No data available

Toxicity to terrestrial organisms : No data available

Ecotoxicology Assessment

Acute aquatic toxicity : Based on available data, the classification criteria are not met.

Chronic aquatic toxicity : No data available

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Toxicity Data on Soil : No data available

Other organisms relevant to the environment : Data not available.

12.2 Persistence and degradability

Biodegradability : No data available

Biochemical Oxygen Demand (BOD) : No data available

Chemical Oxygen Demand (COD) : No data available

BOD/COD : No data available

ThOD : No data available

BOD/ThOD : No data available

Dissolved organic carbon (DOC) : No data available

Physico-chemical removability : No data available

Stability in water : No data available

Impact on Sewage Treatment : No data available

Photodegradation : No data available

12.3 Bioaccumulative potential

Bioaccumulation : No data available

Partition coefficient: n-octanol/water : No data available

12.4 Mobility in soil

Mobility : No data available

Distribution among environmental compartments : No data available

Stability in soil : No data available

12.5 Results of PBT and vPvB assessment

Assessment : No data available

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12.6 Endocrine disrupting properties

No data available

12.7 Other adverse effects

Environmental fate and pathways : No data available

Adsorbed organic bound halogens (AOX) : No data available

Ozone-Depletion Potential : No data available

Additional ecological information : No data available

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Chemical incinerator equipped with an afterburner and scrubber is the recommended method of disposal for this material. Observe all local and national regulations when disposing of this material.

SECTION 14: Transport information

14.1 UN number

ADR/RID: -

IMDG: -

IATA: -

14.2 UN proper shipping name

-

14.3 Transport hazard class(es) (ADR/RID, IMDG, ICAO/IATA)

ADR/RID: This product is not regulated under the transport regulations.

IMDG: This product is not regulated under the transport regulations.

IATA: This product is not regulated under the transport regulations.

14.4 Packing group

ADR/RID: -

IMDG: -

IATA: -

14.5 Environmental hazards

ADR/RID: -

IMDG: -

IATA: -

14.6 Special precautions for user

Tunnel restriction code : No data available

Further information for transport : No data available

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

Not applicable

SECTION 15: Regulatory information

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

-

15.2 Chemical Safety Assessment

No

SECTION 16: Other information

Full text of H-Statements

H319	Causes serious eye irritation.
H335	May cause respiratory irritation.

Full text of other abbreviations

Eye Irrit.	: Eye irritation
STOT SE	: Specific target organ toxicity - single exposure

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

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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

TRGS - Technical Rule for Hazardous Substances

TSCA - Toxic Substances Control Act (United States)

UN - United Nations

vPvB - Very Persistent and Very Bioaccumulative

Further information

Other information : No data available

Sources of key data used to : Information provided by the supplier

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compile the Material Safety
Data Sheet

Information which has been : Updated section / sections:
added, deleted or revised 1

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