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

1.1 Product identifiers

Product name : Benztropine mesylate

Product Number : 10-2324
Brand : Focus Biomolecules
CAS-No. : 132-17-2

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

Identified uses : For Laboratory Research Use Only

1.3 Details of the supplier of the safety data sheet

Company : Focus Biomolecules
400 Davis Drive, suite 600
Plymouth Meeting, PA 19462

Telephone : +1 855-362-8721
E-mail : support@focusbiomolecules.com

1.4 Emergency telephone number

Emergency Phone # : CHEMTREC within USA/Canada 1-800- 424-9300
CHEMTREC outside USA/Canada 1-703-527-3887

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Acute toxicity: Oral (Category 1), H300; Skin (Category 1), H310; Inhalation (Category 1), H330
Causes damage to organs (Category 1), H370
May cause damage to organs through prolonged/repeated exposure (Category 2), H373

For the full text of the H-Statements mentioned in this Section, see Section 16. **2.2**

GHS Label elements, including precautionary statements

Pictogram

Signal word Danger

Hazard statement(s)
H300 Fatal if swallowed.

H310	Fatal if in contact with skin.
H330	Fatal if inhaled
H370	Causes damage to organs
H373	May cause damage to organs through prolonged/repeated exposure
Precautionary statement(s) P201	
P260	Do not breathe dust/fume/gas/mist/vapors/spray
P262	Do not get in eyes, on skin, or on clothing
P264	Wash skin thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area
P280	Wear protective gloves/protective clothing
P284	In case of inadequate ventilation, wear respiratory protection
P310 + P310 + P330	If swallowed, immediately call POISON CENTER/doctor. Rinse mouth.
P302 + P352	If on skin, wash with plenty of water.
P304 + P340	If inhaled, remove person to fresh air and keep comfortable for breathing.
P307 + P311	If exposed, call a POISON CONTROL center/doctor
P314	Get medical advise/attention if you fell unwell
P320	Specific treatment is urgent (see on this label)
P361 + P364	Immediately take off all contaminated clothing and wash before reuse.
P403 + P233	Store in a well-ventilated palce. Keep container tightly closed.
P405	Store locked up.
P501	Dispose of contents/ container to an approved waste disposal plant.

SECTION 3: Composition/information on ingredients

3.1 Substances

Synonyms

3-(Endo)-3-(diphenylmethoxy)-8-methyl-8-azabicyclo[3.2.1]octane methanesulfonate

Formula : $C_{21}H_{25}NO \cdot CH_3SO_3H$:

Molecular weight 403.53g/mol

CAS-No. : 132-17-2

EC-No. : 205-048-8

Component	Classification	Concentration
Benztropine mesylate		
	Acute Tox. 1; STOT SE. 1; STOT SE 2; H300, H310, H330, H370, H373	<= 100 %

For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice

Immediately remove any clothing soiled by the product.

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

Remove breathing apparatus only after contaminated clothing have been completely removed.

In case of irregular breathing or respiratory arrest provide artificial respiration.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact
Wash off with soap and plenty of water. Take victim immediately to hospital. Consult a physician.

In case of eye contact
Flush eyes with water for several minutes under running water. Consult doctor.

If swallowed
Consult a physician/POISON CONTROL CENTER immediately.

4.2 Most important symptoms and effects, both acute and delayed
May cause anemia, cough, CNS depression, drowsiness, headache, heart damage, lassitude (weakness, exhaustion), liver damage, narcosis, reproductive effects, teratogenic effects

4.3 Indication of any immediate medical attention and special treatment needed No data available

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Special hazards arising from the substance or mixture
Carbon oxides, Nitrogen oxides (NOx)

5.3 Advice for firefighters
Wear self-contained breathing apparatus for firefighting if necessary.

5.4 Further information
No data available

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
Wear respiratory protection. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. For personal protection see section 8.

6.2 Environmental precautions
Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up
Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

6.4 Reference to other sections
For disposal see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling
Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. Open and handle with care.

For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place.

Recommended storage temperature -20°C

Keep in a dry place.
Storage class (TRGS 510): 6.1B: Non-combustible, acute toxic Cat. 1 / very toxic hazardous materials

7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Components with workplace control parameters
Contains no substances with occupational exposure limit values.

8.2 Exposure controls

Appropriate engineering controls
Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

Personal protective equipment

Eye/face protection
Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection
Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Full contact
Material: Nitrile rubber
Minimum layer thickness: 0.11 mm
Break through time: 480 min
Material tested:Dermatril® (KCL 740 / Aldrich Z677272, Size M)

Splash contact
Material: Nitrile rubber
Minimum layer thickness: 0.11 mm
Break through time: 480 min
Material tested:Dermatril® (KCL 740 / Aldrich Z677272, Size M)

data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374
If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

Body Protection
Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection
Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure
Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

a)	Appearance	Form: powder Color: white
b)	Odor	No data available
c)	Odor Threshold	No data available
d)	pH	No data available
e)	Melting point/freezing point	No data available
f)	Initial boiling point and boiling range	No data available
g)	Flash point	No data available
h)	Evaporation rate	No data available
i)	Flammability (solid, gas)	No data available
j)	Upper/lower flammability or explosive limits	No data available
k)	Vapor pressure	No data available
l)	Vapor density	No data available
m)	Relative density	No data available
n)	Water solubility	No data available
o)	Partition coefficient: n-octanol/water	No data available
p)	Auto-ignition temperature	No data available
q)	Decomposition temperature	No data available
r)	Viscosity	No data available

s)	Explosive properties	No data available No
t)	Oxidizing properties	data available

9.2 Other safety information

No data available

SECTION 10: Stability and reactivity

10.1 Reactivity

No data available

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

No data available

10.4 Conditions to avoid

Avoid moisture.

10.5 Incompatible materials

Strong oxidizing agents, Heavy metal salts

10.6 Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides, Nitrogen oxides (NOx), Sulfur oxides

Other decomposition products - No data available

In the event of fire: see section 5

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Inhalation: No data available

Dermal: No data available

TDLO - 100 µg/kg (Human)

LD50 Intraperitoneal -Mouse - 65 mg/kg

LD50 - Rat - 940 mg/kg

LD50 Subcutaneous - Rat - 353 mg/kg

Skin corrosion/irritation

No data available

Serious eye damage/eye irritation

No data available

Respiratory or skin sensitisation

No data available

Carcinogenicity
This product is or contains a component that is not classifiable as to its carcinogenicity based on its IARC, ACGIH, NTP, or EPA classification.

IARC:	3 - Group 3: Not classifiable as to its carcinogenicity to humans (Vincristine sulphate)
ACGIH:	No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
NTP:	No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
OSHA:	No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

Reproductive toxicity
No data available

Specific target organ toxicity - single exposure
No data available

Specific target organ toxicity - repeated exposure
No data available

Aspiration hazard
No data available

Additional Information
RTECS: Not available

SECTION 12: Ecological information

12.1 Toxicity

No data available

12.2 Persistence and degradability

No data available

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

12.6 Other adverse effects

No data available

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

Contaminated packaging

Dispose of as unused product.

SECTION 14: Transport information

DOT (US)

UN number: 2811 Class: 6.1 Packing group: III

Proper shipping name: Toxic solids, organic, n.o.s. (Benztropine mesylate)

IMDG

UN number: 2811 Class: 6.1 Packing group: III

Proper shipping name: TOXIC SOLID, ORGANIC, N.O.S. (Benztropine mesylate) EMS-No: F-A, S-A

IATA

UN number: 2811 Class: 6.1 Packing group: III

Proper shipping name: Toxic solid, organic, n.o.s. (Benztropine mesylate)

SECTION 15: Regulatory information

SARA 302 Components

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components
This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards
Acute Health Hazard, Chronic Health Hazard

Massachusetts Right To Know Components
No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know Components

Benztropine mesylate	CAS-No. 132-17-2	Revision Date

New Jersey Right To Know Components

Benztropine mesylate	CAS-No. 132-17-2	Revision Date

California Prop. 65 Components

WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.Benztropine mesylate	CAS-No. 132-17-2	Revision Date 2021-10-11

SECTION 16: Other information

- **Further information**
   The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. Materials are intended for Laboratory Use only and must be used by qualified technicians. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Focus Biomolecules and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product.

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