



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

### 1.1 Product identifier

**Trade name:** Papanicolaou polychrome solution 3b (EA 50)

**Article number:** T866

**Registration number** Mixture - Registration numbers of the components, see Chapter 3

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

#### Application of the substance / the mixture

Laboratory chemical

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

#### Manufacturer/Supplier:

Carl Roth GmbH + Co. KG

Schoemperlenstraße 3-5

76185 Karlsruhe

Germany

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

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

E-Mail: [sicherheit@carlroth.de](mailto:sicherheit@carlroth.de)

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

### 1.4 Emergency telephone number:

Poison Centre Munich

Telefon +49/(0)89 19240

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

#### Classification according to Regulation (EC) No 1272/2008

Flam. Liq. 2 H225 Highly flammable liquid and vapour.

Acute Tox. 3 H301 Toxic if swallowed.

Acute Tox. 3 H311 Toxic in contact with skin.

Acute Tox. 3 H331 Toxic if inhaled.

STOT SE 1 H370 Causes damage to organs.

Eye Irrit. 2 H319 Causes serious eye irritation.

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

T; Toxic

R23/24/25-39/23/24/25: Toxic by inhalation, in contact with skin and if swallowed. Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.

Xi; Irritant

R36: Irritating to eyes.

F; Highly flammable

R11: Highly flammable.

### 2.2 Label elements

#### Labelling according to Regulation (EC) No 1272/2008

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

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**Trade name: Papanicolaou polychrome solution 3b (EA 50)**

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**Hazard pictograms**

GHS02

GHS06

GHS08

**Signal word** Danger**Hazard-determining components of labelling:**

methanol

**Hazard statements**

H225 Highly flammable liquid and vapour.  
 H301+H311+H331 Toxic if swallowed, in contact with skin or if inhaled.  
 H319 Causes serious eye irritation.  
 H370 Causes damage to organs.

**Precautionary statements**

P280 Wear protective gloves/protective clothing/eye protection/face protection.  
 P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
 P302+P352 IF ON SKIN: Wash with plenty of soap and water.  
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 P307+P311 IF exposed: Call a POISON CENTER or doctor/physician.

**Additional information:**

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**2.3 Other hazards**

All chemicals are potentially dangerous. They are therefore only be handled by specially trained personnel with the necessary care.

**Results of PBT and vPvB assessment****PBT:** Not applicable.**vPvB:** Not applicable.**SECTION 3: Composition/information on ingredients****3.2 Chemical characterisation: Mixtures****Description:** Mixture of substances listed below with nonhazardous additions.**Dangerous components:**

CAS: 67-56-1 EINECS: 200-659-6 Index Number: 603-001-00-X Reg.nr.: 01-2119433307-44-XXXX	methanol T R23/24/25-39/23/24/25; F R11 Flam. Liq. 2, H225; Acute Tox. 3, H301; Acute Tox. 3, H311; Acute Tox. 3, H331; STOT SE 1, H370	50-100%
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**Additional information:** For the wording of the listed risk phrases refer to section 16.**SECTION 4: First aid measures**

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**Trade name: Papanicolaou polychrome solution 3b (EA 50)**

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

Remove any clothing soiled by the product.

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

**After inhalation:**

Remove to fresh air. If breathing is difficult, give oxygen. Seek medical advice immediately.

**After skin contact:**

Immediately wash with water and soap and rinse thoroughly.

After massive or prolonged skin contact:

Medical advice absolutely required!

**After eye contact:**

Rinse opened eye for 10 minutes under running water. If symptoms persist, consult a doctor.

**After swallowing:**

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

Seek medical treatment.

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

Irritations

Disziness

Headache

Disziness

Impairment of vision

Cramp

Nausea

Vomiting

Unconsciousness

**Hazards**

Danger of impaired breathing.

blindness

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

No further relevant information available.

**SECTION 5: Firefighting measures****5.1 Extinguishing media****Suitable extinguishing agents:**

Use fire extinguishing methods suitable to surrounding conditions.

CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

**For safety reasons unsuitable extinguishing agents:**

For this substance/mixture no limitations of extinguishing agents are given.

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

Can form explosive gas-air mixtures.

In the event of fire development of hazardous combustion gases or vapours possible.

In case of fire, the following can be released:

Carbon monoxide and carbon dioxide

**5.3 Advice for firefighters****Protective equipment:**

Wear self-contained respiratory protective device.

Wear fully protective suit.

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**SECTION 6: Accidental release measures****6.1 Personal precautions, protective equipment and emergency procedures**

Wear protective equipment. Keep unprotected persons away.  
Do not inhale vapours. Avoid contact with the eyes and skin.  
Ensure adequate ventilation  
Keep away from ignition sources.  
Evacuate the danger area, observe emergency procedures, consult an expert.

**6.2 Environmental precautions**

Do not allow product to reach sewage system or any water course.  
Avoid penetration into drainage system because of danger of explosion.

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

Absorb with liquid-binding material (e.g. Rotisorb® Art.-Nr. 1710.1).  
Dispose contaminated material as waste according to item 13.  
Ensure adequate ventilation.

**6.4 Reference to other sections**

See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

**SECTION 7: Handling and storage****7.1 Precautions for safe handling**

Keep receptacles tightly sealed.  
Work only in fume cupboard.  
Keep containers, equipment and working place clean.

**Information about fire - and explosion protection:**

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.  
Keep respiratory protective device available.

**7.2 Conditions for safe storage, including any incompatibilities****Storage:****Requirements to be met by storerooms and receptacles:**

Store in a cool location.

**Information about storage in one common storage facility:**

Store away from foodstuffs.  
Store away from oxidising agents.  
Do not store together with acids.

**Further information about storage conditions:**

Store receptacle in a well ventilated area.  
Keep ignition sources away - Do not smoke.

**Recommended storage temperature:**

15 - 25 °C

**7.3 Specific end use(s)**

No further relevant information available.

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## SECTION 8: Exposure controls/personal protection

### Additional information about design of technical facilities:

No further data; see item 7.

### 8.1 Control parameters

#### Ingredients with limit values that require monitoring at the workplace:

##### 67-56-1 methanol

WEL (Great Britain)	Short-term value: 333 mg/m <sup>3</sup> , 250 ppm Long-term value: 266 mg/m <sup>3</sup> , 200 ppm Sk
IOELV (EU)	Long-term value: 260 mg/m <sup>3</sup> , 200 ppm Skin

#### DNELs

##### Worker

#### Long-term exposure - systemic effects:

##### 67-56-1 methanol

Dermal	DNEL	40 mg/kg (worker)
Inhalative	DNEL	260 mg/m <sup>3</sup> (worker)

#### Long-term exposure - local effects:

##### 67-56-1 methanol

Inhalative	DNEL	260 mg/m <sup>3</sup> (worker)
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#### Short-term exposure - systemic effects:

##### 67-56-1 methanol

Dermal	DNEL	40 mg/kg (worker)
Inhalative	DNEL	260 mg/m <sup>3</sup> (worker)

#### Short-term exposure - local effects:

##### 67-56-1 methanol

Inhalative	DNEL	260 mg/m <sup>3</sup> (worker)
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##### Consumer

#### Long-term exposure - systemic effects:

##### 67-56-1 methanol

Oral	DNEL	8 mg/kg (Customer)
Dermal	DNEL	8 mg/kg (Customer)
Inhalative	DNEL	50 mg/m <sup>3</sup> (Customer)

#### Long-term exposure - local effects:

##### 67-56-1 methanol

Inhalative	DNEL	50 mg/m <sup>3</sup> (Customer)
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#### Short-term exposure - systemic effects:

##### 67-56-1 methanol

Oral	DNEL	8 mg/kg (Customer)
Dermal	DNEL	8 mg/kg (Customer)
Inhalative	DNEL	50 mg/m <sup>3</sup> (Customer)

#### Short-term exposure - local effects:

##### 67-56-1 methanol

Inhalative	DNEL	50 mg/m <sup>3</sup> (Customer)
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PNECs	
<b>67-56-1 methanol</b>	
PNEC	24 mg/kg (Soil) 100 mg/l (Sewage treatment plant) 15 mg/l (Marine water) 570 mg/kg (Fresh Water sediment) 154 mg/l (Fresh Water)

**Additional information:**

The lists valid during the making were used as basis.

**8.2 Exposure controls****Personal protective equipment:****General protective and hygienic measures:**

Do not eat, drink or smoke while working.  
Immediately remove all soiled and contaminated clothing.  
Do not inhale gases / fumes / aerosols.  
Clean skin thoroughly immediately after handling the product.  
Avoid contact with the eyes and skin.

**Individual protection measures**

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

**Respiratory protection:**

Required when vapours/aerosols are generated.  
Filter AX (colour code: brown)

**Protection of hands:**

Protective gloves  
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.  
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

**Material of gloves**

Butylcaoutchouc, thickness: 0,7 mm

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

**Penetration time of glove material**

Value for the permeation: Level  $\geq 6$

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

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

Butylcaoutchouc, thickness: 0,7 mm

Value for the permeation: Level  $\geq$  6

**Eye protection:**



Tightly sealed goggles

**Body protection:**

Protective work clothing

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

#### General Information

#### Appearance:

<b>Form:</b>	Fluid
<b>Colour:</b>	Green
<b>Odour:</b>	Characteristic
<b>Odour threshold:</b>	No information available.

**pH-value:** No information available.

#### Change in condition

<b>Melting point/Melting range:</b>	-98 °C
<b>Boiling point/Boiling range:</b>	64 °C

**Flash point:** 11 °C

**Flammability (solid, gaseous):** No information available

**Ignition temperature:** 455 °C

**Decomposition temperature:** No information available

**Self-igniting:** Product is not self-igniting.

**Danger of explosion:** Product is not explosive. However, formation of explosive air/vapour mixtures is possible.

#### Explosion limits:

<b>Lower:</b>	5.5 Vol %
<b>Upper:</b>	44 Vol %

**Oxidizing properties:** No information available.

**Vapour pressure at 20 °C:** 128 hPa

**Density at 20 °C:** 0.79 g/cm<sup>3</sup>

**Relative density** No Information available.

**Vapour density** No information available

**Evaporation rate** No information available

**Solubility in / Miscibility with water:**

Fully miscible.

**Partition coefficient (n-octanol/water):** No information available

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**Viscosity:****Dynamic:**

No information available.

**Kinematic:**

No information available.

**9.2 Other information**

No further relevant information available.

## SECTION 10: Stability and reactivity

**10.1 Reactivity**

Fumes can combine with air to form an explosive mixture.

**10.2 Chemical stability****Thermal decomposition / conditions to be avoided:**

No decomposition if used and stored according to specifications.

**10.3 Possibility of hazardous reactions**Danger of explosion with:

perchlorates  
perchloric acid  
chromosulfuric acid

chlorates

halogens

hydrides

Magnesium

hydrogen peroxide

Oxidizing agents

Nitric acid

Exothermic reaction with:

Reducing agents

Acids

acid halides

Acid anhydrides

Chloroform

Generates dangerous gases or fumes in contact with:

Alkali metals

Alkaline earth metals

**10.4 Conditions to avoid**

Heat, flammes and sparks

**10.5 Incompatible materials:**

various plastics

zinc alloys

**10.6 Hazardous decomposition products:**

In case of fire: see item 5.

## SECTION 11: Toxicological information

**11.1 Information on toxicological effects****Acute toxicity:****LD/LC50 values relevant for classification:****67-56-1 methanol**

Oral	LD <sub>50</sub> *	5628 mg/kg (rat) (IUCLID)
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## Safety data sheet

according to 1907/2006/EC, Article 31



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	LDLO	143 mg/kg (Men) (TOXNET)
Dermal	LD <sub>50</sub> *	15800 mg/kg (rabbit) (TOXNET)
Inhalative	LC <sub>50</sub> /4h *	85.3 mg/l (rat) (IUCLID)

**Primary irritant effect:****on the skin:**

Danger through skin adsorption.  
Repeated exposure may cause skin dryness or cracking.

**on the eye:**

Irritating effect.

**after inhalation:**

Absorption  
Irritation symptoms in the respiratory tract.

**Sensitisation:**

No sensitising effects known.

**CMR effects:****Germ cell mutagenicity:**

No Information available.

**Carcinogenicity:**

Did not show carcinogenic effects in animal experiments. (IUCLID)

**Reproductive toxicity:**

No Information available.

**Aspiration hazard:**

No Information available.

**Specific target organ toxicity - single exposure** Causes damage to organs.

**Specific target organ toxicity - repeated exposure**

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

**Additional toxicological information:**After swallowing:

Nausea

Vomiting

Absorption

Systemic effects:

Blood pressure drop

Irritation

inebriation

Headache

Dizziness

Dizziness

Impairment of vision

Spasms

Narcosis

Coma

Possibly respiratory arrest and heart attack

Symptoms may be delayed.

Irreversible damage of the optical nerve.

blindness

Damage of liver and kidneys.

**Further information:**

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

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**Trade name: Papanicolaou polychrome solution 3b (EA 50)**

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## SECTION 12: Ecological information

### 12.1 Toxicity

#### Aquatic toxicity:

<b>Fish toxicity:</b>	
<b>67-56-1 methanol</b>	
LC <sub>50</sub>	15400 mg/l/96 h (Lepomis macrochirus) (ECOTOX DATABASE) in weichem Wasser
<b>Daphnia toxicity:</b>	
<b>67-56-1 methanol</b>	
EC5	>10 000 mg/l (Entosiphon sulcatum) (Lit.) 72 h
EC50	>10 000 mg/l/48 h (Daphnia magna) (IUCLID)
<b>Algeal toxicity:</b>	
<b>67-56-1 methanol</b>	
IC5	8000 mg/l (Scenedesmus quadricauda) (IUCLID) 8 d
<b>Bacterial toxicity:</b>	
<b>67-56-1 methanol</b>	
EC5	6600 mg/l (Pseudomonas putida) (IUCLID) 16 h

### 12.2 Persistence and degradability

Biodegradation: 99% / 30d (OECD 301D)  
Easily biodegradable

### 12.3 Bioaccumulative potential

No Information available.

### 12.4 Mobility in soil

No further relevant information available.

#### Ecotoxic effects:

#### Remark:

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

### 12.5 Results of PBT and vPvB assessment

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

### 12.6 Other adverse effects

No further relevant information available.

## SECTION 13: Disposal considerations

### Waste treatment methods

#### Recommendation

This material and its container must be disposed of as hazardous waste.  
The disposal is regionally differently regulated, therefore the kind of disposal is to be inquired at the responsible authorities.

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**Trade name: Papanicolaou polychrome solution 3b (EA 50)**



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**Uncleaned packaging:****Recommendation:**

Disposal according to official regulations.

**Recommended cleansing agents:** Water, if necessary together with cleansing agents.

### SECTION 14: Transport information

<b>14.1 UN-Number</b>	
ADR, IMDG, IATA	UN1230
<b>14.2 UN proper shipping name</b>	
ADR IMDG, IATA	1230 METHANOL METHANOL
<b>14.3 Transport hazard class(es)</b>	
ADR, IMDG, IATA	
 	
<b>Class Label</b>	3 Flammable liquids. 3+6.1
<b>14.4 Packing group</b>	
ADR, IMDG, IATA	II
<b>14.5 Environmental hazards:</b>	
<b>Marine pollutant:</b>	No
<b>14.6 Special precautions for user</b>	
<b>Danger code (Kemler):</b>	Warning: Flammable liquids. 336
<b>EMS Number:</b>	F-E,S-D
<b>14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b>	
Not applicable.	
<b>Transport/Additional information:</b>	
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<b>ADR</b>	
<b>Limited quantities (LQ)</b>	1L
<b>Excepted quantities (EQ)</b>	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
<b>Transport category</b>	2
<b>Tunnel restriction code</b>	D/E
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<b>IMDG</b>	
<b>Limited quantities (LQ)</b>	1L
<b>Excepted quantities (EQ)</b>	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
<b>UN "Model Regulation":</b>	UN1230, METHANOL, 3 (6.1), II

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**Trade name: Papanicolaou polychrome solution 3b (EA 50)**

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## SECTION 15: Regulatory information

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

#### National regulations:

#### Information about limitation of use:

Employment restrictions concerning pregnant and lactating women must be observed.  
Employment restrictions concerning juveniles must be observed.

#### Breakdown regulations:

#### Waterhazard class:

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

#### Other regulations, limitations and prohibitive regulations

**Explosion group:** IIA

**Temperature class:** T2

### 15.2 Chemical safety assessment

A Chemical Safety Assessment has not been carried out.

## SECTION 16: Other information

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

#### Relevant phrases

H225 Highly flammable liquid and vapour.

H301 Toxic if swallowed.

H311 Toxic in contact with skin.

H331 Toxic if inhaled.

H370 Causes damage to organs.

R11 Highly flammable.

R23/24/25 Toxic by inhalation, in contact with skin and if swallowed.

R39/23/24/25 Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.

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

**Contact:** Herr Heine

#### Abbreviations and acronyms:

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

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

ICAO: International Civil Aviation Organisation

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

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

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

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

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

LD50\*: Lethal Dose, 50 percent (Not relevant for classification)

LD50\*: Lethal Concentration, 50 percent (Not relevant for classification)

Flam. Liq. 2: Flammable liquids, Hazard Category 2

Acute Tox. 3: Acute toxicity, Hazard Category 3

Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2

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**Safety data sheet**  
according to 1907/2006/EC, Article 31



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STOT SE 1: Specific target organ toxicity - Single exposure, Hazard Category 1

\* **Data compared to the previous version altered.**

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GB