

## **Carbidopa**

**Version:** 4.7

**Revision Date:** 30.04.2025

**SDS Number:** 100000000604

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

#### **1.1 Product identifier**

Trade name : Carbidopa  
REACH Registration Number : NA  
CAS-No. : 38821-49-7  
EC-No. : 249-271-9  
Unique Formula Identifier : -

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

Use of the Sub-  
stance/Mixture : Active pharmaceutical ingredients  
  
Recommended restrictions : No data available  
on use

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

Company : Fermion Oy  
Street address : Koivu-Mankkaan tie 6 A  
Post-office box: : P.O. Box 28  
Postcode : 02101 Espoo, Finland  
Telephone : +358 10 4261  
E-mail address of person : chemicalsafety@orion.fi  
responsible for the SDS  
VAT Reg. No: : FI18552129

#### **1.4 Emergency telephone number**

Poison Center : +358 800 147111  
+358 9 471 977

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### **SECTION 2: Hazards identification**

#### **2.1 Classification of the substance or mixture**


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

Eye irritation, Category 2 H319: Causes serious eye irritation.  
Specific target organ toxicity - single ex- H335: May cause respiratory irritation.  
posure, Category 3  
Skin irritation, Category 2 H315: Causes skin irritation.

For explanation of abbreviations see section 16.

#### **2.2 Label elements**

##### **Labeling (REGULATION (EC) No 1272/2008)**

Hazard pictograms :   
  
Signal Word : Warning

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### Hazard Statements

H319 Causes serious eye irritation.  
H335 May cause respiratory irritation.  
H315 Causes skin irritation.

### Precautionary Statements

#### General:

P302 + P352 IF ON SKIN: Wash with plenty of soap and water.  
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.  
P261 Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.  
P501 Dispose of contents according to national and local law.

### 2.3 Other hazards

Other hazards : No data available  
  
PBT : No data available  
  
vPvB : No data available  
  
Endocrine disrupting properties : Ecological information: No data available  
Toxicological information: No data available

## SECTION 3: Composition/information on ingredients

### 3.1 Substances

Chemical name	CAS-No. EC-No. Registration-No	Concentration (% w/w)	M-Factor, SCL, ATE
Carbidopa	38821-49-7 249-271-9		

Other information : No data available

### 3.2 Mixtures

Not applicable

## SECTION 4: First aid measures

### 4.1 Description of first-aid measures

General advice : Helpers should ensure their own protection.  
  
If inhaled : IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
If appropriate, give oxygen.  
If appropriate, give artificial respiration.  
Get medical advice/attention.

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- |                         |   |   |
|-------------------------|---|---|
| In case of skin contact | : | Remove/ Take off immediately all contaminated clothing.<br>IF ON SKIN: Wash with plenty of soap and water.<br>If skin irritation occurs: Get medical advice/ attention. |
| In case of eye contact  | : | IF IN EYES: Rinse continuously with water for several minutes. Get medical advice/attention.  |
| If swallowed            | : | Rinse mouth.<br>Get medical advice/attention.   |

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

- |          |   |  |
|----------|---|--|
| Symptoms | : | See section 11 for symptoms of exposure. |
| Risks    | : | No data available                        |

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

- |           |   |                        |
|-----------|---|------------------------|
| Treatment | : | Treat symptomatically. |
|-----------|---|------------------------|

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## **SECTION 5: Firefighting measures**

### **5.1 Extinguishing media**

- |                                |   |  |
|--------------------------------|---|--|
| Suitable extinguishing media   | : | Powder<br>Foam<br>Carbon dioxide (CO <sub>2</sub> )<br>Water |
| Unsuitable extinguishing media | : | No data available  |

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

- |                                       |   |   |
|---------------------------------------|---|---|
| Specific hazards during fire fighting | : | May emit toxic fumes of oxides of carbon and nitrogen during heating or fire. |
| Hazardous combustion products         | : | No data available   |

### **5.3 Advice for firefighters**

- |  |   |   |
|--|---|---|
| Special protective equipment for fire-fighters | : | Isolating breathing apparatus eg. compressed breathing apparatus and protective clothing. |
| Specific extinguishing methods                 | : | No data available   |
| Further information                            | : | No data available   |

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

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

- |                      |   |   |
|----------------------|---|---|
| Personal precautions | : | Use personal protective equipment as required.<br>Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray. |
|----------------------|---|---|

### **6.2 Environmental precautions**

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Environmental precautions : Do not put into water system, drain or soil.

### **6.3 Methods and material for containment and cleaning up**

Methods for cleaning up : Collect spilled powder without dusting into tight closed container.

### **6.4 Reference to other sections**

See Section 8 and 13

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## **SECTION 7: Handling and storage**

### **7.1 Precautions for safe handling**

Advice on safe handling : Handle in well-ventilated space.  
Take precautionary measures against static discharge.  
Do not breathe dust/ fume/ gas/ mist/ vapors/ spray.  
Do not get in eyes, on skin, or on clothing.  
Avoid dust formation.  
Handle in accordance with good industrial hygiene and safety procedures.

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

Packaging material : Suitable material: No data available  
Unsuitable material: No data available

Further information on storage conditions : Keep container tightly closed.  
Store in a dry place.  
Store at +15 - 25 °C.  
Protect from sunlight.  
Keep away from heat/ sparks/ open flames/ hot surfaces. No smoking.  
See incompatible materials in section 10.5.

### **7.3 Specific end use(s)**

Specific use(s) : No information identified.

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

### **8.1 Control parameters**

Contains no substances with occupational exposure limit values.

### **8.2 Exposure controls**

Engineering measures : Take precautionary measures against static discharge.  
Avoid dust formation.  
Do not get in eyes, on skin, or on clothing.  
Handle in closed systems or use an efficient local exhaust if dust, vapours or mists may release into workplace air. If technical measures cannot prevent exposure, wear personal protective equipment.

#### **Personal protective equipment**

Respiratory protection : In open handling use respirator (P3) with a minimum protection factor of 20.

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See standard working procedures/instructions or department's instructions for more detailed protection measures.

Eye/face protection	:	Use protective goggles.
Hand protection	:	
Remarks	:	Use protective gloves (e.g. nitrile or neopren gloves).
Skin and body protection	:	Use normal working clothes.
Protective measures	:	No data available
Environmental exposure controls	:	No data available

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## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

Form	:	powder
Physical state	:	solid
Color	:	white
Odor	:	odorless
Odor Threshold	:	No data available
Melting point/range	:	205 °C
Boiling point/boiling range	:	No data available
Flammability	:	No data available
Upper explosion limit / Upper flammability limit	:	No data available
Lower explosion limit / Lower flammability limit	:	No data available
Flash point	:	No data available
Autoignition temperature	:	No data available
Decomposition temperature	:	No data available
Self-Accelerating decomposition temperature (SADT)	:	No data available
pH	:	6 Concentration: 1 % w/V
Viscosity	:	
Viscosity, dynamic	:	No data available
Viscosity, kinematic	:	No data available

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Flow time	:	No data available
Solubility(ies)		
Water solubility	:	soluble
Solubility in other solvents	:	No data available
Dissolution Rate	:	No data available
Partition coefficient: n-octanol/water	:	log Pow: 2,56
Dispersion Stability	:	No data available
Vapor pressure	:	No data available
Relative density	:	No data available
Density	:	No data available
Bulk density	:	No data available
Relative vapor density	:	No data available
Dissociation constant	:	No data available
Particle characteristics	:	No data available

### 9.2 Other information

Self-ignition	:	No data available
Hygroscopic properties	:	No data available
Henry's Constant	:	No data available
Further information	:	No data available

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## SECTION 10: Stability and reactivity

### 10.1 Reactivity

No data available

### 10.2 Chemical stability

Stable when stored and handled according to instructions of use.

### 10.3 Possibility of hazardous reactions

Hazardous reactions	:	Hazardous polymerization does not occur. Dust may form explosive mixture in air.
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### 10.4 Conditions to avoid

Conditions to avoid	:	Excess heat
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### **10.5 Incompatible materials**

Materials to avoid : Strong oxidants

### **10.6 Hazardous decomposition products**

May emit toxic fumes of oxides of carbon and nitrogen during heating or fire.

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## **SECTION 11: Toxicological information**

### **11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**

#### **Acute toxicity**

Acute oral toxicity : LD50 (Rat, female): 4 810 mg/kg

Acute inhalation toxicity : No data available

Acute dermal toxicity : No data available

Acute toxicity (other routes of administration) : No data available

#### **Skin corrosion/irritation**

Result : Causes skin irritation.

#### **Serious eye damage/eye irritation**

Result : Causes serious eye irritation.

#### **Respiratory or skin sensitization**

No data available

#### **Germ cell mutagenicity**

Genotoxicity in vitro : No data available

Genotoxicity in vivo : No data available

#### **Carcinogenicity**

No data available

#### **Reproductive toxicity**

Effects on fertility : No data available

Effects on fetal development : No data available

#### **STOT-single exposure**

Assessment : May cause respiratory irritation.

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### **STOT-repeated exposure**

No data available

### **Repeated dose toxicity**

No data available

### **Aspiration toxicity**

No data available

## **11.2 Information on other hazards**

### **Endocrine disrupting properties**

No data available

### **Experience with human exposure**

General Information : No data available

Inhalation : No data available

Skin contact : No data available

Eye contact : No data available

Ingestion : No data available

### **Toxicology, Metabolism, Distribution**

Remarks : No data available

### **Neurological effects**

Remarks : No data available

### **Further information**

No data available

### **Other Health Hazards**

No data available

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## **SECTION 12: Ecological information**

### **12.1 Toxicity**

Toxicity to fish : No data available

Toxicity to daphnia and other aquatic invertebrates : LC50 (Daphnia magna (Water flea)): 35,3 mg/l  
Exposure time: 48 h

Toxicity to algae/aquatic : No data available



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plants

Toxicity to fish (Chronic toxicity) : No data available

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : No data available

Toxicity to microorganisms : No data available

Toxicity to soil dwelling organisms : No data available

Plant toxicity : No data available

Sediment toxicity : No data available

Toxicity to terrestrial organisms : No data available

### **Ecotoxicology Assessment**

Acute aquatic toxicity : No data available

Chronic aquatic toxicity : No data available

Toxicity Data on Soil : No data available

Other organisms relevant to the environment : No data available

## **12.2 Persistence and degradability**

Biodegradability : No data available

Biochemical Oxygen Demand (BOD) : No data available

Chemical Oxygen Demand (COD) : No data available

BOD/COD : No data available

ThOD : No data available

BOD/ThOD : No data available

Dissolved organic carbon (DOC) : No data available

Physico-chemical removability : No data available

Stability in water : No data available

Impact on Sewage Treat- : No data available

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Photodegradation : No data available

### 12.3 Bioaccumulative potential

Bioaccumulation : No data available

Partition coefficient: n-octanol/water : log Pow: 2,56  
According to logP value this compound is not bioaccumulative.

### 12.4 Mobility in soil

Mobility : No data available

Distribution among environmental compartments : No data available

Stability in soil : No data available

### 12.5 Results of PBT and vPvB assessment

Assessment : No data available

### 12.6 Endocrine disrupting properties

No data available

### 12.7 Other adverse effects

Environmental fate and pathways : No data available

Adsorbed organic bound halogens (AOX) : No data available

Ozone-Depletion Potential : No data available

Additional ecological information : No data available

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## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

Chemical incinerator equipped with an afterburner and scrubber is the recommended method of disposal for this material. Observe all local and national regulations when disposing of this material.

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## SECTION 14: Transport information

### 14.1 UN number

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ADR/RID: -

IMDG: -

IATA: -

### 14.2 UN proper shipping name

-

### 14.3 Transport hazard class(es) (ADR/RID, IMDG, ICAO/IATA)

ADR/RID: This product is not regulated under the transport regulations.

IMDG: This product is not regulated under the transport regulations.

IATA: This product is not regulated under the transport regulations.

### 14.4 Packing group

ADR/RID: -

IMDG: -

IATA: -

### 14.5 Environmental hazards

ADR/RID: -

IMDG: -

IATA: -

### 14.6 Special precautions for user

Tunnel restriction code : No data available

Further information for transport : No data available

### 14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code

Not applicable

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## SECTION 15: Regulatory information

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

The product has not been fully tested.

### 15.2 Chemical Safety Assessment

No

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## SECTION 16: Other information

### Full text of H-Statements

H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H315	Causes skin irritation.

### Full text of other abbreviations

Eye Irrit.	: Eye irritation
STOT SE	: Specific target organ toxicity - single exposure
Skin Irrit.	: Skin irritation

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways

ADR - Agreement concerning the International Carriage of Dangerous Goods by Road

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AIIC - Australian Inventory of Industrial Chemicals  
ASTM - American Society for the Testing of Materials  
bw - Body weight  
CLP - Classification Labelling Packaging Regulation  
Regulation (EC) No 1272/2008  
CMR - Carcinogen, Mutagen or Reproductive Toxicant  
DIN - Standard of the German Institute for Standardisation  
DSL - Domestic Substances List (Canada)  
ECHA - European Chemicals Agency  
EC-Number - European Community number  
ECx - Concentration associated with x% response  
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  
GHS - Globally Harmonized System  
GLP - Good Laboratory Practice  
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 Organization  
ISHL - Industrial Safety and Health Law (Japan)  
ISO - International Organisation for Standardization  
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  
n.o.s. - Not Otherwise Specified  
NO(A)EC - No Observed (Adverse) Effect Concentration  
NO(A)EL - No Observed (Adverse) Effect Level  
NOELR - No Observable Effect Loading Rate  
NZIoC - New Zealand Inventory of Chemicals  
OECD - Organization for Economic Co-operation and Development

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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

REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals

RID - Regulations concerning the International Carriage of Dangerous Goods by Rail

SADT - Self-Accelerating Decomposition Temperature

SDS - Safety Data Sheet

SVHC - substance of very high concern

TCSI - Taiwan Chemical Substance Inventory

TECI - Thailand Existing Chemicals Inventory

TRGS - Technical Rule for Hazardous Substances

TSCA - Toxic Substances Control Act (United States)

UN - United Nations

vPvB - Very Persistent and Very Bioaccumulative

### Further information

Other information : No data available

Sources of key data used to compile the Material Safety Data Sheet : Information provided by the supplier

Information which has been added, deleted or revised : Updated section / sections:  
1

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.