

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**21070-69 CyaniVer® 5 Cyanide Reagent**

Revision date: 23.04.2015

Product code: 2107069

Page 1 of 8

**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier**

21070-69 CyaniVer® 5 Cyanide Reagent

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

Water analysis

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

Company name: HACH LANGE GmbH  
Street: Willstätterstr. 11  
Place: D-40549 Düsseldorf  
Telephone: +49 (0)211 5288-383  
e-mail: SDS@hach.com  
Internet: www.de.hach.com  
Responsible Department: HACH LANGE Ltd.  
5, Pacific Way  
Salford Manchester M50 1DL - United Kingdom  
Tel. +44 (0) 161 872 1487 \* Fax +44 (0) 161 848 7324  
e-Mail: info-uk@hach.com

HACH LANGE Ltd.  
Unit 1, Chestnut Road Western Industrial Estate  
IRL-Dublin 12  
Tel. +353 (0)1 4602522  
e-Mail: info-ie@hach.com

**1.4. Emergency telephone number:**

Poison Control Center Mainz: Tel: +49 (0) 6131 19240 - 24 hour emergency service -

**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture****Regulation (EC) No. 1272/2008**

Hazard categories:

Skin corrosion/irritation: Skin Irrit. 2

Serious eye damage/eye irritation: Eye Irrit. 2

Hazard Statements:

Causes serious eye irritation.

Causes skin irritation.

**2.2. Label elements****Regulation (EC) No. 1272/2008****Hazard components for labelling**

Potassium dihydrogen phosphate

di-Sodium hydrogen phosphate

**Signal word:** Warning**Pictograms:****Hazard statements**

H319

Causes serious eye irritation.

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### 21070-69 CyaniVer® 5 Cyanide Reagent

Revision date: 23.04.2015

Product code: 2107069

Page 2 of 8

H315 Causes skin irritation.

#### Precautionary statements

P280 Wear protective gloves/protective clothing/eye protection/face protection.  
 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 water.  
 P332+P313 If skin irritation occurs: Get medical advice/attention.  
 P337+P313 If eye irritation persists: Get medical advice/attention.  
 P362 Take off contaminated clothing.

#### Additional advice on labelling

The product is classified as dangerous in accordance with Regulation (EC) No. 1272/2008.

#### 2.3. Other hazards

None known.

### SECTION 3: Composition/information on ingredients

#### 3.2. Mixtures

##### Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	GHS Classification			
7558-79-4	di-Sodium hydrogen phosphate			35-45 %
	231-448-7		01-2119489797-11	
	Skin Irrit. 2, Eye Irrit. 2; H315 H319			
7778-77-0	Potassium dihydrogen phosphate			35-45 %
	231-913-4			
	Acute Tox. 4, Eye Irrit. 2; H302 H319			
7757-82-6	Sodium sulfate			10-20 %
	231-820-9			
89-25-8	3-Methyl-1-phenyl-2-pyrazolin-5-one			5-10 %
	201-891-0			

Full text of H and EUH statements: see section 16.

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

##### General information

Take off all contaminated clothing immediately.

##### After inhalation

Move to fresh air.

##### After contact with skin

Wash off immediately with soap and plenty of water.

##### After contact with eyes

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

##### After ingestion

Clean mouth with water and drink afterwards plenty of water.

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### 21070-69 CyaniVer® 5 Cyanide Reagent

Revision date: 23.04.2015

Product code: 2107069

Page 3 of 8

Call a physician immediately.

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

irritant effects

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

Treat symptomatically.

### SECTION 5: Firefighting measures

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

##### **Suitable extinguishing media**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. The product itself does not burn.

##### **Unsuitable extinguishing media**

No Limit

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

Fire may liberate hazardous vapours.

The following may develop in event of fire: sulfur oxides., nitrogen oxides (NOx)

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

In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment.

#### **Additional information**

Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

### SECTION 6: Accidental release measures

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

Use personal protective equipment.

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

Do not flush into surface water or sanitary sewer system.

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

Use mechanical handling equipment.

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

13. Disposal considerations

### SECTION 7: Handling and storage

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

##### **Advice on safe handling**

Avoid contact with skin and eyes.

Do not breathe vapours/dust.

##### **Advice on protection against fire and explosion**

See also section 5

##### **Further information on handling**

Avoid contact with skin, eyes and clothing.

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

##### **Requirements for storage rooms and vessels**

Keep in a dry, cool place. Use only in well-ventilated areas.

##### **Hints on joint storage**

Do not store together with Oxidizing agents

##### **Further information on storage conditions**

no data available

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### 21070-69 CyaniVer® 5 Cyanide Reagent

Revision date: 23.04.2015

Product code: 2107069

Page 4 of 8

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

Reagent for analysis

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

##### Additional advice on limit values

None known.

#### 8.2. Exposure controls

##### Appropriate engineering controls

Technical measures and appropriate working operations should be given priority over the use of personal protective equipment.

##### Protective and hygiene measures

The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Wash hands before breaks and after work.

##### Eye/face protection

Safety glasses with side-shields

##### Hand protection

Use barrier skin cream.

Chemical resistant gloves made of butyl rubber or nitrile rubber category III according to EN 374. In full contact:

Gloves material: Viton, Layer thickness: 0.70 mm, Breakthrough time: >480 min. In splash contact: Glove material: nitrile rubber, Layer thickness 0,20 mm, Breakthrough time: > 30 min

##### Skin protection

Remove and wash contaminated clothing before re-use.

##### Respiratory protection

Provide adequate ventilation.

##### Environmental exposure controls

Should not be released into the environment.

### SECTION 9: Physical and chemical properties

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

Physical state:	solid
Colour:	white
Odour:	odourless

pH-Value (at 20 °C): 6,2 (5 % solution)

##### Changes in the physical state

	Test method
Melting point:	100 °C Decomposition temperature
Initial boiling point and boiling range:	not applicable
Sublimation point:	not applicable
Softening point:	not applicable
:	no data available
Flash point:	not applicable

##### Flammability

Solid:	not applicable
Gas:	not applicable

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**21070-69 CyaniVer® 5 Cyanide Reagent**

Revision date: 23.04.2015

Product code: 2107069

Page 5 of 8

**Explosive properties**

not applicable

Lower explosion limits:

not applicable

Upper explosion limits:

not applicable

Ignition temperature:

not applicable

**Auto-ignition temperature**

Solid:

not applicable

Gas:

not applicable

Decomposition temperature:

no data available

**Oxidizing properties**

not applicable

Vapour pressure:

not applicable

Vapour pressure:

no data available

Density:

2,16 g/cm<sup>3</sup>

Bulk density:

no data available

Water solubility:

soluble

**Solubility in other solvents**

no data available

Partition coefficient:

not applicable

Viscosity / dynamic:

not applicable

Viscosity / kinematic:

not applicable

Flow time:

not applicable

Vapour density:

not applicable

Evaporation rate:

not applicable

Solvent separation test:

not applicable

Solvent content:

not applicable

**9.2. Other information**

Solid content:

not applicable

no data available

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

No dangerous reaction known under conditions of normal use.

**10.2. Chemical stability**

Stable under recommended storage conditions.

**10.3. Possibility of hazardous reactions**

Hazardous polymerisation does not occur.

**10.4. Conditions to avoid**

Heat, flames and sparks.

Extremes of temperature and direct sunlight.

**10.5. Incompatible materials**

Oxidizing agents

Aluminium

**10.6. Hazardous decomposition products**

Oxides of phosphorus

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### 21070-69 CyaniVer® 5 Cyanide Reagent

Revision date: 23.04.2015

Product code: 2107069

Page 6 of 8

Sulphur oxides  
nitrogen oxides (NO<sub>x</sub>)

#### Further information

Stable under recommended storage conditions.

### SECTION 11: Toxicological information

#### 11.1. Information on toxicological effects

##### Toxicokinetics, metabolism and distribution

No toxicology information is available.

##### Acute toxicity

No data is available on the product itself.

##### ATEmix calculated

ATE (oral) 1231,2 mg/kg

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
7558-79-4	di-Sodium hydrogen phosphate				
	oral	LD50 mg/kg	17000	rat	
7778-77-0	Potassium dihydrogen phosphate				
	oral	LD50 mg/kg	1700	mouse	
	dermal	LD50 mg/kg	4640	rabbit	
7757-82-6	Sodium sulfate				
	oral	LD50 mg/kg	5989	mouse	
89-25-8	3-Methyl-1-phenyl-2-pyrazolin-5-one				
	oral	LD50 mg/kg	1915	rat	

##### Irritation and corrosivity

May cause eye irritation. May cause skin irritation.

##### Sensitising effects

No known effect.

##### Carcinogenic/mutagenic/toxic effects for reproduction

Contains no ingredient listed as a carcinogen

##### STOT-single exposure

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

##### STOT-repeated exposure

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

##### Aspiration hazard

No aspiration toxicity classification

##### Specific effects in experiment on an animal

No data is available on the product itself.

##### Additional information on tests

None known.

##### Practical experience

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**21070-69 CyaniVer® 5 Cyanide Reagent**

Revision date: 23.04.2015

Product code: 2107069

Page 7 of 8

**Observations relevant to classification**

None known.

**Other observations**

None known.

**Further information**

Handle in accordance with good industrial hygiene and safety practice.

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

No data is available on the product itself.

Do not flush into surface water or sanitary sewer system.

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h]   [d]	Species	Source	Method
7558-79-4	di-Sodium hydrogen phosphate					
	Acute crustacea toxicity	EC50 mg/l	1089	48 h	Daphnia magna (Water flea)	
7757-82-6	Sodium sulfate					
	Acute fish toxicity	LC50	120 mg/l	96 h	Gambusia affinis	Merck
	Acute crustacea toxicity	EC50 mg/l	2564	48 h		

**12.2. Persistence and degradability**

No data is available on the product itself.

**12.3. Bioaccumulative potential**

No data is available on the product itself.

**12.4. Mobility in soil**

no data available

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

no data available

**12.6. Other adverse effects**

No known effect.

**Further information**

No known effect.

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

In accordance with local and national regulations.

Dispose of in accordance with the European Directives on waste and hazardous waste.

**Contaminated packaging**

Dispose of as unused product.

**SECTION 14: Transport information****Land transport (ADR/RID)****Other applicable information (land transport)**

Not subject to transport regulations.

**Inland waterways transport (ADN)**

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**21070-69 CyaniVer® 5 Cyanide Reagent**

Revision date: 23.04.2015

Product code: 2107069

Page 8 of 8

**Other applicable information (inland waterways transport)**

Not tested

**Marine transport (IMDG)****Other applicable information (marine transport)**

Not subject to transport regulations.

**Air transport (ICAO-TI/IATA-DGR)****Other applicable information (air transport)**

Not subject to transport regulations.

**14.5. Environmental hazards**

ENVIRONMENTALLY HAZARDOUS: no

**14.6. Special precautions for user**

no data available

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

not applicable

**Other applicable information**

Additional Information: This product may be shipped as part of a chemical kit composed of various compatible dangerous goods for analytical or testing purposes. This kit would have the following classification: Proper Shipping Name: Chemical Kit, Hazard Class: 9, UN Number 3316, Package group II, EMS Code: F-A, S-P

**SECTION 15: Regulatory information****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****EU regulatory information****Additional information**

The product does not need to be labelled in accordance with EC directives or respective national laws.

**National regulatory information**

Water hazard class (D): 1 - slightly hazardous to water

**15.2. Chemical safety assessment**

Chemical safety assessments for substances in this mixture were not carried out.

**SECTION 16: Other information****Changes**

Revision: 23.04.2015

Safety datasheet sections which have been updated: 2, 4, 11

Revision: 06.10.2014

Safety datasheet sections which have been updated: 4 - 16

**Relevant H and EUH statements (number and full text)**

H302 Harmful if swallowed.  
H315 Causes skin irritation.  
H319 Causes serious eye irritation.

**Further Information**

The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights.

*(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)*