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1.1 Product identifier

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

Trade name: Xanthohumol ROTICHROM® HPLC Article number: 2828 CAS Number: 6754-58-1 **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. 1.2 Relevant identified uses of the substance or mixture and uses advised against Application of the substance / the mixture Laboratory chemical Application of the substance / the mixture Laboratory chemical 1.3 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 **1.4 Emergency telephone number:** Poison Centre Munich Telefon +49/(0)89 19240 SECTION 2: Hazards identification 2.1 Classification of the substance or mixture Classification according to Regulation (EC) No 1272/2008 Void Classification according to Directive 67/548/EEC or Directive 1999/45/EC Void Information concerning particular hazards for human and environment: No hazardous product as specified in Directive 67/548/EEC. Classification system: This product is not hazardous according to EEC directives 67/548/EEC / 1999/45/EC or regulation (EC) No 1272/2008. 2.2 Label elements Labelling according to Regulation (EC) No 1272/2008 Void Hazard pictograms Void Signal word Void Hazard statements Void Additional information: 2.3 Other hazards All chemicals are potentially dangerous. They are therefore only be handled by specially trained personnel with the necessary care. Results of PBT and vPvB assessment PBT: Not applicable. (Contd. on page 2) GB

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vPvB: Not applicable.

SECTION 3: Composition/information on ingredients

3.1 Chemical characterization: Substances

CAS No. Description 6754-58-1 Xanthohumol

Identification number(s) - Formula: $C_{21}H_{22}O_5$ Molar mass [g/mol]: 354,40

SECTION 4: First aid measures



4.1 Description of first aid measures

General information: No special measures required.

After inhalation: Supply fresh air; if there is any trouble seek medical help.

After skin contact:

Rinse with water If skin irritation continues, consult a doctor.

After eye contact:

To be sure rinse opened eye under running water. If there is any trouble seek medical help.

After swallowing: Rinse out mouth and drink a glass of water. Do not induce vomiting. Seek medical treatment in case of complaints.

4.2 Most important symptoms and effects, both acute and delayed We have no description of any toxic symptoms.

4.3 Indication of any immediate medical attention and special treatment needed No further relevant information available.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing agents: Use fire extinguishing methods suitable to surrounding conditions. Water, CO2, powder, foam. CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

For safety reasons unsuitable extinguishing agents: For this substance/mixture no limitations of extinguishing agents are given.

5.2 Special hazards arising from the substance or mixture

In the event of fire development of hazardous combustion gases or vapours possible. In case of fire, the following can be released:

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Carbon monoxide and carbon dioxide

5.3 Advice for firefighters

Protective equipment:

Wear self-contained respiratory protective device. Wear fully protective suit.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Avoid formation of dust.

Avoid contact with the eyes and skin.

6.2 Environmental precautions

Do not allow to enter sewers/ground water or penetrate the soil.

6.3 Methods and material for containment and cleaning up

Pick up mechanically.

Dispose of the material collected according to regulations.

6.4 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.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Keep containers, equipment and working place clean. No special precautions are necessary if used correctly. Handling corresponding to laboratory safety guidelines.

Information about fire - and explosion protection:

No special measures required.

7.2 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.

Recommended storage temperature: 15 - 25 °C

7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

Additional information about design of technical facilities: No further data; see item 7.

8.1 Control parameters

Ingredients with limit values that require monitoring at the workplace: Not required.

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Additional information: The lists valid during the making were used as basis.

8.2 Exposure controls

Personal protective equipment:

General protective and hygienic measures: Do not eat, drink or smoke 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. Avoid contact with the eyes and skin.

Individual protection measures

Protective clothing needs to be selected specifically for the workplace, depending on concentrations and quantities of the hazardous substances handled. The chemical resistance of the protective equipment should be enquired at the respective supplier.

Respiratory protection:



Particle filter required when dusts are generated. Filter P1 (colour code: white)

Protection of hands:



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

Nitrile, thickness: \geq 0.11 mm 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

Value for the permeation: Level \geq 6 The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

As protection from splashes gloves made of the following materials are suitable:

Nitrile rubber, thickness: ≥ 0.11 mm Value for the permeation: Level ≥ 6

Eye protection:



Tightly sealed goggles

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Body protection:

Protective work clothing

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties				
General Information				
Appearance: Form:	Solid			
Colour:	orange-yellow			
Odour:	Odourless			
Odour threshold:	No information available.			
pH-value:	Not applicable.			
Change in condition				
Melting point/Melting range:	172 °C			
Boiling point/Boiling range:	Undetermined.			
	No information available.			
Flash point:	Not applicable.			
Flammability (solid, gaseous):	Product is not flammable.			
Ignition temperature:	No information available			
Decomposition temperature:	No information available			
Self-igniting:	No information available			
Danger of explosion:	Product does not present an explosion hazard.			
Explosion limits:				
Lower:	No information available.			
Upper:	No information available.			
Oxidizing properties:	No information available.			
Vapour pressure:	Not applicable.			
Density:	Not determined.			
Relative density	No Information available.			
Vapour density	No information available			
Evaporation rate	No information available			
Solubility in / Miscibility with	0.0040 - //			
water at 20 °C:	0.0013 g/l			
Partition coefficient (n-octanol/wate	er): No information available			
Viscosity:				
Dynamic:	No information available.			
Kinematic:	No information available.			
9.2 Other information	No further relevant information available.			

SECTION 10: Stability and reactivity

10.1 Reactivity

See section 10.3

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10.2 Chemical stability

Thermal decomposition / conditions to be avoided: No decomposition if used and stored according to specifications.

10.3 Possibility of hazardous reactions Exothermic reaction with:

Strong oxidants

10.4 Conditions to avoid

No information available.

10.5 Incompatible materials:

No information available.

10.6 Hazardous decomposition products:

In case of fire: see item 5.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity:

LD/LC50 values relevant for classification: Quantitative data on the toxicity of this product are not available.

Specific symptoms in biological assay: No information available.

Primary irritant effect:

on the skin: No information available.

on the eye: No information available.

after inhalation: No information available.

Sensitization: No sensitizing effects known.

CMR effects:

Germ cell mutagenicity: No known significant effects or critical hazards. Carcinogenicity: No known significant effects or critical hazards. Reproductive toxicity: No known significant effects or critical hazards.

Aspiration hazard: No aspiration toxicity classification.

Specific target organ toxicity - single exposure

The substance or mixture is not classified as specific target organ toxicant, single exposure. **Specific target organ toxicity - repeated exposure**

The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

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.

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Further information:

The product should be handled with the care usual when dealing with chemicals.

SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity:

Quantitative data on the ecological effect of this product are not available.

12.2 Persistence and degradability

No further relevant information available.

12.3 Bioaccumulative potential

No further relevant information available.

12.4 Mobility in soil

No further relevant information available.

Ecotoxical effects:

Remark:

Do not allow to enter waters, waste water, or soil!

12.5 Results of PBT and vPvB assessment

PBT: Not applicable. **vPvB:** Not applicable.

12.6 Other adverse effects

No further relevant information available.

SECTION 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.

Void

Void

Void

Uncleaned packaging:

Recommendation:

Disposal according to official regulations.

SECTION 14: Transport information

|--|

ADR, ADN, IMDG, IATA

14.2 UN proper shipping name
ADR, ADN, IMDG, IATA
14.3 Transport hazard class(es)
ADR, ADN, IMDG, IATA
Class

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14.4 Packing group		
ADR, IMDG, IATA	Void	
14.5 Environmental hazards:		
Marine pollutant:	No	
14.6 Special precautions for user	Not applicable.	
14.7 Transport in bulk according to Ann	ex II of	
MARPOL73/78 and the IBC Code	Not applicable.	
Transport/Additional information:		
ADR		
Remarks:	Not subject to transport regulations.	

UN "Model Regulation":

SECTION 15: Regulatory information

15.1 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.

Breakdown regulations:

Waterhazard class:

Water hazard class 3 (Self-assessment): extremely hazardous for water.

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15.2 Chemical safety assessment

A Chemical Safety Assessment has not been carried out.

SECTION 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:

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail) 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) ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road) IMDG: International Maritime Code for Dangerous Goods IATA: International Air Transport Association GHS: Globally Harmonized System of Classification and Labelling of Chemicals CAS: Chemical Abstracts Service (division of the American Chemical Society) LC50: Lethal concentration, 50 percent LD50: Lethal dose, 50 percent LD50*: Lethal Dose, 50 percent (Not relevant for classification) LD50*: Lethal Concentration, 50 percent (Not relevant for classification) * Data compared to the previous version altered.

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