

# SAFETY DATA SHEET

Version 6.7 Revision Date 08/25/2025 Print Date 08/26/2025

### **SECTION 1. IDENTIFICATION**

#### 1.1 Product identifiers

Product name : Bis[2-(2-butoxyethoxy)ethyl] adipate

Product Number : 421014
Brand : Aldrich
CAS-No. : 141-17-3

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

Identified uses : Laboratory chemicals, Synthesis of substances

Uses advised against : The product is being supplied under the TSCA R&D Exemption

(40 CFR Section 720.36). It is the recipient's responsibility to comply with the requirements of the R&D exemption. The product may not be used for a non-exempt commercial purpose under TSCA unless appropriate consent is granted in writing by

MilliporeSigma.

# 1.3 Details of the supplier of the safety data sheet

Company : Sigma-Aldrich Inc.

3050 SPRUCE ST ST. LOUIS MO 63103 UNITED STATES

Telephone : +1 314 771-5765 Fax : +1 800 325-5052

### 1.4 Emergency telephone number

Emergency Phone # : 800-424-9300 CHEMTREC (USA) +1-703-

527-3887 CHEMTREC (International) 24

Hours/day; 7 Days/week

### **SECTION 2. HAZARDS IDENTIFICATION**

# GHS classification in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200)

# Hazards for the product as supplied

Short-term (acute) : Category 3

aquatic hazard

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### Other hazards

None known.

### **GHS label elements**

Hazard Statements : H402 Harmful to aquatic life.

Precautionary statements : **Prevention:** 

P273 Avoid release to the environment.

Disposal:

P501 Dispose of contents/ container to an approved

waste disposal plant.

# **SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

Substance / Mixture : Substance

### Components

Chemical name	CAS No./Unique ID	Concentration (% w/w)	Trade secret
Bis(2-(2- butoxyethoxy)ethyl) adipate	141-17-3*	>= 90 - <= 100	-

<sup>\*</sup> Indicates that the identifier is a CAS No.

Actual concentration is withheld as a trade secret

### **SECTION 4. FIRST AID MEASURES**

If inhaled : After inhalation: fresh air.

In case of skin contact : In case of skin contact: Take off immediately all

contaminated clothing. Rinse skin with water/ shower.

In case of eye contact : After eye contact: rinse out with plenty of water.

Remove contact lenses.

If swallowed : After swallowing: make victim drink water (two

glasses at most). Consult doctor if feeling unwell.

Most important symptoms and effects,

both acute and delayed

: The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in

section 11

Protection of first-aiders : For personal protection see section 8.

Notes to physician : No data available

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### **SECTION 5. FIREFIGHTING MEASURES**

Suitable extinguishing

media

: Water Foam

Carbon dioxide (CO2)

Dry powder

Unsuitable extinguishing

media

: For this substance/mixture no limitations of

extinguishing agents are given.

Specific hazards during

fire fighting

: Combustible.

Vapours are heavier than air and may spread along

floors.

Forms explosive mixtures with air on intense heating.

Development of hazardous combustion gases or

vapours possible in the event of fire.

Hazardous combustion

products

: Carbon oxides

Specific extinguishing

methods

: No data available

Further information : Prevent fire extinguishing water from contaminating

surface water or the ground water system.

Special protective equipment for fire-

fighters

: In the event of fire, wear self-contained breathing

apparatus.

# **SECTION 6. ACCIDENTAL RELEASE MEASURES**

Personal precautions, protective equipment and emergency procedures : Advice for non-emergency personnel: Do not breathe vapours, aerosols.

Evacuate the danger area, observe emergency

procedures, consult an expert.

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Advice for emergency responders: For personal protection see section 8.

Environmental precautions

: Do not let product enter drains.

Methods and materials for containment and

cleaning up

: Cover drains. Collect, bind, and pump off spills.
Observe possible material restrictions (see sections 7

and 10).

Take up with liquid-absorbent material (e.g.

Chemizorb® ). Dispose of properly. Clean up affected

area.

### **SECTION 7. HANDLING AND STORAGE**

For precautions see section 2.2.

Further information on storage conditions

: Tightly closed.

Storage class : 10, Combustible liquids

Recommended storage

temperature

: Recommended storage temperature see product label.

# **SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

# Ingredients with workplace control parameters

Contains no substances with occupational exposure limit values.

**Engineering measures** : No data available

# **Personal protective equipment**

Respiratory protection : Not required; except in case of aerosol formation.

Hand protection

Remarks : not required

Eye protection : Use equipment for eye protection tested and

approved under appropriate government standards

such as NIOSH (US) or EN 166(EU).

Safety glasses

Hygiene measures : Change contaminated clothing. Wash hands after

working with substance.

### **SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

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Appearance : liquid (68 °F / 20 °C, 1,013 hPa)

Color : yellow

Odor : No data available

Odor Threshold : No data available pH : No data available

Melting point/ range : 12 °F / -11 °C

Method: lit.

Boiling point/boiling range : No data available

Flash point : 410 °F / 210 °C

(1,013 hPa) Method: open cup

Evaporation rate : No data available

Flammability (solid, gas) : No data available

Flammability (liquids) : No data available

Burning rate : No data available

Upper explosion limit /

Upper flammability limit

: No data available

Lower explosion limit / Lower flammability limit : No data available

Vapor pressure : 2 hPa (392 °F / 200 °C)

Relative vapour density : No data available

Relative density : No data available

Density : 1.01 g/cm3 (77 °F / 25 °C)

Method: lit.

Solubility(ies)

Water solubility : 0.57 g/l slightly soluble (68 °F / 20 °C)

Method: Regulation (EC) No. 440/2008, Annex, A.6

Partition coefficient: n-

octanol/water

: log Pow: 3.24

Bioaccumulation is not expected.

Autoignition temperature : No data available

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Decomposition : No data available

temperature

Viscosity

Viscosity, dynamic : 18 - 23 mPa.s (68 °F / 20 °C)

Viscosity, kinematic : No data available

Flow time : No data available

Explosive properties : No data available

Oxidizing properties : none

Molecular weight : 434.56 g/mol

Particle characteristics

Particle size : No data available

#### **SECTION 10. STABILITY AND REACTIVITY**

Reactivity : Forms explosive mixtures with air on intense heating.

A range from approx. 15 Kelvin below the flash point

is to be rated as critical.

: The product is chemically stable under standard Chemical stability

ambient conditions (room temperature).

Possibility of hazardous

reactions

: Violent reactions possible with:

Strong oxidizing agents

Conditions to avoid : Strong heating.

Incompatible materials : No data available

products

Hazardous decomposition: In the event of fire: see section 5

### **SECTION 11. TOXICOLOGICAL INFORMATION**

# 11.1 Information on toxicological effects

### **Acute toxicity**

LD50 Oral - Rat - male and female - > 5,000 mg/kg

(OECD Test Guideline 401) Inhalation: No data available

LD50 Dermal - Rat - male and female - >= 2,000 mg/kg

(OECD Test Guideline 402)

No data available

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### Skin corrosion/irritation

Skin - Rabbit

Result: No skin irritation (OECD Test Guideline 404)

### Serious eye damage/eye irritation

Eyes - Rabbit

Result: No eye irritation

Remarks: (ECHA)

# Respiratory or skin sensitization

Maximisation Test - Guinea pig

Result: negative

(OECD Test Guideline 406)

# Germ cell mutagenicity

No data available Test Type: Ames test

Test system: S. typhimurium

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 471

Result: negative Test Type: Ames test Test system: E. coli

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 471

Result: negative

# 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.

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 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

### 11.2 Additional Information

Repeated dose toxicity - Rat - female - Oral - No observed adverse effect level - 100 mg/kg

RTECS: AU8420000

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

### **SECTION 12. ECOLOGICAL INFORMATION**

### **Ecotoxicity**

### **Components:**

### Bis(2-(2-butoxyethoxy)ethyl) adipate:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 13 mg/l

End point: mortality Exposure time: 96 h Test Type: semi-static test

Method: OECD Test Guideline 203

Toxicity to daphnia and

other aquatic invertebrates

: EC50 (Daphnia magna (Water flea)): 420 mg/l

End point: Immobilization Test Type: static test

Method: OECD Test Guideline 202

GLP: yes

plants

Toxicity to algae/aquatic : ErC50 (Raphidocelis subcapitata (freshwater green

alga)): 37.6 mg/l Exposure time: 72 h Test Type: static test Analytical monitoring: yes

Method: OECD Test Guideline 201

GLP: yes

# Persistence and degradability

### **Components:**

# Bis(2-(2-butoxyethoxy)ethyl) adipate:

Biodegradability : aerobic

Inoculum: activated sludge, non-adapted

Concentration: 20 mg/l Result: Readily biodegradable.

Biodegradation: 82 % Exposure time: 28 d

Method: OECD Test Guideline 301B

GLP: yes

### **Bioaccumulative potential**

# **Components:**

# **Bis(2-(2-butoxyethoxy)ethyl) adipate:**

Bioaccumulation : Remarks: No data available

Aldrich - 421014 Page 8 of 12 Partition coefficient: n- : log Pow: 3.24

octanol/water Remarks: Bioaccumulation is not expected.

# Mobility in soil

# **Components:**

# **Bis(2-(2-butoxyethoxy)ethyl) adipate:**

Stability in soil : Remarks: No data available

### Other adverse effects

### **Components:**

# Bis(2-(2-butoxyethoxy)ethyl) adipate:

Additional ecological

: No data available

information

### **SECTION 13. DISPOSAL CONSIDERATIONS**

# **Disposal methods**

Waste from residues : Waste material must be disposed of in accordance

with the national and local regulations. Leave

chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product

itself.

### **SECTION 14. TRANSPORT INFORMATION**

# **International Regulations**

### **IATA-DGR**

Not regulated as a dangerous good

### IMDG-Code

Not regulated as a dangerous good

### Transport in bulk according to IMO instruments

Not applicable for product as supplied.

### **National Regulations**

#### 49 CFR Road

Not regulated as a dangerous good

Poison Inhalation Hazard : No

### **Special precautions for user**

Remarks : Not classified as dangerous in the meaning of

transport regulations.

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### **SECTION 15. REGULATORY INFORMATION**

# **CERCLA Reportable Quantity**

This material does not contain any components with a CERCLA RQ.

### **SARA 304 Extremely Hazardous Substances Reportable Quantity**

This material does not contain any components with a section 304 EHS RQ.

### SARA 302 Extremely Hazardous Substances Threshold Planning Quantity

This material does not contain any components with a section 302 EHS TPQ.

**SARA 311/312** 

: No SARA Hazards

**Hazards** 

**SARA 313** : The following components are subject to reporting

levels established by SARA Title III, Section 313:

Bis(2-(2- 141-17-3 >= 90 - <= 100 %

butoxyethoxy) ethyl) adipate

# **US State Regulations**

### **Massachusetts Right To Know**

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

### Pennsylvania Right To Know

Bis(2-(2-butoxyethoxy)ethyl) adipate

141-17-3

### **Maine Chemicals of High Concern**

Product does not contain any listed chemicals

### **Vermont Chemicals of High Concern**

Product does not contain any listed chemicals

# **Washington Chemicals of High Concern**

Product does not contain any listed chemicals

### The components of this product are reported in the following inventories:

TSCA : All substances listed as active on the TSCA inventory

# **TSCA list**

No substances are subject to a Significant New Use Rule.

No substances are subject to TSCA 12(b) export notification requirements.

# **SECTION 16. OTHER INFORMATION**

### Full text of other abbreviations

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AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN -Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; 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 Harmonised System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; 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 Organisation; ISHL - Industrial Safety and Health Law (Japan); ISO -International Organisation for Standardisation; 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; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organisation 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; RCRA -Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Decomposition Temperature; SARA Superfund Amendments Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; 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

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