

# KIT SAFETY DATA SHEET



Kit Product Name LEUCOPERM

Kit Catalogue Number(s) BUF09C

Revision date 23-Jun-2023

## Kit Contents

Catalogue Number(s)	Product Name
	LEUCOPERM REAGENT A - FIXATION REAGENT - #10187
	LEUCOPERM REAGENT B - PERMEABILISATION REAGENT - #10509



# SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:  
Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008

Revision date 20-Jun-2023

Revision Number 3

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

### 1.1. Product identifier

**Product Name** LEUCOPERM REAGENT A - FIXATION REAGENT - #10187  
**Safety data sheet number** 10187  
**Nanoforms** Not applicable  
**Pure substance/mixture** Mixture

Contains Formaldehyde

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

**Recommended use** For research use only  
**Uses advised against** No information available

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

#### Corporate Headquarters

Bio-Rad Laboratories Inc.  
1000 Alfred Nobel Drive  
Hercules, CA 94547  
USA

#### Manufacturer

Bio-Rad  
Endeavour House  
Langford Business Park  
Kidlington  
Oxford  
OX5 1GE  
United Kingdom  
e-mail:  
antibody\_safetydatasheets@bio-rad.com

#### Legal Entity / Contact Address

Bio-Rad Laboratories Ltd  
The Junction  
Station Road  
Watford, WD17 1ET  
UK  
  
Bio-Rad Laboratories Pvt. Ltd.  
Bio-Rad House  
86-87, Udyog Vihar Phase IV Gurgaon  
122005  
Haryana India  
  
Bio-Rad Laboratories (Pty) Ltd.  
34 Bolton Road  
Parkwood, Johannesburg 2193  
South Africa

For further information, please contact

**Technical Service** 00800 00246 723  
Ireland: Techsupport.UK@bio-rad.com  
India: support.india@bio-rad.com  
South Africa: cdg\_techsupport\_eemea@bio-rad.com

### 1.4. Emergency telephone number

24 Hour Emergency Phone Number CHEMTREC Ireland: 353-19014670  
CHEMTREC India: 000-800-100-7141  
CHEMTREC South Africa: 0-800-983-611

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

<b>Acute toxicity - Oral</b>	Category 4 - (H302)
<b>Acute toxicity - Inhalation (Gases)</b>	Category 4 - (H332)
<b>Skin corrosion/irritation</b>	Category 1 Sub-category B - (H314)
<b>Serious eye damage/eye irritation</b>	Category 1 - (H318)
<b>Skin sensitisation</b>	Category 1 - (H317)
<b>Germ cell mutagenicity</b>	Category 2 - (H341)
<b>Carcinogenicity</b>	Category 1B - (H350)
<b>Specific target organ toxicity — single exposure</b>	Category 3 - (H335)
Category 3 Respiratory irritation	

## 2.2. Label elements

Contains Formaldehyde



**Signal word**

Danger

### Hazard statements

H302 - Harmful if swallowed

H314 - Causes severe skin burns and eye damage

H317 - May cause an allergic skin reaction

H332 - Harmful if inhaled

H335 - May cause respiratory irritation

H341 - Suspected of causing genetic defects

H350 - May cause cancer

### Precautionary Statements - EU (§28, 1272/2008)

P280 - Wear protective gloves/protective clothing/eye protection/face protection

P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower]

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

P302 + P352 - IF ON SKIN: Wash with plenty of soap and water

P301 + P330 + P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting

P501 - Dispose of contents/container in accordance with local, regional, national, and international regulations as applicable

## 2.3. Other hazards

## SECTION 3: Composition/information on ingredients

### 3.1 Substances

Not applicable

### 3.2 Mixtures

Chemical name	Weight-%	REACH registration number	EC No (EU Index No)	Classification according to Regulation (EC) No. 1272/2008 [CLP]	Specific concentration limit (SCL)	M-Factor	M-Factor (long-term)
Formaldehyde 50-00-0	10 - 20	No data available	(605-001-00-5)	Acute Tox. 3 (H301) Acute Tox. 3 (H311)	Eye Irrit. 2 :: 1%≤C<3%	-	-

			200-001-8	Acute Tox. 3 (H331) Skin Corr. 1B (H314) Eye Dam. 1 (H318) Skin Sens. 1 (H317) Muta. 2 (H341) Carc. 1B (H350) STOT SE 3 (H335)	Skin Corr. 1B :: C>=5% Skin Irrit. 2 :: 1%<=C<5% Skin Sens. 1 :: C>=0.1% STOT SE 3 :: C>=5%		
Methanol 67-56-1	0.01 - 0.099	No data available	(603-001-00 -X) 200-659-6	Acute Tox. 3 (H301) Acute Tox. 3 (H311) Acute Tox. 3 (H331) STOT SE 1 (H370) Flam. Liq. 2 (H225)	STOT SE 1 :: C>=1%	-	-

**Full text of H- and EUH-phrases: see section 16**

#### Acute Toxicity Estimate

If LD50/LC50 data is not available or does not correspond to the classification category, then the appropriate conversion value from CLP Annex I, Table 3.1.2, is used to calculate the acute toxicity estimate (ATEmix) for classifying a mixture based on its components

Chemical name	Oral LD50 mg/kg	Dermal LD50 mg/kg	Inhalation LC50 - 4 hour - dust/mist - mg/L	Inhalation LC50 - 4 hour - vapour - mg/L	Inhalation LC50 - 4 hour - gas - ppm
Formaldehyde 50-00-0	100	2000	Inhalation LC50 Rat <463 ppm 4 h (vapor, Source: ECHA_API)	<463	Inhalation LC50 Rat <463 ppm 4 h (vapor, Source: ECHA_API) 463
Methanol 67-56-1	6200	15840	Inhalation LC50 Rat 22500 ppm 8 h (Source: JAPAN_GHS)	41.6976	Inhalation LC50 Rat 22500 ppm 8 h (Source: JAPAN_GHS)

This product does not contain candidate substances of very high concern at a concentration >=0.1% (Regulation (EC) No. 1907/2006 (REACH), Article 59)

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

<b>General advice</b>	Show this safety data sheet to the doctor in attendance. Immediate medical attention is required. IF exposed or concerned: Get medical advice/attention.
<b>Inhalation</b>	Remove to fresh air. If breathing has stopped, give artificial respiration. Get medical attention immediately. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. If breathing is difficult, (trained personnel should) give oxygen. Delayed pulmonary edema may occur. Get immediate medical attention.
<b>Eye contact</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Do not rub affected area. Remove contact lenses, if present and easy to do. Continue rinsing. Get immediate medical attention.
<b>Skin contact</b>	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Get immediate medical attention. May cause an allergic skin reaction.
<b>Ingestion</b>	Do NOT induce vomiting. Rinse mouth. Never give anything by mouth to an unconscious person. Get immediate medical attention.
<b>Self-protection of the first aider</b>	Ensure that medical personnel are aware of the material(s) involved, take precautions to

protect themselves and prevent spread of contamination. Avoid contact with skin, eyes or clothing. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. Avoid breathing vapours or mists. Use personal protective equipment as required. See section 8 for more information.

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

**Symptoms** Burning sensation. Itching. Rashes. Hives. Coughing and/ or wheezing. Difficulty in breathing.

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

**Note to doctors** Product is a corrosive material. Use of gastric lavage or emesis is contra-indicated. Possible perforation of stomach or esophagus should be investigated. Do not give chemical antidotes. Asphyxia from glottal edema may occur. Marked decrease in blood pressure may occur with moist rales, frothy sputum, and high pulse pressure. May cause sensitisation in susceptible persons. Treat symptomatically.

### **SECTION 5: Firefighting measures**

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

**Suitable Extinguishing Media** Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Large Fire** CAUTION: Use of water spray when fighting fire may be inefficient.

**Unsuitable extinguishing media** Do not scatter spilled material with high pressure water streams.

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

**Specific hazards arising from the chemical** The product causes burns of eyes, skin and mucous membranes. Thermal decomposition can lead to release of irritating gases and vapours. Product is or contains a sensitiser. May cause sensitisation by skin contact.

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

**Special protective equipment and precautions for fire-fighters** Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

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

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

**Personal precautions** Attention! Corrosive material. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Use personal protective equipment as required. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Avoid breathing vapours or mists.

**Other information** Refer to protective measures listed in Sections 7 and 8.

**For emergency responders** Use personal protection recommended in Section 8.

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

**Environmental precautions** Prevent further leakage or spillage if safe to do so. Should not be released into the environment. Do not allow to enter into soil/subsoil. Prevent product from entering drains.

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

**Methods for containment** Prevent further leakage or spillage if safe to do so.

<b>Methods for cleaning up</b>	Take up mechanically, placing in appropriate containers for disposal.
<b>Prevention of secondary hazards</b>	Clean contaminated objects and areas thoroughly observing environmental regulations.
<b>6.4. Reference to other sections</b>	
<b>Reference to other sections</b>	See section 8 for more information. See section 13 for more information.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

<b>Advice on safe handling</b>	Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. In case of insufficient ventilation, wear suitable respiratory equipment. Handle product only in closed system or provide appropriate exhaust ventilation. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash it before reuse. Remove contaminated clothing and shoes. Avoid breathing vapours or mists.
<b>General hygiene considerations</b>	Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product.

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

<b>Storage Conditions</b>	Keep containers tightly closed in a dry, cool and well-ventilated place. Keep out of the reach of children. Protect from moisture. Store locked up. Store away from other materials. Store according to product and label instructions.
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### 7.3. Specific end use(s)

<b>Risk Management Methods (RMM)</b>	The information required is contained in this Safety Data Sheet.
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## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### Exposure Limits

Chemical name	European Union	Austria	Belgium	Bulgaria	Croatia
Formaldehyde 50-00-0	TWA: 0.37 mg/m <sup>3</sup> TWA: 0.3 ppm *	TWA: 0.3 ppm TWA: 0.37 mg/m <sup>3</sup> STEL 0.6 ppm STEL 0.74 mg/m <sup>3</sup> Sh+	STEL: 0.3 ppm STEL: 0.38 mg/m <sup>3</sup>	STEL: 0.5 ppm STEL: 0.74 mg/m <sup>3</sup> STEL: 0.6 ppm Skin Sensitisation TWA: 0.37 mg/m <sup>3</sup> TWA: 0.3 ppm TWA: 0.62 mg/m <sup>3</sup>	TWA: 0.3 ppm TWA: 0.37 mg/m <sup>3</sup> TWA: 0.5 ppm TWA: 0.62 mg/m <sup>3</sup> STEL: 0.6 ppm STEL: 0.74 mg/m <sup>3</sup> Skin Sensitisation
Methanol 67-56-1	TWA: 200 ppm TWA: 260 mg/m <sup>3</sup> *	TWA: 200 ppm TWA: 260 mg/m <sup>3</sup> STEL 800 ppm STEL 1040 mg/m <sup>3</sup> H*	TWA: 200 ppm TWA: 266 mg/m <sup>3</sup> STEL: 250 ppm STEL: 333 mg/m <sup>3</sup> D*	TWA: 200 ppm TWA: 260.0 mg/m <sup>3</sup> K*	TWA: 200 ppm TWA: 260 mg/m <sup>3</sup> *
Chemical name	Cyprus	Czech Republic	Denmark	Estonia	Finland
Formaldehyde 50-00-0	STEL: 0.74 mg/m <sup>3</sup> STEL: 0.6 ppm TWA: 0.3 ppm TWA: 0.37 mg/m <sup>3</sup>	TWA: 0.37 mg/m <sup>3</sup> Ceiling: 0.74 mg/m <sup>3</sup> D* S+	TWA: 0.3 ppm TWA: 0.37 mg/m <sup>3</sup> STEL: 0.74 mg/m <sup>3</sup> STEL: 0.6 ppm	S+ TWA: 0.3 ppm TWA: 0.37 mg/m <sup>3</sup> TWA: 0.62 mg/m <sup>3</sup>	TWA: 0.3 ppm TWA: 0.37 mg/m <sup>3</sup> STEL: 0.6 ppm STEL: 0.74 mg/m <sup>3</sup>

				TWA: 0.5 ppm STEL: 0.6 ppm STEL: 0.74 mg/m <sup>3</sup>	
Methanol 67-56-1	* TWA: 200 ppm TWA: 260 mg/m <sup>3</sup>	TWA: 250 mg/m <sup>3</sup> Ceiling: 1000 mg/m <sup>3</sup> D*	TWA: 200 ppm TWA: 260 mg/m <sup>3</sup> H* STEL: 400 ppm STEL: 520 mg/m <sup>3</sup>	TWA: 200 ppm TWA: 250 mg/m <sup>3</sup> STEL: 250 ppm STEL: 350 mg/m <sup>3</sup> A*	TWA: 200 ppm TWA: 270 mg/m <sup>3</sup> STEL: 250 ppm STEL: 330 mg/m <sup>3</sup> iho*
<b>Chemical name</b>	<b>France</b>	<b>Germany TRGS</b>	<b>Germany DFG</b>	<b>Greece</b>	<b>Hungary</b>
Formaldehyde 50-00-0	TWA: 0.5 ppm TWA: 0.3 ppm TWA: 0.37 mg/m <sup>3</sup> TWA: 0.62 mg/m <sup>3</sup> STEL: 0.6 ppm STEL: 0.74 mg/m <sup>3</sup>	TWA: 0.3 ppm TWA: 0.37 mg/m <sup>3</sup> Sh+	TWA: 0.3 ppm TWA: 0.37 mg/m <sup>3</sup> Peak: 0.6 ppm Peak: 0.74 mg/m <sup>3</sup> skin sensitizer	TWA: 0.3 ppm TWA: 0.37 mg/m <sup>3</sup> STEL: 0.6 ppm STEL: 0.74 mg/m <sup>3</sup> Skin sensitization	TWA: 0.37 mg/m <sup>3</sup> sz+ STEL: 0.74 mg/m <sup>3</sup> b*
Methanol 67-56-1	TWA: 200 ppm TWA: 260 mg/m <sup>3</sup> STEL: 1000 ppm STEL: 1300 mg/m <sup>3</sup> *	TWA: 100 ppm TWA: 130 mg/m <sup>3</sup> H*	TWA: 100 ppm TWA: 130 mg/m <sup>3</sup> Peak: 200 ppm Peak: 260 mg/m <sup>3</sup> *	TWA: 200 ppm TWA: 260 mg/m <sup>3</sup> STEL: 250 ppm STEL: 325 mg/m <sup>3</sup> *	TWA: 260 mg/m <sup>3</sup> b*
<b>Chemical name</b>	<b>Ireland</b>	<b>Italy MDLPS</b>	<b>Italy AIDII</b>	<b>Latvia</b>	<b>Lithuania</b>
Formaldehyde 50-00-0	TWA: 0.3 ppm TWA: 0.5 ppm TWA: 0.37 mg/m <sup>3</sup> TWA: 0.62 mg/m <sup>3</sup> STEL: 0.6 ppm STEL: 0.738 mg/m <sup>3</sup> STEL: 0.62 mg/m <sup>3</sup> Sens+	TWA: 0.37 mg/m <sup>3</sup> TWA: 0.3 ppm TWA: 0.62 mg/m <sup>3</sup> TWA: 0.5 ppm STEL: 0.74 mg/m <sup>3</sup> STEL: 0.6 mg/m <sup>3</sup> cute*	senD+ STEL: 0.3 ppm STEL: 0.37 mg/m <sup>3</sup>	TWA: 0.37 mg/m <sup>3</sup> TWA: 0.62 mg/m <sup>3</sup> TWA: 0.3 ppm TWA: 0.5 ppm STEL: 0.74 mg/m <sup>3</sup> STEL: 0.6 ppm	J+ TWA: 0.3 ppm TWA: 0.37 mg/m <sup>3</sup> TWA: 0.62 mg/m <sup>3</sup> TWA: 0.5 ppm STEL: 0.74 mg/m <sup>3</sup> STEL: 0.6 ppm
Methanol 67-56-1	TWA: 200 ppm TWA: 260 mg/m <sup>3</sup> STEL: 600 ppm STEL: 780 mg/m <sup>3</sup> Sk*	TWA: 200 ppm TWA: 260 mg/m <sup>3</sup> cute*	TWA: 200 ppm TWA: 262 mg/m <sup>3</sup> STEL: 250 ppm STEL: 328 mg/m <sup>3</sup> cute*	TWA: 200 ppm TWA: 260 mg/m <sup>3</sup> Ada*	O* TWA: 200 ppm TWA: 260 mg/m <sup>3</sup>
<b>Chemical name</b>	<b>Luxembourg</b>	<b>Malta</b>	<b>Netherlands</b>	<b>Norway</b>	<b>Poland</b>
Formaldehyde 50-00-0	-	-	TWA: 0.15 mg/m <sup>3</sup> STEL: 0.5 mg/m <sup>3</sup>	TWA: 0.37 mg/m <sup>3</sup> TWA: 0.3 ppm A+ STEL: 0.74 mg/m <sup>3</sup> STEL: 0.6 ppm Ceiling: 1 ppm Ceiling: 1.2 mg/m <sup>3</sup>	Skin Sensitisation STEL: 0.74 mg/m <sup>3</sup> TWA: 0.37 mg/m <sup>3</sup> skóra*
Methanol 67-56-1	Peau* TWA: 200 ppm TWA: 260 mg/m <sup>3</sup>	skin* TWA: 200 ppm TWA: 260 mg/m <sup>3</sup>	TWA: 133 mg/m <sup>3</sup> H*	TWA: 100 ppm TWA: 130 mg/m <sup>3</sup> STEL: 150 ppm STEL: 162.5 mg/m <sup>3</sup> H*	STEL: 300 mg/m <sup>3</sup> TWA: 100 mg/m <sup>3</sup> Prohibited - substances or mixtures containing Methanol in weight concentration >3%;except fuels used in the model building, powerboating, fuel cells and biofuels skóra*
<b>Chemical name</b>	<b>Portugal</b>	<b>Romania</b>	<b>Slovakia</b>	<b>Slovenia</b>	<b>Spain</b>
Formaldehyde 50-00-0	TWA: 0.3 ppm TWA: 0.37 mg/m <sup>3</sup> TWA: 0.62 mg/m <sup>3</sup> TWA: 0.5 ppm STEL: 0.6 ppm STEL: 0.74 mg/m <sup>3</sup>	TWA: 1 ppm TWA: 1.2 mg/m <sup>3</sup> STEL: 2 ppm STEL: 3 mg/m <sup>3</sup>	TWA: 0.3 ppm TWA: 0.37 mg/m <sup>3</sup> S+ Ceiling: 0.74 mg/m <sup>3</sup>	TWA: 0.62 mg/m <sup>3</sup> TWA: 0.5 ppm TWA: 0.37 mg/m <sup>3</sup> TWA: 0.3 ppm STEL: 0.6 ppm STEL: 0.74 mg/m <sup>3</sup>	TWA: 0.3 ppm TWA: 0.37 mg/m <sup>3</sup> STEL: 0.6 ppm STEL: 0.74 mg/m <sup>3</sup> Sen+

	Ceiling: 0.3 ppm Sensitizer dermal			K*	
Methanol 67-56-1	TWA: 200 ppm TWA: 260 mg/m <sup>3</sup> STEL: 250 ppm Cutânea*	TWA: 200 ppm TWA: 260 mg/m <sup>3</sup> P*	TWA: 200 ppm TWA: 260 mg/m <sup>3</sup> K*	TWA: 200 ppm TWA: 260 mg/m <sup>3</sup> STEL: 800 ppm STEL: 1040 mg/m <sup>3</sup> K*	TWA: 200 ppm TWA: 266 mg/m <sup>3</sup> via dérmica*
<b>Chemical name</b>	<b>Sweden</b>	<b>Switzerland</b>	<b>United Kingdom</b>		
Formaldehyde 50-00-0	NGV: 0.3 ppm NGV: 0.37 mg/m <sup>3</sup> Bindande KGV: 0.6 ppm Bindande KGV: 0.74 mg/m <sup>3</sup> H* S+	S+ TWA: 0.3 ppm TWA: 0.37 mg/m <sup>3</sup> STEL: 0.6 ppm STEL: 0.74 mg/m <sup>3</sup>	TWA: 2 ppm TWA: 2.5 mg/m <sup>3</sup> STEL: 2 ppm STEL: 2.5 mg/m <sup>3</sup>		
Methanol 67-56-1	NGV: 200 ppm NGV: 250 mg/m <sup>3</sup> Vägledande KGV: 250 ppm Vägledande KGV: 350 mg/m <sup>3</sup> H*	TWA: 200 ppm TWA: 260 mg/m <sup>3</sup> STEL: 400 ppm STEL: 520 mg/m <sup>3</sup> H*	TWA: 200 ppm TWA: 266 mg/m <sup>3</sup> STEL: 250 ppm STEL: 333 mg/m <sup>3</sup> Sk*		

**Biological occupational exposure limits**

<b>Chemical name</b>	<b>European Union</b>	<b>Austria</b>	<b>Bulgaria</b>	<b>Croatia</b>	<b>Czech Republic</b>
Methanol 67-56-1	-	-	-	7.0 mg/g Creatinine - urine (Methanol) - at the end of the work shift	0.47 mmol/L (urine - Methanol end of shift) 15 mg/L (urine - Methanol end of shift)
<b>Chemical name</b>	<b>Denmark</b>	<b>Finland</b>	<b>France</b>	<b>Germany DFG</b>	<b>Germany TRGS</b>
Methanol 67-56-1	-	-	15 mg/L - urine (Methanol) - end of shift	15 mg/L - urine (Methanol) - end of shift 15 mg/L - urine (Methanol) - for long-term exposures: at the end of the shift after several shifts	15 mg/L (urine - Methanol end of shift) 15 mg/L (urine - Methanol for long-term exposures: at the end of the shift after several shifts)
<b>Chemical name</b>	<b>Hungary</b>	<b>Ireland</b>	<b>Italy MDLPS</b>	<b>Italy AIDII</b>	
Methanol 67-56-1	30 mg/L (urine - Methanol end of shift) 940 µmol/L (urine - Methanol end of shift)	15 mg/L - urine (Methanol) - end of shift	-	15 mg/L - urine (Methanol) - end of shift	
<b>Chemical name</b>	<b>Latvia</b>	<b>Luxembourg</b>	<b>Romania</b>	<b>Slovakia</b>	
Methanol 67-56-1	-	-	6 mg/L - urine (Methanol) - end of shift	30 mg/L (urine - Methanol end of exposure or work shift) 30 mg/L (urine - Methanol after all work shifts)	
<b>Chemical name</b>	<b>Slovenia</b>	<b>Spain</b>	<b>Switzerland</b>	<b>United Kingdom</b>	
Methanol 67-56-1	15 mg/L - urine (Methanol) - at the end of the work shift; for long-term exposure: at the end of the work shift after several consecutive workdays	15 mg/L (urine - Methanol end of shift)	30 mg/L (urine - Methanol end of shift, and after several shifts (for long-term exposures)) 936 µmol/L (urine - Methanol end of shift, and after several shifts (for long-term exposures))	-	

**Derived No Effect Level (DNEL)** No information available.



Predicted No Effect Concentration  
(PNEC)

**8.2. Exposure controls**

**Personal protective equipment**

**Eye/face protection** Tight sealing safety goggles. Face protection shield.

**Hand protection** Wear suitable gloves. Impervious gloves.

**Skin and body protection** Wear suitable protective clothing. Long sleeved clothing. Chemical resistant apron.

**Respiratory protection** No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

**General hygiene considerations** Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product.

**Environmental exposure controls** No information available.

**SECTION 9: Physical and chemical properties**

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

<b>Physical state</b>	Liquid
<b>Appearance</b>	Clear to semi-clear
<b>Colour</b>	Varies
<b>Odour</b>	No information available.
<b>Odour threshold</b>	No information available

<b>Property</b>	<b>Values</b>	<b>Remarks • Method</b>
<b>Melting point / freezing point</b>	No data available	None known
<b>Boiling point / boiling range</b>	No data available	None known
<b>Flammability (solid, gas)</b>	No data available	None known
<b>Flammability Limit in Air</b>		None known
<b>Upper flammability or explosive limits</b>	No data available	
<b>Lower flammability or explosive limits</b>	No data available	
<b>Flash point</b>	No data available	None known
<b>Autoignition temperature</b>	423.89 °C	
<b>Decomposition temperature</b>		None known
<b>pH</b>		None known
<b>pH (as aqueous solution)</b>	No data available	No information available
<b>Kinematic viscosity</b>	No data available	None known
<b>Dynamic viscosity</b>	No data available	None known
<b>Water solubility</b>	Soluble in water	
<b>Solubility(ies)</b>	No data available	None known
<b>Partition coefficient</b>	No data available	None known
<b>Vapour pressure</b>	No data available	None known
<b>Relative density</b>	No data available	None known
<b>Bulk density</b>	No data available	
<b>Liquid Density</b>	No data available	
<b>Vapour density</b>	No data available	None known
<b>Particle characteristics</b>		
<b>Particle Size</b>	No information available	

Particle Size Distribution No information available

## 9.2. Other information

### 9.2.1. Information with regards to physical hazard classes

Not applicable

### 9.2.2. Other safety characteristics

No information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Reactivity No information available.

### 10.2. Chemical stability

Stability Stable under normal conditions.

#### Explosion data

Sensitivity to mechanical impact None.

Sensitivity to static discharge None.

### 10.3. Possibility of hazardous reactions

Possibility of hazardous reactions None under normal processing.

### 10.4. Conditions to avoid

Conditions to avoid Exposure to air or moisture over prolonged periods. Excessive heat.

### 10.5. Incompatible materials

Incompatible materials Acids. Bases. Oxidising agent.

### 10.6. Hazardous decomposition products

Hazardous decomposition products None known based on information supplied.

## SECTION 11: Toxicological information

### 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

#### Information on likely routes of exposure

##### Product Information

**Inhalation** Specific test data for the substance or mixture is not available. Corrosive by inhalation. (based on components). Inhalation of corrosive fumes/gases may cause coughing, choking, headache, dizziness, and weakness for several hours. Pulmonary edema may occur with tightness in the chest, shortness of breath, bluish skin, decreased blood pressure, and increased heart rate. Inhaled corrosive substances can lead to a toxic edema of the lungs. Pulmonary edema can be fatal. May cause irritation of respiratory tract. Harmful by inhalation.

**Eye contact** Specific test data for the substance or mixture is not available. Causes serious eye damage. (based on components). Corrosive to the eyes and may cause severe damage including blindness. May cause irreversible damage to eyes.

**Skin contact** Specific test data for the substance or mixture is not available. Corrosive. (based on components). Causes burns. May cause sensitisation by skin contact. Repeated or

prolonged skin contact may cause allergic reactions with susceptible persons.

#### Ingestion

Specific test data for the substance or mixture is not available. Causes burns. (based on components). Ingestion causes burns of the upper digestive and respiratory tracts. May cause severe burning pain in the mouth and stomach with vomiting and diarrhea of dark blood. Blood pressure may decrease. Brownish or yellowish stains may be seen around the mouth. Swelling of the throat may cause shortness of breath and choking. May cause lung damage if swallowed. May be fatal if swallowed and enters airways.

#### Symptoms related to the physical, chemical and toxicological characteristics

##### Symptoms

Redness. Burning. May cause blindness. Coughing and/ or wheezing. Itching. Rashes. Hives.

#### Acute toxicity

##### Numerical measures of toxicity

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral)	1,000.00 mg/kg
ATEmix (dermal)	3,000.00 mg/kg
ATEmix (inhalation-gas)	7,000.00 ppm
ATEmix (inhalation-dust/mist)	5.010 mg/l
Oral LD50	No information available
Dermal LD50	No information available
Inhalation LC50	No information available
Inhalation LC50	No information available
Component Information	

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Formaldehyde	= 100 mg/kg ( Rat )	> 2000 mg/kg ( Rat )	< 463 ppm ( Rat ) 4 h
Methanol	= 6200 mg/kg ( Rat )	= 15840 mg/kg ( Rabbit )	= 22500 ppm ( Rat ) 8 h

#### Delayed and immediate effects as well as chronic effects from short and long-term exposure

##### Skin corrosion/irritation

Classification based on data available for ingredients. Causes severe skin burns and eye damage.

##### Serious eye damage/eye irritation

Classification based on data available for ingredients. Causes serious eye damage. Causes burns.

##### Respiratory or skin sensitisation

May cause an allergic skin reaction.

##### Germ cell mutagenicity

Contains a known or suspected mutagen. Classification based on data available for ingredients. Suspected of causing genetic defects.

The table below indicates ingredients above the cut-off threshold considered as relevant which are listed as mutagenic.

Chemical name	European Union
Formaldehyde	Muta. 2

##### Carcinogenicity

Contains a known or suspected carcinogen. Classification based on data available for ingredients. May cause cancer.

The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical name	European Union
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Formaldehyde	Carc. 1B
--------------	----------

**Reproductive toxicity** Contains a known or suspected reproductive toxin. Classification based on data available for ingredients.

**STOT - single exposure** May cause respiratory irritation.

**STOT - repeated exposure** No information available.

**Aspiration hazard** No information available.

## **11.2. Information on other hazards**

### **11.2.1. Endocrine disrupting properties**

**Endocrine disrupting properties** This product does not contain any known or suspected endocrine disruptors.

### **11.2.2. Other information**

**Other adverse effects** No information available.

## **SECTION 12: Ecological information**

### **12.1. Toxicity**

**Ecotoxicity** Harmful to aquatic life.

**Unknown aquatic toxicity** Contains 0 % of components with unknown hazards to the aquatic environment.

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Formaldehyde	-	LC50: 22.6 - 25.7mg/L (96h, Pimephales promelas) LC50: =1510µg/L (96h, Lepomis macrochirus) LC50: =41mg/L (96h, Brachydanio rerio) LC50: 0.032 - 0.226mL/L (96h, Oncorhynchus mykiss) LC50: 100 - 136mg/L (96h, Oncorhynchus mykiss) LC50: 23.2 - 29.7mg/L (96h, Pimephales promelas)	-	LC50: =2mg/L (48h, Daphnia magna) EC50: 11.3 - 18mg/L (48h, Daphnia magna)
Methanol	-	LC50: =28200mg/L (96h, Pimephales promelas) LC50: >100mg/L (96h, Pimephales promelas) LC50: 19500 - 20700mg/L (96h, Oncorhynchus mykiss) LC50: 18 - 20mL/L (96h, Oncorhynchus mykiss) LC50: 13500 - 17600mg/L (96h, Lepomis	-	-

		macrochirus)		
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## 12.2. Persistence and degradability

Persistence and degradability No information available.

## 12.3. Bioaccumulative potential

### Bioaccumulation

#### Component Information

Chemical name	Partition coefficient
Formaldehyde	0.35
Methanol	-0.77

## 12.4. Mobility in soil

Mobility in soil No information available.

## 12.5. Results of PBT and vPvB assessment

### PBT and vPvB assessment

Chemical name	PBT and vPvB assessment
Formaldehyde	The substance is not PBT / vPvB
Methanol	The substance is not PBT / vPvB

## 12.6. Endocrine disrupting properties

Endocrine disrupting properties No information available.

## 12.7. Other adverse effects

No information available.

# SECTION 13: Disposal considerations

## 13.1. Waste treatment methods

Waste from residues/unused products Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

Contaminated packaging Do not reuse empty containers.

# SECTION 14: Transport information

### IATA

14.1 UN number or ID number	Not regulated
14.2 UN proper shipping name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental hazards	Not applicable
14.6 Special Precautions for Users	
Special Provisions	None

### IMDG

14.1 UN number or ID number	Not regulated
14.2 UN proper shipping name	Not regulated
14.3 Transport hazard class(es)	Not regulated

14.4 Packing group	Not regulated
14.5 Environmental hazards	Not applicable
14.6 Special Precautions for Users Special Provisions	None
14.7 Maritime transport in bulk according to IMO instruments	No information available

#### RID

14.1 UN number	Not regulated
14.2 UN proper shipping name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental hazards	Not applicable
14.6 Special Precautions for Users Special Provisions	None

#### ADR

14.1 UN number or ID number	Not regulated
14.2 UN proper shipping name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental hazards	Not applicable
14.6 Special Precautions for Users Special Provisions	None

## SECTION 15: Regulatory information

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

#### National regulations

##### France

##### Occupational Illnesses (R-463-3, France)

Chemical name	French RG number	Title
Formaldehyde 50-00-0	RG 43	-
Methanol 67-56-1	RG 84	-

##### Germany

**Water hazard class (WGK)** strongly hazardous to water (WGK 3)

##### Netherlands

Chemical name	Netherlands - List of Carcinogens	Netherlands - List of Mutagens	Netherlands - List of Reproductive Toxins
Formaldehyde	Present	-	-

##### European Union

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

#### **Authorisations and/or restrictions on use:**

This product contains one or more substance(s) subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

#### **Persistent Organic Pollutants**

Not applicable

#### **Named dangerous substances per Seveso Directive (2012/18/EU)**

Chemical name	Lower-tier requirements (tons)	Upper-tier requirements (tons)
Formaldehyde - 50-00-0	5	50
Methanol - 67-56-1	500	5000

**Ozone-depleting substances (ODS) regulation (EC) 1005/2009**

Not applicable

**Biocidal Products Regulation (EU) No 528/2012 (BPR)**

Chemical name	Biocidal Products Regulation (EU) No 528/2012 (BPR)
Formaldehyde - 50-00-0	Product-type 2: Disinfectants and algacides not intended for direct application to humans or animals Product-type 3: Veterinary hygiene Product-type 22: Embalming and taxidermist fluids

**International Inventories**

Contact supplier for inventory compliance status

**15.2. Chemical safety assessment**

**Chemical Safety Report**

No information available

**SECTION 16: Other information**

**Key or legend to abbreviations and acronyms used in the safety data sheet**

**Full text of H-Statements referred to under section 3**

H225 - Highly flammable liquid and vapour  
H301 - Toxic if swallowed  
H311 - Toxic in contact with skin  
H314 - Causes severe skin burns and eye damage  
H317 - May cause an allergic skin reaction  
H318 - Causes serious eye damage  
H331 - Toxic if inhaled  
H335 - May cause respiratory irritation  
H341 - Suspected of causing genetic defects  
H350 - May cause cancer  
H370 - Causes damage to organs

**Legend**

SVHC: Substances of Very High Concern for Authorisation:

**Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

TWA TWA (time-weighted average) STEL STEL (Short Term Exposure Limit)  
Ceiling Maximum limit value \* Skin designation

Classification procedure	
Classification according to Regulation (EC) No. 1272/2008 [CLP]	Method Used
Acute oral toxicity	Calculation method
Acute dermal toxicity	Calculation method
Acute inhalation toxicity - gas	Calculation method
Acute inhalation toxicity - vapour	Calculation method
Acute inhalation toxicity - dust/mist	Calculation method
Skin corrosion/irritation	Calculation method
Serious eye damage/eye irritation	Calculation method
Respiratory sensitisation	Calculation method
Skin sensitisation	Calculation method
Mutagenicity	Calculation method

Carcinogenicity	Calculation method
Reproductive toxicity	Calculation method
STOT - single exposure	Calculation method
STOT - repeated exposure	Calculation method
Acute aquatic toxicity	Calculation method
Chronic aquatic toxicity	Calculation method
Aspiration hazard	Calculation method
Ozone	Calculation method

**Key literature references and sources for data used to compile the SDS**

Agency for Toxic Substances and Disease Registry (ATSDR)  
U.S. Environmental Protection Agency ChemView Database  
European Food Safety Authority (EFSA)  
European Chemicals Agency (ECHA) Committee for Risk Assessment (ECHA\_RAC)  
European Chemicals Agency (ECHA) (ECHA\_API)  
EPA (Environmental Protection Agency)  
Acute Exposure Guideline Level(s) (AEGl(s))  
U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act  
U.S. Environmental Protection Agency High Production Volume Chemicals  
Food Research Journal  
Hazardous Substance Database  
International Uniform Chemical Information Database (IUCLID)  
National Institute of Technology and Evaluation (NITE)  
Australian National Industrial Chemicals Notification and Assessment Scheme (NICNAS)  
NIOSH (National Institute for Occupational Safety and Health)  
National Library of Medicine's ChemID Plus (NLM CIP)  
National Library of Medicine's PubMed database (NLM PUBMED)  
National Toxicology Program (NTP)  
New Zealand's Chemical Classification and Information Database (CCID)  
Organisation for Economic Co-operation and Development Environment, Health, and Safety Publications  
Organisation for Economic Co-operation and Development High Production Volume Chemicals Programme  
Organisation for Economic Co-operation and Development Screening Information Data Set  
World Health Organization

**Revision Note** Significant changes throughout SDS. Review all sections

**Revision date** 20-Jun-2023

**This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006**

**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

**End of Safety Data Sheet**





# SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:  
Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008

Revision date 20-Jun-2023

Revision Number 3

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

### 1.1. Product identifier

Product Name	LEUCOPERM REAGENT B - PERMEABILISATION REAGENT - #10509
Safety data sheet number	10509
Nanoforms	Not applicable
Pure substance/mixture	Mixture

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

Recommended use	For research use only
Uses advised against	No information available

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

#### Corporate Headquarters

Bio-Rad Laboratories Inc.  
1000 Alfred Nobel Drive  
Hercules, CA 94547  
USA

#### Manufacturer

Bio-Rad  
Endeavour House  
Langford Business Park  
Kidlington  
Oxford  
OX5 1GE  
United Kingdom  
e-mail:  
antibody\_safetydatasheets@bio-rad.com

#### Legal Entity / Contact Address

Bio-Rad Laboratories Ltd  
The Junction  
Station Road  
Watford, WD17 1ET  
UK  
  
Bio-Rad Laboratories Pvt. Ltd.  
Bio-Rad House  
86-87, Udyog Vihar Phase IV Gurgaon  
122005  
Haryana India  
  
Bio-Rad Laboratories (Pty) Ltd.  
34 Bolton Road  
Parkwood, Johannesburg 2193  
South Africa

For further information, please contact

Technical Service	00800 00246 723 Ireland: Techsupport.UK@bio-rad.com India: support.india@bio-rad.com South Africa: cdg_techsupport_eemea@bio-rad.com
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### 1.4. Emergency telephone number

24 Hour Emergency Phone Number	CHEMTREC Ireland: 353-19014670 CHEMTREC India: 000-800-100-7141 CHEMTREC South Africa: 0-800-983-611
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## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [CLP]

## 2.2. Label elements

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [CLP]

### **Hazard statements**

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [CLP]

## 2.3. Other hazards

# SECTION 3: Composition/information on ingredients

## 3.1 Substances

Not applicable

## 3.2 Mixtures

The product contains no substances which at their given concentration, are considered to be hazardous to health

Full text of H- and EUH-phrases: see section 16

### **Acute Toxicity Estimate**

No information available

This product does not contain candidate substances of very high concern at a concentration  $\geq 0.1\%$  (Regulation (EC) No. 1907/2006 (REACH), Article 59)

# SECTION 4: First aid measures

## 4.1. Description of first aid measures

Inhalation	Remove to fresh air.
Eye contact	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a doctor.
Skin contact	In the case of skin irritation or allergic reactions see a doctor. Wash skin with soap and water.
Ingestion	Rinse mouth.

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

Symptoms No information available.

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

Note to doctors Treat symptomatically.

# SECTION 5: Firefighting measures

## 5.1. Extinguishing media

**Suitable Extinguishing Media** Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Large Fire** CAUTION: Use of water spray when fighting fire may be inefficient.

**Unsuitable extinguishing media** Do not scatter spilled material with high pressure water streams.

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

**Specific hazards arising from the chemical** No information available.

## **5.3. Advice for firefighters**

**Special protective equipment and precautions for fire-fighters** Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

# **SECTION 6: Accidental release measures**

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

**Personal precautions** Ensure adequate ventilation.

**For emergency responders** Use personal protection recommended in Section 8.

## **6.2. Environmental precautions**

**Environmental precautions** See Section 12 for additional Ecological Information.

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

**Methods for containment** Prevent further leakage or spillage if safe to do so.

**Methods for cleaning up** Take up mechanically, placing in appropriate containers for disposal.

**Prevention of secondary hazards** Clean contaminated objects and areas thoroughly observing environmental regulations.

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

**Reference to other sections** See section 8 for more information. See section 13 for more information.

# **SECTION 7: Handling and storage**

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

**Advice on safe handling** Ensure adequate ventilation.

**General hygiene considerations** Handle in accordance with good industrial hygiene and safety practice.

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

**Storage Conditions** Store according to product and label instructions.

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

**Risk Management Methods (RMM)** The information required is contained in this Safety Data Sheet.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

**Exposure Limits** This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

### Biological occupational exposure limits

This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies.

**Derived No Effect Level (DNEL)** No information available.  
**Predicted No Effect Concentration (PNEC)**

### 8.2. Exposure controls

#### Personal protective equipment

**Eye/face protection** No special protective equipment required.

**Skin and body protection** No special protective equipment required.

**Respiratory protection** No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

**General hygiene considerations** Handle in accordance with good industrial hygiene and safety practice.

**Environmental exposure controls** No information available.

## SECTION 9: Physical and chemical properties

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

<b>Physical state</b>	Liquid
<b>Appearance</b>	Liquid
<b>Colour</b>	Varies
<b>Odour</b>	No information available.
<b>Odour threshold</b>	No information available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
<b>Melting point / freezing point</b>	No data available	None known
<b>Boiling point / boiling range</b>	No data available	None known
<b>Flammability (solid, gas)</b>	No data available	None known
<b>Flammability Limit in Air</b>		None known
<b>Upper flammability or explosive limits</b>	No data available	
<b>Lower flammability or explosive limits</b>	No data available	
<b>Flash point</b>	No data available	None known
<b>Autoignition temperature</b>	No data available	None known
<b>Decomposition temperature</b>		None known
<b>pH</b>		None known
<b>pH (as aqueous solution)</b>	No data available	No information available
<b>Kinematic viscosity</b>	No data available	None known

Dynamic viscosity	No data available	None known
Water solubility	Soluble in water	
Solubility(ies)	No data available	None known
Partition coefficient	No data available	None known
Vapour pressure	No data available	None known
Relative density	No data available	None known
Bulk density	No data available	
Liquid Density	No data available	
Vapour density	No data available	None known
Particle characteristics		
Particle Size	No information available	
Particle Size Distribution	No information available	

## 9.2. Other information

### 9.2.1. Information with regards to physical hazard classes

Not applicable

### 9.2.2. Other safety characteristics

No information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Reactivity No information available.

### 10.2. Chemical stability

Stability Stable under normal conditions.

#### Explosion data

Sensitivity to mechanical impact None.

Sensitivity to static discharge None.

### 10.3. Possibility of hazardous reactions

Possibility of hazardous reactions Avoid contact with metals. This product contains Sodium azide. Sodium azide can react with Copper, Brass, Lead, and solder in piping systems to form explosive compounds and toxic gases.

### 10.4. Conditions to avoid

Conditions to avoid None known based on information supplied.

### 10.5. Incompatible materials

Incompatible materials Metals.

### 10.6. Hazardous decomposition products

Hazardous decomposition products None known based on information supplied.

## SECTION 11: Toxicological information

### 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

#### Information on likely routes of exposure

#### Product Information

Inhalation Specific test data for the substance or mixture is not available.

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Eye contact	Specific test data for the substance or mixture is not available.
Skin contact	Specific test data for the substance or mixture is not available.
Ingestion	Specific test data for the substance or mixture is not available.

**Symptoms related to the physical, chemical and toxicological characteristics**

Symptoms	No information available.
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**Acute toxicity**

**Numerical measures of toxicity**

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

Skin corrosion/irritation	No information available.
Serious eye damage/eye irritation	No information available.
Respiratory or skin sensitisation	No information available.
Germ cell mutagenicity	No information available.
Carcinogenicity	No information available.
Reproductive toxicity	No information available.
STOT - single exposure	No information available.
STOT - repeated exposure	No information available.
Aspiration hazard	No information available.

**11.2. Information on other hazards**

**11.2.1. Endocrine disrupting properties**

Endocrine disrupting properties	This product does not contain any known or suspected endocrine disruptors.
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**11.2.2. Other information**

Other adverse effects	No information available.
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**SECTION 12: Ecological information**

**12.1. Toxicity**

<b>Ecotoxicity</b>	The environmental impact of this product has not been fully investigated.
<b>Unknown aquatic toxicity</b>	Contains 0 % of components with unknown hazards to the aquatic environment.

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

<b>Persistence and degradability</b>	No information available.
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#### **12.3. Bioaccumulative potential**

<b>Bioaccumulation</b>	There is no data for this product.
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#### **12.4. Mobility in soil**

<b>Mobility in soil</b>	No information available.
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#### **12.5. Results of PBT and vPvB assessment**

<b>PBT and vPvB assessment</b>	No information available.
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#### **12.6. Endocrine disrupting properties**

<b>Endocrine disrupting properties</b>	No information available.
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#### **12.7. Other adverse effects**

No information available.

### **SECTION 13: Disposal considerations**

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

<b>Waste from residues/unused products</b>	Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation. Flush pipes with water frequently if discarding solutions containing Sodium azide into metal piping systems.
<b>Contaminated packaging</b>	Do not reuse empty containers.

### **SECTION 14: Transport information**

#### **IATA**

<b>14.1 UN number or ID number</b>	Not regulated
<b>14.2 UN proper shipping name</b>	Not regulated
<b>14.3 Transport hazard class(es)</b>	Not regulated
<b>14.4 Packing group</b>	Not regulated
<b>14.5 Environmental hazards</b>	Not applicable
<b>14.6 Special Precautions for Users</b>	
<b>Special Provisions</b>	None

#### **IMDG**

<b>14.1 UN number or ID number</b>	Not regulated
<b>14.2 UN proper shipping name</b>	Not regulated
<b>14.3 Transport hazard class(es)</b>	Not regulated
<b>14.4 Packing group</b>	Not regulated
<b>14.5 Environmental hazards</b>	Not applicable
<b>14.6 Special Precautions for Users</b>	
<b>Special Provisions</b>	None

14.7 Maritime transport in bulk according to IMO instruments No information available

**RID**

14.1 UN number	Not regulated
14.2 UN proper shipping name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental hazards	Not applicable
14.6 Special Precautions for Users	
Special Provisions	None

**ADR**

14.1 UN number or ID number	Not regulated
14.2 UN proper shipping name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental hazards	Not applicable
14.6 Special Precautions for Users	
Special Provisions	None

## SECTION 15: Regulatory information

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

#### National regulations

##### Germany

Water hazard class (WGK) non-hazardous to water (nwg)

##### European Union

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

#### **Authorisations and/or restrictions on use:**

This product does not contain substances subject to authorisation (Regulation (EC) No. 1907/2006 (REACH), Annex XIV) This product does not contain substances subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

#### **Persistent Organic Pollutants**

Not applicable

#### **Ozone-depleting substances (ODS) regulation (EC) 1005/2009**

Not applicable

#### International Inventories

Contact supplier for inventory compliance status

### 15.2. Chemical safety assessment

Chemical Safety Report No information available

## SECTION 16: Other information



**Key or legend to abbreviations and acronyms used in the safety data sheet**

**Legend**

SVHC: Substances of Very High Concern for Authorisation:

**Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

TWA TWA (time-weighted average) STEL STEL (Short Term Exposure Limit)  
Ceiling Maximum limit value \* Skin designation

Classification procedure	
Classification according to Regulation (EC) No. 1272/2008 [CLP]	Method Used
Acute oral toxicity	Calculation method
Acute dermal toxicity	Calculation method
Acute inhalation toxicity - gas	Calculation method
Acute inhalation toxicity - vapour	Calculation method
Acute inhalation toxicity - dust/mist	Calculation method
Skin corrosion/irritation	Calculation method
Serious eye damage/eye irritation	Calculation method
Respiratory sensitisation	Calculation method
Skin sensitisation	Calculation method
Mutagenicity	Calculation method
Carcinogenicity	Calculation method
Reproductive toxicity	Calculation method
STOT - single exposure	Calculation method
STOT - repeated exposure	Calculation method
Acute aquatic toxicity	Calculation method
Chronic aquatic toxicity	Calculation method
Aspiration hazard	Calculation method
Ozone	Calculation method

**Key literature references and sources for data used to compile the SDS**

Agency for Toxic Substances and Disease Registry (ATSDR)  
U.S. Environmental Protection Agency ChemView Database  
European Food Safety Authority (EFSA)  
European Chemicals Agency (ECHA) Committee for Risk Assessment (ECHA\_RAC)  
European Chemicals Agency (ECHA) (ECHA\_API)  
EPA (Environmental Protection Agency)  
Acute Exposure Guideline Level(s) (AEGl(s))  
U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act  
U.S. Environmental Protection Agency High Production Volume Chemicals  
Food Research Journal  
Hazardous Substance Database  
International Uniform Chemical Information Database (IUCLID)  
National Institute of Technology and Evaluation (NITE)  
Australian National Industrial Chemicals Notification and Assessment Scheme (NICNAS)  
NIOSH (National Institute for Occupational Safety and Health)  
National Library of Medicine's ChemID Plus (NLM CIP)  
National Library of Medicine's PubMed database (NLM PUBMED)  
National Toxicology Program (NTP)  
New Zealand's Chemical Classification and Information Database (CCID)  
Organisation for Economic Co-operation and Development Environment, Health, and Safety Publications  
Organisation for Economic Co-operation and Development High Production Volume Chemicals Programme  
Organisation for Economic Co-operation and Development Screening Information Data Set  
World Health Organization

**Revision Note** Significant changes throughout SDS. Review all sections

**Revision date** 20-Jun-2023

**This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006**

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**Disclaimer**

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**End of Safety Data Sheet**