

Trade name: Rgs May Grünwald mod f Mikr

Substance number: 184100

Version: 4 / CH

Date revised: 17.12.2018

Replaces Version: 3 / CH

Print date: 14.01.20

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

### **1.1. Product identifier**

Rgs May Grünwald mod f Mikr

Item No. 18410000

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

#### **Use of the substance/preparation**

In Vitro Diagnostic Medical Device, Reagent for analyses

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

#### **Address/Manufacturer**

Hänseler AG

Industriestrasse 35

9100 Herisau

Telephone no. 0041 (0)71 353 58 58

E-mail address of sdb@haenseler.ch

person responsible

for this SDS

### **1.4. Emergency telephone number**

Switzerland :145 / Abroad +41 (0)44 251 51 51

## **SECTION 2: Hazards identification**

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

#### **Classification (Regulation (EC) No. 1272/2008)**

Classification (Regulation (EC) No. 1272/2008)

Flam. Liq. 2 H225

Acute Tox. 3 H301

Acute Tox. 3 H311

Acute Tox. 3 H331

STOT SE 1 H370

The product is classified and labelled in accordance with Regulation (EC) No 1272/2008

For explanation of abbreviations see section 16.

### **2.2. Label elements**

#### **Labelling according to regulation (EC) No 1272/2008**

##### **Hazard pictograms**



##### **Signal word**

Danger

##### **Hazard statements**

H225

Highly flammable liquid and vapour.

H370

Causes damage to organs.

H301+H311+H331

Toxic if swallowed, in contact with skin or if inhaled.

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**Precautionary statements**

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301+P310	IF SWALLOWED: Immediately call a POISON CENTER or doctor.
P304+P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P308+P311	IF exposed or concerned: Call a POISON CENTER or doctor.
P321	Specific treatment (see ... on this label).
P403+P233	Store in a well-ventilated place. Keep container tightly closed.

**Hazardous component(s) to be indicated on label (Regulation (EC) No. 1272/2008)**

contains Methanol

**SECTION 3: Composition/information on ingredients****3.1. Substances****Molecular weight**

Value	32.04	g/mol
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**Hazardous ingredients****Methanol**

CAS No.	67-56-1		
EINECS no.	200-659-6		
Registration no.	01-2119433307-44-XXXX		
Concentration	>= 50		%
Classification (Regulation (EC) No. 1272/2008)			
	Flam. Liq. 2		H225
	Acute Tox. 3		H301
	Acute Tox. 3		H311
	Acute Tox. 3		H331
	STOT SE 1		H370

Concentration limits (Regulation (EC) No. 1272/2008)

STOT SE 1	H370	>= 10
STOT SE 2	H371	>= 3 < 10

**Further ingredients****disodium 2-(2,4,5,7-tetrabromo-6-oxido-3-oxoxanthen-9-yl)benzoate**

CAS No.	17372-87-1		
EINECS no.	241-409-6		
Concentration		< 1	%
Advice: [4]			
Classification (Regulation (EC) No. 1272/2008)			
	Eye Irrit. 2		H319

**methylthioninium chloride**

CAS No.	61-73-4		
EINECS no.	200-515-2		
Concentration		< 1	%
Advice: [4]			
Classification (Regulation (EC) No. 1272/2008)			
	Acute Tox. 4		H302

**Note**

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[4] Voluntary information

## **SECTION 4: First aid measures**

### **4.1. Description of first aid measures**

#### **General information**

Remove contaminated clothing immediately and dispose of safely. Poisonous symptoms can first be observed after several hours, therefore medical observation for at least 48 hours is necessary.

#### **After inhalation**

Ensure supply of fresh air. In case of respiratory arrest induce breathing with a respiratory device. Seek medical advice.

#### **After skin contact**

After contact with skin, wash immediately with plenty of water. Consult a doctor if skin irritation persists.

#### **After eye contact**

Separate eyelids, wash the eyes thoroughly with water (15 min.). Take medical treatment.

#### **After ingestion**

Rinse out mouth and give plenty of water to drink. Induce vomiting if patient is conscious, seek medical advice.

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

Nausea, Vomiting, Headache, Dizziness, Intoxication, Disturbance of vision, Danger of blindness. Systemic effects: Acidosis, Cardiovascular disturbance, Excitement, Convulsions, Narcosis, coma

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

#### **Hints for the physician / treatment**

Symptoms appear mostly after several hours.

## **SECTION 5: Firefighting measures**

### **5.1. Extinguishing media**

#### **Suitable extinguishing media**

Carbon dioxide, Dry powder, Water, Foam

#### **Non suitable extinguishing media**

Full water jet

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

The product is combustible. Vapours heavier than air. Can build mixtures of gas and air which are capable of explosion. Toxic aniline fumes

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

#### **Special protective equipment for fire-fighting**

Use self-contained breathing apparatus. Wear protective clothing.

#### **Other information**

Do not discharge into surface waters/groundwater. Cool endangered containers with water spray jet.

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

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

Do not inhale vapours. Avoid contact with skin, eyes and clothing. Ensure supply of fresh air.

### **6.2. Environmental precautions**

Do not discharge into the drains/surface waters/groundwater. Explosive

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

Pick up with absorbent material (e.g. general-purpose binder). When picked up, treat material as prescribed under Section 13 "Disposal". Ensure adequate ventilation.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

#### Advice on safe handling

Work only in fume cupboards. Avoid development of dusts/ billows/ steams. Avoid inhaling dusts/ billows/ steams.

#### Advice on protection against fire and explosion

Keep away from sources of ignition - No smoking. Take action to prevent static discharges.

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

#### Recommended storage temperature

Value	15	25	°C
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#### Requirements for storage rooms and vessels

Do not use aluminium containers. Do not use zinc containers. plastic materials

#### Hints on storage assembly

Do not store together with foodstuffs.

#### Further information on storage conditions

Keep container tightly closed, cool and dry. Keep locked up and out of the reach of children.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### Exposure limit values

##### Methanol

List	SUVA			
Type	MAK			
Value	260	mg/m <sup>3</sup>	200	ppm(V)
Short term exposure limit	1040	mg/m <sup>3</sup>	800	ppm(V)

Skin resorption / sensibilisation: H; Pregnancy group: S; Status: 2017; Remarks: H B SSc; ZNS, Sehen; INRS, NIOSH

#### Derived No/Minimal Effect Levels (DNEL/DMEL)

##### Methanol

Type of value	Derived No Effect Level (DNEL)	
Reference group	Worker	
Duration of exposure	Acute	
Route of exposure	dermal	
Mode of action	Systemic effects	
Concentration	40	mg/kg/d

Type of value	Derived No Effect Level (DNEL)	
Reference group	Worker	
Duration of exposure	Acute	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	260	mg/m <sup>3</sup>

Type of value	Derived No Effect Level (DNEL)	
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Reference group	Worker	
Duration of exposure	Acute	
Route of exposure	inhalative	
Mode of action	Local effects	
Concentration	260	mg/m <sup>3</sup>
Type of value	Derived No Effect Level (DNEL)	
Reference group	Worker	
Duration of exposure	Long term	
Route of exposure	dermal	
Mode of action	Systemic effects	
Concentration	40	mg/kg/d
Type of value	Derived No Effect Level (DNEL)	
Reference group	Worker	
Duration of exposure	Long term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	260	mg/m <sup>3</sup>
Type of value	Derived No Effect Level (DNEL)	
Reference group	Worker	
Duration of exposure	Long term	
Route of exposure	inhalative	
Mode of action	Local effects	
Concentration	260	mg/m <sup>3</sup>
Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Acute	
Route of exposure	dermal	
Mode of action	Systemic effects	
Concentration	8	mg/kg/d
Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Acute	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	50	mg/m <sup>3</sup>
Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Acute	
Route of exposure	oral	
Mode of action	Systemic effects	
Concentration	8	mg/kg/d
Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long term	
Route of exposure	inhalative	
Mode of action	Local effects	
Concentration	50	mg/m <sup>3</sup>
Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	

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Duration of exposure	Long term	
Route of exposure	oral	
Mode of action	Systemic effects	
Concentration	8	mg/kg/d

Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long term	
Route of exposure	inhalative	
Mode of action	Systemic effects	
Concentration	50	mg/m <sup>3</sup>

Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Long term	
Route of exposure	dermal	
Mode of action	Systemic effects	
Concentration	8	mg/kg/d

Type of value	Derived No Effect Level (DNEL)	
Reference group	Consumer	
Duration of exposure	Acute	
Route of exposure	inhalative	
Mode of action	Local effects	
Concentration	50	mg/m <sup>3</sup>

**Predicted No Effect Concentration (PNEC)**

**Methanol**

Type of value	PNEC	
Type	Freshwater	
Concentration	154	mg/l

Type of value	PNEC	
Type	Saltwater	
Concentration	15.4	mg/l

Type of value	PNEC	
Type	Sediment	
Concentration	570.4	mg/kg

Type of value	PNEC	
Type	Soil	
Concentration	23.5	mg/kg

Type of value	PNEC	
Type	Sewage treatment plant (STP)	
Concentration	100	mg/l

Conditions	Intermittend	
Concentration	1540	mg/l

**8.2. Exposure controls**

**Exposure controls**

See Section 7. No measures exceeding the ones mentioned necessary.

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**General protective and hygiene measures**

Take off immediately all contaminated clothing. Preventative skin protection. Wash hands and face after work. Do not eat or drink during work time. Work only in fume cupboards. Do not inhale dust/fumes/mist.

**Respiratory protection**

Breathing apparatus in the event of vapours.

**Hand protection**

The glove material must be sufficient impermeable and resistant to the substance. Check the tightness before wear. Gloves should be well cleaned before being removed, then stored in a well ventilated location.

Appropriate Material	Butyl rubber		
Material thickness	0.7	mm	
Breakthrough time	> 480	min	
Appropriate Material	viton		
Material thickness	0.7	mm	
Breakthrough time	> 120	min	

**Eye protection**

Tightly fitting safety glasses

**Body protection**

Fire-resistant antistatic protective clothing

**Environmental exposure controls**

Do not allow to enter drains or water courses.

**SECTION 9: Physical and chemical properties****9.1. Information on basic physical and chemical properties**

<b>Form</b>	liquid		
<b>Colour</b>	blue		
<b>Odour</b>	of methanol		
<b>Melting point</b>			
Remarks	not determined		
<b>Freezing point</b>			
Value	- 98		°C
<b>Initial boiling point and boiling range</b>			
Value	appr. 65		°C
Source	Merck Index		
<b>Flash point</b>			
Value	appr. 12		°C
<b>Upper/lower flammability or explosive limits</b>			
Lower explosion limit	5.5	to	36.5
Source	Safety Data Sheet	Supplier	%(V)
<b>Vapour pressure</b>			
Value	appr. 125		hPa
Temperature	20		°C
<b>Vapour density</b>			
Value	1.1		
Temperature	20		°C
<b>Density</b>			
Value	0.79		g/cm <sup>3</sup>
Temperature	20		°C

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**Solubility in water**

Temperature	20	°C
Remarks	soluble	

**Partition coefficient: n-octanol/water**

Reference substance	Methanol
log Pow	-0.74

**Ignition temperature**

Value	455	°C
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**Auto-ignition temperature**

Value	> 455	°C
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**Decomposition temperature**

Remarks	To avoid thermal decomposition, do not overheat.
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**Viscosity****dynamic**

Value	0.544	to	0.59	mPa.s
Temperature	25	°C		
Method	DIN 51550			

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

Forms explosive mixture with air are possible.

**SECTION 10: Stability and reactivity****10.1. Reactivity**

Formation of explosive gas/air mixtures.

**10.2. Chemical stability**

Stable under recommended storage and handling conditions (see section 7).

**10.3. Possibility of hazardous reactions**

No hazardous reactions known. No decomposition if stored and applied as directed.

**10.4. Conditions to avoid**

Heat. Protect from atmospheric moisture and water.

**10.5. Incompatible materials**Oxidising agents, Halogens, Reaction with nitric acid. Magnesium, hydrogen peroxide (H<sub>2</sub>O<sub>2</sub>).  
Exothermic reaction with: Acids, Reducing agents, Incompatible with acid chlorides and acid anhydrides.**10.6. Hazardous decomposition products**

No data available.

**SECTION 11: Toxicological information****11.1. Information on toxicological effects****Acute oral toxicity**

ATE	143.286	mg/kg
Method	calculated value (Regulation (EC) No. 1272/2008)	

**Acute oral toxicity (Components)****Methanol**

Species	Human	
LDLo	143	mg/kg



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Source RTECS

**Acute dermal toxicity**

ATE 300.6 mg/kg  
 Method calculated value (Regulation (EC) No. 1272/2008)

**Acute inhalational toxicity**

ATE 0.501 mg/l  
 Administration/Form Dust/Mist  
 Method calculated value (Regulation (EC) No. 1272/2008)

**Acute inhalative toxicity (Components)****Methanol**

Species rat  
 LC50 131.25 mg/l  
 Duration of exposure 4 h  
 Administration/Form Vapors  
 Source ECHA

**Skin corrosion/irritation**

Remarks Danger of resorption through the skin.

**Skin corrosion/irritation (Components)****Methanol**

Species rabbit  
 Remarks No effect of irritation known.  
 Source ECHA

**Methanol**

Remarks Repeated and prolonged skin contact may lead to defatting and irritation of the skin.

**Serious eye damage/irritation**

Remarks slightly irritating (Eye)

**Serious eye damage/irritation (Components)****Methanol**

Species rabbit  
 Method OECD 405  
 Remarks None

**Reproduction toxicity (Components)****Methanol**

Species Rats (male/female)  
 Dose 1.33 mg/l  
 evaluation No negative effects  
 Source Safety Data Sheet Supplier

**Specific Target Organ Toxicity (STOT) (Components)****Methanol****Single exposure**

evaluation Causes damage to organs.  
 Route of exposure oral  
 Organs: Eyes  
 Species Human

**Methanol**

Route of exposure inhalative  
 Species rat  
 NOAEL 0.13 mg/l  
 Duration of exposure 365 d

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Method OECD 453  
Source Merck KGaA Safety Data Sheet

**Methanol**

Route of exposure inhalative  
Species Rats (male/female)  
LOAEL 1.3 mg/l  
Duration of exposure 365 d  
Method OECD 453  
Source Merck KGaA Safety Data Sheet

**Experience in practice**

When swallowed, there is a danger of blindness. Causes a state or intoxication. Inhalation causes narcotic effect/intoxication.

**Other information**

The toxicological information is based on the main components.  
Observe the usual precautions for handling chemicals.

**SECTION 12: Ecological information****12.1. Toxicity****Fish toxicity**

Species Bluegill (*Lepomis macrochirus*)  
LC50 15400 mg/l  
Duration of exposure 96 h

**Fish toxicity (Components)****Methanol**

Species Bluegill (*Lepomis macrochirus*)  
LC50 15400 mg/l  
Duration of exposure 96 h  
Source (EPA 600/3-75/009)

**Daphnia toxicity**

Species *Daphnia magna*  
EC50 > 10000 mg/l  
Duration of exposure 48 h  
Source IUCLID

**Daphnia toxicity (Components)****Methanol**

Species *Daphnia magna*  
EC50 > 10000 mg/l  
Duration of exposure 48 h  
Source IUCLID

**Methanol**

Species *Daphnia magna*  
EC50 > 1000 mg/l  
Duration of exposure 48 h  
Method OECD 202

**Algae toxicity**

Species *Scenedesmus quadricauda*  
IC5 8000 mg/l  
Duration of exposure 8 d

**Algae toxicity (Components)****Methanol**

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Species	Pseudokirchneriella subcapitata	
EC50	22000	mg/l
Duration of exposure	96	h
Method	OECD 201	
Source	Merck KGaA Safety Data Sheet	

**Bacteria toxicity**

Species	Pseudomonas putida	
EC5	6600	mg/l
Duration of exposure	16	h

**Bacteria toxicity (Components)****Methanol**

Species	activated sludge	
IC50	> 1000	mg/l
Duration of exposure	3	h
Method	OECD 209	
Source	Merck KGaA Safety Data Sheet	

**12.2. Persistence and degradability****General information**

Do not allow it to reach soil, ground water, water bodies or sewage system.

**Biodegradability**

Reference substance	Methanol
Remarks	The product is biodegradable.
Source	Safety Data Sheet Supplier

**Ready degradability**

Value	76	%
Duration of test	5	d
Source	IUCLID	

**Ready degradability (Components)****Methanol**

Value	99	%
Duration of test	30	d
Method	OECD 301D	
Source	Merck KGaA Safety Data Sheet	

**Methanol**

Value	95	%
Duration of test	20	d
Source	Safety Data Sheet Supplier	

**Chemical oxygen demand (COD)**

Value	1.42
Source	IUCLID

**Chemical oxygen demand (COD) (Components)****Methanol**

Value	1.42	mg/g
Source	IUCLID	

**Biochemical oxygen demand (BOD5)**

Value	0.6	to	1.12
Remarks	The product is biodegradable.		
Source	IUCLID		

**Biochemical oxygen demand (BOD5) (Components)**

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**Methanol**

Value	600	to	1120	mg/g
Duration of test	5	d		
Source	IUCLID			

**12.3. Bioaccumulative potential****Partition coefficient: n-octanol/water**

Reference substance	Methanol
log Pow	-0.74

**Octanol/water partition coefficient (log Pow) (Components)**

Methanol	
log Pow	-0.77

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

Moderately mobile in soils

**12.5. Results of PBT and vPvB assessment****General information**

Do not allow to enter drains or water courses

**Evaluation of persistence and bioaccumulation potential (Components)****Methanol**

The Substance doesn't meet PBT/vPvB-criteria

**12.6. Other adverse effects****Behaviour in environment compartments**

Because of the n-octanol/water distribution coefficient (log pOW) accumulation in organisms is not possible.

**Behaviour in sewers [waste treatment plants]**

When low concentrations are discharged correctly into adapted biological sewage treatment plants, disturbance of the degradation activity of activated sludge is not likely.

**General information / ecology**

Do not allow it to reach soil, ground water, water bodies or sewage system.

**SECTION 13: Disposal considerations****13.1. Waste treatment methods****Disposal recommendations for the product**

Disposal in compliance with local and national regulations.

**Disposal recommendations for packaging**

Dispose of as unused product.

**SECTION 14: Transport information**

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	Land transport ADR/RID	Marine transport IMDG/GGVSee	Air transport ICAO/IATA
Tunnel restriction code	D/E		
14.1. UN number	1230	1230	1230
14.2. UN proper shipping name	METHANOL, Solution	METHANOL, Solution	METHANOL, Solution
14.3. Transport hazard class(es)	3	3	3
Subsidiary risk	6.1	6.1	6.1
Label			
14.4. Packing group	II	II	II
Limited Quantity	1 I		
Transport category	2		

## SECTION 15: Regulatory information

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

#### Water Hazard Class (Germany)

Water Hazard Class (Germany) WGK 1

Remarks Classification according to Annex 4 VwVwS

### 15.2. Chemical safety assessment

For this substance a chemical safety assessment has been carried out.

## SECTION 16: Other information

### Hazard statements listed in Chapter 3

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.

### CLP categories listed in Chapter 3

Acute Tox. 3 Acute toxicity, Category 3  
 Flam. Liq. 2 Flammable liquid, Category 2  
 STOT SE 1 Specific target organ toxicity - single exposure, Category 1

### Supplemental information

Relevant changes compared with the previous version of the safety data sheet are marked with: \*\*\*  
 This information is based on our present state of knowledge. However, it should not constitute a guarantee for any specific product properties and shall not establish a legally valid relationship.

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