

Revision date: 28.02.2020
Replacement of version 0018 of 07.01.2019

Version: 0019



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

1.1 Product identifier

Trade name	AnaRapid Geldrying solution
Product number	anam0017
Item code	AR10050
	AR10100
	AR10500
Formulation	Anarapid
Formulation number	11/05

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

Appropriate use:
The product is used for electrophoresis in analytical laboratories.

1.3 Details of the supplier of the safety data sheet

anamed Elektrophorese GmbH
Ringstraße 4
D-64401 Gross-Bieberau
Telephone: +49-6162-809840
e-mail-address of the competent person responsible for this Safety Data Sheet:
urban-finking.gefstoff@t-online.de

Technical contact:

anamed Elektrophorese GmbH
Frau Dr. Vera Kreis
Telephone +49-6162-809840
Fax +49-6162-8098420

1.4 Emergency telephone number

Poison Control Center Mainz (Giftinformationszentrum Mainz) or local poison centers
Telephone +49-6131 19 2 40

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Flam. Liq. 3; H226

Trade name: **AnaRapid Geldrying solution**
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2.2 Label elements
 Hazard pictogram(s):



Signal word(s): Warning

Product identifier: AnaRapid Geldrying solution

Hazard statements: H226 Flammable liquid and vapour.

Precautionary statements: P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 P233 Keep container tightly closed.

Supplemental hazard information: Not required.

2.3 Other hazards

Prolonged or repeated skin contact may cause removal of natural fat from the skin resulting in dermatitis (skin inflammation).
 The product is a flammable liquid. Vapours can form explosive mixtures with air even at normal temperatures. The vapours are heavier than air and can accumulate in high concentrations on the ground, in cavities, channels and cellars. Beware of reignition.
 The product is classified as slightly hazardous to water.
 The mixture does not contain any substances classified as PBT/vPvB in a concentration of 0.1% or more.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

REACH registration number:
 Ethanol: 01-2119457610-43-XXXX

3.2.1 Characterisation

This product is a mixture. It is a combination of special active substances in aqueous alcoholic solution.

3.2.2 Substances presenting a health/environmental hazard within the meaning of Regulation (EC) No 1272/2008

CAS No	EC No	Identification	% by weight	Classification
64-17-5	200-578-6	ethanol	20 - < 30	Flam. Liq. 2; H225 Eye Irrit. 2; H319

See subsection 2.2 for further details. Full text of the hazard statements see subsection 16.2.

3.2.3 Substances for which Union workplace exposure limits have been assigned and which are not already included under point 3.2.2 (see also Section 8.)

No substances.

3.2.4 Additional information

Specific concentration limits for ethanol in accordance with C&L Inventory of the European Chemicals Agency ECHA⁷:
 Eye Irrit. 2: C ≥ 50%

The product contains 5 – 10% polyethylene glycol 200.
 National occupational exposure limit values for various EU member states and/or DNEL/PNEC values have been assigned for this substance (see subsection 8.1).

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SECTION 4: First aid measures

4.1 *Description of first aid measures*

4.1.1 *General information*

Remove contaminated, soaked clothing immediately and wash before reuse.
Emergency eyewash should be provided in the immediate working surroundings.

4.1.2 *In case of inhalation*

Remove the casualty into fresh air. In case of breathing difficulties administer oxygen.
By continuous complaints seek medical advice.

4.1.3 *In case of contact with skin*

In case of contact with skin, wash off immediately with water. Consult a doctor if skin irritation persists.

4.1.4 *In case of contact with eyes*

In case of contact with eyes, rinse immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist. Remove contact lenses, if present and easy to do.

4.1.5 *In case of ingestion*

Rinse mouth thoroughly with water and spit out liquid immediately. Do not induce vomiting.
Let water be swallowed in little sips (dilution effect). By continuous complaints seek medical advice.

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

Temporary complaints as headache, dizziness, inebriation, nausea and heartburn may occur.
May cause health disorders as vomiting, excitation, cardiac arrhythmias, liver damage and nerve damage.
Narcotic effect. Removal of natural fat from the skin resulting in dermatitis.
Irritation of mucous membrane after contact with eyes.

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

Treat symptomatically. No information available.

SECTION 5: Firefighting measures

5.1 *Extinguishing media*

5.1.1 *Suitable extinguishing media*

Water spray jet, carbon dioxide, dry powder, alcohol resistant foam.

5.1.2 *Unsuitable extinguishing media*

Full water jet.

5.2 *Special hazards arising from the substance or mixture*

In the event of fire the following can be released: carbon monoxide, carbon dioxide, formaldehyde.
The vapours are heavier than air and can accumulate in high concentrations on the ground, in cavities, channels and cellars. Beware of reignition. Vapours can form explosive mixtures with air even at normal temperatures.

5.3 *Advice for firefighters*

Wear self-contained breathing apparatus. Do not inhale explosion and combustion gases.
Cool endangered containers with water spray jet out of sheltered position. Due to the high vapour pressure, containers are liable to burst if temperature rises.
Fire residues and contaminated firefighting water must be disposed of in accordance with the local regulations.
Use only explosion-proof equipment. Use only solvent-resistant equipment.
Fire class in accordance with EN 2: B (fires of liquid or liquefying substances).

SECTION 6: Accidental release measures

6.1 *Personal precautions, protective equipment and emergency procedures*

6.1.1 *For non-emergency personnel*

Ensure adequate ventilation. Use personal protective clothing. Keep away sources of ignition.
Do not inhale vapours/aerosols. Avoid contact with eyes and skin.
Use respiratory protection if exposed to vapours.
Keep away from unprotected people.

6.1.2 *For emergency responders*

For suitable fabric for personal protective clothing see Section 8.

6.2 *Environmental precautions*

Do not discharge into the drains, the aquatic environment and soil.

6.3 *Methods and material for containment and cleaning up*

For large amounts: pump off product. Clean up affected area with water.
For residues: pick up with non-combustible adsorbent (e.g. diatomaceous earth, expanded mica, sand).
Dispose of absorbed material in accordance with the regulations. Send in suitable containers for recovery or disposal.
Clean up affected area with water.
Small amounts (up to 1 liter): flush away with plenty of water.

6.4 *Reference to other sections*

For personal protective equipment see also Section 8. For disposal considerations see also Section 13.

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SECTION 7: Handling and storage

7.1 *Precautions for safe handling*

7.1.1 *Advice on safe handling*

Open and handle container with care.
Avoid formation of vapours.
Do not leave containers open. Use solvent-resistant equipment.
Provide good room ventilation even at ground level (vapours are heavier than air).
Avoid contact with eyes and skin.
Comply with the minimum standards in accordance with TRGS 500.¹
In designing the work process the model solutions of the Control Guidance Sheets 100¹, La-101¹ and 110¹ must be taken into consideration regardless on the amount released.

7.1.2 *Advice on general occupational hygiene*

Do not inhale vapours/aerosols. Avoid contact with eyes and skin.
Remove contaminated, soaked clothing immediately and wash before reuse.
At work do not eat, drink, smoke or take drugs.
Wash hands before breaks and after work. After cleaning apply high-fat content skin care cream.
Set out skin protection guidelines.
Emergency eyewash should be provided in the immediate working surroundings.

7.2 *Conditions for safe storage, including any incompatibilities*

7.2.1 *Advice on protection against fire and explosion*

Annex I No 1 and article 11 of the German Ordinance on Hazardous Substances in accordance with EC-Directive 1999/92/EC has to be observed.
Keep away from sources of ignition. Do not smoke.
Take precautionary measures against electrostatic loading.
Only use explosion-proof equipment/fittings and anti-static equipped (spark-free) tools.
Wear shoes with conductible soles.
Vapours can form explosive mixtures with air even at normal temperatures. Beware of reignition.
Ignitable mixtures can form in the empty container.
Take precautionary measures against electrostatic loading when filling and transferring the product.
Application of the module "Fire & explosion" of the easy-to-use workplace control scheme for hazardous substances:
Release group MEDIUM
In designing the work process the model solutions of the Control Guidance Sheets 100¹, La-101¹, 110¹ and pc-170¹ must be taken into consideration in case of possible release of only small amounts of product (mL-band).
In case of possible release of medium up to high amounts of product (L- or m³-band), the model solutions of the Control Guidance Sheets pc-270¹, pc-280¹ and pc-281¹ must be taken into consideration.

7.2.2 *Requirements for storage rooms and vessels*

Keep only in original container.
Keep container tightly closed. Keep in a cool, well-ventilated place.
Provide solvent-resistant and impermeable floor or make sure that spills can be contained, e.g. in sump pallets or kerbed areas.

7.2.3 *Advice on storage compatibility*

Do not store together with explosible and flammable material and oxidising agents.
The information about joint storage given in Table 2 of TRGS 510¹ must be observed.

7.2.4 *Further information on storage conditions*

Protect against direct sunlight.
Keep away from heat.

7.2.5 *Storage class (for Germany only)*

LGK 3 (Flammable liquids) in accordance with TRGS 510¹.

7.3 *Specific end use(s)*

The product is only intended for the uses mentioned under subsection 1.2.

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SECTION 8: Exposure controls/personal protection

8.1 Control parameters

CAS number	Identification	Limit values	Remarks
64-17-5	ethanol	1000 ppm / 1900 mg/m ³ 1000 ppm / 1907 mg/m ³ 1000 ppm / 1880 mg/m ³ 1000 ppm / 1900 mg/m ³ 500 ppm / 1000 mg/m ³ 1000 ppm / 1900 mg/m ³ 1000 ppm / 1900 mg/m ³ 200 ppm / 380 mg/m ³ 1900 mg/m ³ 1000 mg/m ³ 1900 mg/m ³ 1000 ppm / 1900 mg/m ³ 500 ppm / 960 mg/m ³ 500 ppm / 1000 mg/m ³ 500 ppm / 960 mg/m ³ 260 mg/m ³ 1000 ppm / 1920 mg/m ³ 2000 ppm / 3800 mg/m ³ 3000 ppm / 5639 mg/m ³ 2000 ppm / 3800 mg/m ³ 1000 ppm / 1900 mg/m ³ 1300 ppm / 2500 mg/m ³ 5000 ppm / 9500 mg/m ³ 800 ppm / 1520 mg/m ³ 7600 mg/m ³ 1000 ppm 5000 ppm / 9500 mg/m ³ 1000 ppm / 1920 mg/m ³ 1000 ppm / 1910 mg/m ³ 1000 ppm / 1900 mg/m ³ 1000 ppm / 1920 mg/m ³ 1900 mg/m ³	National limit values – eight hours Austria Belgium Czech Republic Denmark Estonia Finland France Germany Hungary Latvia Poland Romania Slovakia Sweden Switzerland The Netherlands United Kingdom National limit values – short term Austria Czech Republic Denmark Estonia Finland France Germany Hungary Ireland Romania Slovakia Spain Sweden Switzerland The Netherlands
25322-68-3	polyethylene glycol	1000 mg/m ³ (inhalable aerosol) 1000 mg/m ³ 1000 mg/m ³ (inhalable aerosol) 1000 mg/m ³ 1000 ppm 4000 mg/m ³ (inhalable aerosol) 2000 mg/m ³ 8000 mg/m ³ (inhalable aerosol)	National limit values – eight hours Austria Denmark Germany Slovakia Switzerland National limit values – short term Austria Denmark Germany

DNEL values

Additional limit values for ethanol in accordance with the registration dossier:

worker, long-term exposition: inhalation, systemic effect: 950 mg/m³
 worker, long-term exposition: dermal, systemic effect: 343 mg/kg_{bw}/d
 general population, long-term exposition: inhalation, systemic effect: 114 mg/m³
 general population, long-term exposition: dermal, systemic effect: 206 mg/kg_{bw}/d
 general population, long-term exposition: oral, systemic effect: 87 mg/kg_{bw}/d

Additional limit values for polyethylene glycol 200 in accordance with the registration dossier:

worker, long-term exposition: inhalation, systemic effect: 40.2 mg/m³
 worker, long-term exposition: dermal, systemic effect: 112 mg/kg_{bw}/d
 general population, long-term exposition: inhalation, systemic effect: 7.14 mg/m³
 general population, long-term exposition: dermal, systemic effect: 40 mg/kg_{bw}/d
 general population, long-term exposition: oral, systemic effect: 40 mg/kg_{bw}/d

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(continued from 8.1 Control parameters)

PNEC values

Additional limit values for ethanol in accordance with the registration dossier:

aquatic, fresh water:	0.96 mg/l
aquatic, marine water:	0.79 mg/l
aquatic, intermittent release:	2.75 mg/l
aquatic, sewage treatment plant:	580 mg/l
sediment, fresh water:	3.6 mg/kg _{dw}
sediment, marine water:	2.9 mg/kg _{dw}
soil environment:	0.63 mg/kg _{dw}
secondary intoxication, food, oral:	380 mg/kg food

Additional limit values for polyethylene glycol 200 in accordance with the registration dossier:

aquatic, fresh water:	0.273 mg/l
aquatic, marine water:	27.3 mg/l
sediment, fresh water:	1030 mg/kg _{dw}
sediment, marine water:	103 mg/kg _{dw}
soil environment:	46.4 mg/kg _{dw}

Preliminary measure of the concentration of ethanol with test tubes, e.g.:

Compur (549 210 Typ: 104 SA); Dräger (81 01 631 Typ: Alkohol 25/a); Auer (D5086818 Typ: Ethanol-100).

The methods for measuring chemical agents in workplace atmosphere must meet the general requirements of EN 482 and EN 689.

8.2 Exposure controls

8.2.1 Appropriate engineering controls

See also subsection 7.1.

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

The effectiveness of suitable protective measures must be controlled.

Suitable assessment methods are described in the German TRGS 402¹.

Vapours can form explosive mixtures with air even at normal temperatures. Annex I No 1 and article 11 of the German Ordinance on Hazardous Substances in accordance with EC-Directive 1999/92/EC has to be observed.

8.2.2 Individual protection measures, such as personal protective equipment

Personal protective equipment needs to be selected specifically for the workplace, depending on concentrations and quantities of the hazardous substances handled. In the cases of special applications, it is recommended to check the chemical resistance with the manufacturer/supplier of the personal protective equipment.

8.2.2.1 Eye/face protection

Tightly fitting safety glasses in accordance with EN 166 (i.e. safety glasses with side shields).

8.2.2.2 Skin protection

Hand protection:

Protective gloves (solvent-resistant).

Suitable: protective gloves of butyl rubber (0.5 mm; breakthrough time \geq 8 h);
protective gloves of fluorinated rubber (0.4 mm; breakthrough time \geq 8 h);
protective gloves of neoprene (0.5 mm; breakthrough time \geq 2 h).

Not suitable: protective gloves of natural rubber, nitrile rubber and PVC.

Totally unsuitable: protective gloves of leather or textile.

Wear cotton undermitten if possible.

Under practical conditions, the maximum wearing period can be significantly lower.

The protective gloves to be used must comply with the specifications of the standard EN 374.

Body protection:

Solvent-resistant and antistatic protective clothing.

8.2.2.3 Respiratory protection

In case of inadequate ventilation, and in case of formation of vapours/aerosols, wear respiratory protection.

Suitable respiratory protection, e.g. full mask/half mask/filtering half mask with

- gas filter, type A1 up to 1000ml/m³ (ppm);
- gas filter, type A2 up to 5000ml/m³ (ppm);
- gas filter, type A3 up to 10000ml/m³ (ppm).

The limitations in wearing time according to the the DGUV Regel 112-190² (rule of the German employers' liability insurance association) for the use of respirators have to be observed.

8.2.2.4 Thermal hazards

Not relevant.

8.2.3 Environmental exposure controls

See Section 6.

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SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state:	liquid		
Colour:	colourless		
Odour:	alcoholic		
Odour threshold:	no relevant		
pH (as supplied):	not determined		
pH (of an aqueous solution):	not determined		
Melting point/freezing point (°C):	not determined		
Boiling point and boiling range (°C):	not determined		
Flash point (°C), closed cup:	28		
Evaporation rate:	no data available		
Flammability (solid, gas):	not relevant		
Upper flammability or explosive limit (Vol-%):	27.7	(ethanol)	(literature value) ³
Lower flammability or explosive limit (Vol-%):	3.1	(ethanol)	(literature value) ³
Vapour pressure (20°C) (mbar):	not determined		
Vapour density (20°C):	not determined		
Density (g/cm ³):	not determined		
Relative density:	not determined		
Solubility in water:	miscible		
Soluble in:	not determined		
Partition coefficient: n-octanol/water:	- 0.30	(ethanol)	(LOGKOW [®] database)
	-0.698 (25°C)	(polyethylene glycol 200)	(registration dossier)
Auto-ignition temperature (°C):	400	(ethanol)	(literature value) ³
Decomposition temperature (°C):	no data available		
Viscosity:	no data available		
Explosive properties:	not explosive		
Oxidising properties:	not relevant		

9.2 Other information

The product is not explosive however vapours can form explosive mixtures with air even at normal temperatures.

SECTION 10: Stability and reactivity

10.1 Reactivity

Vapours can form explosive mixtures with air even at normal temperatures.

10.2 Chemical stability

The product is stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

10.3 Possibility of hazardous reactions

Strong exothermic reaction with strong oxidising agents, strong reducing agents, acids, acid anhydrides and alkali metals.

Risk of explosion in case of uncontrolled reaction.

10.4 Conditions to avoid

Avoid heating. Temperatures above 13°C promote the liquid-vapour phase transition and the formation of explosive atmosphere.

Keep away from sources of ignition.

Due to the high vapour pressure, containers are liable to burst if temperature rises.

10.5 Incompatible materials

Incompatible materials: various plastics and rubber will be affected.

Only use solvent resistant instruments.

10.6 Hazardous decomposition products

Reaction with strong oxidising agents, strong reducing agents, acids, acid anhydrides and alkali metals under formation of flammable gases (e.g. hydrogen).

In case of heating, formation of carbon monoxide and formaldehyde is possible.

For hazardous combustion products see subsection 5.2.

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SECTION 11: Toxicological information

11.1 Information on toxicological effects

The mixture has not been tested.

11.1.1 Acute toxicity

LD50 rat, oral	(mg/kg)	10470	(ethanol)	(OECD Test Guideline 401)
		> 2000	(polyethylene glycol 200)	(OECD Test Guideline 423)
LD50 rat, dermal	(mg/kg)	> 2000	(polyethylene glycol 200)	(OECD Test Guideline 402)
LC50 rat, inhalation	(mg/l/4h)	124.7; vapour	(ethanol)	(OECD Test Guideline 403)

11.1.2 Skin corrosion/irritation

Irritant effect on skin (rabbit)		Not irritating	(ethanol)	(OECD Test Guideline 404)
		Not irritating	(polyethylene glycol 200)	(OECD Test Guideline 404)

11.1.3 Serious eye damage/irritation

Irritant effect on eyes (rabbit)		Eye irritation	(ethanol)	(OECD Test Guideline 405)
		Not irritating	(polyethylene glycol 200)	(OECD Test Guideline 405)

11.1.4 Respiratory or skin sensitisation

The mixture is not classified.

Sensitisation test (Magnusson and Kligman):	Negative	(ethanol)	(IUCLID)
Skin sensitisation (guinea pig):	Not sensitising	(polyethylene glycol 200)	(registration dossier)

11.1.5 Germ cell mutagenicity

The mixture does not contain substances classified as germ cell mutagens.

11.1.6 Carcinogenicity

The mixture does not contain substances classified as carcinogenic.

11.1.7 Reproductive toxicity

The mixture does not contain substances classified as toxic for the reproduction.

11.1.8 Specific target organ toxicity (STOT)-single exposure

The mixture contains substances classified as being a specific target organ toxicant after single exposure below the generic cut-off values and below generic concentration limits triggering a classification.

11.1.9 Specific target organ toxicity (STOT)-repeated exposure

The mixture is not classified.

NOAEL rat (female), oral	(mg/kg _{bw} /d)	1730	(ethanol)	(OECD Test Guideline 404)
target organ: liver				
NOAEL rat (male), inhalation	(mg/l/20d)	> 20	(ethanol)	(OECD Test Guideline 403)

11.1.10 Aspiration hazard

The mixture does not contain aspiration toxicants.

11.1.11 Symptoms related to the physical, chemical and toxicological characteristics

Inhalation: causes a state of intoxication. When inhaled in larger quantities, the solvent vapours cause a narcotic effect.

Skin contact: prolonged or repeated skin contact may cause removal of natural fat from the skin resulting in dermatitis (skin inflammation).

Eye contact: irritant effect.

Ingestion: nausea, heartburn, vomiting.

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

Prolonged or repeated skin contact may cause removal of natural fat from the skin resulting in dermatitis (skin inflammation). Chronic consumption of large amounts of ethanol leads to organ damage (especially liver damage) and to damage of the nervous system.

ABSCHNITT 12: Umweltbezogene Angaben

12.1 Toxicity

Aquatic toxicity:

96 h LC50	(fish)	13000 mg/l	(Onchorhynchus mykiss; rainbow trout)
		> 100 mg/l	(ethanol) (OECD Test Guideline 203)
			(Poecilia reticulata; guppy)
NOEC 28 d	(fish)	13671.586 mg/l	(polyethylene glycol 200) (OECD Test Guideline 203)
			(Poecilia reticulata; guppy)
48 h EC50	(daphnia)	12340 mg/l	(polyethylene glycol 200) (registration dossier)
			(Daphnia magna)
		> 100 mg/l	(ethanol) (ASTM-E729-80)
			(Daphnia magna)
NOEC 21 d	(daphnia)	17475.27 mg/l	(polyethylene glycol 200) (OECD Test Guideline 202)
			(Daphnia magna)
			(polyethylene glycol 200) (registration dossier)
72 h ErC50	(algae)	275 mg/l	(Chlorella vulgaris; green algae)
			(ethanol) (OECD Test Guideline 201)

Behaviour in sewage works:

Treat by state-of-the-art technology before discharging into drains.

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12.2 Persistence and degradability

Ethanol:

biodegradation 97%/28 d (OECD Test Guideline 301 B); readily biodegradable.

Polyethylene glycol 200:

biodegradation 74.85%/28 d (registration dossier); readily biodegradable.

Chemical oxygen demand (COD) 1990 mg/g (ethanol) (IUCLID)

Theoretical oxygen demand (TOD) 2100 mg/g (ethanol) (external safety data sheet)

Biochemical oxygen demand (BOD) 74% from TOD 5 d (ethanol) (IUCLID)

AOX-hint Not to apply.

12.3 Bioaccumulative potential

Partition coefficient n-octanol/water: - 0.3 (ethanol) (LOGKOW® database)

- 0.698 (25°C) (polyethylene glycol 200) (registration dossier)

Ethanol: bioconcentration factor (BCF): 3.2 mg/l

Low potential to bioaccumulate (log Pow < 3).

12.4 Mobility in soil

The product has not been tested.

Ethanol is relatively volatile and would therefore readily evaporate from soil at the soil/air interface. (IUCLID)

Volatility of ethanol (calculated): 0.000138 (Henry's Law Constant).

12.5 Results of PBT and vPvB assessment

The mixture does not contain any substances classified as PBT/vPvB in a concentration of 0.1% or more.

12.6 Other adverse effects

Ozone depletion potential No data available.

Photochemical ozone creation potential No data available.

Global warming potential No data available.

The product is classified as slightly hazardous to water.

Contains according to the formulation following heavy metals and compounds of EC-Directives 2006/11/EC and 80/68/EEC:

None.

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

Waste disposal according to official state regulations. Sewage disposal must be avoided.

Consult the local waste disposal expert about waste disposal.

Disposal operations/recovery operations according to Directive 2008/98/ECDisposal operations: D 10 Incineration on land
R 1 Use principally as a fuel or other means to generate energy

Recovery operations: R 2 Solvent reclamation/regeneration

Properties of waste which render it hazardous in accordance with Annex III of Directive 2008/98/EC

HP 3: Flammable

13.1.1 Product / unused product

Waste disposal corresponding to European Waste Catalogue. Wastes must be classified with respect to their origin and depending on different processing steps. The waste codes mentioned as follows are only constituted as our recommendations. Referring to the particular case they should be completed or revised.

EC waste code: 07 07 04

Waste notation: Other organic solvents, washing liquids and mother liquors

13.1.2 Contaminated packaging

Recommendation: Contaminated packaging should be emptied as far as possible and after appropriate cleansing may be taken for reuse.

Recommended cleansing agent: Water.

Packaging that cannot be cleaned:

EC waste code: 15 01 10

Waste notation: Packaging containing residues of or contaminated by hazardous substances

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SECTION 14: Transport information

- 14.1** *UN number*
UN 1170
- 14.2** *UN proper shipping name*
ETHANOL SOLUTION
- 14.3** *Transport hazard class(es)*
Class 3 (Flammable liquids)



- 14.4** *Packing group*
PG III (Substances presenting low danger)
- 14.5** *Environmental hazards*
Not relevant.
- 14.6** *Special precautions for user*
See Sections 6 to 8.
- 14.7** *Transport in bulk according to Annex II of MARPOL and the IBC Code*
Not relevant.
The product is delivered only in suitable packagings that are authorised in accordance with the transport regulations.

Further information

ADR:

Transport category: 3
 Tunnel restriction code according to ADR: (D/E)
 Classification code: F1

ADR/RID:

Hazard identification number: 30
 Limited Quantities (LQ): 5 litres (per inner packaging)
 Excepted quantities (EQ): E1

IMDG-Code:

EmS: F-E, S-D
 Limited Quantities (LQ): 5 litres (per inner packaging)
 Excepted quantities (EQ): E1

IATA-DGR:

Limited Quantities (LQ): 2.5 litres (per inner packaging of glass)
 5.0 litres (per inner packaging of metall)
 5.0 litres (per inner packaging of plastic)
 10.0 litres (total net quantity per package)
 Excepted quantities (EQ): E1

SECTION 15: Regulatory information

- 15.1** *Safety, health and environmental regulations/legislation specific for the substance or mixture*
- 15.1.1** *Information regarding relevant Union safety, health and environmental provisions*
- Regulation (EC) No 1907/2006: The mixture does not contain substances classified as substances of very high concern (SVHC) in accordance with Article 57 of the regulation.
 - Conditions of restriction in accordance with Regulation (EC) No 1907/2006:: Annex XVII, No 3 and No 40
 - Directive 2010/75/EU: < 30% volatile organic compounds (VOC)
 - Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances: Annex I, hazard category P5c.
 - Observe employment restrictions under the law for the protection of young people at work (94/33/EC).
 - Observe Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.
 - In case of formation of explosive vapour/air mixtures, Directives 94/9/EC and 1999/92/EG must be observed.

Trade name:	AnaRapid Geldrying solution	
Company/Undertaking:	anamed Elektrophorese GmbH	
	Ringstraße 4, D-64401 Gross-Bieberau	
Telephone:	+49-6162-809840	Revision date: 28.02.2020
Product number:	anam0017	

15.1.2 Information regarding national laws/national measures that may be relevant (for Germany only)

Restriction of occupation:	Youth Employment Protection Act has to be observed.
Major-accident Ordinance:	Annex I, hazard category P5c
Fire and explosion hazards:	Annex I No 1 and article 11 of the Ordinance on Hazardous Substances in accordance with Directive 1999/92/EC has to be observed
Regulation on clean air (TA Luft):	Number 5.2.5 organic compounds – total carbon; < 30% ethanol
Water hazard class:	WGK 1 – slightly hazardous to water (deduction of the WGK according to Annex 1 No 5.2 AwSV) ⁴ The German Ordinance on facilities for handling substances that are hazardous to water (AwSV) has to be observed
German Ordinance on Hazardous Substances (in accordance with EC-Directive 98/24/EC):	Articles 6, 7, 8, 9, 11, 14, Annex I No 1 must be observed
Regulation on Occupational Medical Prevention (ArbMedVV):	Annex, Part 1 (2) c: Activities involving ethanol for which workers are to be afforded the opportunity to undergo preventive medical check-ups (duty of care).
Technical Rules for Hazardous Substances ¹ :	TRGS 400, 402, 500, 510, 555, 720, 721, 722, 723, 724, 725, 727, 800, 900
Technical Rules for Industrial Safety ¹ :	TRBS 2152, 2152 Part 1, 2152 Part 2
Rules of the employers' liability insurance association ² :	DGUV Regel 113-001, 112-189, 112-190, 112-192, 112-195
Classification in accordance with the easy-to-use workplace control scheme for hazardous substances of the Federal Institute for Occupational Safety and Health, version 2.2, 2014 ⁵ :	inhalation: hazard group A
Classification in accordance with the module "Fire & explosion" of the easy-to-use workplace control scheme for hazardous substances of the Federal Institute for Occupational Safety and Health, version 2016 ⁶ :	fire and explosion: hazard group pc-B
In accordance with Article 16e of the German Chemicals Act there is an obligation to notify the product at the Federal Institute of Risk Assessment (BfR).	
Number of the product in the Poison Information Database:	5818041

15.2 Chemical safety assessment

No chemical safety assessment has been carried out for a substance in the product.

SECTION 16: Other information

16.1	Keeping (restrictions)	Article 8 (5) and (6) German Ordinance on Hazardous Substances (for Germany only)
	Supply	University (college, academy), industry consumer
16.2	Full text of the hazard statements referred to under subsection 2.1 and point 3.2.2 of the Safety Data Sheet	
	H225	Highly flammable liquid and vapour.
	H226	Flammable liquid and vapour.
	H319	Causes serious eye irritation.
16.3	Key to abbreviations and acronyms used in the safety data sheet	
	ADN:	Accord européen relatif au transport international des marchandises dangereuses par voie de navigation intérieure
	ADR:	Accord européen relatif au transport international des marchandises dangereuses par route
	AOX:	adsorbable organically bound halogens
	AwSV:	Verordnung über Anlagen zum Umgang mit wassergefährdenden Stoffen (Ordinance on facilities for handling substances that are hazardous to water)
	ASTM:	American Society for Testing and Materials
	DNEL:	Derived No-Effect Level
	IATA-DGR:	International Air Transport Association – Dangerous Goods Regulations
	ICAO-TI:	International Civil Aviation Organisation – Technical Instructions
	IMDG-Code:	International Maritime Dangerous Goods-Code
	IUCLID:	International Uniform Chemical Information Database
	KBwS:	Commission for the Evaluation of substances hazardous to waters (Kommission Bewertung wassergefährdende Stoffe)
	LGK:	Lagerklasse (storage class)
	NOAEL:	No-observed adverse effect level
	NOEC:	No-observed effect level concentration

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(continued from 16.3 Key to abbreviations and acronyms used in the safety data sheet)

OECD:	Organisation for Economic Co-operation and Development
PBT:	persistent, bioaccumulative and toxic
PNEC:	Predicted No-Effect Concentration
RID:	Règlement international concernant le transport des marchandises dangereuses par chemin de fer
RECS:	Registry of Toxic Effects of Chemical Substances
TRBS:	Technische Regeln für Betriebssicherheit (Technical Rules for Industrial Safety)
TRGS:	Technische Regeln für Gefahrstoffe (Technical Rules for Hazardous Substances)
vPvB:	very persistent and very bioaccumulative

16.4 Literature references and sources for data

- ¹ <http://www.baua.de>
- ² <http://www.arbeitssicherheit.de>
- ³ <http://www.dguv.de/ifa/de/gestis/stoffdb/index.jsp>
- ⁴ <http://www.umweltbundesamt.de>
- ⁵ <http://www.baua.de/emkg>
- ⁶ <http://www.baua.de/de/Publikationen/Fachbeitraege/Gd65.html>
- ⁷ <http://echa.europa.eu/de/information-on-chemicals/cl-inventory-database>

16.5 Method used for the classification of the mixture

The classification was undertaken in accordance with the classification criteria of Annex I of Regulation (EC) No 1272/2008.

16.6 Changes which have been made to the previous version of the safety data sheet

Revised sections: 1.3, 3.2.1, 3.2.2, 8.1, 9.1, 11.1.1, 11.1.2, 11.1.3, 11.1.4, 12.1, 12.2, 12.3, 14.7, 15.1.1, 15.1.2, 16.3, 16.4

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.