

# Safety Data Sheet

according to Regulation (EC) No 1907/2006

## Trihexyltetradecylphosphonium bromide

Revision Date: 9/11/2024

Date Issued: 9/12/2024

Version: 3

### 1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING

#### 1.1 Product identifier

|              |                                                                                                                                                                                                                                               |
|--------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product name | Trihexyltetradecylphosphonium bromide                                                                                                                                                                                                         |
| Product code | IN-0007                                                                                                                                                                                                                                       |
| CAS          | 654057-97-3                                                                                                                                                                                                                                   |
| EC-Number    | 689-608-0                                                                                                                                                                                                                                     |
| REACH No.    | A registration number is not available for this substance as the substance or its uses are exempted from registration, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline. |

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

|                 |                                                 |
|-----------------|-------------------------------------------------|
| Identified uses | Laboratory chemicals, Manufacture of substances |
|-----------------|-------------------------------------------------|

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

|           |                                                                                                   |
|-----------|---------------------------------------------------------------------------------------------------|
| Supplier  | IoLiTec<br>Ionic Liquids Technologies GmbH<br>Im Zukunftspark 9<br>D – 74076 Heilbronn<br>Germany |
| Telephone | +49 (0)7131-89839-0                                                                               |
| Fax       | +49 (0)7131-89839-109                                                                             |
| Email     | msds@iolitec.de                                                                                   |

#### 1.4 Emergency telephone number

|                     |                     |
|---------------------|---------------------|
| Emergency telephone | +49 (0)151-41255671 |
|---------------------|---------------------|

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## 2 HAZARDS IDENTIFICATION

### 2.1 Classification of the substance or mixture

#### Classification (REGULATION (EC) No 1272/2008)

Skin Irritation (Category 2)

Eye Irritation (Category 2)

Specific Target Organ Toxicity – Single Exposure (Category 3)

### 2.2 Label elements

#### Labelling (REGULATION (EC) No 1272/2008)

#### Pictogram



#### Signal word

Warning

#### H-phrases

H315

Causes skin irritation.

H319

Causes serious eye irritation.

H335

May cause respiratory irritation.

#### P-phrases

P261

Avoid breathing mist/ spray.

P264

Wash skin thoroughly after handling.

P271

Use only outdoors or in well-ventilated area.

P280

Wear protective gloves/ protective clothing/  
eye protection/ face protection.

P302 + P352

IF ON SKIN: Wash with plenty of water.

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|                    |                                                                                                                                  |
|--------------------|----------------------------------------------------------------------------------------------------------------------------------|
| P304 + P340        | IF INHALED: Remove person to fresh air and keep comfortable for breathing.                                                       |
| P332 + P313        | If skin irritation occurs: Get medical advice/attention.                                                                         |
| P337 + P313        | If eye irritation persists: Get medical advice/attention.                                                                        |
| P362 + P364        | Take off contaminated clothing and wash it before reuse.                                                                         |
| P305 + P351 + P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| P403 + P233        | Store in a well-ventilated place. Keep container tightly closed.                                                                 |
| P405               | Store locked up.                                                                                                                 |

### 2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

#### *Ecological information:*

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

#### *Toxicological information:*

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated

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regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

### 3 COMPOSITION/INFORMATION ON INGREDIENTS

#### 3.1 Substances

Trihexyltetradecylphosphonium bromide

**CAS:** 654057-97-3

**EC-Number :** 689-608-0

| Ingredient name                       | Contents | Classification                         |
|---------------------------------------|----------|----------------------------------------|
| Trihexyltetradecylphosphonium bromide | >95%     | Skin Irrit. 2, Eye Irrit. 2, STOT SE 3 |

### 4 FIRST AID MEASURES

#### 4.1 Description of first aid measures

##### General

Contaminated clothing should be removed and washed before being reused.

##### Inhalation

Move the exposed person to fresh air at once. If respiratory problems occur, provide artificial respiration/oxygen.

##### Ingestion

Rinse mouth and provide fresh air. If you feel unwell get medical attention.

##### Skin

Wash the skin with plenty soap and water. If skin irritation occurs get medical attention.

##### Eyes

Promptly wash eyes with plenty of water while lifting the eye lids. Continue to rinse for at least 15 minutes. If eye irritation persists get medical attention.

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

The most important known symptoms and effects are described in the labelling (see

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section 2.2) and/or in section 11

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

No data available

## 5 FIRE FIGHTING MEASURES

### 5.1 Extinguishing media

Use: Water spray, fog or mist. Carbon dioxides (CO<sub>2</sub>). Dry chemicals, sand, dolomite etc.

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

Avoid water in straight hose stream, will scatter and spread fire. Keep run-off water out of sewers and water sources. Dike for water control. Fire causes formation of toxic gases.

### 5.3. Advice for firefighters

Wear self-contained breathing apparatus as combustion may produce hazardous fumes.

## 6 ACCIDENTAL RELEASE MEASURES

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

Wear protective clothing and avoid inhalation of vapor, skin or eye contact.

### 6.2 Environmental precautions

Avoid washing into water courses. Avoid contaminating public drains or water supply.

### 6.3 Methods and materials for containment and cleaning up

Avoid contact with skin or inhalation of spillage, dust or vapor. Avoid dust formation. Collect and reclaim or dispose in sealed containers in license waste. Extinguish all ignition sources. Avoid sparks, flames, heat and smoking. Ventilate.

### 6.4 Reference to other sections

For disposal see section 13.

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### 7 HANDLING AND STORAGE

#### 7.1 Precautions for safe handling

Keep away from heat, sparks and open flame. Do not use in confined spaces without adequate ventilation and/or respirator.

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

Store at moderate temperatures in dry, well-ventilated area. Chemical storage. [Keep container tightly closed. Store locked up.](#)

[Storage class \(TRGS 510\): LGK 10-13](#)

#### 7.3 Specific end use(s)

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

### 8 EXPOSURE CONTROLS AND PERSONAL PROTECTION

#### 8.1 Control parameters

Ingredients with workplace control parameters

#### 8.2 Exposure controls

##### Eye/face protection

Safety glasses with side-shields conforming to EN166 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.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

##### Body Protection

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Impervious clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

### Respiratory protection

For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

## 9 PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

|                                 |                              |
|---------------------------------|------------------------------|
| a) Appearance                   | Liquid.                      |
| b) Color                        | Colorless to yellow.         |
| c) Odor/taste                   | No characteristic odor.      |
| d) Melting point/freezing point | -61 °C                       |
| e) Initial boiling point        | no data available            |
| f) Flammability                 | no data available            |
| g) Upper/lower explosive limits | no data available            |
| h) Flash point                  | no data available            |
| i) Autoignition temperature     | no data available            |
| j) Decomposition temperature    | 320 °C (nitrogen atmosphere) |
| k) pH                           | no data available            |
| l) Viscosity, kinematic         | 2181 mm <sup>2</sup> /s      |
| m) Water solubility             | no data available            |
| n) Partition coefficient        | no data available            |
| o) Vapor pressure               | no data available            |
| p) Density                      | 0.96 g/cm <sup>3</sup>       |
| q) Relative vapor density       | no data available            |
| r) Particle characteristics     | not relevant                 |

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s) Explosive properties not relevant

t) Oxidizing properties not relevant

### 9.2 Other safety information

No data available

## 10 STABILITY AND REACTIVITY

### 10.1 Reactivity

No data available

### 10.2 Chemical stability

No particular stability concerns.

### 10.3 Possibility of hazardous reactions

No data available

### 10.4 Conditions to avoid

Avoid contact to strong oxidizers and bases.

### 10.5 Incompatible materials

Strong oxidizing agents

### 10.6 Hazardous decomposition products

High temperatures generate: Corrosive gases/ vapor/ fumes of: Carbon dioxide (CO<sub>2</sub>).

Carbon monoxide (CO). Phosphorous oxides (PO<sub>x</sub>).

## 11 TOXICOLOGICAL INFORMATION

### 11.1 Information on hazard classes

#### Acute toxicity

no data available

#### Skin corrosion/irritation

Causes skin irritation.

#### Serious eye damage/eye irritation

Causes serious eye irritation.

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### Respiratory or skin sensitization

no data available

### Germ cell mutagenicity

no data available

### Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

### Reproductive toxicity

no data available

### Specific target organ toxicity - single exposure

Inhalation - May cause respiratory irritation.

### Specific target organ toxicity - repeated exposure

no data available

### Aspiration hazard

no data available

### Potential health effects

**Inhalation** May cause respiratory tract irritation.

**Ingestion** no data available

**Skin** Causes skin irritation.

**Eyes** Causes serious eye irritation.

### Signs and Symptoms of Exposure

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

### 11.2 Information on other hazards

#### Endocrine disrupting properties

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

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RTECS: Not available

### 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

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

#### 12.6 Endocrine disrupting properties

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

#### 12.7 Other adverse effects

No data available

### 13 DISPOSAL CONSIDERATIONS

#### 13.1 Waste treatment methods

Contact specialist disposal companies. Dispose of in accordance with Local Authority requirements. Recover and reclaim or recycle, if practical. **Do not dispose in communal waste water.**

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### 14 TRANSPORT INFORMATION

#### 14.1 UN number

ADR/RID: -

IMDG: -

IATA: -

#### 14.2 UN proper shipping name

ADR/RID: Not dangerous goods

IMDG: Not dangerous goods

IATA: Not dangerous goods

#### 14.3 Transport hazard class(es)

ADR/RID: -

IMDG: -

IATA: -

#### 14.4 Packaging group

ADR/RID: -

IMDG: -

IATA: -

#### 14.5 Environmental hazards

ADR/RID: no

IMDG Marine pollutant: no

IATA: no

#### 14.6 Special precautions for user

No data available

### 15 REGULATORY INFORMATION

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

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

#### 15.2 Chemical safety assessment

no data available

#### Country specific information

Germany

WGK: 3

(Self-Classification)

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### 16 OTHER INFORMATION

#### DISCLAIMER

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