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SAFETY DATA SHEET Version 6.1

Revision Date 05/28/2017 Print Date 11/18/2018

1. PRODUCT AND COMPANY IDENTIFICATION

| 1.1 | Product identifiers Product name | : | R-(-)-Fluoxetine hydrochloride |
|-----|-------------------------------------|------|---|
| | Product Number Brand | : | F1678 Sigma |
| | CAS-No. | : | 114247-09-5 |
| 1.2 | Relevant identified uses o | f th | e substance or mixture and uses advised against |
| | Identified uses | : | Laboratory chemicals, Synthesis of substances |

1.3 Details of the supplier of the safety data sheet

| Company | : | Sigma-Aldrich Inc. 3050 Spruce Street ST. LOUIS MO 63103 UNITED STATES |
|---------------------|-------|---|
| Telephone | : | +1 314 771-5765 |
| Fax | : | +1 800 325-5052 |
| Emergency telephone | numbe | r |

1.4

Emergency Phone # : (314) 776-6555

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 4), H302 Skin irritation (Category 2), H315 Serious eye damage (Category 1), H318

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) H302 H315 H318 | Harmful if swallowed. Causes skin irritation. Causes serious eye damage. |
|--|---|
| Precautionary statement(s) P264 P270 P280 | Wash skin thoroughly after handling. Do not eat, drink or smoke when using this product. Wear protective gloves/ eye protection/ face protection. |

| P301 + P312 + P330 | IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. Rinse mouth. |
|---------------------------|---|
| P302 + P352 | IF ON SKIN: Wash with plenty of soap and water. |
| P305 + P351 + P338 + P310 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor. |
| P332 + P313 | If skin irritation occurs: Get medical advice/ attention. |
| P362 | Take off contaminated clothing and wash before reuse. |
| P501 | Dispose of contents/ container to an approved waste disposal plant. |

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS - none

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

| Formula | : | C ₁₇ H ₁₈ NOF ₃ · HCI |
|--------------------------|---|--|
| Molecular weight CAS-No. | | 345.79 g/mol 114247-09-5 |

| Hazardous components | | |
|--------------------------------|----------------------------------|---------------|
| Component | Classification | Concentration |
| R-(-)-Fluoxetine hydrochloride | | |
| | Acute Tox. 4; Skin Irrit. 2; Eye | <= 100 % |
| | Dam. 1; H302, H315, H318 | |

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

4. FIRST AID MEASURES

4.1 Description of first aid measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

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. Consult a physician.

In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed

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

4.2 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

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

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), Hydrogen chloride gas, Hydrogen fluoride

5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

5.4 Further information

No data available

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures Use personal protective equipment. 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.

6.2 Environmental precautions 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.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Further processing of solid materials may result in the formation of combu formation should be taken into consideration before additional processing Provide appropriate exhaust ventilation at places where dust is formed. 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.

7.3 Specific end use(s)

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

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

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

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.

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 (EN 143) respirator cartridges as a backup to engineering controls. If th 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

Do not let product enter drains.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

| a) | Appearance | Form: solid |
|----|---|---|
| b) | Odour | No data available |
| c) | Odour Threshold | No data available |
| d) | рН | 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) | Vapour pressure | No data available |
| I) | Vapour density | No data available |
| m) | Relative density | No data available |
| n) | Water solubility | ca.20 g/l |
| 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 |
| t) | Oxidizing properties | No data available |
| | | |
| | b) c) d) e) f) g) h) i) j) k) l) m) n) o) p) q) r) s) t) Oth | b) Odour c) Odour Threshold d) pH e) Melting point/freezing point f) Initial boiling point and boiling range g) Flash point h) Evaporation rate i) Flammability (solid, gas) j) Upper/lower flammability or explosive limits k) Vapour pressure l) Vapour density m) Relative density n) Water solubility o) Partition coefficient: n-octanol/water p) Auto-ignition temperature q) Decomposition temperature r) Viscosity s) Explosive properties |

10. STABILITY AND REACTIVITY

| 10.1 | Reactivity |
|------|-------------------|
| | No data available |

9.2

- **10.2 Chemical stability** Stable under recommended storage conditions.
- **10.3** Possibility of hazardous reactions No data available
- **10.4 Conditions to avoid** No data available
- **10.5** Incompatible materials Strong oxidizing agents

10.6 Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides, Nitrogen oxides (NOx), Hydrogen chloride gas, Hydrogen fluoride Other decomposition products - No data available In the event of fire: see section 5

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity

No data availableR-(-)-Fluoxetine hydrochloride Inhalation: No data available(R-(-)-Fluoxetine hydrochloride) Dermal: No data available(R-(-)-Fluoxetine hydrochloride) No data available(R-(-)-Fluoxetine hydrochloride)

Skin corrosion/irritation

No data available(R-(-)-Fluoxetine hydrochloride)

Serious eye damage/eye irritation No data available(R-(-)-Fluoxetine hydrochloride)

Respiratory or skin sensitisation

No data available(R-(-)-Fluoxetine hydrochloride)

Germ cell mutagenicity

No data available(R-(-)-Fluoxetine hydrochloride)

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 identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity

No data available(R-(-)-Fluoxetine hydrochloride)

No data available(R-(-)-Fluoxetine hydrochloride)

Specific target organ toxicity - single exposure No data available(R-(-)-Fluoxetine hydrochloride)

Specific target organ toxicity - repeated exposure No data available

Aspiration hazard

No data available(R-(-)-Fluoxetine hydrochloride)

Additional Information

RTECS: Not available

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.(R-(-)-Fluoxetine hydrochloride)

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(R-(-)-Fluoxetine hydrochloride)

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

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.

Contaminated packaging

Dispose of as unused product.

14. TRANSPORT INFORMATION

DOT (US) Not dangerous goods IMDG Not dangerous goods

IATA

Not dangerous goods

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

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

| Pennsylvania Right To Know Components | | |
|---------------------------------------|-------------|---------------|
| | CAS-No. | Revision Date |
| R-(-)-Fluoxetine hydrochloride | 114247-09-5 | |
| New Jersey Right To Know Components | | |
| | CAS-No. | Revision Date |
| R-(-)-Fluoxetine hydrochloride | 114247-09-5 | |

California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

16. OTHER INFORMATION

Full text of H-Statements referred to under sections 2 and 3.

| H302 | Harmful if swallowed. |
|------|----------------------------|
| H315 | Causes skin irritation. |
| H318 | Causes serious eye damage. |

HMIS Rating

| Health hazard: | 2 |
|-------------------------------|--------|
| Chronic Health Hazard: | |
| Flammability: | 0 |
| Physical Hazard | 0 |
| | |
| NFPA Rating | |
| NFPA Rating Health hazard: | 2 |
| • | 2 0 |

Further information

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Preparation Information

Sigma-Aldrich Corporation Product Safety – Americas Region 1-800-521-8956 Version: 6.1 Re

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