SAFETY DATA SHEET

According to Commission Regulation (EU) No. 2015/ 830 Annex

BS CHEMICAL	**STERILFOAM**	The date of compilation:	2014-07-10
		Revision:	2021-04-26
		Version No.	4

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

Product identifier

Sterilfoam

Relevant identified uses of the substance/ mixture and uses advised against

Cleaning/ maintenance detergent for professional use – foaming disinfectant based on 1,5% peracetic acid.

SU0-2 Other activities related to manufacture and services

SU1 Agriculture, forestry, fishery

SU4 Manufacture of food products

SU20 Health services

PC8 Biocidal Products (e.g. Disinfectants, pest control)

PROC0 Other Process or activity

PROC5 Mixing or blending in batch processes for formulation of preparations and articles (multistage and/or significant contact)

PROC7 Industrial spraying

PROC10 Roller application or brushing

PROC11 Non-industrial spraying

ERC6B Industrial use of reactive processing aids

ERC8B Wide dispersive indoor use of reactive substances in open systems

Supplier/ Manufacturer

UAB „BS Chemical“, Briedžio g. 13, LT-97187 Kretinga, Lithuania, mob. tel.: +370 663 73748, info@bs-chemical.lt, www.bs-chemical.com

E-mail address for a competent person responsible for the safety data sheet

dovile@bs-chemical.lt

Emergency telephone number

112 (in Member State of EU).

Lithuania: +370 5 236 20 52, +370 687 533 78. Service is available 24 hours.

Estonia: 16662, calling from abroad (+372) 626 93 90. Hours of operation are during weekdays from Monday 9AM to Saturday 9AM (closed on Sunday and on national holidays).

Latvia: +371 67042473. Service is available 24 hours.

Norway: 22 59 13 00.

Poland: + 48 58 349 28 31, + 48 12 646 87 06, + 48 61 848 10 11, + 48 22 619 66 54 ext. 1240.

113 (in Member State of CIS).

Russia: 8 (495) 621-68-85; 8 (495) 621-68-85.

Belarus: +375 17 385 14 22.

2. HAZARDS IDENTIFICATION

Classification of the substance/ mixture and label elements

Signal word: DANGER

Hazard class:

Ox. Liq. 2, H272

Met. Corr. 1, H290

Acute tox. 4, H302

Skin Corr 1B, H314

Eye Dam. 1, H318

Acute Tox. 4, H332

STOT SE3, H335

Aquatic Chronic 2, H411


GHS03


GHS05


GHS07


GHS09

Hazard statements:

H272 May intensify fire; oxidiser.

H290 May be corrosive to metals.

H302 Harmful if swallowed.

H314 Causes severe skin burns and eye damage.

H332 Harmful if inhaled.

H335 May cause respiratory irritation.

H411 Toxic to aquatic life with long lasting effects.

Precautionary statements:

P210 Keep away from heat / sparks / open flames / hot surfaces. – No smoking.

P234 Keep only in original container.

P261 Avoid breathing vapours/spray/mist.

P273 Avoid release to the environment.

P280 Wear eye protection/protective gloves/protective clothing.

P303+P361+P353 IF ON SKIN (or hair): Remove / Take off immediately all contaminated clothing. Rinse skin with water / 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.

P310 Immediately call a POISON CENTER or doctor / physician.

P403+P235 Store in a well-ventilated place. Keep cool.

For professional users only. Read attached instructions before use.

Orther hazards

Description of hazard

In contact with compounds containing chlorine, toxic gases may form. Generates strong heat in contact with alkaline compounds, risk of bumping.

Health effect — Corrosive to skin and eyes. May cause permanent damage to the eyes, especially if the product is not washed away IMMEDIATELY. Harmful if swallowed. Harmful if inhaled. Spray mists may cause respiratory tract irritation. See section 11 for additional information on health hazards.

Environmental effects — Toxic to aquatic life with long lasting effects. Substantial amounts of the product may lead to a local change in acidity in small water systems which may have adverse effects on aquatic organisms. This product does not contain any PBT or vPvB substances.

Other hazards — Undiluted, the product may be corrosive to metals. When used in the recommended dosages, contact time and temperature, the product is compatible with metals.

3. COMPOSITION/ INFORMATION ON INGREDIENTS

Description of substance/ mixture Solution, mixture of substances listed below with no hazardous additions.

Hazardous components:

No	CAS No	EC No	Index No	Mass fraction, %	Chemical name, *registration number*	Classification
1.	7722-84-1	231-765-0	008-003-00-9	15 – 30	hydrogen peroxide solution ... % *01-2119485845-22-0000*	Ox. Liq. 1, H271 Acute Tox. 4, H302 Skin Corr 1A, H314 Eye Dam. 1, H318 Acute Tox. 4, H332 STOT SE3, H335
2.	64-19-7	200-580-7	607-002-00-6	1 – 5	acetic acid ... % *01-2119475328-30-0000*	Flam. Liq. 3, H226 Skin Corr. 1A, H314
3.	79-21-0	201-186-8	607-094-00-8	1 – 5	peracetic acid ...%	Flam. Liq. 3, H226 Org. Perox CD, H242 Acute Tox. 3, H301 Acute Tox. 4, H312 Skin Corr 1A, H314 Eye Dam. 1, H318 Acute Tox. 2, H330 STOT SE3, H335 Aquatic Acute 1, H400 M-factor 1 Aquatic Chronic 1, H410 M-factor 10
4.	308062-28-4	931-292-6	-	1 – 5	Amines, C10-16-alkyldimethyl, N-oxides *01-2119490061-47-0000*	Acute Tox. 4, H302 Skin Irrit. 2, H315 Eye Dam. 1, H318 Aquatic Acute 1, H400 Aquatic Chronic 2, H411
5.	2809-21-4	220-552-8	-	1 – 5	1-Hydroxyethane-1,1,-diphosphonic acid *01-2119510391-53-0000*	Met. Corr. 1, H290 Acute Tox. 4, H302 Eye Dam. 1, H318

Note: risk phrases and other signs are listed in Sections 2 and 16.

Components **according to EU Detergents Regulation No. 551/2009:**	
Cationic surfactants	< 5
Phosphonates	< 5

4. FIRST AID MEASURES

Description of first aid measures:

Information of the first aid	Remove affected person from source of contamination. In all cases if the damage to health occurred, seek immediate medical attention. If a person is unconscious do not give any water/ do not put anything into the mouth. If substance/mixture poisoning case was discovered immediately contact the nearest Poisons control and information centre.
Inhalation	Move injured person into fresh air and keep person calm under observation. If uncomfortable: Seek hospital and bring these instructions.
Skin contact	Wash off promptly and flush contaminated skin with water. Promptly remove clothing if soaked through and flush skin with water. Get medical attention if any discomfort continues.
Eye contact	Important! Immediately rinse with water for at least 15 minutes. May cause permanent damage if eye is not immediately irrigated. Make sure to remove any contact lenses from the eyes before rinsing. Immediately transport to hospital or eye specialist. Continue flushing during transport to hospital.
Ingestion	Immediately rinse mouth and drink plenty of water. Call an ambulance. Bring along these instructions. Do not induce vomiting. If vomiting occurs, the head should be kept low so that stomach vomit doesn't enter the lungs. Do not give victim anything to drink if he is unconscious.
Recommended personal protective equipment for first aid responders	Wear necessary protective equipment. For personal protection, see section 8.

Most important symptoms and effects (acute and delayed):

Acute symptoms and effects: Strongly corrosive. Causes severe burns and serious eye damage. Immediate first aid is imperative. Spray mists irritate the respiratory system, and cause coughing and difficulties in breathing. May cause burns in mucous membranes, throat, oesophagus and stomach.

Delayed symptoms and effects: The etching penetrates deeply into the tissue and is first noticed after a while.

Indication of any immediate medical attention and special treatment needed:

In case of unconsciousness, ingestion or eye contact: Immediately call a doctor/ ambulance. Show this safety data sheet.

5. FIREFIGHTING MEASURES

Extinguishing media	Fire-fighting equipment must be selected assessing the properties of around burning materials.
Special hazards arising from the substance/ mixture	Although not flammable, this substance has oxidising properties and may increase the rate of combustion of other materials. Closed containers can burst violently when heated, due to excess pressure build-up. Water used for fire extinguishing, which has been in contact with the product, may be corrosive. Fire or high temperatures create: Oxygen.
Advice for firefighters	Wear necessary protective equipment. For personal protection, see section 8. Reference is made to the company fire procedure. If risk of water pollution

occurs, notify appropriate authorities. Avoid breathing fire vapours. Containers close to fire should be removed or cooled with water.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Look out! The product is corrosive. Use protective gloves, goggles and suitable protective clothing. In case of inadequate ventilation use suitable respirator. For personal protection, see section 8.

Environmental precautions

Do not discharge into drains, water courses or onto the ground. Contact local authorities in case of spillage to drain/aquatic environment.

Methods/ material for containment and cleaning up

Dam and absorb spillages with sand, earth or other non-combustible material. Wash contaminated area with water.

Reference to other sections

View sections 8 and 13.

7. HANDLING AND STORAGE

Precautions for safe handling

Avoid inhalation of vapours/spray and contact with skin and eyes. Oxidising material – Keep away from flammable and combustible materials. Avoid excessive heat. Do not mix with hypochlorite containing products: toxic chlorine vapors may be formed.

Conditions for safe storage, including any incompatibilities

Store in tightly closed original container in a dry, cool and well-ventilated place. Keep away from food, drink and animal feeding stuffs. Store separated from: Chlorine and Alkalis. Oxidising material – Keep away from flammable and combustible materials. Conditions to avoid: keep away from heat, sparks and open flame.

Storage temperature: 0 – +20°C;

Storage stabilit: Durability: 12 months.

Specific end use(s)

The identified uses for this product are detailed in Section 1.2.

8. EXPOSURE CONTROLS/ PERSONAL PROTECTION

Control parameters according to HN 23:2007 in Lithuania:

CAS No.	Name	Allowable concentration
7722-84-1	hydrogen peroxide solution ... %	IPRD= 1,4 mg/m^3, 1 ppm U; NRD= 3 mg/m^3, 2 ppm
64-19-7	acetic acid ... %	IPRD= 25 mg/m^3, 10 ppm

Notes: IPRD – long-term exposure limit value, NRD – don't exposure limit value; U - acute.

DNEL (workers):

CAS No.	Name	Effects
7722-84-1	hydrogen peroxide solution ... %	long-term, local, inhalation: 1,4 mg/m^3 (irritation (respiratory tract)) acute/short term, local, inhalation: 3 mg/m^3 (irritation (respiratory tract))
64-19-7	acetic acid ... %	long-term, local, inhalation: 25 mg/m^3 (irritation (respiratory tract)) acute/short term, local, inhalation: 25 mg/m^3 (irritation (respiratory tract))
79-21-0	percetic acid ... %	long-term, systemic, inhalation: 560 µg/m^3 (irritation (respiratory tract)) acute/short term, systemic, inhalation: 560 µg/m^3 (irritation (respiratory tract)) long-term, local, inhalation: 560 µg/m^3 (sensitisation (respiratory tract)) acute/short term, local, inhalation: 560 µg/m^3 (irritation (respiratory tract))

DNEL (general population):

CAS No.	Name	Effects
7722-84-1	hydrogen peroxide solution ... %	long-term, local, inhalation: 270 µg/m^3 (irritation (respiratory tract)) acute/short term, local, inhalation: 1,93 mg/m^3 (irritation (respiratory tract))
64-19-7	acetic acid ... %	long-term, local, inhalation: 25 mg/m^3 (irritation (respiratory tract)) acute/short term, local, inhalation: 25 mg/m^3 (irritation (respiratory tract))
79-21-0	percetic acid ... %	long-term, systemic, inhalation: 280 µg/m^3 (irritation (respiratory tract)) long-term, systemic, oral: 1,25 mg/m^3 bw/day (developmental toxicity / teratogenicity) acute/short term, systemic, inhalation: 280 µg/m^3 (irritation (respiratory tract)) acute/short term, systemic, oral: 1,25 mg/m^3 bw/day (developmental toxicity / teratogenicity) long-term, local, inhalation: 280 µg/m^3 (irritation (respiratory tract)) acute/short term, local, inhalation: 280 µg/m^3 (irritation (respiratory tract))

PNEC:

7722-84-1	hydrogen peroxide solution ... %	freshwater: 12,6 µg/l, marine water: 12,6 µg/l, sewage treatment plant: 4,66 mg/l
64-19-7	acetic acid ... %	freshwater: 3,058 mg/l, marine water: 305,8 µg/l, sewage treatment plant: 85 mg/l
79-21-0	percetic acid ... %	freshwater: 94 ng/l, marine water: 4,9 ng/l, sewage treatment plant: 51 µg/l

Exposure controls

Appropriate engineering controls

Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment. Mechanical ventilation may be required. Provide eyewash, quick drench

Safety signs:

Personal protective equipment:

General protective and hygienic measures

Keep away from foodstuffs, beverages and feed. Immediately take off all soiled and contaminated clothing. Wash hands before breaks and at the end of the work. Avoid contact with eyes and skin.

Hand and body protection

Use protective gloves made of: Butyl rubber. Neoprene. Nitrile. (EN 374). Breakthrough time for nitrile rubber, neoprene and butyl rubber is approx. 3 hours. The recommendation is a qualified estimate based on knowledge of the components. Elastic gloves stretch when used as glove thickness and thus the breakthrough time reduced. The EN 374-3 standard test is performed at 23°C, but the practical temperature of the glove is approx. 35°C. The breakthrough time of the different glove guides, is therefor reduced by a factor 3.

Wear apron or protective clothing in case of contact.

Wear rubber footwear.

Eye protection	Wear approved safety goggles (EN 166).
Respiratory protection	In case of inadequate ventilation use suitable respirator. Type A2/B2/P2 (EN 143/ EN149)
Environmental impact control	See sections 6 and 12.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form	Liquid
Color	Clear, colourless
Odor	Specific (strong)
pH, 1 %, 20-25°C	2 – 4
pH, 100 %, 20-25°C	< 1,0
The relative density, g/cm^3, 20°C	~ 1,10
Decomposition temperature, °C	> 60 (OECD 113)
Explosive properties	Not explosive.
Oxidising properties	Strong oxidiser.

10. STABILITY AND REACTIVITY

Reactivity	The product is a strong oxidizing agent that is stable under normal conditions. When heated there is a risk of decomposition. In contact with incompatible materials there is a risk of exothermic decomposition (self-increasing).
Chemical stability	Stable under normal temperature conditions and recommended use.
Possibility of hazardous reactions	Degradation products are water and oxygen, which in closed containers and pipes can cause pressure rise and explosion hazard. The released oxygen can also be oxidizing. The product is stabilized. Reacts strongly with strong acids, bases, organic chemicals and certain metal combinations. Reacts strongly with water. Liberates toxic gases when mixed with chlorine containing products.
Conditions to avoid/ incompatible materials	Conditions to avoid: Decomposes when exposed to heat. Strong oxidiser – avoid contact with reducing agents. Avoid exposure to high temperatures or direct sunlight. Chlorine containing products. Materials to avoid: Flammable/combustible material. Alkali metals.
Hazardous decomposition products	Fire or high temperatures create: Oxygen. Undiluted, the product may be corrosive to metals. When used in in the recommended dosages, contact time and temperature, the product is compatible with metals.

11. TOXICOLOGICAL INFORMATION

Information on toxicological effects

Acute toxicity

7722-84-1	hydrogen peroxide solution … %	Acute, LD50, Oral, 563,5 mg/kg (OECD Guideline 401, ECHA) Acute, LD50, Dermal, 24h, > 2000 mg/kg (Rabbit, ECHA) Acute, LC50, Inhalation, 4h, 1,5 mg/l (Mist, ATE)
64-19-7	acetic acid ... %	Acute, LD50, Oral, single dose, 3530 mg/kg (rat, ECHA) Acute, LD50, Dermal, > 2000 mg/kg (rabbit, HSDB) Acute, LC50, Inhalation, 1 h, 5620 ppm (mouse, ECHA)
79-21-0	peracetic acid ...%	Acute, LD50, Oral, 100 mg/kg bw/d (ATE, 01-2119531330-56-xxxx) Acute, LD50, Dermal, 1100 mg/kg bw/d (ATE, 01-2119531330-56-xxxx) Acute, LC50, Inhalation (mist), 4h, 0,512 mg/l (Exp Supporting Acute toxicity: inhalation.013, 01-2119531330-56-xxxx) Acute, LC50, Inhalation (mist), 0,204 mg/l (Calculated value, PAA Assesment report)

Inhalation	Vapours and spray mist may irritate throat and respiratory system and cause coughing. Harmful by inhalation.
Skin corrosion/irritation	Strongly corrosive. May cause deep tissue damage.
Serious eye damage/irritation	Strongly corrosive. Causes severe burns. Immediate first aid is imperative. May cause permanent damage to the eyes, especially if the product is not washed away IMMEDIATELY.
Ingestion	Harmful if swallowed. May cause burns in mucous membranes, throat, oesophagus and stomach.
Respiratory or skin sensitisation	No evidence for respiratory not skin sensitization.
Germ cell mutagenicity	No evidence for germ cell mutagenicity.
Carcinogenicity	No evidence for carcinogenicity.
Reproductive toxicity	No evidence for reproductive toxicity.
STOT-single exposure	No evidence for STOT-repeated exposure.
STOT-repeated exposure	Not determined/ no data.
Aspiration hazard	No evidence for aspiration hazard.
Additional toxicological information	No specific symptoms noted.

12. ECOLOGICAL INFORMATION

Toxicity

64-19-7	acetic acid ... %	Acute aquatic, fish: LC50 301 mg/l Acute aquatic, algae: LC50 301 mg/l
79-21-0	peracetic acid ...%	Acute aquatic, fish LC50 1,1 mg/L (96h, Lepomis macrochirus, Assessment report PAA) Acute aquatic, algae: EC50 0,16 mg/L (72h, Selenastrum capricornutum,

		Assessment report PAA) Acute aquatic, Daphnia: EC50 0,73 mg/L (Daphnia Magna, Assessment report PAA)
308062-28-4	Amines, C10-16-alkyldimethyl, N-oxides	Acute aquatic, fish: LC50 3,46 mg/l (96 h, Fish, OECD 203) Acute aquatic, algae: EC50 0,266 mg/l (72h, OECD 201) Acute aquatic, Daphnia: EC50 3,1 mg/l (48h, OECD 203)
2809-21-4	1-Hydroxyethane-1,1,-diphosphonic acid	Acute aquatic, fish: LC50 195 mg/l (96h, Onychorhynchus mykiss)

Large amounts of the product may affect the acidity (pH-factor) in water with possible risk of harmful effects to aquatic organisms.

Persistence and degradability

79-21-0	peracetic acid ...%	> 70 %, 28 d, OECD 301 E
308062-28-4	Amines, C10-16-alkyldimethyl, N-oxides	Easy biodegradable

Bioaccumulative potential The product is not bioaccumulating.

Mobility in soil The product is water soluble and may spread in water systems.

Results of PBT and vPvB assessment Components are not classified as PBT and vPvB substances.

Other adverse effects Product is toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods:

Disposal of product

Do not empty into drains; dispose of this material and its container at hazardous or special waste collection point. Dispose of waste and residues in accordance with local authority requirements.

EWC waste code: 0706 wastes from the MFSU of fats, grease, soaps, detergents, disinfectants and cosmetics

Classified as hazardous waste: Yes

Disposal of packaging

Packaging waste must be handled according to packaging and packaging waste management act.

EWC waste code: 0706 wastes from the MFSU of fats, grease, soaps, detergents, disinfectants and cosmetics

Classified as hazardous waste: Yes

14. TRANSPORT INFORMATION

Transport classification Land transport ADR / RID (international/internal transportation).

UN number 3149

UN proper shipping name HYDROGEN PEROXIDE AND PEROXYACETIC ACID MIXTURE, STABILIZED

Transport hazard class(es)	5.1
Packing group	II
Hazard labels	5.1+8
Environmental hazards	Threat to the aquatic environment or the sewage system.
Special precautions for user	Self Accelerating Decomposition Temperature (SADT): >60 °C. Danger label for "Environmental hazard" should be used if packagings with more than 5 liters or 5 kilos are transported.

15. REGULATORY INFORMATION

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

The Management of Health and Safety at Work Regulations 1999 (SI 1999 No. 3242).

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending

Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, including amendments.

The List of Wastes (England) (Amendment) Regulations 2005. (SI 2005 No. 895).

EH40/2005, Workplace exposure limits 2005, with amendments.

REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

REGULATION (EC) No 648/2004 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 31 March 2004 on detergents. REGULATION (EU) No 528/2012 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 22 May 2012 concerning the making available on the market and use of biocidal products.

Chemical safety assessment No

16. OTHER INFORMATION

Explanations of Hazard symbols and numeric characters (described in Section 3):

Org. Perox. D****	Organic peroxide, category D
Ox. Liq. 1	Oxidising liquid, category 1
Acute Tox. 4*	Acute toxicity, category 4
Aquatic. Acute 1	Hazardous to the aquatic environment, acute category 1
Skin Corr. 1A	Skin corrosion, category 1A
Flam. Liq. 3	Flammable liquid, category 3

H226	Flammable liquid and vapour.
H242	Heating may cause a fire.
H271	May cause fire or explosion; strong oxidizer.
H400	Very toxic to aquatic life.

Abbreviations and acronyms:

DNEL	The Derived No- or minimum Effect Level is the level of exposure above which a human should not be exposed to a substance.
PNEC	The Predicted No-Effect Concentration value is the concentration of a substance below which adverse effects in the environment are not expected to occur.
LD50/ LC50	the amount (concentration) of a material, which causes the death of 50% of test animals.
NOEC	No Observed Effect Concentration.
PBT	Persistent, bioaccumulative and toxic chemical substances.
vPvB	very persistent and very bioaccumulative chemical substances.

This safety data sheet must be available to anyone who works with this type of chemical product. Data is in line with our current knowledge and it describes a chemical product, offers safety, occupational health, and environmental recommendations. This information will be added if new data about this chemical product will be ready. Material Safety Data Sheet does not disclose any specific chemical characteristics of the product.