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

1.1. Product identifier

Name of product Bayrofix / Bayroshock
414926

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

Recommended intended purpose(s)
Disinfection, oxidation, algae prevention and hardness stabilizer of pool water

1.3. Details of the supplier of the safety data sheet

Manufacturer/distributor
BAYROL Deutschland GmbH
Robert-Koch-Str. 4, D-82152 Planegg
Phone +49 (0) 89 85701-0

Advice
E-mail (competent person):
ASchwarzenboeck@bayrol.eu

1.4. Emergency telephone number

NCEC, Phone (+44)(0)1865407333

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [CLP/GHS]

Hazard classes and Hazard categories	Hazard Statements	Classification procedure
Acute Tox. 4	**H302**	
Eye Dam. 1	**H318**	
Aquatic Chronic 3	**H412**	

Hazard Statements

H302	Harmful if swallowed.
H318	Causes serious eye damage.
H412	Harmful to aquatic life with long lasting effects.

2.2. Label elements

Labelling according to Regulation (EC) No 1272/2008 [CLP/GHS]


GHS05


GHS07

Signal word
Danger

Hazard Statements

H302	Harmful if swallowed.
H318	Causes serious eye damage.
H412	Harmful to aquatic life with long lasting effects.

Precautionary Statements

P101	If medical advice is needed, have product container or label at hand.
P102	Keep out of reach of children.
P234	Keep only in original container.
P235	Keep cool.
P270	Do no eat, drink or smoke when using this product.
P280	Wear protective gloves/eye 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.
P308 + P311	IF exposed or concerned: Call a POISON CENTER/doctor.
P405	Store locked up.
P501	Dispose of contents/ container to an approved waste disposal plant.

Hazardous ingredients for labeling
Wasserstoffperoxid in Lösung 34 %

2.3. Other hazards
Results of PBT and vPvB assessment
The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

SECTION 3: Composition/ information on ingredients

3.1. Substances
not applicable

3.2. Mixtures
Hazardous ingredients

CAS No	EC No	Name	[% weight]	Classification according to Regulation (EC) No 1272/2008 [CLP/GHS]
7722-84-1	**231-765-0**	**hydrogen peroxide solution ...%**	**34**	**Ox. Liq. 1, H271 / Acute Tox. 4, H332 / Acute Tox. 4, H302 / Skin Corr. 1A, H314**
25988-97-0		**Polymer of N-Methylmethanamine with (chloro methyl)oxirane**	**1**	**Acute Tox. 4, H302 / Aquatic Acute 1, H400 M=10 / Aquatic Chronic1, H410 M=1 /**

SECTION 4: First aid measures

4.1. Description of first aid measures
General information
Remove contaminated soaked clothing immediately and dispose it safely.
Symptoms of poisoning may not occur for hours, therefore medical supervision for at least 48 hours necessary.
Adhere to personal protective measures when giving first aid.

In case of inhalation
Remove the casualty into fresh air and keep him immobile.
In the event of symptoms refer for medical treatment.

In case of skin contact
In case of contact with skin wash off immediately with plenty of water.
Refer for medical treatment.

In case of eye contact
Rinse immediately with plenty of water for at least 15 minutes.
Keep eye wide open while rinsing.
Call for a doctor immediately.

In case of ingestion
Do not induce vomiting.
Refer to medical treatment.
Rinse out mouth and give plenty of water to drink.

4.2. Most important symptoms and effects, both acute and delayed
Physician's information / possible dangers
risk of strong eye injuries

4.3. Indication of any immediate medical attention and special treatment needed
Treatment (Advice to doctor)
Treat symptoms.

SECTION 5: Firefighting measures

5.1. Extinguishing media
Suitable extinguishing media
water

5.2. Special hazards arising from the substance or mixture
The product is not combustible, but supports burning by evolving oxygen gas in the heat of fire.

5.3. Advice for firefighters
Special protective equipment for fire-fighters
Use breathing apparatus with independent air supply.
Wear full protective clothing.

Additional information
Cool endangered containers with water spray jet.
Fire residues and contaminated firefighting water must be disposed of in accordance with the local regulations.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
For non-emergency personnel
Use personal protective clothing.
Keep away sources of ignition.

6.2. Environmental precautions
Do not discharge into the drains/surface waters/groundwater.

6.3. Methods and material for containment and cleaning up
Dilute with plenty of water.

6.4. Reference to other sections
Safe handling: see section 7
Disposal: see section 13
Personal protection equipment: see section 8
Emergency telephone number: see section 1

SECTION 7: Handling and storage

7.1. Precautions for safe handling
Advice on safe handling
Open and handle container with care!
Do not return residues to the storage containers.
Take the usual precautions when handling with chemicals.

General protective measures
Avoid contact with eyes and skin

Hygiene measures
Do not eat or drink when working.
Keep away from food and drink.
Wash hands before breaks and after work.

Advice on protection against fire and explosion
Keep away from sources of ignition
Emergency cooling must be provided for the eventuality of a fire in the vicinity.
The product is not combustible, but supports burning.

7.2. Conditions for safe storage, including any incompatibilities
Requirements for storage rooms and vessels
Keep only in original container (with safety valve).

Advice on storage compatibility
Do not store with combustible materials.
Do not store together with food.

Further information on storage conditions
Protect from heat and direct solar radiation.
Container should not be gas-tight closed.
Keep in a cool place, heat causes increase in pressure and risk of bursting.

Information on storage stability
Storage time: 5 years.

7.3. Specific end use(s)
Recommendation(s) for intended use
See section 1.2

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.2. Exposure controls
Respiratory protection
Breathing apparatus in the event of aerosol or mist formation.

Hand protection
chemical-resistant gloves
Suitable materials (recommended: protection index 6, >480 minutes permeation time according to EN 374)
Nitrile-butadiene rubber (NBR) - 0.4 mm layer thickness
Butyl rubber (butyl) - 0.7mm layer thickness
In view of the many different types, the manufacturers' directions for use must be followed

Eye protection
Face shield
Safety goggles

Other protection measures
protective overalls

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Colour	Odour
liquid	colourless	odourless

Odour threshold
not determined

Important health, safety and environmental information

	Value	Temperature	at	Method	Remark
pH value	2-4	20 °C		potentiometric	
boiling point	107 °C				
melting point	-26 °C				
Flash point	not applicable				
Vapourisation rate	not determined				
Flammable (solid)	not determined				
Flammability (gas)	not determined				
Ignition temperature	not determined				
Self ignition temperature	not determined				
Lower explosion limit	not applicable				
Upper explosion limit	not applicable				
Vapour pressure	12 mbar	20 °C			
Relative density	1,13 g/cm3	20 °C			
Vapour density	not determined				
Solubility in water					multimiscible
Solubility/other	not determined				
Partition coefficient n-octanol/water (log P O/W)	not determined				
Decomposition temperature	not determined				

	Value	Temperature	at	Method	Remark
Viscosity	not determined				

Oxidising properties
No information available.

Explosive properties
No information available.

9.2. Other information
No information available.

SECTION 10: Stability and reactivity

10.1. Reactivity
Reactions with impurities.
Reactions with organic substances.
Reactions with alkalies and metals.

10.2. Chemical stability
Decompostion takes place from temperatures above:
>60°C

10.3. Possibility of hazardous reactions
No information available.

10.4. Conditions to avoid
No information available.

10.5. Incompatible materials
Substances to avoid
Alkali (lye)
Acid
Reducing agent

10.6. Hazardous decomposition products
Oxygen

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity/Irritation/Sensitization

	Value/Validation	Species	Method	Remark
LD50 acute oral	1000 mg/kg	rat		
LD50 acute dermal	4060 mg/kg	rabbit		
Eye irritation	risk of strong eye injuries			

Subacute Toxicity - Carcinogenicity

	Value	Species	Method	Validation
Mutagenicity				No information available.
Reproduction-Toxicity				No information available.
Carcinogenicity				No information available.

Experiences made from practice
Product discolours skin.
After swallowing: burns in mouth, throat, oesophagus and gastrointestinal tract. Risk of perforation in the oesophagus and stomach.

Additional information
The declarations of toxicology refer to main component.

SECTION 12: Ecological information

12.1. Toxicity

Ecotoxicological effects

	Value	Species	Method	Validation
Fish	LC50 0,077 mg/l (96 h)	Oncorhynchus mykiss	OECD 203	M = 10
Daphnia	EC50 0,08 mg/l (48 h)	Daphnia magna	OECD 202	M = 10
Algae	EC50 0,13 mg/l	Scenedesmus subspicatus	OECD 201	

12.2. Persistence and degradability

	Elimination rate	Method of analysis	Method	Validation
Biological degradability	81 % (28 d)			

12.3. Bioaccumulative potential
No information available.

12.4. Mobility in soil
No information available.

12.5. Results of PBT and vPvB assessment
The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

12.6. Other adverse effects
General regulation
The following ecotoxicological data refer to:
Polymer aus N-Methylmethanamin mit (Chlormethyl)oxiran
The ecological figures refer to undiluted 100% pure substance.

SECTION 13: Disposal considerations

13.1. Waste treatment methods
Recommendations for the product
Remove in accordance with local official regulations.
There are no harmonised regulations on the disposal of chemicals in the member states of the EU. In Germany the Recycling and Waste Management Act (KrWG) stipulates recycling as a requirement.
The product should not be allowed to enter drains, water courses or the soil.

Recommendations for packaging
Uncontaminated packaging may be taken for recycling.

Recommended cleansing agent
Water

SECTION 14: Transport information

	ADR/RID	IMDG	IATA-DGR
14.1. UN number	2014	2014	2014
14.2. UN proper shipping name	HYDROGEN PEROXIDE, AQUEOUS SOLUTION	HYDROGEN PEROXIDE, AQUEOUS SOLUTION	Hydrogen peroxide, aqueous solution
14.3. Transport hazard class(es)	5.1 (8)	5.1 (8)	5.1 (8)
14.4. Packing group	II	II	II
14.5. Environmental hazards	No	No	No

14.6. Special precautions for user
No information available.

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
No information available.

Land and inland navigation transport ADR/RID
Hazard label(s) 5.1+8
tunnel restriction code E
Classification code OC1

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture
Other regulations (EU)
Please note:
Observe regulation 98/24/EC for employee health protection against the threat of chemical substances in the workplace.

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

SECTION 16: Other information

Recommended uses and restrictions
National and local regulations concerning chemicals shall be observed.
Acquisition, possession or use by the general public is restricted.

Further information
Refer to product information paper.
The information contained herein is based on the state of our knowledge. It characterizes the product with regard to the appropriate safety precautions. It does not represent a guarantee of the properties of the product.

Indication of changes: "!" = Data changed compared with the previous version. Previous version: 1.7
Sources of key data used
Results of own researches and examinations
Literature informations
Toxicity studies, NIOSH-Tox-Data
National legislation and regulation

H271	May cause fire or explosion; strong oxidiser.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H332	Harmful if inhaled.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.