

Safety data sheet

according to Regulation (EC) No. 1907/2006

Printing date 22.02.2012

Version number 1

Revision: 22.02.2012

1 Identification of the substance/mixture and of the company/undertaking

- **Product identifier**

- **Trade name:** (-)-Podophyllotoxin ROTICHROM® HPLC

- **Article number:** 3946

- **CAS Number:**

518-28-5

- **EC number:**

208-250-4

- **Registration number**

A registration number is not available for this substance as the substance or its use are exempted from registration according to Article 2 REACH Regulation (EC) No 1907/2006, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline.

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

- **Application of the substance / the preparation** Laboratory chemical

- **Details of the supplier of the safety data sheet**

- **Manufacturer/Supplier:**

Carl Roth GmbH + Co. KG

Schoemperlenstraße 3-5

76185 Karlsruhe

Germany

Telefon: +49/(0)721 5606-0

Telefax: +49/(0)721 5606-149

E-Mail: sicherheit@carlroth.de

- **Further information obtainable from:** Department Health, Safety and Environment

- **Emergency telephone number:** Poison Centre Munich

Telefon +49/(0)89 19240

2 Hazards identification

- **Classification of the substance or mixture**

- **Classification according to Regulation (EC) No 1272/2008**

Acute Tox. 3 H301 Toxic if swallowed.

Acute Tox. 2 H310 Fatal in contact with skin.

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2 H319 Causes serious eye irritation.

STOT SE 3 H335 May cause respiratory irritation.

- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**

T; Toxic

R24/25: Toxic in contact with skin and if swallowed.

Xi; Irritant

R36/37/38: Irritating to eyes, respiratory system and skin.

- **Label elements**

- **Labelling according to Regulation (EC) No 1272/2008**

The substance is classified and labelled according to the CLP regulation.

- **Hazard pictograms**



GHS06

- **Signal word** Danger

- **Hazard statements**

H301 Toxic if swallowed.

H310 Fatal in contact with skin.

H315 Causes skin irritation.

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H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

Precautionary statements

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

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

P302+P352 IF ON SKIN: Wash with plenty of soap and water.

P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P312 Call a POISON CENTER or doctor/physician if you feel unwell.

Other hazards

All chemicals are potentially dangerous. They should only be handled by specially trained personnel.

Results of PBT and vPvB assessment· **PBT:** Not applicable.· **vPvB:** Not applicable.

3 Composition/information on ingredients

Chemical characterization: Substances**CAS No. Description**

518-28-5 1,3,3a,4,9,9a-hexahydro-9-hydroxy-6,7-(methylenedioxy)-4-(3',4',5'-trimethoxyphenyl)benz[f]isobenzofuran-3-one

Identification number(s)· **EC number:** 208-250-4

4 First aid measures

Description of first aid measures**General information:**

Immediately remove any clothing soiled by the product.

First Aider: Pay attention to self-protection!

General advice: No induce of vomiting by layman.

· **After inhalation:** Supply fresh air and to be sure call for a doctor.**After skin contact:**

Immediately rinse with water.

Call a doctor immediately.

· **After eye contact:** Rinse opened eye for 10 minutes under running water. Then consult a doctor.**After swallowing:**

Rinse out mouth and drink a glass of water. Do not induce vomiting.

Call for a doctor immediately and show the container or label.

Information for doctor:· **Most important symptoms and effects, both acute and delayed** No further relevant information available.**Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

5 Firefighting measures

Extinguishing media· **Suitable extinguishing agents:** Use fire extinguishing methods suitable to surrounding conditions.**Special hazards arising from the substance or mixture**

Formation of toxic gases is possible during heating or in case of fire.

In case of fire, the following can be released:

Carbon monoxide (CO)

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- **Advice for firefighters**
- **Protective equipment:**
Wear self-contained respiratory protective device.
Wear fully protective suit.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Do not breathe dust.
Avoid contact with the eyes and skin.
Ensure adequate ventilation
Avoid formation of dust.
- **Environmental precautions:** Do not allow to enter sewers/ground water or penetrate the soil.
- **Methods and material for containment and cleaning up:**
Pick up mechanically.
Dispose of the material collected according to regulations.
Ensure adequate ventilation.
- **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

- **Handling:**
- **Precautions for safe handling**
Any unavoidable deposit of dust must be regularly removed.
Keep containers, equipment and working place clean.
Handling corresponding to laboratory safety guidelines.
- **Information about fire - and explosion protection:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Store away from foodstuffs.
- **Further information about storage conditions:** Keep container tightly sealed.
- **Recommended storage temperature:** +4 °C
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.
- **Control parameters**
- **Ingredients with limit values that require monitoring at the workplace:** Not required.
- **Additional information:** The lists valid during the making were used as basis.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
Do not eat, drink or smoke while working.
Do not breathe dust.
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing.
Wash hands before breaks and at the end of work.
Store protective clothing separately.
Avoid contact with the eyes and skin.

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- **Respiratory protection:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

Required when dusts are generated.

- **Protection of hands:**

Due to missing tests no recommendation to the glove material can be given for the product.



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

- **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

- **Eye protection:**



Tightly sealed goggles

- **Body protection:** Protective work clothing

9 Physical and chemical properties

- **Information on basic physical and chemical properties**

- **General Information**

- **Appearance:**

Form:	Solid
Colour:	Whitish
Odour:	Odourless
Odour threshold:	Not determined.

- **pH-value:** Not applicable.

- **Change in condition**

Melting point/Melting range:	~183°C
Boiling point/Boiling range:	Undetermined.

- **Flash point:** Not applicable.

- **Flammability (solid, gaseous):** Product is not flammable.

- **Ignition temperature:**

Decomposition temperature: Not determined.

- **Self-igniting:** Not determined.

- **Danger of explosion:** Product does not present an explosion hazard.

- **Explosion limits:**

Lower: Not determined.

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Upper:	Not determined.
· Vapour pressure:	Not applicable.
· Density:	Not determined.
· Relative density	Not determined.
· Vapour density	Not applicable.
· Evaporation rate	Not applicable.
· Solubility in / Miscibility with water at 25°C:	0.155 g/l
· Segregation coefficient (n-octanol/water):	2.01 log POW (TOXNET)
· Viscosity:	
Dynamic:	Not applicable.
Kinematic:	Not applicable.
· Other information	No further relevant information available.

10 Stability and reactivity

- **Reactivity**
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:**
No decomposition if used and stored according to specifications.
- **Possibility of hazardous reactions** No information available.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** Strong oxidizing agents.
- **Hazardous decomposition products:** Carbon monoxide and carbon dioxide

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**

· **LD/LC50 values relevant for classification:**

Oral	LD50	100 mg/kg (mouse)
Dermal	LD50	200 mg/kg (rabbit)

- **Primary irritant effect:**
- **on the skin:** Irritant to skin and mucous membranes.
- **on the eye:** Irritating effect.
- **after inhalation:** Irritations in the respiratory tract, coughing, dyspnoea.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:** We have no description of any toxic symptoms.
- **Further information:**
To the best of our knowledge, the toxicological properties have not been thoroughly investigated. Further hazardous properties cannot be excluded.
The product should be handled with the care usual when dealing with chemicals.

12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** Quantitative data on the ecological effect of this product are not available.
- **Persistence and degradability** No further relevant information available.
- **Behaviour in environmental systems:**
- **Bioaccumulative potential**
Due to the distribution coefficient n-octanol/water an accumulation in organisms is not expected.

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- **Mobility in soil** No further relevant information available.
- **Ecotoxicological effects:**
- **Remark:** Do not allow to enter waters, waste water, or soil!
- **Additional ecological information:**
- **General notes:**
 Danger to drinking water if even small quantities leak into the ground.
 Do not allow product to reach ground water, water course or sewage system.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation**
 The disposal is regionally differently regulated, therefore the kind of disposal is to be inquired at the responsible authorities.
 This material and its container must be disposed of as hazardous waste.
- **Uncleaned packaging:**
- **Recommendation:** Disposal according to official regulations.

14 Transport information

- | | |
|---|---|
| <ul style="list-style-type: none"> · UN-Number · ADR, IMDG, IATA | UN3462 |
| <ul style="list-style-type: none"> · UN proper shipping name · ADR · IMDG, IATA | 3462 TOXINS, EXTRACTED FROM LIVING SOURCES, SOLID, N.O.S. (1,3,3a,4,9,9a-hexahydro-9-hydroxy-6,7-(methylenedioxy)-4-(3',4',5'-trimethoxyphenyl)benz[f]isobenzofuran-3-one)

TOXINS, EXTRACTED FROM LIVING SOURCES, SOLID, N.O.S. (1,3,3a,4,9,9a-hexahydro-9-hydroxy-6,7-(methylenedioxy)-4-(3',4',5'-trimethoxyphenyl)benz[f]isobenzofuran-3-one) |
| <ul style="list-style-type: none"> · Transport hazard class(es) · ADR | |
|  | |
| <ul style="list-style-type: none"> · Class · Label | 6.1 Toxic substances.
6.1 |

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· IMDG, IATA



· Class 6.1 Toxic substances.
· Label 6.1

· Packing group II
· ADR, IMDG, IATA

· Environmental hazards:
· Marine pollutant: No

· Special precautions for user Warning: Toxic substances.
· Danger code (Kemler): 60
· EMS Number: F-A,S-A

· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code Not applicable.

· Transport/Additional information:

· ADR
· Limited quantities (LQ) 500 g
· Tunnel restriction code D/E

· UN "Model Regulation": UN3462, TOXINS, EXTRACTED FROM LIVING SOURCES, SOLID, N.O.S. (1,3,3a,4,9,9a-hexahydro-9-hydroxy-6,7-(methylenedioxy)-4-(3',4',5'-trimethoxyphenyl)benz[f]isobenzofuran-3-one), 6.1, II

15 Regulatory information

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

· National regulations:

· Information about limitation of use:

Employment restrictions concerning juveniles must be observed.

Employment restrictions concerning pregnant and lactating women must be observed.

In dealing with chemicals the national laws must be observed.

· Technical instructions (air):

Class	Share in %
I	100.0

· Waterhazard class: Water hazard class 2 (Self-assessment): hazardous for water.

· Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· Relevant phrases Toxic in contact with skin

· Department issuing MSDS: Department: Health, Safety and Environment

· Contact: Herr Heine

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· Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

ICAO: International Civil Aviation Organization

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

· * Data compared to the previous version altered.

GB