# Chemical Safety Data Sheet MSDS / SDS

# **Rivastigmine tartrate**

Revision Date:2025-01-18 Revision Number:1

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

# **Product identifier**

Product name	: Rivastigmine tartrate			
CBnumber	: CB9500851			
CAS	: 129101-54-8			
EINECS Number	: 603-318-3			
Synonyms	: RIVASTIGMINE TARTRATE, Rivastigmine L-Tartrate			
Relevant identified uses of the substance or mixture and uses advised against				
Relevant identified uses	: For R&D use only. Not for medicinal, household or other use.			
Uses advised against	: none			
Company Identification				
Company Identification	: Chemicalbook			
	: Chemicalbook : Building 1, Huihuang International, Shangdi 10th Street, Haidian District, Beijing			
Company				

# SECTION 2: Hazards identification

# GHS Label elements, including precautionary statements

# Pictogram(s)

Signal word

Danger

Hazard statement(s)

H300 Fatal if swallowed

Prevention

P264 Wash ... thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

# Response

P301+P316 IF SWALLOWED: Get emergency medical help immediately.

P321 Specific treatment (see ... on this label).

P330 Rinse mouth.

Storage

P405 Store locked up.

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#### Disposal

P501 Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

# SECTION 3: Composition/information on ingredients

### Substance

Product name	: Rivastigmine tartrate
Synonyms	: RIVASTIGMINE TARTRATE, Rivastigmine L-Tartrate
CAS	: 129101-54-8
EC number	: 603-318-3
MF	: C18H28N2O8
MW	: 400.42

# SECTION 4: First aid measures

#### Description of first aid measures

#### General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

#### 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 as a precaution.

#### If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

#### 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

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

No data available

# **SECTION 5: Firefighting measures**

# **Extinguishing media**

#### Suitable extinguishing media

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

### Special hazards arising from the substance or mixture

Carbon oxides, Nitrogen oxides (NOx)

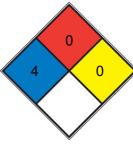
# Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

# **Further information**

No data available

# **NFPA 704**



Very short exposure could cause death or major residual injury (e.g. hydrogen cyanide, phosgene, methyl isocyanate, hydrofluoric acid)

FIRE	0	Materials that will not burn under typical fire conditions, including intrinsically noncombustible materials such as concrete, stone, and sand. Materials that will not burn in air when exposed to a temperature of 820 °C (1,500 °F) for a period of 5 minutes.(e.g. Carbon tetrachloride)
REACT	0	Normally stable, even under fire exposure conditions, and is not reactive with water (e.g. helium, N2)
spec. Haz.		

# SECTION 6: Accidental release measures

# Personal precautions, protective equipment and emergency procedures

Wear respiratory protection. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to

safe areas. Avoid breathing dust.

For personal protection see section 8.

# **Environmental precautions**

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

# 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.

# Reference to other sections

For disposal see section 13.

# SECTION 7: Handling and storage

### 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. For precautions see section 2.2.

### Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place. Store in cool place. Recommended storage temperature 2 - 8 °C Store with desiccant.

### 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

#### control parameter

#### Hazard composition and occupational exposure limits

Does not contain substances with occupational exposure limits.

#### **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.

The selected protective gloves have to satisfy the specifications of Regulation (EU) 2016/425 and the standard EN 374 derived from it. 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. Discharge into the environment must be avoided.

# SECTION 9: Physical and chemical properties

#### Information on basic physicochemical properties

OdourNo data aOdour ThresholdNo data apHNo data aMelting point/freezing pointMelting pInitial boiling point and boiling rangeNo data aFlash pointNo data aEvaporation rateNo data aFlammability (solid, gas)No data a	available available point/range: 123 - 125 °C available available available
pHNo data aMelting point/freezing pointMelting pInitial boiling point and boiling rangeNo data aFlash pointNo data aEvaporation rateNo data a	available point/range: 123 - 125 °C available available available
Melting point/freezing pointMelting pInitial boiling point and boiling rangeNo data aFlash pointNo data aEvaporation rateNo data a	ooint/range: 123 - 125 °C available available available
Initial boiling point and boiling rangeNo data aFlash pointNo data aEvaporation rateNo data a	available available available
Flash pointNo data aEvaporation rateNo data a	available available
Evaporation rate No data a	available
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Flammability (solid, gas) No data a	available
Upper/lower flammability or explosive No data a	available
limits	
Vapour pressure No data a	available
Vapour density No data a	available
Relative density No data a	available
Water solubility H2O: sol	uble15mg/mL, clear
Partition coefficient: n-octanol/water No data a	available
Autoignition temperature No data a	available
Decomposition temperature No data a	available
Viscosity No data a	available
Explosive properties No data a	available
Oxidizing properties No data a	available

# Other safety information

No data available

# SECTION 10: Stability and reactivity

# Reactivity

No data available

# **Chemical stability**

Stable under recommended storage conditions.

# Possibility of hazardous reactions

No data available

# Conditions to avoid

No data available

# Incompatible materials

Strong oxidizing agents

# Hazardous decomposition products

Other decomposition products - No data available

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

In the event of fire: see section 5

# SECTION 11: Toxicological information

# Information on toxicological effects

### Acute toxicity

LD50 Oral - Rat - 13 mg/kg Remarks: (External MSDS)

#### Skin corrosion/irritation

Skin - Rabbit Result: No irritation

Remarks: (External MSDS)

#### Serious eye damage/eye irritation

Eyes - Rabbit

Result: No eye irritation

(Regulation (EC) No. 440/2008, Annex, B.5)

## Respiratory or skin sensitisation

(OECD Test Guideline 406)

#### Germ cell mutagenicity

No data available Ames test

Salmonella typhimurium Result: negative

Chromosome aberration test in vitro Human lymphocytes

Result: positive (External MSDS)

OECD Test Guideline 474 Mouse

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.

#### 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

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

# SECTION 12: Ecological information

# Toxicity

### Toxicity to fish

LC50 - Lepomis macrochirus (Bluegill) - 31,8 mg/l - 96 h Remarks: (External MSDS) LC50 - Oncorhynchus mykiss (rainbow trout) - > 100 mg/l - 96 h Remarks: (External MSDS) **Toxicity to daphnia and other aquatic invertebrates** EC50 - Daphnia magna (Water flea) - 1,4 mg/l - 48 h Remarks: (External MSDS)

### Toxicity to algae

IC50 - Pseudokirchneriella subcapitata (green algae) - 43 mg/l - 72 h

(OECD Test Guideline 201)

#### Toxicity to bacteria

EC50 - activated sludge - > 1.000 mg/l - 3 h

Remarks: (External MSDS)

### Persistence and degradability

Biodegradability aerobic - Exposure time 28 d Result: 5 % - Not readily biodegradable. Remarks: (External MSDS)

#### **Bioaccumulative potential**

No data available

### Mobility in soil

No data available

### 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.

# Other adverse effects

Toxic to aquatic life with long lasting effects. No data available

# SECTION 13: Disposal considerations

### Waste treatment methods

### Product

Offer surplus and non-recyclable solutions to a licensed disposal company. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Waste material must be disposed of in accordance with the Directive on waste 2008/98/EC as well as other national and local regulations. Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself.

#### Contaminated packaging

Dispose of as unused product.

# SECTION 14: Transport information

# **UN number**

ADR/RID: 2811 IMDG: 2811 IATA: 2811

## UN proper shipping name

ADR/RID: TOXIC SOLID, ORGANIC, N.O.S. (Carbamic acid, N-ethyl-N-methyl-, 3-[(1S)-1- (dimethylamino)ethyl]phenyl ester, (2R,3R)-2,3dihydroxybutanedioate (1:1)) IMDG: TOXIC SOLID, ORGANIC, N.O.S. (Carbamic acid, N-ethyl-N-methyl-, 3-[(1S)-1- (dimethylamino)ethyl]phenyl ester, (2R,3R)-2,3dihydroxybutanedioate (1:1)) IATA: Toxic solid, organic, n.o.s. (Carbamic acid, N-ethyl-N-methyl-, 3-[(1S)-1- (dimethylamino)ethyl]phenyl ester, (2R,3R)-2,3dihydroxybutanedioate (1:1))

# Transport hazard class(es)

ADR/RID: 6.1 IMDG: 6.1 IATA: 6.1

# **Packaging group**

ADR/RID: II IMDG: II IATA: II

# **Environmental hazards**

ADR/RID: yes IMDG Marine pollutant: yes IATA: no

#### Special precautions for user

No data available

# SECTION 15: Regulatory information

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

#### Regulations on the Safety Management of Hazardous Chemicals

China Catalog of Hazardous chemicals 2015:Not Listed. website: https://www.mem.gov.cn/

### Measures for Environmental Management of New Chemical Substances

Chinese Chemical Inventory of Existing Chemical Substances (China IECSC):Not Listed. website: https://www.mee.gov.cn/ EC Inventory:Not Listed.

Korea Existing Chemicals List (KECL):Not Listed. website: http://ncis.nier.go.kr

United States Toxic Substances Control Act (TSCA) Inventory:Not Listed. website: https://www.epa.gov/

European Inventory of Existing Commercial Chemical Substances (EINECS):Not Listed. website: https://echa.europa.eu/

Philippines Inventory of Chemicals and Chemical Substances (PICCS):Not Listed. website: https://emb.gov.ph/

Vietnam National Chemical Inventory:Not Listed. website: https://chemicaldata.gov.vn/

New Zealand Inventory of Chemicals (NZloC):Listed. website: https://www.epa.govt.nz/

# **SECTION 16: Other information**

### Abbreviations and acronyms

CAS: Chemical Abstracts Service ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road RID: Regulation concerning the International Carriage of Dangerous Goods by Rail IMDG: International Maritime Dangerous Goods IATA: International Air Transportation Association TWA: Time Weighted Average STEL: Short term exposure limit LC50: Lethal Concentration 50%

LD50: Lethal Dose 50%

EC50: Effective Concentration 50%

#### References

[1] CAMEO Chemicals, website: http://cameochemicals.noaa.gov/search/simple

[2] ChemlDplus, website: http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp

[3] ECHA - European Chemicals Agency, website: https://echa.europa.eu/

[4] eChemPortal - The Global Portal to Information on Chemical Substances by OECD, website:

http://www.echemportal.org/echemportal/index?pageID=0&request\_locale=en

[5] ERG - Emergency Response Guidebook by U.S. Department of Transportation, website: http://www.phmsa.dot.gov/hazmat/library/erg

[6] Germany GESTIS-database on hazard substance, website: http://www.dguv.de/ifa/gestis/gestis-stoffdatenbank/index-2.jsp

[7] HSDB - Hazardous Substances Data Bank, website: https://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm

[8] IARC - International Agency for Research on Cancer, website: http://www.iarc.fr/

[9] IPCS - The International Chemical Safety Cards (ICSC), website: http://www.ilo.org/dyn/icsc/showcard.home

[10] Sigma-Aldrich, website: https://www.sigmaaldrich.com/

Disclaimer:

The information in this MSDS is only applicable to the specified product, unless otherwise specified, it is not applicable to the mixture of this product and other substances. This MSDS only provides information on the safety of the product for those who have received the appropriate professional training for the user of the product. Users of this MSDS must make independent judgments on the applicability of this SDS. The authors of this MSDS will not be held responsible for any harm caused by the use of this MSDS.