SAFETY DATA SHEET

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

BS CHEMICAL	**BS PEROKSI 35**	The date of compilation:	2010-11-29
		Revision:	2016-06-15
		Version No.	5

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

Product identifier

BS Peroksi 35

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

Cleaning/ maintenance detergent for professional use – hydrogen peroxide based additive. Fabric bleaching agent.

This substance is used for the manufacture of: chemicals, food products, textile, leather or fur, pulp, paper and paper products, electrical, electronic and optical equipment, metals, fabricated metal products, machinery and vehicles, wood and wood products, rubber products and plastic products. This substance is used in the following products: cosmetics and personal care products, pH regulators and water treatment products, water treatment chemicals, biocides, textile treatment products and dyes, washing & cleaning products and metal surface treatment products.

Supplier/ Manufacturer

JSC „BS Chemical“, Baltijos pr. 123-9, LT-93224 Klaipeda, Lithuania, tel./fax.: +370 46 366279, 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: Acute toxicity, category 4; Skin corrosion/irritation, category 2; Serious eye damage/eye irritation, category 1; Specific target organ toxicity (single exposure), category 3.

GHS05

GHS07

Hazard statements:

H302 Harmful if swallowed.

H315 Causes skin irritation.

H318 Causes serious eye damage.

H332 Harmful if inhaled.

H335 May cause respiratory irritation.

Precautionary statements:

P280 Wear protective gloves / protective clothing / eye (face) protection.

P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P302+P352 IF ON SKIN: Wash with plenty of water.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P404 Store in a closed container.

Orther hazards Substance/ mixture does not meet the PBT or vPvB classification criteria; at the time MSDS' compilation substances are not on the candidate SVHC (very high concern) list.

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	no less than 35	hydrogen peroxide ...% hydrogen peroxide solution ...% *01-2119485845-22-0000*	Ox. Liq. 1 H271 Acute Tox. 4* H302, H332 Skin Corr. 1A H314

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

4. FIRST AID MEASURES

Description of first aid measures:

Information of the first aid — In all cases if the damage to health occurred, seek immediate medical attention. Take off contaminated clothing. If a person is unconscious do not give any water/ do not put anything into the mouth. In If substance/mixture poisoning case was discovered immediately contact the nearest Poisons control and information centre.

After inhalation — If inhalation of solution's aerosols or vapors has occurred, immediately stop the contact - take out a suffering person to the fresh air, provide a peace. If respiratory impairment has occurred seek medical advice. If a person lost consciousness, lay him down steadily on a side and carry to the medical institution. It is possible strong nose, throat, eye irritation, coughing, sneezing, tearing.

After skin contact	Immediately remove all contaminated clothing, at least 15 minutes wash with plenty of water. If symptoms of damage develop, seek medical advice.
After eye contact	Rinse opened eye as soon as possible, at least 15 minutes wash eyes with running water lifting and lowering eyelids. Remove contact lenses, if they present and it is easy to do. Seek immediate medical attention. Continue rinsing until the eye doctor arrival.
After swallowing	In no way do not induce vomiting, do not give the active carbon. The danger to get into the lungs because of release of gases and foaming. If a person is conscious, remove substance residues from mouth, rinse it with water, drink plenty of water in small sips and seek immediate medical attention.

Most important symptoms and effects (acute and delayed):

Effects on health seen as corrosion.

Indication of any immediate medical attention and special treatment needed:

In the workplace must be an eyewash fountain, shower or bath. Also, first-aid equipment, instruments eyes flushed.

5. FIREFIGHTING MEASURES

Extinguishing media	The mixture is not flammable. Fire-fighting equipment must be selected assessing the properties of around burning materials.
Special hazards arising from the substance/ mixture	The decomposition of hydrogen peroxide evaporates atomic oxygen promotes the combustion of other materials. It can form various combustion products. Hydrogen peroxide decomposition and release oxygen accelerates with rising temperatures. The excess pressure can destroy the packaging. Concentrated solutions can ignite flammable materials. Risk of explosion. If possible, it is recommended tanks with hydrogen peroxide cooling water jet spray or water mist. It is necessary to know the properties of other chemical substances or mixtures used or stored together.
Advice for firefighters	During the fire, wear respiratory protective equipment and chemical resistant/protective clothing. Protective personal equipment must be chosen assessing the properties of burning around materials.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	When spilled hydrogen peroxide solution to stop any work. Evacuate people not take part in accidental release, avoiding their contact with the spilled product. Remove nearby flammable materials. To ensure the maximum possible ventilation of premises. Do not breathe vapors. Use personal protective equipment as indicated in Section 8. The contact with the skin, eyes prevention.
Environmental precautions	Do not pour any spilled out material to the local drains, surface water or nature environment. When spills of large quantities, mark a place of an accident, to inform the regional environmental protection department, call the fire/ rescue service.

Methods/ material for containment and cleaning up

Avoid contact with skin and eyes, using the tools to pick up spilled product in sealed plastic containers. Small quantities mixed with non-combustible absorbing material, eg. sand, earth and scoop up. Waste management - see sec. 13.

Reference to other sections

View sections 8 and 13.

7. HANDLING AND STORAGE

Precautions for safe handling

Store in a ventilated, cool place, away from heat sources and flammable materials. Keep containers fitted with safety valves and vents oxygen evaporate. Sealed containers, they may lead to overpressure. Avoid contact with combustibles and reducing agents. Keep out of direct sunlight. Avoid open flames and other ignition sources. Do not store together with alkalis, reducing agents, metallic salts (risk of decomposition). Do not store together with combustible materials (fire risk). Do not store together with organic solvents (explosion hazard). Materials to avoid (incompatible materials): acids, alkalis, metals, metal salts, reducing agents, organic materials, combustible materials. Store at a temperature below -10°C and not higher than +20°C and away from heat sources. Container protected from physical damage. In storehouse must be a sufficient amount of water. Due to the natural decomposition of hydrogen peroxide, even storing it in the recommended storage conditions, the concentration can be reduced up to a maximum of 1% per year.

Conditions for safe storage, including any incompatibilities

For professional use only. Use only in well-ventilated areas, premises equipped with exhaust ventilation, strictly in accordance with the instructions for use. In production use in accordance with the regulations of the manufacture. Use common rules/instructions when working with chemicals. Do not mix with other chemicals. Avoid contact with skin, clothing and especially watch out for falling on the face and eyes. Do not breathe vapors, mist or spray. If the clothes are dirty, they quickly removed and the affected area of skin with water. During the process do not eat, drink or smoke. Do not allow concentration of vapors in the air to exceed allowable threshold. Use appropriate personal protective equipment as indicated in Section 8.

Specific end use(s)

For the professional use only.

8. EXPOSURE CONTROLS/ PERSONAL PROTECTION

Control parameters according to HN 23:2007:

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

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

Name	CAS No.	Predicted No-Effect Concentration (PNEC) for aquatic organisms
hydrogen peroxide …% hydrogen peroxide solution …%	7722-84-1	Freshwater 12,6 µg/L Marine water 12,6 µg/L Sewage treatment plant (STP) 4,66 mg/L

Exposure controls

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Appropriate engineering controls	General, local exhaust ventilation. Avoid the spills, and any contact with this mixture, see Section 7.
Personal protective equipment:	
General protective and hygienic measures	Keep away from foodstuffs, beverages and feed. Immediately remove all soiled and contaminated clothing. Periodically change work clothes. Wash hands before breaks and at the end of work. Avoid contact with eyes and skin.
Hand and body protection	Protective gloves. The material of the gloves should be resistant to the substance/ mixture. Penetration time of the material check out with manufacturer. Foot protection - rubber shoes. Protective clothes must be rubberized apron.
Eye protection	Protective safety glasses, face covering shields. Eye washing equipment must be available.
Respiratory protection	Used masks or half masks with filter for protection against inorganic vapors, filtering half masks with valves to protect against gases and particles. In case of insufficient ventilation or accident - self contained breathing apparatus must be used.
Environmental impact control	See sections 6 and 12.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form	Liquid
Color	Clear, colourless, sometimes light yellow
Odor	Specific, weak
Boilling point, °C	107 ÷ 124
Melting / freezing point, °C	- 56 ÷ -33
pH, 100 %, 20-25°C	1,5 – 4,0
The relative density, g/cm^3, 20°C	~ 1,07 ÷ 1,24
Water solubility	Soluble in any ratio.
Boiling point, °C	> 100
Vapour pressure, Pa, 30°C	2000 – 3066

10. STABILITY AND REACTIVITY

Reactivity	The mixture constantly decomposes, releasing atomic oxygen. Decompose rate depends on temperature, concentration, pH and the amount of stabilizer.
Chemical stability	Severely decompose by heating, in contact with catalytically active impurities, reduction agents. Avoiding high temperatures, light metals

(copper, chromium, manganese, platinum, silver) and their salts, dust, reducing agents, organic substances, alkalis.

Possibility of hazardous reactions Exothermic reaction: reaction with reducing agents.

Conditions to avoid/ incompatible materials Has oxidizing properties. The hydrogen peroxide is not flammable, but a high concentration of the solution can ignite flammable materials. Reacting with metals, metal ions, organic materials, wood, dust, shavings may explode. An explosion may occur from sparks and by contact with catalytically active material or at a temperature at higher than 150°C. Sensitive to light (distinguished by oxygen and hydrogen). The excess pressure can destroy the packaging. Risk of explosion.

Hazardous decomposition products The mixture decomposes into atomic oxygen, water, acetic acid, releasing heat. Also reaction products depend on the substances/mixtures involved in the chemical reactions.

11. TOXICOLOGICAL INFORMATION

Information on toxicological effects

Acute toxicity	Oral, rat: LD50 = 1193 mg/kg; dermal, rabbit: LD50 > 2000 mg/kg; Note: 35% hydrogen peroxide exposure values.
Skin corrosion/irritation	Causes severe skin burns/ skin irritation.
Serious eye damage/irritation	Causes severe eye damage.
Respiratory or skin sensitisation	On the basis of chemical information, it can be said that the mixture is not characterized by sensitisation: available data do not show sensitizing effects.
Germ cell mutagenicity	On the basis of chemical information, it can be said that the mixture is not characterized by germ cell mutagenicity: no evidence of mutagenic effect of components.
Carcinogenicity	On the basis of chemical information, it can be said that the mixture is not characterized by carcinogenicity: no evidence of carcinogenicity effect of components.
Reproductive toxicity	On the basis of chemical information, it can be said that the mixture is not characterized by reproductive toxicity: no evidence of reproductive toxicity effect of components.
STOT-single exposure	Not determined/ no data.
STOT-repeated exposure	Not determined/ no data.
Aspiration hazard	Not determined/ no data.
Additional toxicological information	The effect depends on the concentration and on time.

12. ECOLOGICAL INFORMATION

Toxicity	Oxidising properties have an adverse impact on the environment. 100% hydrogen peroxide: fish LC50 = 16.4 mg / l / 96 h; Daphnia magna EC50 = 7.7 mg / l / 24h.
Persistence and degradability	Quickly decomposes (reduction) in the air – 24 h; aquatic environments - 5 days; soil - 12 h.
Bioaccumulative potential	Not determined/ no data. Due to the high reactivity it is likely that does not accumulate in the environment.
Mobility in soil	Soluble in water, spread out, neutralize. Before being released into waste water or sewage system must be diluted with water or neutralized.
Results of PBT and vPvB assessment	Components are not classified as PBT and vPvB substances.
Other adverse effects	Hydrogen peroxide is not named in Regulation (EC) No 2037/2000 as a material potentially destructive to the ozone layer. Random hydrogen peroxide spills into the aquatic environment causes the fish and aquatic invertebrates, acute and chronic toxicity. Killing bacteria and other microorganisms. Threat to aquatic and soil organisms can be caused by changes in local environment's pH.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods:

Disposal of product	Waste must be managed according to the Waste Management Act. Do not dispose in the trash, local and storm sewage system, surface water or environment. Waste code: 16 09 03* - peroxides. Small amounts, diluted with water, may be poured down the drain.
Disposal of packaging	Packaging waste must be handled according to packaging and packaging waste management act. The product must be diluted with water or neutralized before released into sewage system. Washed and dried packaging can be reused or given back to packaging waste management companies. Packaging waste code 15 01 02 plastic (including PET) packaging; 15 01 10 contaminated packaging or containing dangerous chemical residues.

14. TRANSPORT INFORMATION

Transport classification	Land transport ADR / RID (international/internal transportation).
UN number	2014
UN proper shipping name	HYDROGEN PEROXIDE, AQUEOUS SOLUTIONS with not less than 20 percent but not more than 60 percent hydrogen peroxide (stabilized as necessary)
Transport hazard class(es)	5.1 oxidizing material

Packing group II

Hazard labels 5.1+8

Environmental hazards Threat to the aquatic environment or the sewage system.

Special precautions for user Do not damage packaging.

15. REGULATORY INFORMATION

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

Commission Regulation (EC) No. 286/2011; 1272/2008; 1907/2006; 2015/830.

Commission Regulation (EC) No. 551/2009.

HN 23:2007 "Occupational exposure limit values. Measuring the Impact Assessment and General Requirements".

European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR)

Chemical safety assessment Chemical safety assessments are conducted for present substances (hydrogen peroxide).

16. OTHER INFORMATION

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

H271	May cause fire or explosion; strong oxidizer.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H332	Harmful if inhaled.

Specific concentration limits for classification of mixtures and solutions:
Ox. Liq. 1; H271: C ≥ 70 %, Ox. Liq. 2; H272: 50 % ≤ C < 70 %, Skin Corr. 1A; H314: C ≥ 70 %,
Skin Corr. 1B; H314: 50 % ≤ C < 70 %, Skin Irrit. 2; H315: 35 % ≤ C< 50 %, Eye Dam. 1; H318: 8 % ≤ C< 50 %,
Eye Irrit. 2; H319: 5 % ≤ C < 8 %, STOT SE 3; H335: C ≥ 35 %

Abbreviations and acronyms:

ECHA	European Chemical Agency
DNEL	Derrived no-effect level
PNEC	Predicted No-Effect Concentration
NOAEL (NOEL)	No-observed-adverse-effect level
LOAEL	Lowest-observed-adverse-effect level

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.