

# SAFETY DATA SHEET

## SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

### 1.1. Product identification

Product Description: (R)-3-(2-hydroxy-2,2-di(thiophen-2-yl)acetoxy)-1-(3-phenoxypropyl)quinuclidin-1-ium bromide  
Cat No. : BD112529  
UFI: N/A  
CAS-No 320345-99-1  
Molecular Formula C<sub>26</sub>H<sub>30</sub>BrNO<sub>4</sub>S<sub>2</sub>

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

Identified uses For laboratory research purposes. Not for drug or household use.  
Uses advised against No Information available

### 1.3. Details of the supplier of the safety data sheet

company: BLD Pharmatech GmbH  
address: Senefelder-Ring 27, 21465 Reinbek, Germany.  
Telephone: +49 (0)4055 822 764 0

### 1.4. Emergency telephone

Emergency Phone: 1-352-323-3500  
0800 1812924

## SECTION 2: HAZARDS IDENTIFICATION

### 2.1. Classification of the substance or mixture

#### CLP Classification - Regulation (EC) No 1272/2008

##### Physical hazards

Based on available data, the classification criteria are not met

##### Health hazards

Acute toxicity, oral	Category 4 (H302)
Skin corrosion/irritation	Category 2 (H315)
Serious eye damage/eye irritation	Category 2A (H319)
Specific target organ toxicity, single exposure; Respiratory system	Category 3 (H335)

##### Environmental hazards

Based on available data, the classification criteria are not met

### 2.2. Label elements



Signal Word

Warning

#### Hazard Statements

H302 - Harmful if swallowed  
H315 - Causes skin irritation  
H319 - Causes serious eye irritation  
H335 - May cause respiratory irritation

#### Precautionary Statements

P261 - Avoid breathing dust/fume/gas/mist/vapours/spray.  
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

### 2.3. Results of PBT and vPvB assessment

PBT: Not applicable  
 vPvB: Not applicable

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1. Substances

Component	CAS-No	Molecular Weight	CLP Classification - Regulation (EC) No1272/2008	Concentration
(R)-3-(2-hydroxy-2,2-di(thiophen-2-yl)acetoxy)-1-(3-phenoxypropyl)quinuclidin-1-ium bromide	320345-99-1	564.55	Acute toxicity, oral 4 (H302) Skin corrosion/irritation 2 (H315) Serious eye damage/eye irritation 2A (H319) Specific target organ toxicity, single exposure;Respiratory system 3 (H335)	< = 100%

## SECTION 4: FIRST AID MEASURES

### 4.1. Description of first aid measures

**General Advice** If symptoms persist, call a physician.

**Eye Contact** Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.

**Skin Contact** Wash off immediately with plenty of water for at least 15 minutes. If skin irritation persists, call a physician.

**Ingestion** Clean mouth with water and drink afterwards plenty of water. Get medical attention if symptoms occur.

**Inhalation** Move to fresh air. If not breathing, give artificial respiration. Get medical attention if symptoms occur.

**Self-Protection of the First Aider** Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination.

### 4.2. Most important symptoms and effects, both acute and delayed

None reasonably foreseeable.

### 4.3. Indication of any immediate medical attention and special treatment needed

**Notes to Physician** Treat symptomatically.

## SECTION 5: FIREFIGHTING MEASURES

### 5.1. Extinguishing media

#### Suitable Extinguishing Media

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

#### Extinguishing media which must not be used for safety reasons

No information available.

### 5.2. Special hazards arising from the substance or mixture

Thermal decomposition can lead to release of irritating gases and vapors.

#### Hazardous Combustion Products

No data available

### 5.3. Advice for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

### 6.1. Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Use personal protective equipment. Avoid dust formation.

### 6.2. Environmental precautions

Should not be released into the environment.

### 6.3. Methods and material for containment and cleaning up

Sweep up or vacuum up spillage and collect in suitable container for disposal. Keep in suitable, closed containers for disposal.

## 6.4. Reference to other sections

Refer to protective measures listed in Sections 8 and 13.

## SECTION 7: HANDLING AND STORAGE

### 7.1. Precautions for safe handling

Wear personal protective equipment. Ensure adequate ventilation. Do not get in eyes, on skin, or on clothing. Avoid ingestion and inhalation. Avoid dust formation.

#### Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice. Keep away from food, drink and animal feeding stuffs. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing before re-use. Wash hands before breaks and at the end of workday.

### 7.2. Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated area. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Inert atmosphere, Room Temperature

### 7.3. Specific end use(s)

Use in laboratories

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1. Control parameters

#### Exposure limits

This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies

#### Biological limit values

This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies

#### Monitoring methods

BS EN 14042:2003 Title Identifier: Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents.

MDHS14/3 General methods for sampling and gravimetric analysis of respirable and inhalable dust

**Derived No Effect Level (DNEL)** No information available.

Route of exposure	Acute effects (local)	Acute effects (systemic)	Chronic effects (local)	Chronic effects (systemic)
Oral				
Dermal				
Inhalation				

**Predicted No Effect Concentration (PNEC)** No information available.

### 8.2. Exposure controls

#### Engineering Measures

Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location. Wherever possible, engineering control measures such as the isolation or enclosure of the process, the introduction of process or equipment changes to minimise release or contact, and the use of properly designed ventilation systems, should be adopted to control hazardous materials at source.

#### Personal protective equipment

**Eye Protection** Goggles (European standard - EN 166)

**Hand Protection** Protective gloves

Glove material	Breakthrough time	Glove thickness	EU standard	Glove comments
Nitrile rubber	See manufacturers recommendations	-	EN 374	(minimum requirement)
Neoprene				
Natural rubber				
PVC				

**Skin and body protection** Long sleeved clothing

Inspect gloves before use.

Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. (Refer to manufacturer/supplier for information)

Ensure gloves are suitable for the task: Chemical compatibility, Dexterity, Operational conditions, User susceptibility, e.g. sensitisation effects, also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion.

Remove gloves with care avoiding skin contamination.

<b>Respiratory Protection</b>	No protective equipment is needed under normal use conditions.
<b>Large scale/emergency use</b>	Use a NIOSH/MSHA or European Standard EN 136 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced
<b>Small scale/Laboratory use</b>	Maintain adequate ventilation
<b>Environmental exposure controls</b>	No information available.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1. Information on basic physical and chemical properties

<b>Physical state</b>	Light-red to red or light-yellow to yellow powder or crystals
<b>Colour</b>	
<b>Odour</b>	No information available
<b>Odour Threshold</b>	No data available
<b>pH</b>	No information available
<b>Melting Point/Range</b>	No data available
<b>Softening Point</b>	No data available
<b>Boiling Point/Range</b>	No data available
<b>Flash Point</b>	No data available
<b>Evaporation Rate</b>	Not applicable
<b>Flammability (solid,gas)</b>	No information available
<b>Explosion Limits</b>	No data available
<b>Vapor Pressure</b>	No data available
<b>Vapor Density</b>	Not applicable
<b>Oxidizing properties</b>	No data available
<b>Specific Gravity / Density</b>	No data available
<b>Bulk Density</b>	No data available
<b>Water Solubility</b>	No information available
<b>Solubility in other solvents</b>	No information available
<b>Partition Coefficient (n-octanol/water)</b>	No data available
<b>Autoignition Temperature</b>	No data available
<b>Decomposition Temperature</b>	No data available
<b>Viscosity</b>	Not applicable
<b>Explosive Properties</b>	No information available
<b>Particle characteristics</b>	No data

### 9.2. Other information

<b>Molecular Formula</b>	C <sub>26</sub> H <sub>30</sub> BrNO <sub>4</sub> S <sub>2</sub>
<b>Molecular Weight</b>	564.55

## SECTION 10: STABILITY AND REACTIVITY

### 10.1. Reactivity

None known, based on information available

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

<b>Hazardous Polymerization</b>	No information available.
<b>Hazardous Reactions</b>	None under normal processing.

### 10.4. Conditions to avoid

No data available

### 10.5. Incompatible materials

Strong oxidizing agents

### 10.6. Hazardous decomposition products

Carbon monoxide , carbon dioxide , hydrogen bromide , nitrogen oxides , oxides of sulfur

## SECTION 11: TOXICOLOGICAL INFORMATION



#### 14.4. Packaging group

ADR/RID: -

IMDG: -

IATA: -

#### 14.5. Environmental hazards

ADR/RID: -

IMDG: -

IATA: -

#### 14.6. Special precautions for user

No special precautions required

#### 14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not applicable, packaged goods

#### 14.8. Further information

No data available

## SECTION 15: REGULATORY INFORMATION

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

safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

#### 15.2. Safety Assessment

No Chemical Safety Assessment

## SECTION 16: OTHER INFORMATION

#### 16.1. The reference company name of written contents

**Company:** BLD Pharmatech GmbH  
**Address:** Senefelder-Ring 27, 21465 Reinbek, Germany.  
**Telephone:** +49 (0)4055 822 764 0

This SDS was prepared sincerely on the basis of the information we could obtained, however, any warranty shall not be given regarding the data contained and the assessment of hazards and toxicity. Prior to use, please investigate not only the hazards and toxicity information but also the laws and regulations of the organization, area and country where the products are to be used, which shall be given the first priority. products are supposed to be used promptly after purchase in consideration of safety. Some new information or amendments may be added afterwards. If the products are to be used far behind the expected time of use or you have any questions, please feel free to contact us. The stated cautions are for normal handling only. In case of special handling, sufficient care should be taken, in addition to the safety measures suitable for the situation. All chemical products should be treated with the recognition of "having unknown hazards and toxicity", which differ greatly depending on the conditions and handling when in use and/or the conditions and duration of storage. The products must be handled only by those who are familiar with specialized knowledge and have experience or under the guidance of those specialists throughout use from opening to storage and disposal. Safe usage conditions shall be set up on each user's own responsibility.

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