



Safety data sheet

according to Regulation (EC) No. 1907/2006

Printing date 29.03.2011

Version number 1

Revision: 29.03.2011

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

- **Product identifier**
- **Trade name:** γ -NONALACTONE ROTICHROM® GC
- **Article number:** 3088
- **CAS Number:**
104-61-0
- **EINECS Number:**
203-219-1
- **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
Telefon: +49/(0)721 5606-0 Telefax: +49/(0)721 5606-149 e-mail: info@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**
The substance is not classified according to the CLP regulation.
- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC** Void
- **Label elements**
- **Labelling according to Regulation (EC) No 1272/2008** Void
- **Hazard pictograms** Void
- **Signal word** Void
- **Hazard statements** Void
- **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**
104-61-0 γ -Nonalactone
- **Identification number(s)**
- **EC Number:** 203-219-1

4 First aid measures

- **Description of first aid measures**
- **General information:** First Aider: Pay attention to self-protection!
- **After inhalation:** Supply fresh air.
- **After skin contact:**
Immediately rinse with water.
If skin irritation continues, consult a doctor.
- **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.

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If symptoms persist consult doctor.

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5 Firefighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** Use fire extinguishing methods suitable to surrounding conditions.
- **Special hazards arising from the substance or mixture**
In case of fire, the following can be released:
Carbon monoxide (CO)
- **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**
Wear protective clothing.
Do not inhale vapours. Avoid contact with the eyes and skin.
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (e.g. Rotisorb® Art.-Nr. 1710.1).
Dispose of the material collected according to regulations.
- **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**
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:** Store only in the original receptacle.
- **Information about storage in one common storage facility:** Store away from foodstuffs.
- **Further information about storage conditions:** None.

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, smoke or sniff while working.
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing.
Wash hands before breaks and at the end of work.

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Avoid contact with the eyes and skin.

· Respiratory protection:

Use suitable respiratory protective device in case of insufficient ventilation.
 Use suitable respiratory protective device only when aerosol or mist is formed.
 Required when vapours/aerosols are generated.

· Protection of hands:

Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
 Due to missing tests no recommendation to the glove material can be given for the product.
 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:	Fluid
Colour:	Yellowish
Odour:	Characteristic

pH-value:	Not determined.
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· Change in condition

Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	243°C

Flash point:	113°C
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Danger of explosion:	Product does not present an explosion hazard.
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· Explosion limits:

Lower:	Not determined.
Upper:	Not determined.

Vapour pressure:	Not determined.
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Density at 20°C:	0.976 g/cm ³
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Solubility in / Miscibility with water:	Partly soluble.
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Segregation coefficient (n-octanol/water):	Not determined.
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· Viscosity:

Dynamic:	Not determined.
Kinematic:	Not determined.

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10 Stability and reactivity

- **Reactivity**
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** Heating
- **Possibility of hazardous reactions** No 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 6600 mg/kg (rat)
 - Dermal LD50 >5000 mg/kg (rabbit)
- **Primary irritant effect:**
- **on the skin:** No irritating effect.
- **on the eye:** No irritating effect.
- **after inhalation:** No irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**

When used and handled according to specifications, the product does not have any harmful effects to our experience and the information provided to us.

The substance is not subject to classification according to the latest version of the EU lists.
- **Further information:** The product should be handled with the care usual when dealing with chemicals.

12 Ecological information

- **Toxicity**
- **Acquatic 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** No further relevant information available.
- **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:**

Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

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.
- **Uncleaned packaging:**
- **Recommendation:** Disposal according to official regulations.

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14 Transport information

- **Land transport ADR/RID (cross-border)**
- **ADR/RID class:** -
- **Remarks:** Not subject to transport regulations.
- **Maritime transport IMDG:**
- **IMDG Class:** -
- **Air transport ICAO-TI and IATA-DGR:**
- **ICAO/IATA Class:** -
- **UN "Model Regulation":** -
- **Special precautions for user** Not applicable.

15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **National regulations:**
- **Information about limitation of use:** In dealing with chemicals the national laws must be observed.
- **Waterhazard class:** Water hazard class 1 (Self-assessment): slightly 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.

- **Department issuing MSDS:** Department: Health, Safety and Environment
- **Contact:** Herr Dr. Hagel

- **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

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organization

ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)

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