Section: 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

Product name : Bioquell HPV-AQ

UFI : 6UUA-YNSN-E20X-T5X7

Product code : 117773E

Use of the : Surface Disinfectant

Substance/Mixture

Substance type: : Mixture

HN – Hot fogging concentrate

Product dilution information : Product is sold ready to use.

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

Recommended restrictions

on use

: Reserved for industrial and professional use.

1.3 Details of the supplier of the safety data sheet

Company : Ecolab Deutschland GmbH

Ecolab-Allee 1

40789 Monheim am Rhein, Germany +49 (0)2173 599 1000, +44

(0) 1264 835 835

Bioquell.enquiries@ecolab.com

1.4 Emergency telephone number

Emergency telephone

number

: Europe: 1-760-476-3961 Use access code: 333809

Date of Compilation/Revision : 16.01.2024 version : 3.1

Section: 2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Oxidizing liquids, Category 2

Acute toxicity, Category 4

Skin irritation, Category 2

Serious eye damage, Category 1

Specific target organ toxicity - single exposure, Category 3,

H375

H318

Respiratory system

Chronic aquatic toxicity, Category 3 H412

2.2 Label elements

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Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms







Signal Word : Danger

Hazard Statements : H272 May intensify fire; oxidiser.

H302 Harmful if swallowed. H315 Causes skin irritation.

H318 Causes serious eye damage. H335 May cause respiratory irritation.

H412 Harmful to aquatic life with long lasting effects.

Precautionary Statements : Prevention:

P220 Keep away from clothing and other

combustible materials.

P261 Avoid breathing mist or vapours.

P270 Do not eat, drink or smoke when using this

product.

P273 Avoid release to the environment.

P280 Wear protective gloves/ protective clothing/ eye

protection/ face protection/ hearing protection.

Response:

P301 + P312 + P330 IF SWALLOWED: Call a POISON

CENTER or doctor/ physician if you feel

unwell. Rinse mouth.

P302 + P352 IF ON SKIN: Wash with plenty of water. P332 + P313 If skin irritation occurs: Get medical

advice/attention.

P362 + P364 Take off contaminated clothing and wash it

before reuse.

P304 + P340 IF INHALED: Remove person to fresh air and

keep comfortable for breathing.

P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with

water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER

or doctor/ physician.

P312 Call a POISON CENTER/doctor if you feel

unwell.

P370 + P378 In case of fire: Use water spray to extinguish.

Storage:

P405 Store locked up.

P403 + P233 Store in a well-ventilated place. Keep container

tightly closed.

Disposal:

P501 Dispose of contents/ container to an approved

facility in accordance with local, regional, national and international regulations.

Hazardous components which must be listed on the label: Hydrogen peroxide

2.3 Other hazards

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Do not mix with bleach or other chlorinated products – will cause chlorine gas.

Section: 3. COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixtures

Hazardous components

Chemical Name	CAS-No.	Classification	Concentration
	EC-No.	REGULATION (EC) No 1272/2008	: [%]
	REACH No.	,	
Hydrogen peroxide	7722-84-1 231-765-0 01-2119485845-22	Nota B Oxidizing liquids Category 1; H271 Acute toxicity Category 4; H302 Acute toxicity Category 4; H332 Skin corrosion Sub-category 1A; H314 Serious eye damage Category 1; H318 Specific target organ toxicity - single exposure Category 3; H335 Chronic aquatic toxicity Category 3; H412 Oxidizing liquids Category 1 H271 >= 70 % Oxidizing liquids Category 2 H272 50 - < 70 % Skin corrosion Category 1A H314 >= 70 % Skin corrosion Category 1B H314 50 - < 70 % Skin irritation Category 2 H315 35 - < 50 % Serious eye damage Category 1 H318 8 - < 50 % Eye irritation Category 2 H319 5 - < 8 % Specific target organ toxicity - single exposure Category 3 H335 >= 35 %	>= 35 - < 50

For the full text of the H-Statements mentioned in this Section, see Section 16.

Section: 4. FIRST AID MEASURES

4.1 Description of first aid measures

In case of eye contact	Rinse immediately with plenty of water, also under the eyelids, fo at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately.
In case of skin contact	Wash off immediately with plenty of water for at least 15 minutes. Get medical attention if irritation develops and persists. Take off immediately all contaminated clothing and wash it before reuse.
If swallowed	Rinse mouth. Do not induce vomiting. Drink water. Call physician immediately.
If inhaled	Remove to fresh air. Treat symptomatically. Get medical attention if symptoms occur.

4.2 Most important symptoms and effects, both acute and delayed

See Section 11 for more detailed information on health effects and symptoms.

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4.3 Indication of immediate medical attention and special treatment needed

Treatment : Treat symptomatically.

Section: 5. FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media : Water

Unsuitable extinguishing

media

: Anything other than water Carbon dioxide (CO2)

Dry chemical

Foam

5.2 Special hazards arising from the substance or mixture

Specific hazards during

firefighting

: Oxidizer. Contact with other material may cause fire.

On decomposition, releases oxygen which may intensify fire. In case of a fire, if it is possible without risk, remove all containers exposed to the fire and store them in a safe place, away from any

source of heat.

Cool closed containers exposed to fire with water spray.

Hazardous combustion

products

: Depending on combustion properties, decomposition products

may include following materials:

Oxygen

5.3 Advice for firefighters

for firefighters

Special protective equipment: Use personal protective equipment.

Further information : Fire residues and contaminated fire extinguishing water must be

disposed of in accordance with local regulations. In the event of

fire and/or explosion do not breathe fumes.

Section: 6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Advice for non-emergency

personnel

: Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Avoid inhalation, ingestion and contact with skin and

eyes. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. Ensure clean-up is conducted by trained personnel only. Move all flammable sources out of danger and keep them away from the scene. Refer to protective measures listed in sections 7 and 8.

Advice for emergency

responders

If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable

materials.

6.2 Environmental precautions

: Do not allow contact with soil, surface or ground water. DO NOT **Environmental precautions**

hermetically seal any defective containers, including drums (risk of

bursting due to the decomposition of the product)

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6.3 Methods and materials for containment and cleaning up

Methods for cleaning up : Stop leak if safe to do so. Contain spillage, and then collect with

non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

Flush away traces with water. Isolate absorbed wastes contaminated with this product from other waste streams

containing combustible materials (paper, wood fibers, cloth, etc.).

6.4 Reference to other sections

See Section 1 for emergency contact information.

For personal protection see section 8.

See Section 13 for additional waste treatment information.

Section: 7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Advice on safe handling : Do not ingest. Avoid contact with skin and eyes. Do not get in

eyes, on skin, or on clothing. Use only with adequate ventilation. Wash hands thoroughly after handling. Do not breathe spray, vapour. Do not mix with bleach or other chlorinated products – will cause chlorine gas. In case of mechanical malfunction, or if in contact with unknown dilution of product, wear full Personal

Protective Equipment (PPE).

Hygiene measures : Handle in accordance with good industrial hygiene and safety

practice. Remove and wash contaminated clothing before re-use.

Wash face, hands and any exposed skin thoroughly after

handling. Provide suitable facilities for quick drenching or flushing of the eyes and body in case of contact or splash hazard.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers

: Protect from frost, heat and sunlight. Do not store on wooden pallets. Store at room temperature in the original container. Keep in a cool, well-ventilated place. Keep away from reducing agents. Keep away from combustible material. Keep out of reach of children. Keep container tightly closed. Store in suitable labeled containers. Do not hermetically seal the container. Always transport and store the containers upright. Risk of overpressure and bursting in the event of decomposition in closed containers

and in pipes.

Storage temperature : 5 °C to 25 °C

7.3 Specific end uses

Section: 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Occupational Exposure Limits

Components	CAS-No.	Value type (Form	Control parameters	Basis

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			of exposure)		
Hydrogen peroxide	7722-84-1		AGW	0.5 ppm	TRGS 900
				0.71 mg/m3	
Further information	Y When t		en there is compliance with the OEL and biological tolerance value		nce values, there
	is no ri		is no risk of harming the unborn child		
			MAK	0.5 ppm	DE DFG MAK
				0.71 mg/m3	
Further information	4	Substances that cause cancer in humans or animals or that are considered to be carcinogenic for humans and for which a MAK value can be derived.			
	С	Damage to the embryo or foetus is unlikely when the MAK value or the BAT value is observed			alue or the BAT

DNEL

Hydrogen peroxide	••	End Use: Workers Exposure routes: Inhalation Potential health effects: Long-term systemic effects Value: 1.4 mg/m3
		End Use: Workers Exposure routes: Inhalation Potential health effects: Short-term - systemic Value: 3 mg/m3

8.2 Exposure controls

Appropriate engineering controls

Engineering measures : Effective exhaust ventilation system. Maintain air concentrations

below occupational exposure standards.

Individual protection measures

Hygiene measures : Handle in accordance with good industrial hygiene and safety

practice. Remove and wash contaminated clothing before re-use.

Wash face, hands and any exposed skin thoroughly after handling. Provide suitable facilities for quick drenching or flushing

of the eyes and body in case of contact or splash hazard.

Eye/face protection (EN 166) : Safety goggles

Face-shield

Hand protection (EN 374) : In case of skin contact it is recommended to wear gloves to avoid

oxidation effect (e.g. skin whitening)

Recommended preventive skin protection Gloves

Nitrile rubber butyl-rubber

Breakthrough time: 1 – 4 hours

Minimum thickness for butyl-rubber 0.7 mm for nitrile rubber 0.4

mm or equivalent (please refer to the gloves

manufacturer/distributor for advise).

Gloves should be discarded and replaced if there is any indication

of degradation or chemical breakthrough.

Skin and body protection

(EN 14605)

: No special protective equipment required.

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Respiratory protection (EN

143, 14387)

: When respiratory risks cannot be avoided or sufficiently limited by technical means of collective protection or by measures, methods or procedures of work organization, consider the use of certified respiratory protection equipment meeting EU requirements (89/656/EEC, (EU) 2016/425), or equivalent, with filter type:P

Environmental exposure controls

General advice : Consider the provision of containment around storage vessels.

Section: 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Physical state : liquid

Colour : clear, colourless

Odour : odourless

pH : 1.5 - 3.5, 100 %

Particle characteristics

Assessment : not applicable
Particle size : not applicable
Particle Size Distribution : not applicable
Dustiness : not applicable
Specific surface area : not applicable
Surface charge/Zeta : not applicable

potential

Shape : not applicable
Crystallinity : not applicable
Surface treatment : not applicable

/Coatings

Flash point : Not applicable.

Odour Threshold : Not applicable and/or not determined for the mixture Melting point/freezing point : Not applicable and/or not determined for the mixture

Boiling point, initial boiling point and boiling range

t, initial boiling : > 100 °C

Evaporation rate : Not applicable and/or not determined for the mixture

Flammability : Not applicable and/or not determined for the mixture

Upper explosion limit : Not applicable and/or not determined for the mixture

Lower explosion limit : Not applicable and/or not determined for the mixture

Vapour pressure : Not applicable and/or not determined for the mixture

Relative vapour density : Not applicable and/or not determined for the mixture

Density and / or relative

density

: 1.1 - 1.2

Water solubility : soluble

Solubility in other solvents : Not applicable and/or not determined for the mixture

Partition coefficient: n- : log Pow: -1.57Method: Calculated

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octanol/water (log value)

Auto-ignition temperature : Not applicable and/or not determined for the mixture Thermal decomposition : Not applicable and/or not determined for the mixture

Viscosity, kinematic : 0.980 mm2/s (40 °C)

Explosive properties : Not applicable and/or not determined for the mixture

Oxidizing properties : Yes

9.2 Other information

Not applicable and/or not determined for the mixture

Section: 10. STABILITY AND REACTIVITY

10.1 Reactivity

Decomposes on heating. Potential for exothermic hazard.

10.2 Chemical stability

Decomposes on heating.

Contamination may result in dangerous pressure increases - closed containers may rupture.

10.3 Possibility of hazardous reactions

Do not mix with bleach or other chlorinated products - will cause chlorine gas.

10.4 Conditions to avoid

Heat.

Exposure to light.

Freezing temperatures.

10.5 Incompatible materials

Acids

Bases

Powdered metal salts

Metals

Reducing agents

Flammable materials

Organic materials

Heavy metal salts

10.6 Hazardous decomposition products

Depending on combustion properties, decomposition products may include following materials: Oxygen

Section: 11. TOXICOLOGICAL INFORMATION

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

Information on likely routes of : Inhalation, Eye contact, Skin contact

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exposure

Product

Acute oral toxicity : Acute toxicity estimate : 1,200 mg/kg

Acute toxicity estimate: 1,389 mg/kg

Acute inhalation toxicity : 4 h Acute toxicity estimate : > 20 mg/l

Test atmosphere: vapour

Acute dermal toxicity : There is no data available for this product.

Skin corrosion/irritation : There is no data available for this product.

Serious eye damage/eye

irritation

: There is no data available for this product.

Respiratory or skin

sensitization

: There is no data available for this product.

Carcinogenicity : There is no data available for this product.

Reproductive effects : There is no data available for this product.

Germ cell mutagenicity : There is no data available for this product.

Teratogenicity : There is no data available for this product.

STOT - single exposure : There is no data available for this product.

STOT - repeated exposure : There is no data available for this product.

Aspiration toxicity : There is no data available for this product.

Components

Acute oral toxicity : Hydrogen peroxide LD50 rat: 486 mg/kg

Potential Health Effects

Eyes : Causes serious eye damage.

Skin : Causes skin irritation.

Ingestion : Harmful if swallowed.

Inhalation : May cause respiratory tract irritation. May cause nose, throat, and

lung irritation.

Chronic Exposure : Health injuries are not known or expected under normal use.

Experience with human exposure

Eye contact : Redness, Pain, Corrosion

Skin contact : Redness, Irritation

Ingestion : No information available.

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Inhalation : Respiratory irritation, Cough

11.2 Information on other hazards

Endocrine disrupting

properties

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or

higher

Further information : no data available

Section: 12. ECOLOGICAL INFORMATION

12.1 Toxicity

Environmental Effects : Harmful to aquatic life with long lasting effects.

Product

Toxicity to fish

Toxicity to daphnia and other

aquatic invertebrates

: no data available: no data available

: no data available

Toxicity to algae Components

Toxicity to fish : Hydrogen peroxide

96 h LC50 Pimephales promelas (fathead minnow): 16.4 mg/l

Components

Toxicity to algae : Hydrogen peroxide

72 h EC50 Skeletonema costatum (marine diatom): 1.38 mg/l

12.2 Persistence and degradability

Product

no data available

Components

Biodegradability : Hydrogen peroxide

Result: Not applicable - inorganic

12.3 Bioaccumulative potential

no data available

12.4 Mobility in soil

no data available

12.5 Results of PBT and vPvB assessment

Product

Assessment : This substance/mixture contains no components considered to be

either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or

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higher.

12.6 Endocrine disrupting properties

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher

12.7 Other adverse effects

no data available

Section: 13. DISPOSAL CONSIDERATIONS

Dispose of in accordance with the European Directives on waste and hazardous waste. Waste codes should be assigned by the user, preferably in discussion with the waste disposal authorities.

13.1 Waste treatment methods

Product : Do not contaminate storm water drains, natural waterways or soil

with chemical or used container. Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of contents/container in accordance with local regulations.

Dispose of wastes in an approved waste disposal facility.

Contaminated packaging : Dispose of as unused product. Empty containers should be taken

to an approved waste handling site for recycling or disposal. Do not re-use empty containers. Dispose of in accordance with local,

state, and federal regulations.

Guidance for Waste Code

selection

: Inorganic wastes containing dangerous substances. If this product is used in any further processes, the final user must redefine and assign the most appropriate European Waste Catalogue Code. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable European (EU Directive 2008/98/EC)

and local regulations.

Section: 14. TRANSPORT INFORMATION

The shipper/consignor/sender is responsible to ensure that the packaging, labeling, and markings are in compliance with the selected mode of transport.

Land transport (ADR/ADN/RID)

14.1 UN number or ID : 2014

number

14.2 UN proper shipping : HYDROGEN PEROXIDE, AQUEOUS SOLUTION

name

14.3 Transport hazard : 5.1 (8)

class(es)

14.4 Packing group : II14.5 Environmental hazards : No14.6 Special precautions for : None

user

Air transport (IATA)

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Not permitted for transport

Sea transport (IMDG/IMO)

14.1 UN number or ID : 2014

number

: HYDROGEN PEROXIDE, AQUEOUS SOLUTION 14.2 UN proper shipping

name

14.3 Transport hazard : 5.1 (8)

class(es)

14.4 Packing group : 11 14.5 Environmental hazards : No 14.6 Special precautions for : None

14.7 Maritime transport in

bulk according to IMO

instruments

: Not applicable.

Section: 15. REGULATORY INFORMATION

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

according to Detergents : 30 % and more: Oxygen-based bleaching agents

Regulation EC 648/2004 Contains: Disinfectants

Regulation (EU) 2019/1148 on the marketing and use of explosives precursors

This product is regulated (containing reportable or/and restricted substances) by Regulation (EU) 2019/1148 (explosives precursors): all suspicious transactions, significant disappearances and thefts should be reported to the relevant national contact point.

Lower tier: 50 t

Upper tier: 200 t

Seveso III: Directive **OXIDIZING LIQUIDS AND SOLIDS P8**

2012/18/EU of the European Parliament and of the Council on the control of major-

accident hazards involving dangerous substances.

Candidate List of Substances : Not applicable.

of Very High Concern for

Authorisation

National Regulations

Take note of Dir 94/33/EC on the protection of young people at work.

: WGK 1 Hazard class for water

Classification according to AwSV, Annex 1

German storage class : 5.1B

15.2 Chemical Safety Assessment

No Chemical Safety Assessment has been carried out on the product.

Section: 16. OTHER INFORMATION

Procedure used to derive the classification according to REGULATION (EC) No 1272/2008

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Classification	Justification
Oxidizing liquids 2, H272	Based on product data or assessment
Acute toxicity 4, H302	Calculation method
Skin irritation 2, H315	Calculation method
Serious eye damage 1, H318	Calculation method
Specific target organ toxicity - single exposure 3, H335	Calculation method
Chronic aquatic toxicity 3, H412	Calculation method

Full text of H-Statements

H271	May cause fire or explosion; strong oxidiser.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H412	Harmful to aquatic life with long lasting effects.

Full text of other abbreviations

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN -Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx -Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx -Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA -International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO -International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 -Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of Very High Concern; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN -United Nations; vPvB - Very Persistent and Very Bioaccumulative

Prepared by : Regulatory Affairs

Numbers quoted in the MSDS are given in the format: 1,000,000 = 1 million and 1,000 = 1 thousand. 0.1 = 1 tenth and 0.001 = 1 thousandth

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SAFETY DATA SHEET according to Regulation (EC) No. 1907/2006

Bioquell HPV-AQ

REVISED INFORMATION: Significant changes to regulatory or health information for this revision is indicated by a bar in the left-hand margin of the SDS.

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.

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