**Reviewed NMG** Expire: 08March2027



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# SAFETY DATA SHEET

Version 6.2 Revision Date 08.03.2024 Print Date 24.08.2024

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

#### 1.1 **Product identifiers**

Product name Efavirenz

**Product Number** SML0536 Brand Sigma

CAS-No. 154598-52-4

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

Identified uses : Laboratory chemicals, Synthesis of substances

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

: MilliporeSigma Canada Ltd. Company

> 2149 WINSTON PARK DRIVE OAKVILLE ON L6H 6J8

**CANADA** 

Telephone +1 905 829-9500 +1 905 829-9292 Fax

**Emergency telephone** 1.4

> Emergency Phone # +1-703-527-3887 CHEMTREC

> > (International)

24 Hours/day; 7 Days/week

# **SECTION 2: Hazards identification**

#### 2.1 Classification of the substance or mixture

# GHS Classification in accordance with Hazardous Products Regulations (HPR) (SOR/2015-17)

Acute toxicity, Oral (Category 4), H302 Reproductive toxicity (Category 1B), H360

Short-term (acute) aquatic hazard (Category 1), H400 Long-term (chronic) aquatic hazard (Category 1), H410

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

#### 2.2 GHS Label elements, including precautionary statements

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Pictogram



Signal Word Danger

Hazard Statements

H302 Harmful if swallowed.

H360 May damage fertility or the unborn child.

H410 Very toxic to aquatic life with long lasting effects.

**Precautionary Statements** 

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and

understood.

P264 Wash skin thoroughly after handling.

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

P273 Avoid release to the environment.

P280 Wear protective gloves/ protective clothing/ eye protection/ face

protection.

P301 + P312 + P330 IF SWALLOWED: Call a POISON CENTER/ doctor if you feel

unwell. Rinse mouth.

P308 + P313 IF exposed or concerned: Get medical advice/ attention.

P391 Collect spillage. P405 Store locked up.

P501 Dispose of contents/ container to an approved waste disposal

plant.

# 2.3 Hazards not otherwise classified (HNOC) or not covered by GHS

- none

# **SECTION 3: Composition/information on ingredients**

### 3.1 Substances

Synonyms: (4S)-6-Chloro-4-(2-cyclopropylethynyl)-1,4-dihydro-4-

(trifluoromethyl)-2H-3,1-benzoxazin-2-one

Formula :  $C_{14}H_9CIF_3NO_2$ Molecular weight : 315.67 g/mol CAS-No. : 154598-52-4

Component	Classification	Concentration *
(-)-Efavirenz		
	Acute Tox. 4; Repr. 1B; Aquatic Acute 1; Aquatic Chronic 1; H302, H360, H400, H410 M-Factor - Aquatic Acute: 10 - Aquatic Chronic: 10	<= 100 %
* Weight %	·	



#### **SECTION 4: First aid measures**

#### 4.1 Description of first-aid measures

#### **General advice**

Show this material safety data sheet to the doctor in attendance.

#### 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. Consult a physician.

# In case of eye contact

After eye contact: rinse out with plenty of water. Call in ophthalmologist. Remove contact lenses.

#### If swallowed

After swallowing: immediately make victim drink water (two glasses at most). 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

#### **SECTION 5: Firefighting measures**

#### 5.1 Extinguishing media

# Suitable extinguishing media

Water Foam Carbon dioxide (CO2) Dry powder

### Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given.

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

Carbon oxides

Nitrogen oxides (NOx)

Hydrogen chloride gas

Hydrogen fluoride

Combustible.

Development of hazardous combustion gases or vapours possible in the event of fire.

# **5.3** Advice for firefighters

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

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#### **5.4** Further information

Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

#### **SECTION 6: Accidental release measures**

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

Advice for non-emergency personnel: Avoid inhalation of dusts. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert.

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

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up carefully. Dispose of properly. Clean up affected area. Avoid generation of dusts.

#### 6.4 Reference to other sections

For disposal see section 13.

# **SECTION 7: Handling and storage**

### 7.1 Precautions for safe handling

#### Advice on safe handling

Work under hood. Do not inhale substance/mixture.

#### **Hygiene measures**

Change contaminated clothing. Preventive skin protection recommended. Wash hands after working with substance.

For precautions see section 2.2.

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

### Storage conditions

Tightly closed. Dry. Keep in a well-ventilated place. Keep locked up or in an area accessible only to qualified or authorized persons.

**Storage stability**Recommended storage temperature

-20 °C

# Storage class

Storage class (TRGS 510): 6.1C: Combustible, acute toxic Cat.3 / toxic compounds or compounds which causing chronic effects

#### 7.3 Specific end use(s)

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

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### **SECTION 8: Exposure controls/personal protection**

#### 8.1 Control parameters

#### Ingredients with workplace control parameters

Contains no substances with occupational exposure limit values.

# 8.2 Exposure controls

#### Appropriate engineering controls

Change contaminated clothing. Preventive skin protection recommended. Wash hands after working with substance.

# Personal protective equipment

# Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses

### Skin protection

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN 16523-1 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

Full contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Material tested: KCL 741 Dermatril® L

Splash contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm Break through time: 480 min

Material tested: KCL 741 Dermatril® L

#### **Body Protection**

protective clothing

# **Respiratory protection**

Recommended Filter type: Filter type P3

The entrepeneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer.

These measures have to be properly documented.

required when dusts are generated.

Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system.

### **Control of environmental exposure**

Do not let product enter drains.



# **SECTION 9: Physical and chemical properties**

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

Form: powder, crystals Appearance

Color: white

b) Odor No data available c) Odor Threshold No data available No data available d) pH

Melting point: 135 °C (275 °F) e) Melting point/freezing point

Initial boiling point f) and boiling range

No data available

g) Flash point ()No data available h) Evaporation rate No data available Flammability (solid, No data available i)

gas)

Upper/lower j) flammability or explosive limits No data available

k) Vapor pressure No data available Vapor density No data available m) Density No data available Relative density No data available No data available n) Water solubility o) Partition coefficient:

n-octanol/water

No data available

p) Autoignition temperature No data available

q) Decomposition temperature

No data available

Viscosity No data available r) Explosive properties No data available

Oxidizing properties none

#### 9.2 Other safety information

No data available

#### **SECTION 10: Stability and reactivity**

#### 10.1 Reactivity

The following applies in general to flammable organic substances and mixtures: in correspondingly fine distribution, when whirled up a dust explosion potential may generally be assumed.

# 10.2 Chemical stability

The product is chemically stable under standard ambient conditions (room temperature) .

# 10.3 Possibility of hazardous reactions

No data available

#### 10.4 Conditions to avoid

no information available

#### 10.5 Incompatible materials

Strong oxidizing agents

# 10.6 Hazardous decomposition products

In the event of fire: see section 5

# **SECTION 11: Toxicological information**

# 11.1 Information on toxicological effects

# **Acute toxicity**

Oral: No data available Inhalation: No data available Dermal: No data available

# Skin corrosion/irritation

No data available

#### Serious eye damage/eye irritation

No data available

#### Respiratory or skin sensitization

No data available

# Germ cell mutagenicity

No data available

#### Carcinogenicity

No data available

#### Reproductive toxicity

Presumed human reproductive toxicant

# Specific target organ toxicity - single exposure

No data available

# Specific target organ toxicity - repeated exposure

No data available

# **Aspiration hazard**

No data available

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#### 11.2 Additional Information

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

# **SECTION 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

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

# 12.6 Endocrine disrupting properties

No data available

#### 12.7 Other adverse effects

No data available

# **SECTION 13: Disposal considerations**

#### 13.1 Waste treatment methods

#### Product

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**

**TDG** 

UN number: 3077 Class: 9 Packing group: III

Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. ((-)-

Efavirenz)
Labels: 9
ERG Code: 171
Marine pollutant: no

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**IMDG** 

UN number: 3077 Class: 9 Packing group: III EMS-No: F-A, S-F Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. ((-)-

Efavirenz)

Marine pollutant : yes Marine pollutant : no

**IATA** 

UN number: 3077 Class: 9 Packing group: III

Proper shipping name: Environmentally hazardous substance, solid, n.o.s. ((-)-Efavirenz)

**Further information** 

EHS-Mark required (ADR 2.2.9.1.10, IMDG code 2.10.3) for single packagings and combination packagings containing inner packagings with Dangerous Goods > 5L for liquids or > 5kg for solids.Packages smaller than or equal to 5 kg / L , not dangerous goods of Class 9

# SECTION 15: Regulatory information

This product has been classified in accordance with the hazard criteria of the Hazardous Products Regulations (HPR) and the SDS contains all the information required by the HPR.

#### **SECTION 16: Other information**

#### **Further information**

The information is believed to be correct but is not exhaustive and will be used solely as a guideline, which is based on current knowledge of the chemical substance or mixture and is applicable to appropriate safety precautions for the product. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Corporation and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See www.sigma-aldrich.com and/or the reverse side of invoice or packing slip for additional terms and conditions of sale.

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