



Guetol

Chemical Identity

<i>Brand names</i>	Guetol	<i>CAS number</i>	94-71-3
<i>Chemical name (IUPAC)</i>	2-ethoxyphenol	<i>Molecular formula</i>	C₈H₁₀O₂
<i>Synonyms</i>	pyrocatechol monoethyl ether, 1-hydroxy 2-ethoxy benzene, <i>ortho</i>ethoxyphenol	<i>Molecular weight</i>	138.17 g/mol

Applications

Synthetic Guetol is used as an intermediate for chemical synthesis, mainly for pharmaceutical and food flavouring applications.

Safety Assessment, Exposure and Risk Management Recommendations

Physical and Chemical properties

Property	Result
Physical state	Solid
Colour	Colourless
Odour	Aromatic
Melting point	26.7°C
Boiling point	217°C
Flammability	Non flammable
Water solubility	Soluble
Octanol water partition	Low potential for bioaccumulation

Health effect



Guetol causes serious eye damage and may cause an allergic skin reaction. Safety measures must be respected for industrial uses, for more details, please refer to the Safety Data Sheet.

Environmental effect



Guetol is soluble in water but not readily biodegradable. It has a low potential for bioaccumulation. It is classified as harmful to aquatic life with long lasting effects. Industrial emissions and disposal, treatment or recycling must comply with applicable regulations to preserve environment.

Regulatory information and certifications

Classification and labelling

EU regulation (EC) 1272/2008 (CLP)



Danger

Eye irritation, Cat 1	H318 Causes serious eye damage
Skin sensitization, Cat 1	H317 May cause an allergic skin reaction
Chronic aquatic toxicity Cat 3	H412 Harmful to aquatic life with long lasting effects

Registration and certification

ISO 9001: 2008 certified
EU regulation on chemicals (EC) 1907/2006 (REACH)

GPS Safety Summary

Guetol

General Statement

Guetol is an organic substance and crystalline solid at room temperature with a low melting point. It is colourless and has an aromatic characteristic odour.

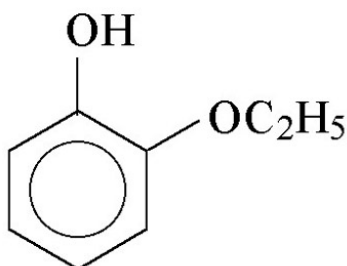
The pure substance may cause adverse effects to human health; it causes serious eye damage and may cause an allergic skin reaction. It is harmful to aquatic environment with possible long lasting effects.

Used only in industry as an intermediate for chemical synthesis for pharmaceutical and food flavouring applications, it is handled under Strictly Controlled Conditions, in accordance with the European REACH regulation for intermediates, to control the risk of exposure and preserve human health and environment. Consumer exposure to Guetol is not expected.

Chemical Identity

Name:	Guetol
Brand name:	Guetol
Chemical name (IUPAC):	2-ethoxyphenol
Synonyms:	pyrocatechol monoethyl ether, 1-hydroxy 2-ethoxy benzene, <i>ortho</i> ethoxyphenol
CAS number:	94-71-3
EC number:	202-358-5
Molecular formula:	C ₈ H ₁₀ O ₂

Structure:



Uses and applications

Guetol is produced by ethylation of catechol. The production is performed using conventional closed vessels.

It is used as an intermediate for chemical synthesis, mainly for pharmaceutical and food flavouring applications.

Physical/Chemical Properties

Phys/Chem Safety Assessment

Property	Value
Physical state	Solid at 20°C and atmospheric pressure Liquid at 26.7°C and atm pressure as a supercooled liquid
Colour	Colourless
Odour	Characteristic of aromatic compounds
Molecular weight	138.17 g/mol
Melting Point	26.7°C at atmospheric pressure
Boiling Point	217 °C at atmospheric pressure
Flash point	95°C (closed cup) at atm pressure, non flammable
Explosive properties	Non explosive
Self-ignition temperature	297°C at atmospheric pressure
Vapour pressure	12.1 Pa at 20°C
Water solubility	9.31 g/l at 20°C and pH = 6.7, soluble in water
Octanol Water partition coefficient (log Kow)	1.68 – 1.83 at °C, low potential for bioaccumulation

Based on available data, Guetol is not classified regarding physical and chemical hazard, according to EU regulation (EC) 1272/2008.

Health Effects

Human Health Safety Assessment

Effect Assessment	Result
Acute Toxicity Oral /inhalation /dermal	Conclusive data and not classified for acute toxicity
Irritation / corrosion Skin/eye	Causes serious eye irritation May cause slight skin irritation but not sufficient for classification
Sensitisation	May cause an allergic skin reaction
Toxicity after repeated exposure Oral /inhalation /dermal	No data
Genotoxicity / Mutagenicity	No sufficient data to conclude
Carcinogenicity	No data
Toxicity for reproduction	No data

Specific recommendation: Persons with a history of skin sensitisation problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this substance is being used.

All these results are based on available data and the classification is in accordance with EU regulation (EC) 1272/2008.

Environmental Effects

Environment Safety Assessment

Effect Assessment	Result
Aquatic Toxicity	Harmful to aquatic life with long lasting effects

Fate and behaviour	Result
Biodegradation	Not readily but inherently biodegradable
Bioaccumulation potential	Not potentially bioaccumulative (Log Kow = 1.68 – 1.83)
PBT / vPvB conclusion	Not considered to be either PBT nor vPvB

Based on available data, Guetol is considered to be harmful towards aquatic organisms and not readily biodegradable, it is classified as harmful to aquatic life with long lasting effects, according to EU regulation (EC) 1272/2008.

Exposure

Guetol is manufactured in a closed, continuous and automated process which minimizes workers and environment exposure potential and is handled under Strictly Controlled Conditions in accordance with the REACH regulation for intermediates.

Human health

Where there is a risk of exposure, during (un)loading, sampling, analysis or maintenance operations, workers exposure is kept at a safe level (strictly below exposure limits, when applied) and controlled by the use of appropriate risk management measures as suitable collective and personal protective equipment, good industrial hygiene practices and risk communication through appropriate training of workers.

Environment

Based on its physical and chemical properties, if Guetol is released in the environment, it will be distributed mainly in the water.

All industrial residues from product are incinerated and industrial aqueous releases that may contain the substance are directed to a waste water treatment plant to avoid any exposure as Guetol is classified as harmful to aquatic life with long lasting effects.

Risk Management Recommendations

Guetol is manufactured and handled under Strictly Controlled Conditions in accordance with the REACH regulation for intermediates.

Human health

For industrial uses of Guetol, workers must be well informed and trained and must refer to the Safety Data Sheet (SDS). If there is a risk of exposure to Guetol (during (un)loading, sampling, analysis or maintenance operations), handling must be under an adequate and efficient ventilation, appropriate personal protective equipment (PPE) must be worn (safety goggles, gloves, protective suit and a respirator with approved filter when risk of exposure to dust) as Guetol is classified as eye irritating and skin allergenic. Hygiene measures must be respected (accessible emergency equipment, well-maintained PPE, wash hands and skin following contact, do not eat, drink or smoke on the workplace).

Environment

Guetol is classified as harmful to aquatic life with long lasting effects. During industrial manufacture, all aqueous releases that may contain the substance must be directed to a waste water treatment plant and industrial residues from product must be incinerated.

Disposal, treatment or recycling of industrial waste must comply with applicable regulations to preserve environment.

State Agency Review

Guetol has been registered under EU regulation (EC) 1907/2006 (REACH).

Regulatory Information / Classification and Labelling

Substance classification and labelling according to EU regulation (EC) 1272/2008 (CLP) :

Classification

Eye irritation, Category 1	H318 Causes serious eye damage
Skin sensitization, Category 1	H317 May cause an allergic skin reaction
Chronic aquatic toxicity, Category 3	H412 Harmful to aquatic life with long lasting effects

Labelling



Signal word : DANGER

Hazard statements :

H318 Causes serious eye damage
H317 May cause an allergic skin reaction
H412 Harmful to aquatic life with long lasting effects

Precautionary statements :

P280 Wear protective gloves / protective clothing / eye protection / face protection.
P302+P350: IF ON SKIN: Gently wash with plenty of soap and water.
P305+351+338 IF EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Contact information within company

For further information on this substance or product safety summaries in general, please contact:

Rhodia Global product Strategy: http://www.rhodia.com/en/sustainability/global_product_strategy/index.tcm

Contact: globalproductstrategy@eu.rhodia.com

Additional information

ICCA Global Product Strategy: <http://www.icca-chem.org/en/Home/ICCA-initiatives/global-product-strategy/>

(extended) Safety Data Sheet available on demand: http://www.rhodia.com/en/contact/contact_form_business.tcm

Glossary of technical terms: http://www.rhodia.com/en/sustainability/global_product_strategy/glossary/index.tcm

Date of issue: December 2011

Revision: 1

Disclaimer

The information provided in the present Safety Summary is based on European data available in REACH regulatory dossier (EC N°1907/2006) and is correct to the best of our knowledge, information and belief at the date of its publication. Such information is only intended to provide a general overview of the chemical substance in the context of ICCA Global Product Strategy and is not to be considered as a warranty or quality specification. It does not replace the safety data sheet and technical sheets. Thus, the information provided in this Safety Summary only relates to the designated specific product and may not be applicable if such product is used in combination with other materials or in another manufacturing process, unless otherwise specifically indicated. It does not release the user from ensuring he is in conformity with all regulations linked to its activity.