

### SECTION 1: Kit identification

#### 1.1 Kit identifier

Product name : Kit Myéloperoxydase  
Product code : 361610

#### 1.2 Details of the supplier of the Kit safety information sheet

RAL DIAGNOSTICS  
Site Montesquieu  
33650 MARTILLAC - FRANCE  
T 33 05 57 96 04 04 - F 33 05 57 96 04 05  
[commercial@ral-diagnostics.fr](mailto:commercial@ral-diagnostics.fr) - [www.ral-diagnostics.com](http://www.ral-diagnostics.com)

### SECTION 2: General information

Restrictions on use : For professional use only  
In vitro diagnostic medical device.

General description : Staining kit with alphanaphtol-pyronin.

This product is a Kit which consists of several independently packaged components One or more of these components include a substance or mixture that is subject to classification according to Regulation (EC) No. 1272/2008 [CLP] A SDS for each of these components is included. Please do not separate any component SDS from this cover page

### SECTION 3: Kit contents

Name	General description	Weight or Volume	Quantity	Unit	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Alphanaphtol solution			1	pcs (pieces)	Flam. Liq. 2, H225 Eye Irrit. 2, H319
Mayer haematoxylin			1	pcs (pieces)	Acute Tox. 4 (Oral), H302
Pyronin, 0.2% in aqueous solution			1	pcs (pieces)	Carc. 1B, H350
Formalin / Ethanol solution			1	pcs (pieces)	Flam. Liq. 2, H225 Acute Tox. 3 (Inhalation:vapour), H331 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 Muta. 2, H341 Carc. 1B, H350 STOT SE 3, H335
Hydrogen peroxide 3%			1	pcs (pieces)	Not classified

### SECTION 4: General advice

No data available

### SECTION 5: Safe handling advice

General measures : Do not handle until all safety precautions have been read and understood.

# Kit Myéloperoxydase

## SIS (Safety Information Sheet) del Kit

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Environmental precautions	: Avoid release to the environment This material and its container must be disposed of in a safe way, and as per local legislation
Storage conditions	: Store in original container Keep container tightly closed Store in dry, well-ventilated area

### SECTION 6: First aid measures

First-aid measures after eye contact	: Rinse eyes with water as a precaution
First-aid measures after ingestion	: If swallowed, seek medical advice immediately and show this container or label Rinse mouth out with water
First-aid measures after skin contact	: Rinse with plenty of water
First-aid measures general	: If you feel unwell, seek medical advice (show the label where possible)

### SECTION 7: Fire fighting measures

Protection during firefighting	: Do not enter fire area without proper protective equipment, including respiratory protection Exercise caution when fighting any chemical fire
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### SECTION 8: Transport information

Refer to section 14 of kit products' SDS

### SECTION 9: Other information

No data available

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

#### 1.1. Product identifier

Product form	: Substance
Substance name	: Hydrogen peroxide 3%
Chemical name	: hydrogen peroxide solution... %
IUPAC name	: hydrogen peroxide
EC Index-No.	: 008-003-00-9
EC-No.	: 231-765-0
CAS-No.	: 7722-84-1
Product code	: 300980

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

##### 1.2.1. Relevant identified uses

Main use category	: For professional use only
Use of the substance/mixture	: In vitro diagnostic medical device.

##### 1.2.2. Uses advised against

No additional information available

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

RAL DIAGNOSTICS  
Site Montesquieu  
33650 MARTILLAC  
FRANCE  
T 33 05 57 96 04 04 - F 33 05 57 96 04 05  
[commercial@ral-diagnostics.fr](mailto:commercial@ral-diagnostics.fr) - [www.ral-diagnostics.com](http://www.ral-diagnostics.com)

#### 1.4. Emergency telephone number

Country	Organisation/Company	Address	Emergency number	Comment
Ireland	National Poisons Information Centre Beaumont Hospital	PO Box 1297 Beaumont Road 9 Dublin	+353 1 809 2566 (Healthcare professionals-24/7) +353 1 809 2166 (public, 8am - 10pm, 7/7)	
Malta	Medicines & Poisons Info Office	Mater Dei Hospital MSD Msida	+356 2545 6504	
United Kingdom	National Poisons Information Service (Birmingham Centre) City Hospital	Dudley Road B18 7QH Birmingham	0344 892 0111	

### SECTION 2: Hazards identification

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

##### Classification according to Regulation (EC) No. 1272/2008 [CLP]

Not classified

Specific concentration limits:

( 5 ≤C < 8)	Eye Irrit. 2, H319
( 8 ≤C < 50)	Eye Dam. 1, H318
( 35 ≤C < 100)	STOT SE 3, H335
( 35 ≤C < 50)	Skin Irrit. 2, H315
( 50 ≤C < 70)	Skin Corr. 1B, H314
( 50 ≤C < 70)	Ox. Liq. 2, H272

# Hydrogen peroxide 3%

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according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

( 70 ≤C < 100)

Skin Corr. 1A, H314

( 70 ≤C < 100)

Ox. Liq. 1, H271

### Adverse physicochemical, human health and environmental effects

To our knowledge, this product does not present any particular risk, provided it is handled in accordance with good occupational hygiene and safety practice.

### 2.2. Label elements

#### Labelling according to Regulation (EC) No. 1272/2008 [CLP]

No labelling applicable

### 2.3. Other hazards

No additional information available

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Substance type	: Mono-constituent
Name	: Hydrogen peroxide 3%
CAS-No.	: 7722-84-1
EC-No.	: 231-765-0
EC Index-No.	: 008-003-00-9

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Hydrogen peroxide	CAS-No.: 7722-84-1 EC-No.: 231-765-0 EC Index-No.: 008-003-00-9 REACH-no: 01-2119485845-22	1 - 5	Ox. Liq. 1, H271 Acute Tox. 4 (Inhalation), H332 Acute Tox. 4 (Oral), H302 Skin Corr. 1A, H314

### Specific concentration limits:

Name	Product identifier	Specific concentration limits
Hydrogen peroxide	CAS-No.: 7722-84-1 EC-No.: 231-765-0 EC Index-No.: 008-003-00-9 REACH-no: 01-2119485845-22	( 5 ≤C < 8) Eye Irrit. 2, H319 ( 8 ≤C < 50) Eye Dam. 1, H318 ( 35 ≤C < 100) STOT SE 3, H335 ( 35 ≤C < 50) Skin Irrit. 2, H315 ( 50 ≤C < 70) Skin Corr. 1B, H314 ( 50 ≤C < 70) Ox. Liq. 2, H272 ( 70 ≤C < 100) Skin Corr. 1A, H314 ( 70 ≤C < 100) Ox. Liq. 1, H271

Full text of H and EUH statements: see section 16

### 3.2. Mixtures

Not applicable

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact	: Wash skin with plenty of water.
First-aid measures after eye contact	: Rinse eyes with water as a precaution.
First-aid measures after ingestion	: Call a poison center or a doctor if you feel unwell.

# Hydrogen peroxide 3%

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according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

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

No additional information available

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

Treat symptomatically.

## **SECTION 5: Firefighting measures**

### **5.1. Extinguishing media**

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.

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

Hazardous decomposition products in case of fire : Toxic fumes may be released.

### **5.3. Advice for firefighters**

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

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

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

#### **6.1.1. For non-emergency personnel**

Emergency procedures : Ventilate spillage area.

#### **6.1.2. For emergency responders**

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

### **6.2. Environmental precautions**

Avoid release to the environment.

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

Methods for cleaning up : Take up liquid spill into absorbent material.

Other information : Dispose of materials or solid residues at an authorized site.

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

For further information refer to section 13.

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

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

Precautions for safe handling : Ensure good ventilation of the work station. Wear personal protective equipment.

Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

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

Storage conditions : Store in a well-ventilated place.

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

No additional information available

# Hydrogen peroxide 3%

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### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

##### 8.1.1 National occupational exposure and biological limit values

Hydrogen peroxide 3% (7722-84-1)	
<b>Ireland - Occupational Exposure Limits</b>	
Local name	Hydrogen peroxide
OEL TWA [1]	1.5 mg/m <sup>3</sup>
OEL TWA [2]	1 ppm
OEL STEL	3 mg/m <sup>3</sup>
OEL STEL [ppm]	2 ppm
Regulatory reference	Chemical Agents Code of Practice 2020
<b>United Kingdom - Occupational Exposure Limits</b>	
Local name	Hydrogen peroxide
WEL TWA (OEL TWA) [1]	1.4 mg/m <sup>3</sup>
WEL TWA (OEL TWA) [2]	1 ppm
WEL STEL (OEL STEL)	2.8 mg/m <sup>3</sup>
WEL STEL (OEL STEL) [ppm]	2 ppm
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE
<b>Hydrogen peroxide (7722-84-1)</b>	
<b>Ireland - Occupational Exposure Limits</b>	
Local name	Hydrogen peroxide
OEL TWA [1]	1.5 mg/m <sup>3</sup>
OEL TWA [2]	1 ppm
OEL STEL	3 mg/m <sup>3</sup>
OEL STEL [ppm]	2 ppm
Regulatory reference	Chemical Agents Code of Practice 2020
<b>United Kingdom - Occupational Exposure Limits</b>	
Local name	Hydrogen peroxide
WEL TWA (OEL TWA) [1]	1.4 mg/m <sup>3</sup>
WEL TWA (OEL TWA) [2]	1 ppm
WEL STEL (OEL STEL)	2.8 mg/m <sup>3</sup>
WEL STEL (OEL STEL) [ppm]	2 ppm
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE

##### 8.1.2. Recommended monitoring procedures

No additional information available

##### 8.1.3. Air contaminants formed

No additional information available

##### 8.1.4. DNEL and PNEC

Hydrogen peroxide 3% (7722-84-1)	
<b>DNEL/DMEL (Workers)</b>	
Acute - local effects, inhalation	3 mg/m <sup>3</sup>
Long-term - local effects, inhalation	1.4 mg/m <sup>3</sup>

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<b>Hydrogen peroxide 3% (7722-84-1)</b>	
<b>DNEL/DMEL (General population)</b>	
Acute - local effects, inhalation	1.93 mg/m <sup>3</sup>
Long-term - local effects, inhalation	0.21 mg/m <sup>3</sup>
<b>PNEC (Water)</b>	
PNEC aqua (freshwater)	0.0126 mg/l
PNEC aqua (marine water)	0.0126 mg/l
PNEC aqua (intermittent, freshwater)	0.0138 mg/l
<b>PNEC (Sediment)</b>	
PNEC sediment (freshwater)	0.047 mg/kg dwt
PNEC sediment (marine water)	0.047 mg/kg dwt
<b>PNEC (Soil)</b>	
PNEC soil	0.0023 mg/kg dwt
<b>PNEC (STP)</b>	
PNEC sewage treatment plant	4.66 mg/l

### **8.1.5. Control banding**

No additional information available

### **8.2. Exposure controls**

#### **8.2.1. Appropriate engineering controls**

##### **Appropriate engineering controls:**

Ensure good ventilation of the work station.

#### **8.2.2. Personal protection equipment**

##### **Personal protective equipment symbol(s):**



##### **8.2.2.1. Eye and face protection**

###### **Eye protection:**

Safety glasses

##### **8.2.2.2. Skin protection**

###### **Skin and body protection:**

Wear suitable protective clothing

###### **Hand protection:**

Protective gloves

##### **8.2.2.3. Respiratory protection**

###### **Respiratory protection:**

In case of insufficient ventilation, wear suitable respiratory equipment

##### **8.2.2.4. Thermal hazards**

No additional information available

### **8.2.3. Environmental exposure controls**

#### **Environmental exposure controls:**

Avoid release to the environment.

# Hydrogen peroxide 3%

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### SECTION 9: Physical and chemical properties

#### **9.1. Information on basic physical and chemical properties**

Physical state	: Liquid
Molecular mass	: 34.01 g/mol Source: HSDB
Colour	: No data available
Odour	: No data available
Odour threshold	: No data available
pH	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: Not applicable
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Not applicable
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Solubility	: No data available
Partition coefficient n-octanol/water (Log Pow)	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

#### **9.2. Other information**

No additional information available

### SECTION 10: Stability and reactivity

#### **10.1. Reactivity**

The product is non-reactive under normal conditions of use, storage and transport.

#### **10.2. Chemical stability**

Stable under normal conditions.

#### **10.3. Possibility of hazardous reactions**

No dangerous reactions known under normal conditions of use.

#### **10.4. Conditions to avoid**

None under recommended storage and handling conditions (see section 7).

#### **10.5. Incompatible materials**

No additional information available

#### **10.6. Hazardous decomposition products**

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

### SECTION 11: Toxicological information

#### **11.1 Information on toxicological effects**

Acute toxicity (oral) : Not classified



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Acute toxicity (dermal) : Not classified

Acute toxicity (inhalation) : Not classified

Hydrogen peroxide (7722-84-1)	
LD50 oral rat	805 mg/kg Source: ECHA Registered substances
LD50 dermal rabbit	> 2000 mg/kg Source: ECHA Registered substances
LC50 Inhalation - Rat (Vapours)	> 0.17 mg/l Source: ECHA Registered substances

Skin corrosion/irritation : Not classified

Serious eye damage/irritation : Not classified

Respiratory or skin sensitisation : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Hydrogen peroxide (7722-84-1)	
IARC group	3 - Not classifiable

Reproductive toxicity : Not classified

STOT-single exposure : Not classified

STOT-repeated exposure : Not classified

Aspiration hazard : Not classified

## SECTION 12: Ecological information

### 12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.

Hazardous to the aquatic environment, short-term (acute) : Not classified

Hazardous to the aquatic environment, long-term (chronic) : Not classified

Hydrogen peroxide 3% (7722-84-1)	
LC50 - Fish [1]	16.4 mg/l Source: ECHA
EC50 72h - Algae [1]	1.38 mg/l Source: ECHA
LOEC (chronic)	1.25 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC (chronic)	0.63 mg/l Test organisms (species): Daphnia magna Duration: '21 d'

Hydrogen peroxide (7722-84-1)	
LC50 - Fish [1]	16.4 mg/l Source: ECHA
EC50 - Crustacea [1]	2.4 mg/l
EC50 72h - Algae [1]	1.38 mg/l Source: ECHA
LOEC (chronic)	1.25 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC (chronic)	0.63 mg/l Test organisms (species): Daphnia magna Duration: '21 d'

### 12.2. Persistence and degradability

No additional information available

### 12.3. Bioaccumulative potential

Hydrogen peroxide (7722-84-1)	
Partition coefficient n-octanol/water (Log Pow)	-1.36 Source: IPCS

### 12.4. Mobility in soil

No additional information available

# Hydrogen peroxide 3%

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### 12.5. Results of PBT and vPvB assessment

No additional information available

### 12.6. Other adverse effects

Other adverse effects : Not release to the environment.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions. Dispose in a safe manner in accordance with local/national regulations.

## SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / ADN / RID

ADR	IMDG	IATA	ADN	RID
<b>14.1. UN number</b>				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
<b>14.2. UN proper shipping name</b>				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
<b>14.3. Transport hazard class(es)</b>				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
<b>14.4. Packing group</b>				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
<b>14.5. Environmental hazards</b>				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
No supplementary information available				

### 14.6. Special precautions for user

#### Overland transport

Not applicable

#### Transport by sea

Not applicable

#### Air transport

Not applicable

#### Inland waterway transport

Not applicable

#### Rail transport

Not applicable

### 14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

# Hydrogen peroxide 3%

## Safety Data Sheet

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### SECTION 15: Regulatory information

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

##### **15.1.1. EU-Regulations**

No REACH Annex XVII restrictions

Hydrogen peroxide 3% is not on the REACH Candidate List

Hydrogen peroxide 3% is not on the REACH Annex XIV List

Hydrogen peroxide 3% is not subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

Hydrogen peroxide 3% is not subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

Contains no substance subject to Regulation (EU) 2019/1148 of the European Parliament and of the Council of 20 June 2019 on the marketing and use of explosives precursors.

##### **15.1.2. National regulations**

No additional information available

#### **15.2. Chemical safety assessment**

No chemical safety assessment has been carried out

### SECTION 16: Other information

Indication of changes			
Section	Changed item	Change	Comments
	Supersedes	Modified	
	Issue date	Modified	
1.1	Name	Modified	
1.1	EC-No.	Added	
1.1	CAS-No.	Added	
1.1	Product form	Modified	
2.2	Precautionary statements (CLP)	Removed	
2.2	Hazard statements (CLP)	Removed	
3	Composition/information on ingredients	Modified	
15.2	Chemical safety assessment	Added	
16	Abbreviations and acronyms	Added	

#### **Abbreviations and acronyms:**

ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
BLV	Biological limit value
BOD	Biochemical oxygen demand (BOD)
COD	Chemical oxygen demand (COD)
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC-No.	European Community number
EC50	Median effective concentration
EN	European Standard

# Hydrogen peroxide 3%

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<b>Abbreviations and acronyms:</b>	
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
OEL	Occupational Exposure Limit
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
STP	Sewage treatment plant
ThOD	Theoretical oxygen demand (ThOD)
TLM	Median Tolerance Limit
VOC	Volatile Organic Compounds
CAS-No.	Chemical Abstract Service number
N.O.S.	Not Otherwise Specified
vPvB	Very Persistent and Very Bioaccumulative
ED	Endocrine disrupting properties

<b>Full text of H- and EUH-statements:</b>	
Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
H271	May cause fire or explosion; strong oxidiser.
H272	May intensify fire; oxidiser.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
Ox. Liq. 1	Oxidising Liquids, Category 1
Ox. Liq. 2	Oxidising Liquids, Category 2

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Full text of H- and EUH-statements:	
Skin Corr. 1A	Skin corrosion/irritation, Category 1, Sub-Category 1A
Skin Corr. 1B	Skin corrosion/irritation, Category 1, Sub-Category 1B
Skin Irrit. 2	Skin corrosion/irritation, Category 2
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation

The classification complies with : ATP 12

Safety Data Sheet (SDS), EU

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

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

#### 1.1. Product identifier

Product form : Mixture  
 Product name : Formalin / Ethanol solution  
 Product code : 310850

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

##### 1.2.1. Relevant identified uses

Main use category : For professional use only  
 Use of the substance/mixture : In vitro diagnostic medical device.

##### 1.2.2. Uses advised against

No additional information available

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

RAL DIAGNOSTICS  
 Site Montesquieu  
 33650 MARTILLAC  
 FRANCE  
 T 33 05 57 96 04 04 - F 33 05 57 96 04 05  
[commercial@ral-diagnostics.fr](mailto:commercial@ral-diagnostics.fr) - [www.ral-diagnostics.com](http://www.ral-diagnostics.com)

#### 1.4. Emergency telephone number

Country	Organisation/Company	Address	Emergency number	Comment
Ireland	National Poisons Information Centre Beaumont Hospital	PO Box 1297 Beaumont Road 9 Dublin	+353 1 809 2566 (Healthcare professionals-24/7) +353 1 809 2166 (public, 8am - 10pm, 7/7)	
Malta	Medicines & Poisons Info Office	Mater Dei Hospital MSD Msida	+356 2545 6504	
United Kingdom	National Poisons Information Service (Birmingham Centre) City Hospital	Dudley Road B18 7QH Birmingham	0344 892 0111	

### SECTION 2: Hazards identification

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

##### Classification according to Regulation (EC) No. 1272/2008 [CLP]

Flammable liquids, Category 2 H225  
 Acute toxicity (inhalation:vapour) Category 3 H331  
 Skin corrosion/irritation, Category 2 H315  
 Serious eye damage/eye irritation, Category 2 H319  
 Skin sensitisation, Category 1 H317  
 Germ cell mutagenicity, Category 2 H341  
 Carcinogenicity, Category 1B H350  
 Specific target organ toxicity — Single exposure, Category 3,  
 Respiratory tract irritation H335

Full text of H and EUH statements: see section 16

##### Adverse physicochemical, human health and environmental effects

Highly flammable liquid and vapour. May cause cancer. Suspected of causing genetic defects. May cause respiratory irritation. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation.

# Formalin / Ethanol solution

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### 2.2. Label elements

#### Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :



GHS02

GHS06

GHS08

Signal word (CLP) :

Danger

Contains :

Formol 24%

Hazard statements (CLP) :

H225 - Highly flammable liquid and vapour.  
H315 - Causes skin irritation.  
H317 - May cause an allergic skin reaction.  
H319 - Causes serious eye irritation.  
H331 - Toxic if inhaled.  
H335 - May cause respiratory irritation.  
H341 - Suspected of causing genetic defects.  
H350 - May cause cancer.

Precautionary statements (CLP) :

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
P261 - Avoid breathing dust/fume/gas/mist/vapours/spray.  
P264 - Wash hands thoroughly after handling.  
P280 - Wear protective gloves, protective clothing, eye protection, face protection.  
P308+P313 - IF exposed or concerned: Get medical advice/attention.

### 2.3. Other hazards

No additional information available

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Ethyl alcohol substance with national workplace exposure limit(s) (IE, GB)	CAS-No.: 64-17-5 EC-No.: 200-578-6 EC Index-No.: 603-002-00-5 REACH-no: 01-2119457610-43	80 - 90	Flam. Liq. 2, H225
Formol 24% substance with national workplace exposure limit(s) (IE, GB); substance with a Community workplace exposure limit	CAS-No.: 50-00-0 EC-No.: 200-001-8 EC Index-No.: 605-001-00-5	10 - 20	Acute Tox. 4 (Oral), H302 Acute Tox. 3 (Dermal), H311 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 Muta. 2, H341 Carc. 1B, H350 STOT SE 3, H335

# Formalin / Ethanol solution

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Specific concentration limits:		
Name	Product identifier	Specific concentration limits
Formol 24%	CAS-No.: 50-00-0 EC-No.: 200-001-8 EC Index-No.: 605-001-00-5	( 0.2 ≤C < 100) Skin Sens. 1, H317 ( 5 ≤C < 100) STOT SE 3, H335 ( 5 ≤C < 25) Eye Irrit. 2, H319 ( 5 ≤C < 25) Skin Irrit. 2, H315 ( 25 ≤C < 100) Skin Corr. 1B, H314

Full text of H and EUH statements: see section 16

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

- First-aid measures general : IF exposed or concerned: Get medical advice/attention.
- First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. Call a poison center or a doctor if you feel unwell.
- First-aid measures after skin contact : Rinse skin with water/shower. Take off immediately all contaminated clothing. If skin irritation or rash occurs: Get medical advice/attention.
- First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
- First-aid measures after ingestion : Call a poison center or a doctor if you feel unwell.

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

- Symptoms/effects after inhalation : May cause respiratory irritation.
- Symptoms/effects after skin contact : Irritation. May cause an allergic skin reaction.
- Symptoms/effects after eye contact : Eye irritation.

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

Treat symptomatically.

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

- Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.

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

- Fire hazard : Highly flammable liquid and vapour.
- Hazardous decomposition products in case of fire : Toxic fumes may be released.

#### 5.3. Advice for firefighters

- Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

### SECTION 6: Accidental release measures

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

##### 6.1.1. For non-emergency personnel

- Emergency procedures : No open flames, no sparks, and no smoking. Only qualified personnel equipped with suitable protective equipment may intervene. Avoid breathing dust/fume/gas/mist/vapours/spray.

##### 6.1.2. For emergency responders

- Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".



# Formalin / Ethanol solution

## Safety Data Sheet

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### 6.2. Environmental precautions

Avoid release to the environment. Notify authorities if product enters sewers or public waters.

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

Methods for cleaning up : Take up liquid spill into absorbent material. Notify authorities if product enters sewers or public waters.

Other information : Dispose of materials or solid residues at an authorized site.

### 6.4. Reference to other sections

For further information refer to section 13.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Wear personal protective equipment. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Take all necessary technical measures to avoid or minimize the release of the product on the workplace. Limit quantities of product at the minimum necessary for handling and limit the number of exposed workers. Provide local exhaust or general room ventilation. Floors, walls and other surfaces in the hazard area must be cleaned regularly. Avoid breathing dust/fume/gas/mist/vapours/spray. Avoid contact with skin and eyes.

Hygiene measures : Separate working clothes from town clothes. Launder separately. Wash contaminated clothing before reuse. Contaminated work clothing should not be allowed out of the workplace. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

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

Storage conditions : Store in a well-ventilated place. Keep container tightly closed. Store locked up.

Storage temperature : 15 – 25 °C

### 7.3. Specific end use(s)

No additional information available

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### 8.1.1 National occupational exposure and biological limit values

Formol 24% (50-00-0)	
<b>EU - Indicative Occupational Exposure Limit (IOEL)</b>	
Local name	Formaldehyde
IOEL TWA	0.37 mg/m <sup>3</sup> (BOEL) 0.62 mg/m <sup>3</sup> (Limit value for the health care, funeral and embalming sectors until 11 July 2024)
IOEL STEL	0.74 mg/m <sup>3</sup> (BOEL)
IOEL STEL [ppm]	0.4 ppm
Remark	skin sensitiser. SCOEL Recommendations (2008/Ongoing)
Regulatory reference	DIRECTIVE (EU) 2019/983 (amending Directive 2004/37/EC)
<b>Ireland - Occupational Exposure Limits</b>	
Local name	Formaldehyde
OEL TWA [1]	0.37 mg/m <sup>3</sup> 0.62 mg/m <sup>3</sup> for the healthcare, funeral and embalming sectors until 11 July 2024
OEL TWA [2]	0.3 ppm 0.5 ppm for the healthcare, funeral and embalming sectors until 11 July 2024

# Formalin / Ethanol solution

## Safety Data Sheet

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<b>Formol 24% (50-00-0)</b>	
OEL STEL	0.738 mg/m <sup>3</sup>
OEL STEL [ppm]	0.6 ppm
Regulatory reference	Chemical Agents Code of Practice 2020
United Kingdom - Occupational Exposure Limits	
Local name	Formaldehyde
WEL TWA (OEL TWA) [1]	2.5 mg/m <sup>3</sup>
WEL TWA (OEL TWA) [2]	2 ppm
WEL STEL (OEL STEL)	2.5 mg/m <sup>3</sup>
WEL STEL (OEL STEL) [ppm]	2 ppm
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE
<b>Ethyl alcohol (64-17-5)</b>	
Ireland - Occupational Exposure Limits	
Local name	Ethanol [Ethyl alcohol]
OEL STEL [ppm]	1000 ppm
Regulatory reference	Chemical Agents Code of Practice 2020
United Kingdom - Occupational Exposure Limits	
Local name	Ethanol
WEL TWA (OEL TWA) [1]	1920 mg/m <sup>3</sup>
WEL TWA (OEL TWA) [2]	1000 ppm
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE

### **8.1.2. Recommended monitoring procedures**

No additional information available

### **8.1.3. Air contaminants formed**

No additional information available

### **8.1.4. DNEL and PNEC**

No additional information available

### **8.1.5. Control banding**

No additional information available

## **8.2. Exposure controls**

### **8.2.1. Appropriate engineering controls**

#### **Appropriate engineering controls:**

Ensure good ventilation of the work station.

### **8.2.2. Personal protection equipment**

#### **Personal protective equipment symbol(s):**



#### **8.2.2.1. Eye and face protection**

##### **Eye protection:**

Safety glasses

# Formalin / Ethanol solution

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

### 8.2.2.2. Skin protection

#### Skin and body protection:

Wear suitable protective clothing

#### Hand protection:

Protective gloves

### 8.2.2.3. Respiratory protection

#### Respiratory protection:

[In case of inadequate ventilation] wear respiratory protection.

### 8.2.2.4. Thermal hazards

No additional information available

### 8.2.3. Environmental exposure controls

#### Environmental exposure controls:

Avoid release to the environment.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: Colourless.
Odour	: No data available
Odour threshold	: No data available
pH	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: Not applicable
Freezing point	: No data available
Boiling point	: ≈ 80 °C
Flash point	: < 21 °C
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Not applicable
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: 0.79 – 0.9
Solubility	: No data available
Partition coefficient n-octanol/water (Log Pow)	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Highly flammable liquid and vapour.

### 10.2. Chemical stability

Stable under normal conditions.

# Formalin / Ethanol solution

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according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

### 10.4. Conditions to avoid

Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.

### 10.5. Incompatible materials

No additional information available

### 10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

Acute toxicity (oral) : Not classified  
Acute toxicity (dermal) : Not classified  
Acute toxicity (inhalation) : Toxic if inhaled.

Formalin / Ethanol solution	
ATE CLP (vapours)	4.583 mg/l/4h
Formol 24% (50-00-0)	
LD50 oral rat	460 mg/kg Source: ECHA
LD50 dermal rabbit	292 mg/kg Source: GESTIS
LC50 Inhalation - Rat	0.588 mg/l/4h
Ethyl alcohol (64-17-5)	
LD50 oral rat	15010 mg/kg bodyweight Animal: rat, Animal sex: female, Guideline: OECD Guideline 401 (Acute Oral Toxicity), 95% CL: 14450 - 15560
LD50 oral	8300 mg/kg bodyweight Animal: mouse
LD50 dermal rat	> 2000 mg/kg
LC50 Inhalation - Rat	> 20 mg/l
Skin corrosion/irritation	: Causes skin irritation.
Serious eye damage/irritation	: Causes serious eye irritation.
Respiratory or skin sensitisation	: May cause an allergic skin reaction.
Germ cell mutagenicity	: Suspected of causing genetic defects.
Carcinogenicity	: May cause cancer.
Formol 24% (50-00-0)	
IARC group	1 - Carcinogenic to humans
Ethyl alcohol (64-17-5)	
IARC group	1 - Carcinogenic to humans
Reproductive toxicity	: Not classified
STOT-single exposure	: May cause respiratory irritation.
Formol 24% (50-00-0)	
STOT-single exposure	May cause respiratory irritation.
STOT-repeated exposure	: Not classified
Ethyl alcohol (64-17-5)	
NOAEL (subchronic, oral, animal/male, 90 days)	< 9700 mg/kg bodyweight Animal: mouse, Animal sex: male, Guideline: EPA OPPTS 870.3100 (90-Day Oral Toxicity in Rodents)

# Formalin / Ethanol solution

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

<b>Ethyl alcohol (64-17-5)</b>	
NOAEL (subchronic, oral, animal/female, 90 days)	> 9400 mg/kg bodyweight Animal: mouse, Animal sex: female, Guideline: EPA OPPTS 870.3100 (90-Day Oral Toxicity in Rodents)
Aspiration hazard	: Not classified

## SECTION 12: Ecological information

### 12.1. Toxicity

Ecology - general	: The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.
Hazardous to the aquatic environment, short-term (acute)	: Not classified
Hazardous to the aquatic environment, long-term (chronic)	: Not classified

<b>Formol 24% (50-00-0)</b>	
LC50 - Fish [1]	31.8 mg/l Source: ECHA
EC50 - Crustacea [1]	5.8 mg/l Test organisms (species): Daphnia pulex
EC50 72h - Algae [1]	3.48 mg/l Source: ECHA
EC50 72h - Algae [2]	4.89 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)
NOEC chronic fish	≥ 48 mg/l Test organisms (species): Oryzias latipes Duration: '28 d'
Additional information	Avoid discarding in the environment.

<b>Ethyl alcohol (64-17-5)</b>	
LC50 - Fish [1]	14.2 g/l Test organisms (species): Pimephales promelas
EC50 72h - Algae [1]	1900 – 1970 mg/l (marine water)
EC50 96h - Algae [1]	275 mg/l (freshwater)
ErC50 algae	275 mg/l Source: ECHA
NOEC (chronic)	9.6 mg/l Test organisms (species): Daphnia magna Duration: '9 d'
NOEC chronic fish	250 mg/l

### 12.2. Persistence and degradability

<b>Ethyl alcohol (64-17-5)</b>	
Persistence and degradability	Readily biodegradable.

### 12.3. Bioaccumulative potential

<b>Formol 24% (50-00-0)</b>	
Partition coefficient n-octanol/water (Log Pow)	0.35 Source: ECHA
<b>Ethyl alcohol (64-17-5)</b>	
Partition coefficient n-octanol/water (Log Pow)	-0.32 Source: ICSC
Bioaccumulative potential	No bioaccumulation.

### 12.4. Mobility in soil

No additional information available

### 12.5. Results of PBT and vPvB assessment

No additional information available

### 12.6. Other adverse effects

Other adverse effects : Avoid discarding in the environment.

# Formalin / Ethanol solution

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

### SECTION 13: Disposal considerations






#### 13.1. Waste treatment methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions. Dispose in a safe manner in accordance with local/national regulations.

Additional information : Flammable vapours may accumulate in the container.

### SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / ADN / RID

ADR	IMDG	IATA	ADN	RID
<b>14.1. UN number</b>				
UN 1170	UN 1170	UN 1170	UN 1170	UN 1170
<b>14.2. UN proper shipping name</b>				
ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)	ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)	Ethanol solution	ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)	ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)
<b>Transport document description</b>				
UN 1170 ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION), 3, II, (D/E)	UN 1170 ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION), 3, II	UN 1170 Ethanol solution, 3, II	UN 1170 ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION), 3, II	UN 1170 ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION), 3, II
<b>14.3. Transport hazard class(es)</b>				
3	3	3	3	3
				
<b>14.4. Packing group</b>				
II	II	II	II	II
<b>14.5. Environmental hazards</b>				
Dangerous for the environment: No	Dangerous for the environment: No Marine pollutant: No	Dangerous for the environment: No	Dangerous for the environment: No	Dangerous for the environment: No
No supplementary information available				

#### 14.6. Special precautions for user

##### Overland transport

Classification code (ADR) : F1  
Special provisions (ADR) : 144, 601  
Limited quantities (ADR) : 1I  
Excepted quantities (ADR) : E2  
Packing instructions (ADR) : P001, IBC02, R001  
Mixed packing provisions (ADR) : MP19  
Portable tank and bulk container instructions (ADR) : T4  
Portable tank and bulk container special provisions (ADR) : TP1  
Tank code (ADR) : LGBF  
Vehicle for tank carriage : FL  
Transport category (ADR) : 2

# Formalin / Ethanol solution

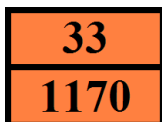
## Safety Data Sheet

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Special provisions for carriage - Operation (ADR) : S2, S20

Hazard identification number (Kemler No.) : 33

Orange plates :



Tunnel restriction code (ADR) : D/E

EAC code : •2YE

### Transport by sea

Special provisions (IMDG) : 144

Limited quantities (IMDG) : 1 L

Excepted quantities (IMDG) : E2

Packing instructions (IMDG) : P001

IBC packing instructions (IMDG) : IBC02

Tank instructions (IMDG) : T4

Tank special provisions (IMDG) : TP1

EmS-No. (Fire) : F-E

EmS-No. (Spillage) : S-D

Stowage category (IMDG) : A

Properties and observations (IMDG) : Colourless, volatile liquids. Pure ETHANOL: flashpoint 13°C c.c. Explosive limits: 3.3% to 19% Miscible with water.

MFAG-No : 127

### Air transport

PCA Excepted quantities (IATA) : E2

PCA Limited quantities (IATA) : Y341

PCA limited quantity max net quantity (IATA) : 1L

PCA packing instructions (IATA) : 353

PCA max net quantity (IATA) : 5L

CAO packing instructions (IATA) : 364

CAO max net quantity (IATA) : 60L

Special provisions (IATA) : A3, A58, A180

ERG code (IATA) : 3L

### Inland waterway transport

Classification code (ADN) : F1

Special provisions (ADN) : 144, 601

Limited quantities (ADN) : 1 L

Excepted quantities (ADN) : E2

Carriage permitted (ADN) : T

Equipment required (ADN) : PP, EX, A

Ventilation (ADN) : VE01

Number of blue cones/lights (ADN) : 1

### Rail transport

Classification code (RID) : F1

Special provisions (RID) : 144, 601

Limited quantities (RID) : 1L

Excepted quantities (RID) : E2

Packing instructions (RID) : P001, IBC02, R001

Mixed packing provisions (RID) : MP19

# Formalin / Ethanol solution

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Portable tank and bulk container instructions (RID) : T4  
Portable tank and bulk container special provisions (RID) : TP1  
Tank codes for RID tanks (RID) : LGBF  
Transport category (RID) : 2  
Colis express (express parcels) (RID) : CE7  
Hazard identification number (RID) : 33

### **14.7. Transport in bulk according to Annex II of Marpol and the IBC Code**

Not applicable

## **SECTION 15: Regulatory information**

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

#### **15.1.1. EU-Regulations**

Contains no REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

Contains no substance subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

Contains no substance subject to Regulation (EU) 2019/1148 of the European Parliament and of the Council of 20 June 2019 on the marketing and use of explosives precursors.

#### **15.1.2. National regulations**

No additional information available

### **15.2. Chemical safety assessment**

No chemical safety assessment has been carried out

## **SECTION 16: Other information**

Indication of changes			
Section	Changed item	Change	Comments
	Supersedes	Modified	
	Revision date	Modified	
2.2	Hazard pictograms (CLP)	Modified	
2.2	Precautionary statements (CLP)	Modified	
2.2	Hazard statements (CLP)	Modified	
3	Composition/information on ingredients	Modified	
7.2	Storage temperature	Added	
14.1	UN-No. (IMDG)	Added	
14.1	UN-No. (IATA)	Added	
14.1	UN-No. (ADN)	Added	
14.1	UN-No. (ADR)	Added	
15.2	Chemical safety assessment	Added	
16	Abbreviations and acronyms	Added	

### **Abbreviations and acronyms:**

ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
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# Formalin / Ethanol solution

## Safety Data Sheet

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<b>Abbreviations and acronyms:</b>	
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
BLV	Biological limit value
BOD	Biochemical oxygen demand (BOD)
COD	Chemical oxygen demand (COD)
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC-No.	European Community number
EC50	Median effective concentration
EN	European Standard
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
OEL	Occupational Exposure Limit
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
STP	Sewage treatment plant
ThOD	Theoretical oxygen demand (ThOD)
TLM	Median Tolerance Limit
VOC	Volatile Organic Compounds
CAS-No.	Chemical Abstract Service number
N.O.S.	Not Otherwise Specified
vPvB	Very Persistent and Very Bioaccumulative
ED	Endocrine disrupting properties

<b>Full text of H- and EUH-statements:</b>	
Acute Tox. 3 (Dermal)	Acute toxicity (dermal), Category 3
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Carc. 1B	Carcinogenicity, Category 1B
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Flam. Liq. 2	Flammable liquids, Category 2

# Formalin / Ethanol solution

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Full text of H- and EUH-statements:	
H225	Highly flammable liquid and vapour.
H302	Harmful if swallowed.
H311	Toxic in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H331	Toxic if inhaled.
H335	May cause respiratory irritation.
H341	Suspected of causing genetic defects.
H350	May cause cancer.
Muta. 2	Germ cell mutagenicity, Category 2
Skin Corr. 1B	Skin corrosion/irritation, Category 1, Sub-Category 1B
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Skin sensitisation, Category 1
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation

The classification complies with : ATP 12

Safety Data Sheet (SDS), EU

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

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

#### 1.1. Product identifier

Product form : Mixture  
 Product name : Pyronin, 0.2% in aqueous solution  
 Product code : 361800

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

##### 1.2.1. Relevant identified uses

Main use category : For professional use only  
 Use of the substance/mixture : In vitro diagnostic medical device.

##### 1.2.2. Uses advised against

No additional information available

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

RAL DIAGNOSTICS  
 Site Montesquieu  
 33650 MARTILLAC  
 FRANCE  
 T 33 05 57 96 04 04 - F 33 05 57 96 04 05  
[commercial@ral-diagnostics.fr](mailto:commercial@ral-diagnostics.fr) - [www.ral-diagnostics.com](http://www.ral-diagnostics.com)

#### 1.4. Emergency telephone number

Country	Organisation/Company	Address	Emergency number	Comment
Ireland	National Poisons Information Centre Beaumont Hospital	PO Box 1297 Beaumont Road 9 Dublin	+353 1 809 2566 (Healthcare professionals-24/7) +353 1 809 2166 (public, 8am - 10pm, 7/7)	
Malta	Medicines & Poisons Info Office	Mater Dei Hospital MSD Msida	+356 2545 6504	
United Kingdom	National Poisons Information Service (Birmingham Centre) City Hospital	Dudley Road B18 7QH Birmingham	0344 892 0111	

### SECTION 2: Hazards identification

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

##### Classification according to Regulation (EC) No. 1272/2008 [CLP]

Carcinogenicity, Category 1B H350

Full text of H and EUH statements: see section 16

##### Adverse physicochemical, human health and environmental effects

May cause cancer.

#### 2.2. Label elements

##### Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :



GHS08

# Pyronin, 0.2% in aqueous solution

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Signal word (CLP)	: Danger
Contains	: Formol 24%
Hazard statements (CLP)	: H350 - May cause cancer.
Precautionary statements (CLP)	: P280 - Wear protective gloves, protective clothing, eye protection, face protection. P308+P313 - IF exposed or concerned: Get medical advice/attention.
EUH-statements	: EUH208 - Contains Formol 24%. May produce an allergic reaction.

### 2.3. Other hazards

No additional information available

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Formol 24% substance with national workplace exposure limit(s) (IE, GB); substance with a Community workplace exposure limit	CAS-No.: 50-00-0 EC-No.: 200-001-8 EC Index-No.: 605-001-00-5	< 1	Acute Tox. 4 (Oral), H302 Acute Tox. 3 (Dermal), H311 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 Muta. 2, H341 Carc. 1B, H350 STOT SE 3, H335

### Specific concentration limits:

Name	Product identifier	Specific concentration limits
Formol 24%	CAS-No.: 50-00-0 EC-No.: 200-001-8 EC Index-No.: 605-001-00-5	( 0.2 ≤C < 100) Skin Sens. 1, H317 ( 5 ≤C < 100) STOT SE 3, H335 ( 5 ≤C < 25) Eye Irrit. 2, H319 ( 5 ≤C < 25) Skin Irrit. 2, H315 ( 25 ≤C < 100) Skin Corr. 1B, H314

Full text of H and EUH statements: see section 16

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

First-aid measures general	: IF exposed or concerned: Get medical advice/attention.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact	: Wash skin with plenty of water.
First-aid measures after eye contact	: Rinse eyes with water as a precaution.
First-aid measures after ingestion	: Call a poison center or a doctor if you feel unwell.

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

No additional information available

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

Treat symptomatically.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.

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

Hazardous decomposition products in case of fire : Toxic fumes may be released.

### **5.3. Advice for firefighters**

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

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

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

#### **6.1.1. For non-emergency personnel**

Emergency procedures : Only qualified personnel equipped with suitable protective equipment may intervene.

#### **6.1.2. For emergency responders**

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

### **6.2. Environmental precautions**

Avoid release to the environment. Notify authorities if product enters sewers or public waters.

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

Methods for cleaning up : Take up liquid spill into absorbent material. Notify authorities if product enters sewers or public waters.

Other information : Dispose of materials or solid residues at an authorized site.

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

For further information refer to section 13.

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

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

Precautions for safe handling : Ensure good ventilation of the work station. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Take all necessary technical measures to avoid or minimize the release of the product on the workplace. Limit quantities of product at the minimum necessary for handling and limit the number of exposed workers. Provide local exhaust or general room ventilation. Wear personal protective equipment. Floors, walls and other surfaces in the hazard area must be cleaned regularly.

Hygiene measures : Separate working clothes from town clothes. Launder separately. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

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

Storage conditions : Store locked up. Store in a well-ventilated place.

Storage temperature : 15 – 25 °C

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

No additional information available

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### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

##### 8.1.1 National occupational exposure and biological limit values

Formol 24% (50-00-0)	
<b>EU - Indicative Occupational Exposure Limit (IOEL)</b>	
Local name	Formaldehyde
IOEL TWA	0.37 mg/m <sup>3</sup> (BOEL) 0.62 mg/m <sup>3</sup> (Limit value for the health care, funeral and embalming sectors until 11 July 2024)
IOEL STEL	0.74 mg/m <sup>3</sup> (BOEL)
IOEL STEL [ppm]	0.4 ppm
Remark	skin sensitiser. SCOEL Recommendations (2008/Ongoing)
Regulatory reference	DIRECTIVE (EU) 2019/983 (amending Directive 2004/37/EC)
<b>Ireland - Occupational Exposure Limits</b>	
Local name	Formaldehyde
OEL TWA [1]	0.37 mg/m <sup>3</sup> 0.62 mg/m <sup>3</sup> for the healthcare, funeral and embalming sectors until 11 July 2024
OEL TWA [2]	0.3 ppm 0.5 ppm for the healthcare, funeral and embalming sectors until 11 July 2024
OEL STEL	0.738 mg/m <sup>3</sup>
OEL STEL [ppm]	0.6 ppm
Regulatory reference	Chemical Agents Code of Practice 2020
<b>United Kingdom - Occupational Exposure Limits</b>	
Local name	Formaldehyde
WEL TWA (OEL TWA) [1]	2.5 mg/m <sup>3</sup>
WEL TWA (OEL TWA) [2]	2 ppm
WEL STEL (OEL STEL)	2.5 mg/m <sup>3</sup>
WEL STEL (OEL STEL) [ppm]	2 ppm
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE

##### 8.1.2. Recommended monitoring procedures

No additional information available

##### 8.1.3. Air contaminants formed

No additional information available

##### 8.1.4. DNEL and PNEC

No additional information available

##### 8.1.5. Control banding

No additional information available

#### 8.2. Exposure controls

##### 8.2.1. Appropriate engineering controls

**Appropriate engineering controls:**

Ensure good ventilation of the work station.

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### 8.2.2. Personal protection equipment

Personal protective equipment symbol(s):



#### 8.2.2.1. Eye and face protection

**Eye protection:**

Safety glasses

#### 8.2.2.2. Skin protection

**Skin and body protection:**

Wear suitable protective clothing

**Hand protection:**

Protective gloves

#### 8.2.2.3. Respiratory protection

**Respiratory protection:**

[In case of inadequate ventilation] wear respiratory protection.

#### 8.2.2.4. Thermal hazards

No additional information available

### 8.2.3. Environmental exposure controls

**Environmental exposure controls:**

Avoid release to the environment.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: red.
Odour	: No data available
Odour threshold	: No data available
pH	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: Not applicable
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Not applicable
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Solubility	: No data available
Partition coefficient n-octanol/water (Log Pow)	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available

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Explosive limits : No data available

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

### 10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

### 10.5. Incompatible materials

No additional information available

### 10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

Acute toxicity (oral) : Not classified

Acute toxicity (dermal) : Not classified

Acute toxicity (inhalation) : Not classified

Formol 24% (50-00-0)	
LD50 oral rat	460 mg/kg Source: ECHA
LD50 dermal rabbit	292 mg/kg Source: GESTIS
LC50 Inhalation - Rat	0.588 mg/l/4h

Skin corrosion/irritation : Not classified

Serious eye damage/irritation : Not classified

Respiratory or skin sensitisation : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : May cause cancer.

Formol 24% (50-00-0)	
IARC group	1 - Carcinogenic to humans

Reproductive toxicity : Not classified

STOT-single exposure : Not classified

Formol 24% (50-00-0)	
STOT-single exposure	May cause respiratory irritation.

STOT-repeated exposure : Not classified

Aspiration hazard : Not classified



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### SECTION 12: Ecological information

#### 12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.

Hazardous to the aquatic environment, short-term (acute) : Not classified

Hazardous to the aquatic environment, long-term (chronic) : Not classified

Formol 24% (50-00-0)	
LC50 - Fish [1]	31.8 mg/l Source: ECHA
EC50 - Crustacea [1]	5.8 mg/l Test organisms (species): Daphnia pulex
EC50 72h - Algae [1]	3.48 mg/l Source: ECHA
EC50 72h - Algae [2]	4.89 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)
NOEC chronic fish	≥ 48 mg/l Test organisms (species): Oryzias latipes Duration: '28 d'
Additional information	Avoid discarding in the environment.

#### 12.2. Persistence and degradability

No additional information available

#### 12.3. Bioaccumulative potential

Formol 24% (50-00-0)	
Partition coefficient n-octanol/water (Log Pow)	0.35 Source: ECHA

#### 12.4. Mobility in soil

No additional information available

#### 12.5. Results of PBT and vPvB assessment

No additional information available

#### 12.6. Other adverse effects

Other adverse effects : Not release to the environment.

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions. Dispose in a safe manner in accordance with local/national regulations.

### SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / ADN / RID

ADR	IMDG	IATA	ADN	RID
<b>14.1. UN number</b>				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
<b>14.2. UN proper shipping name</b>				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
<b>14.3. Transport hazard class(es)</b>				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable

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ADR	IMDG	IATA	ADN	RID
<b>14.4. Packing group</b>				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
<b>14.5. Environmental hazards</b>				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
No supplementary information available				

### **14.6. Special precautions for user**

#### **Overland transport**

Not applicable

#### **Transport by sea**

Not applicable

#### **Air transport**

Not applicable

#### **Inland waterway transport**

Not applicable

#### **Rail transport**

Not applicable

### **14.7. Transport in bulk according to Annex II of Marpol and the IBC Code**

Not applicable

## **SECTION 15: Regulatory information**

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

#### **15.1.1. EU-Regulations**

Contains no REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

Contains no substance subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

Contains no substance subject to Regulation (EU) 2019/1148 of the European Parliament and of the Council of 20 June 2019 on the marketing and use of explosives precursors.

#### **15.1.2. National regulations**

No additional information available

### **15.2. Chemical safety assessment**

No chemical safety assessment has been carried out

## **SECTION 16: Other information**

<b>Indication of changes</b>			
Section	Changed item	Change	Comments
	Supersedes	Modified	
	Revision date	Modified	
2.2	Signal word (CLP)	Added	

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Indication of changes			
Section	Changed item	Change	Comments
2.2	EUH-statements	Added	
2.2	Hazard pictograms (CLP)	Added	
2.2	Precautionary statements (CLP)	Added	
2.2	Hazard statements (CLP)	Added	
3	Composition/information on ingredients	Modified	
7.2	Storage conditions	Added	
15.2	Chemical safety assessment	Added	
16	Abbreviations and acronyms	Added	

Abbreviations and acronyms:	
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
BLV	Biological limit value
BOD	Biochemical oxygen demand (BOD)
COD	Chemical oxygen demand (COD)
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC-No.	European Community number
EC50	Median effective concentration
EN	European Standard
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
OEL	Occupational Exposure Limit
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
STP	Sewage treatment plant
ThOD	Theoretical oxygen demand (ThOD)
TLM	Median Tolerance Limit

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Abbreviations and acronyms:	
VOC	Volatile Organic Compounds
CAS-No.	Chemical Abstract Service number
N.O.S.	Not Otherwise Specified
vPvB	Very Persistent and Very Bioaccumulative
ED	Endocrine disrupting properties

Full text of H- and EUH-statements:	
Acute Tox. 3 (Dermal)	Acute toxicity (dermal), Category 3
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Carc. 1B	Carcinogenicity, Category 1B
EUH208	Contains Formol 24%. May produce an allergic reaction.
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
H302	Harmful if swallowed.
H311	Toxic in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H341	Suspected of causing genetic defects.
H350	May cause cancer.
Muta. 2	Germ cell mutagenicity, Category 2
Skin Corr. 1B	Skin corrosion/irritation, Category 1, Sub-Category 1B
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Skin sensitisation, Category 1
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation

The classification complies with : ATP 12

Safety Data Sheet (SDS), EU

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

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

#### 1.1. Product identifier

Product form : Mixture  
 Product name : Mayer haematoxylin  
 Product code : 361620

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

##### 1.2.1. Relevant identified uses

Main use category : For professional use only  
 Use of the substance/mixture : In vitro diagnostic medical device.

##### 1.2.2. Uses advised against

No additional information available

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

RAL DIAGNOSTICS  
 Site Montesquieu  
 33650 MARTILLAC  
 FRANCE  
 T 33 05 57 96 04 04 - F 33 05 57 96 04 05  
[commercial@ral-diagnostics.fr](mailto:commercial@ral-diagnostics.fr) - [www.ral-diagnostics.com](http://www.ral-diagnostics.com)

#### 1.4. Emergency telephone number

Country	Organisation/Company	Address	Emergency number	Comment
Ireland	National Poisons Information Centre Beaumont Hospital	PO Box 1297 Beaumont Road 9 Dublin	+353 1 809 2566 (Healthcare professionals-24/7) +353 1 809 2166 (public, 8am - 10pm, 7/7)	
Malta	Medicines & Poisons Info Office	Mater Dei Hospital MSD Msida	+356 2545 6504	
United Kingdom	National Poisons Information Service (Birmingham Centre) City Hospital	Dudley Road B18 7QH Birmingham	0344 892 0111	

### SECTION 2: Hazards identification

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

##### Classification according to Regulation (EC) No. 1272/2008 [CLP]

Acute toxicity (oral), Category 4 H302

Full text of H and EUH statements: see section 16

##### Adverse physicochemical, human health and environmental effects

Harmful if swallowed.

#### 2.2. Label elements

##### Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :



GHS07

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according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Signal word (CLP) : Warning  
Hazard statements (CLP) : H302 - Harmful if swallowed.  
Precautionary statements (CLP) : P301+P312 - IF SWALLOWED: Call a POISON CENTRE or doctor if you feel unwell.

Labelling according to: exemption for packages of a capacity of 125ml or less

Hazard pictograms (CLP) :



GHS07

Signal word (CLP) : Warning

### 2.3. Other hazards

No additional information available

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Chloral hydrate	CAS-No.: 302-17-0 EC-No.: 206-117-5 EC Index-No.: 605-014-00-6	≤ 5	Acute Tox. 3 (Oral), H301 Eye Irrit. 2, H319 Skin Irrit. 2, H315

Full text of H and EUH statements: see section 16

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

First-aid measures general : Call a poison center or a doctor if you feel unwell.  
First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing.  
First-aid measures after skin contact : Wash skin with plenty of water.  
First-aid measures after eye contact : Rinse eyes with water as a precaution.  
First-aid measures after ingestion : Rinse mouth. Call a poison center or a doctor if you feel unwell.

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

No additional information available

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

Treat symptomatically.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.

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

Hazardous decomposition products in case of fire : Toxic fumes may be released.

### 5.3. Advice for firefighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

# Mayer haematoxylin

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### SECTION 6: Accidental release measures

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

##### **6.1.1. For non-emergency personnel**

Emergency procedures : Ventilate spillage area.

##### **6.1.2. For emergency responders**

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

#### **6.2. Environmental precautions**

Avoid release to the environment.

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

Methods for cleaning up : Take up liquid spill into absorbent material.

Other information : Dispose of materials or solid residues at an authorized site.

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

For further information refer to section 13.

### SECTION 7: Handling and storage

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

Precautions for safe handling : Ensure good ventilation of the work station. Wear personal protective equipment.

Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

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

Storage conditions : Store in a well-ventilated place.

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

No additional information available

### SECTION 8: Exposure controls/personal protection

#### **8.1. Control parameters**

##### **8.1.1 National occupational exposure and biological limit values**

No additional information available

##### **8.1.2. Recommended monitoring procedures**

No additional information available

##### **8.1.3. Air contaminants formed**

No additional information available

##### **8.1.4. DNEL and PNEC**

No additional information available

##### **8.1.5. Control banding**

No additional information available

#### **8.2. Exposure controls**

##### **8.2.1. Appropriate engineering controls**

**Appropriate engineering controls:**

Ensure good ventilation of the work station.

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### 8.2.2. Personal protection equipment

Personal protective equipment symbol(s):



#### 8.2.2.1. Eye and face protection

**Eye protection:**

Safety glasses

#### 8.2.2.2. Skin protection

**Skin and body protection:**

Wear suitable protective clothing

**Hand protection:**

Protective gloves

#### 8.2.2.3. Respiratory protection

**Respiratory protection:**

In case of insufficient ventilation, wear suitable respiratory equipment

#### 8.2.2.4. Thermal hazards

No additional information available

### 8.2.3. Environmental exposure controls

**Environmental exposure controls:**

Avoid release to the environment.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: clear.
Colour	: red. Violet.
Odour	: No data available
Odour threshold	: No data available
pH	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: Not applicable
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Not applicable
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: 1.03 – 1.05
Solubility	: No data available
Partition coefficient n-octanol/water (Log Pow)	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available



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Oxidising properties : No data available  
Explosive limits : No data available

### **9.2. Other information**

No additional information available

## **SECTION 10: Stability and reactivity**

### **10.1. Reactivity**

The product is non-reactive under normal conditions of use, storage and transport.

### **10.2. Chemical stability**

Stable under normal conditions.

### **10.3. Possibility of hazardous reactions**

No dangerous reactions known under normal conditions of use.

### **10.4. Conditions to avoid**

None under recommended storage and handling conditions (see section 7).

### **10.5. Incompatible materials**

No additional information available

### **10.6. Hazardous decomposition products**

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## **SECTION 11: Toxicological information**

### **11.1 Information on toxicological effects**

Acute toxicity (oral) : Harmful if swallowed.  
Acute toxicity (dermal) : Not classified  
Acute toxicity (inhalation) : Not classified

<b>Mayer haematoxylin</b>	
ATE CLP (oral)	500 mg/kg bodyweight
<b>Chloral hydrate (302-17-0)</b>	
LD50 oral rat	1265 mg/kg
LD50 dermal rat	> 3030 mg/kg
LC50 Inhalation - Rat	> 603 mg/m <sup>3</sup>

Skin corrosion/irritation : Not classified  
Serious eye damage/irritation : Not classified  
Respiratory or skin sensitisation : Not classified  
Germ cell mutagenicity : Not classified  
Carcinogenicity : Not classified  
Reproductive toxicity : Not classified  
STOT-single exposure : Not classified  
STOT-repeated exposure : Not classified  
Aspiration hazard : Not classified

## **SECTION 12: Ecological information**

### **12.1. Toxicity**

Ecology - general : The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.

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Hazardous to the aquatic environment, short-term (acute) : Not classified

Hazardous to the aquatic environment, long-term (chronic) : Not classified

<b>Chloral hydrate (302-17-0)</b>	
LC50 - Fish [1]	100 mg/l
EC50 - Crustacea [1]	100 mg/l
EC50 72h - Algae [1]	200 mg/l
NOEC chronic crustacea	11.5 mg/l

### **12.2. Persistence and degradability**

No additional information available

### **12.3. Bioaccumulative potential**

<b>Chloral hydrate (302-17-0)</b>	
Partition coefficient n-octanol/water (Log Pow)	0.99

### **12.4. Mobility in soil**

No additional information available

### **12.5. Results of PBT and vPvB assessment**

No additional information available

### **12.6. Other adverse effects**

Other adverse effects : Not release to the environment.

## **SECTION 13: Disposal considerations**

### **13.1. Waste treatment methods**

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions. Dispose in a safe manner in accordance with local/national regulations.

## **SECTION 14: Transport information**

In accordance with ADR / IMDG / IATA / ADN / RID

<b>ADR</b>	<b>IMDG</b>	<b>IATA</b>	<b>ADN</b>	<b>RID</b>
<b>14.1. UN number</b>				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
<b>14.2. UN proper shipping name</b>				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
<b>14.3. Transport hazard class(es)</b>				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
<b>14.4. Packing group</b>				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
<b>14.5. Environmental hazards</b>				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
No supplementary information available				

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### 14.6. Special precautions for user

#### Overland transport

Not applicable

#### Transport by sea

Not applicable

#### Air transport

Not applicable

#### Inland waterway transport

Not applicable

#### Rail transport

Not applicable

### 14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

## SECTION 15: Regulatory information

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

#### 15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

Contains no substance subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

Contains no substance subject to Regulation (EU) 2019/1148 of the European Parliament and of the Council of 20 June 2019 on the marketing and use of explosives precursors.

#### 15.1.2. National regulations

No additional information available

### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out

## SECTION 16: Other information

Indication of changes			
Section	Changed item	Change	Comments
	Supersedes	Modified	
	Revision date	Modified	
3	Composition/information on ingredients	Modified	
16	Abbreviations and acronyms	Added	

Abbreviations and acronyms:	
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor

# Mayer haematoxylin

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

<b>Abbreviations and acronyms:</b>	
BLV	Biological limit value
BOD	Biochemical oxygen demand (BOD)
COD	Chemical oxygen demand (COD)
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC-No.	European Community number
EC50	Median effective concentration
EN	European Standard
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
OEL	Occupational Exposure Limit
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
STP	Sewage treatment plant
ThOD	Theoretical oxygen demand (ThOD)
TLM	Median Tolerance Limit
VOC	Volatile Organic Compounds
CAS-No.	Chemical Abstract Service number
N.O.S.	Not Otherwise Specified
vPvB	Very Persistent and Very Bioaccumulative
ED	Endocrine disrupting properties

<b>Full text of H- and EUH-statements:</b>	
Acute Tox. 3 (Oral)	Acute toxicity (oral), Category 3
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
Skin Irrit. 2	Skin corrosion/irritation, Category 2

# Mayer haematoxylin

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

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The classification complies with : ATP 12

Safety Data Sheet (SDS), EU

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

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

#### 1.1. Product identifier

Product form : Mixture  
Product name : Alphanaphtol solution  
Product code : 320750

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

##### 1.2.1. Relevant identified uses

Main use category : For professional use only  
Use of the substance/mixture : In vitro diagnostic medical device.

##### 1.2.2. Uses advised against

No additional information available

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

RAL DIAGNOSTICS  
Site Montesquieu  
33650 MARTILLAC  
FRANCE  
T 33 05 57 96 04 04 - F 33 05 57 96 04 05  
[commercial@ral-diagnostics.fr](mailto:commercial@ral-diagnostics.fr) - [www.ral-diagnostics.com](http://www.ral-diagnostics.com)

#### 1.4. Emergency telephone number

Country	Organisation/Company	Address	Emergency number	Comment
Ireland	National Poisons Information Centre Beaumont Hospital	PO Box 1297 Beaumont Road 9 Dublin	+353 1 809 2566 (Healthcare professionals-24/7) +353 1 809 2166 (public, 8am - 10pm, 7/7)	
Malta	Medicines & Poisons Info Office	Mater Dei Hospital MSD Msida	+356 2545 6504	
United Kingdom	National Poisons Information Service (Birmingham Centre) City Hospital	Dudley Road B18 7QH Birmingham	0344 892 0111	

### SECTION 2: Hazards identification

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

##### Classification according to Regulation (EC) No. 1272/2008 [CLP]

Flammable liquids, Category 2 H225  
Serious eye damage/eye irritation, Category 2 H319  
Full text of H and EUH statements: see section 16

##### Adverse physicochemical, human health and environmental effects

Highly flammable liquid and vapour. Causes serious eye irritation.

#### 2.2. Label elements

##### Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :



# Alphanaphtol solution

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Signal word (CLP)	: Danger
Hazard statements (CLP)	: H225 - Highly flammable liquid and vapour. H319 - Causes serious eye irritation.
Precautionary statements (CLP)	: P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P280 - Wear protective gloves, protective clothing, eye protection. P337+P313 - If eye irritation persists: Get medical advice/attention.

Labelling according to: exemption for packages of a capacity of 125ml or less

Hazard pictograms (CLP)



GHS02

GHS07

Signal word (CLP) : Danger

### 2.3. Other hazards

No additional information available

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Ethyl alcohol substance with national workplace exposure limit(s) (IE, GB)	CAS-No.: 64-17-5 EC-No.: 200-578-6 EC Index-No.: 603-002-00-5 REACH-no: 01-2119457610-43	≥90	Flam. Liq. 2, H225
1-naphtol	CAS-No.: 90-15-3 EC-No.: 201-969-4 EC Index-No.: 604-029-00-5	1-5	Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Oral), H302 STOT SE 3, H335 Skin Irrit. 2, H315 Eye Dam. 1, H318
Black Acticarbone substance with national workplace exposure limit(s) (GB)	CAS-No.: 7440-44-0 EC-No.: 231-153-3	< 0.1	Eye Irrit. 2, H319 STOT SE 3, H335

Full text of H and EUH statements: see section 16

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact	: Rinse skin with water/shower. Take off immediately all contaminated clothing.
First-aid measures after eye contact	: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
First-aid measures after ingestion	: Call a poison center or a doctor if you feel unwell.

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

Symptoms/effects after eye contact : Eye irritation.

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

Treat symptomatically.

# Alphanaphtol solution

## Safety Data Sheet

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### SECTION 5: Firefighting measures

#### **5.1. Extinguishing media**

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.

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

Fire hazard : Highly flammable liquid and vapour.

Hazardous decomposition products in case of fire : Toxic fumes may be released.

#### **5.3. Advice for firefighters**

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

### SECTION 6: Accidental release measures

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

##### **6.1.1. For non-emergency personnel**

Emergency procedures : Ventilate spillage area. No open flames, no sparks, and no smoking. Avoid contact with skin and eyes.

##### **6.1.2. For emergency responders**

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

#### **6.2. Environmental precautions**

Avoid release to the environment.

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

Methods for cleaning up : Take up liquid spill into absorbent material. Notify authorities if product enters sewers or public waters.

Other information : Dispose of materials or solid residues at an authorized site.

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

For further information refer to section 13.

### SECTION 7: Handling and storage

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

Precautions for safe handling : Ensure good ventilation of the work station. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Wear personal protective equipment. Avoid contact with skin and eyes.

Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

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

Storage conditions : Store in a well-ventilated place. Keep container tightly closed.

Storage temperature : 15 – 25 °C

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

No additional information available



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### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

##### 8.1.1 National occupational exposure and biological limit values

<b>Black Acticarbone (7440-44-0)</b>	
<b>United Kingdom - Occupational Exposure Limits</b>	
Local name	Graphite
WEL TWA (OEL TWA) [1]	10 mg/m <sup>3</sup> inhalable dust 4 mg/m <sup>3</sup> respirable
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE
<b>Ethyl alcohol (64-17-5)</b>	
<b>Ireland - Occupational Exposure Limits</b>	
Local name	Ethanol [Ethyl alcohol]
OEL STEL [ppm]	1000 ppm
Regulatory reference	Chemical Agents Code of Practice 2020
<b>United Kingdom - Occupational Exposure Limits</b>	
Local name	Ethanol
WEL TWA (OEL TWA) [1]	1920 mg/m <sup>3</sup>
WEL TWA (OEL TWA) [2]	1000 ppm
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE

##### 8.1.2. Recommended monitoring procedures

No additional information available

##### 8.1.3. Air contaminants formed

No additional information available

##### 8.1.4. DNEL and PNEC

No additional information available

##### 8.1.5. Control banding

No additional information available

#### 8.2. Exposure controls

##### 8.2.1. Appropriate engineering controls

###### Appropriate engineering controls:

Ensure good ventilation of the work station.

##### 8.2.2. Personal protection equipment

###### Personal protective equipment symbol(s):



###### 8.2.2.1. Eye and face protection

###### Eye protection:

Safety glasses

###### 8.2.2.2. Skin protection

###### Skin and body protection:

Wear suitable protective clothing

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### Hand protection:

Protective gloves

### 8.2.2.3. Respiratory protection

#### Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

### 8.2.2.4. Thermal hazards

No additional information available

### 8.2.3. Environmental exposure controls

#### Environmental exposure controls:

Avoid release to the environment.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: Colourless. amber.
Odour	: alcoholic.
Odour threshold	: No data available
pH	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: Not applicable
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Not applicable
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Solubility	: No data available
Partition coefficient n-octanol/water (Log Pow)	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Highly flammable liquid and vapour.

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

# Alphanaphtol solution

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### 10.4. Conditions to avoid

Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.

### 10.5. Incompatible materials

No additional information available

### 10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

Acute toxicity (oral) : Not classified

Acute toxicity (dermal) : Not classified

Acute toxicity (inhalation) : Not classified

<b>Black Acticarbone (7440-44-0)</b>	
LD50 oral rat	≥ 2000 mg/kg bodyweight Animal: rat, Animal sex: female, Guideline: OECD Guideline 423 (Acute Oral toxicity - Acute Toxic Class Method), Guideline: EU Method B.1 tris (Acute Oral Toxicity - Acute Toxic Class Method)

<b>Ethyl alcohol (64-17-5)</b>	
LD50 oral rat	15010 mg/kg bodyweight Animal: rat, Animal sex: female, Guideline: OECD Guideline 401 (Acute Oral Toxicity), 95% CL: 14450 - 15560
LD50 oral	8300 mg/kg bodyweight Animal: mouse
LD50 dermal rat	> 2000 mg/kg
LC50 Inhalation - Rat	> 20 mg/l

<b>1-naphtol (90-15-3)</b>	
LD50 oral rat	1870 mg/kg Source: National Institute of Technology and Evaluation
LD50 dermal rabbit	880 mg/kg Source: National Institute of Technology and Evaluation
LC50 Inhalation - Rat (Dust/Mist)	0.105 mg/l Source: National Institute of Technology and Evaluation

Skin corrosion/irritation : Not classified  
Serious eye damage/irritation : Causes serious eye irritation.  
Respiratory or skin sensitisation : Not classified  
Germ cell mutagenicity : Not classified  
Carcinogenicity : Not classified

<b>Ethyl alcohol (64-17-5)</b>	
IARC group	1 - Carcinogenic to humans
Reproductive toxicity	: Not classified

<b>Black Acticarbone (7440-44-0)</b>	
NOAEL (animal/male, F0/P)	≥ 859 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)
STOT-single exposure	: Not classified

<b>Black Acticarbone (7440-44-0)</b>	
STOT-single exposure	May cause respiratory irritation.
STOT-repeated exposure	: Not classified

<b>Ethyl alcohol (64-17-5)</b>	
NOAEL (subchronic, oral, animal/male, 90 days)	< 9700 mg/kg bodyweight Animal: mouse, Animal sex: male, Guideline: EPA OPPTS 870.3100 (90-Day Oral Toxicity in Rodents)

# Alphanaphtol solution

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<b>Ethyl alcohol (64-17-5)</b>	
NOAEL (subchronic, oral, animal/female, 90 days)	> 9400 mg/kg bodyweight Animal: mouse, Animal sex: female, Guideline: EPA OPPTS 870.3100 (90-Day Oral Toxicity in Rodents)
Aspiration hazard	: Not classified

### SECTION 12: Ecological information

#### 12.1. Toxicity

Ecology - general	: The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.
Hazardous to the aquatic environment, short-term (acute)	: Not classified
Hazardous to the aquatic environment, long-term (chronic)	: Not classified

<b>Ethyl alcohol (64-17-5)</b>	
LC50 - Fish [1]	14.2 g/l Test organisms (species): Pimephales promelas
EC50 72h - Algae [1]	1900 – 1970 mg/l (marine water)
EC50 96h - Algae [1]	275 mg/l (freshwater)
ErC50 algae	275 mg/l Source: ECHA
NOEC (chronic)	9.6 mg/l Test organisms (species): Daphnia magna Duration: '9 d'
NOEC chronic fish	250 mg/l
<b>1-naphtol (90-15-3)</b>	
LC50 - Fish [1]	4.24 mg/l Source: Hazardous Substances Data Bank
LC50 - Fish [2]	3.57 mg/l Pimephales promelas
EC50 72h - Algae [1]	14 mg/l Source: EnviChem

#### 12.2. Persistence and degradability

<b>Ethyl alcohol (64-17-5)</b>	
Persistence and degradability	Readily biodegradable.

#### 12.3. Bioaccumulative potential

<b>Black Acticarbone (7440-44-0)</b>	
Partition coefficient n-octanol/water (Log Pow)	0.78 Source: Quantitative Structure Activity Relation
<b>Ethyl alcohol (64-17-5)</b>	
Partition coefficient n-octanol/water (Log Pow)	-0.32 Source: ICSC
Bioaccumulative potential	No bioaccumulation.
<b>1-naphtol (90-15-3)</b>	
Partition coefficient n-octanol/water (Log Pow)	2.85 Source: HSDB
Bioaccumulative potential	Bioaccumulation unlikely.

#### 12.4. Mobility in soil

<b>1-naphtol (90-15-3)</b>	
Mobility in soil	2.668 Source: Quantitative Structure Activity Relation
Ecology - soil	Water hazard class 1 (Self-assessment): little hazardous.

#### 12.5. Results of PBT and vPvB assessment

No additional information available

# Alphanaphtol solution

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

### 12.6. Other adverse effects

Other adverse effects : Not release to the environment.

## SECTION 13: Disposal considerations






### 13.1. Waste treatment methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions. Dispose in a safe manner in accordance with local/national regulations.

Additional information : Flammable vapours may accumulate in the container.

## SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / ADN / RID

ADR	IMDG	IATA	ADN	RID
<b>14.1. UN number</b>				
UN 1170	UN 1170	UN 1170	UN 1170	UN 1170
<b>14.2. UN proper shipping name</b>				
ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)	ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)	Ethanol solution	ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)	ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)
<b>Transport document description</b>				
UN 1170 ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION), 3, II, (D/E)	UN 1170 ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION), 3, II	UN 1170 Ethanol solution, 3, II	UN 1170 ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION), 3, II	UN 1170 ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION), 3, II
<b>14.3. Transport hazard class(es)</b>				
3	3	3	3	3
				
<b>14.4. Packing group</b>				
II	II	II	II	II
<b>14.5. Environmental hazards</b>				
Dangerous for the environment: No	Dangerous for the environment: No Marine pollutant: No	Dangerous for the environment: No	Dangerous for the environment: No	Dangerous for the environment: No
No supplementary information available				

### 14.6. Special precautions for user

#### Overland transport

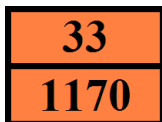
Classification code (ADR) : F1  
Special provisions (ADR) : 144, 601  
Limited quantities (ADR) : 1I  
Excepted quantities (ADR) : E2  
Packing instructions (ADR) : P001, IBC02, R001  
Mixed packing provisions (ADR) : MP19  
Portable tank and bulk container instructions (ADR) : T4  
Portable tank and bulk container special provisions (ADR) : TP1

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Tank code (ADR) : LGBF  
Vehicle for tank carriage : FL  
Transport category (ADR) : 2  
Special provisions for carriage - Operation (ADR) : S2, S20  
Hazard identification number (Kemler No.) : 33  
Orange plates :



Tunnel restriction code (ADR) : D/E  
EAC code : •2YE

### Transport by sea

Special provisions (IMDG) : 144  
Limited quantities (IMDG) : 1 L  
Excepted quantities (IMDG) : E2  
Packing instructions (IMDG) : P001  
IBC packing instructions (IMDG) : IBC02  
Tank instructions (IMDG) : T4  
Tank special provisions (IMDG) : TP1  
EmS-No. (Fire) : F-E  
EmS-No. (Spillage) : S-D  
Stowage category (IMDG) : A  
Properties and observations (IMDG) : Colourless, volatile liquids. Pure ETHANOL: flashpoint 13°C c.c. Explosive limits: 3.3% to 19% Miscible with water.  
MFAG-No : 127

### Air transport

PCA Excepted quantities (IATA) : E2  
PCA Limited quantities (IATA) : Y341  
PCA limited quantity max net quantity (IATA) : 1L  
PCA packing instructions (IATA) : 353  
PCA max net quantity (IATA) : 5L  
CAO packing instructions (IATA) : 364  
CAO max net quantity (IATA) : 60L  
Special provisions (IATA) : A3, A58, A180  
ERG code (IATA) : 3L

### Inland waterway transport

Classification code (ADN) : F1  
Special provisions (ADN) : 144, 601  
Limited quantities (ADN) : 1 L  
Excepted quantities (ADN) : E2  
Equipment required (ADN) : PP, EX, A  
Ventilation (ADN) : VE01  
Number of blue cones/lights (ADN) : 1

### Rail transport

Classification code (RID) : F1  
Special provisions (RID) : 144, 601  
Limited quantities (RID) : 1L  
Excepted quantities (RID) : E2

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Packing instructions (RID)	: P001, IBC02, R001
Mixed packing provisions (RID)	: MP19
Portable tank and bulk container instructions (RID)	: T4
Portable tank and bulk container special provisions (RID)	: TP1
Tank codes for RID tanks (RID)	: LGBF
Transport category (RID)	: 2
Colis express (express parcels) (RID)	: CE7
Hazard identification number (RID)	: 33

### 14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

## SECTION 15: Regulatory information

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

#### 15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

Contains no substance subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

Contains no substance subject to Regulation (EU) 2019/1148 of the European Parliament and of the Council of 20 June 2019 on the marketing and use of explosives precursors.

#### 15.1.2. National regulations

No additional information available

### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out

## SECTION 16: Other information

Indication of changes			
Section	Changed item	Change	Comments
	Supersedes	Modified	
	Revision date	Modified	
2.2	Precautionary statements (CLP)	Modified	
3	Composition/information on ingredients	Modified	
14.1	UN-No. (ADN)	Added	
14.1	UN-No. (IMDG)	Added	
14.1	UN-No. (IATA)	Added	
15.2	Chemical safety assessment	Added	
16	Abbreviations and acronyms	Added	

### Abbreviations and acronyms:

ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor

# Alphanaphtol solution

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

<b>Abbreviations and acronyms:</b>	
BLV	Biological limit value
BOD	Biochemical oxygen demand (BOD)
COD	Chemical oxygen demand (COD)
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC-No.	European Community number
EC50	Median effective concentration
EN	European Standard
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
OEL	Occupational Exposure Limit
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
STP	Sewage treatment plant
ThOD	Theoretical oxygen demand (ThOD)
TLM	Median Tolerance Limit
VOC	Volatile Organic Compounds
CAS-No.	Chemical Abstract Service number
N.O.S.	Not Otherwise Specified
vPvB	Very Persistent and Very Bioaccumulative
ED	Endocrine disrupting properties

<b>Full text of H- and EUH-statements:</b>	
Acute Tox. 4 (Dermal)	Acute toxicity (dermal), Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Flam. Liq. 2	Flammable liquids, Category 2
H225	Highly flammable liquid and vapour.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.



# Alphanaphtol solution

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Full text of H- and EUH-statements:	
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
Skin Irrit. 2	Skin corrosion/irritation, Category 2
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation

The classification complies with : ATP 12

Safety Data Sheet (SDS), EU

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.