

SAFETY DATA SHEET

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

Identification of the substance/mixture:

Name: 0.1% Carbol-Fuchsin Solution
Product code: LSB-02
Abbreviation: KARB
Use: Staining solution for Gram staining of microscopic preparations.

Company/undertaking identification:

Name: EnviroLab s.r.o.
Address: Galvaniho 7, 821 04 Bratislava
Phone: +421-2-69 307 112 Fax: +421-2-64 774 131

Emergency line:

Organization: National Toxicological Information Center, Limbová 5, 833 05 Bratislava
Phone: +421-2-54 774 166

2 – HAZARD IDENTIFICATION

Classification of the substance or mixture

Flammable liquid (Category 3), H226
Acute toxicity, Oral (Category 4), H302
Acute toxicity, Dermal (Category 4), H312
Acute toxicity, Inhalation (Category 4), H332
For the full text of the H-statements specified in this section, see Section 16.

Label elements:

Pictogram



Signal word: Warning

Hazard statements:

H226 Flammable liquid and vapor.
H302 Harmful if swallowed
H312 Harmful in contact with skin
H332 Harmful if inhaled

Precautionary statement(s)

P210 Keep away from heat / sparks / open flame / hot surfaces. Do not smoke.
P233 Keep the container tightly closed.
P240 Ground/fix the container and the filler.
P241 Use an electrical / ventilation / lighting device designed for an explosive atmosphere.
P242 Only use non-sparking equipment.
P243 Take precautionary measures against static electricity.
P261 Avoid inhaling mist / vapor / aerosols.
P264 Wash hands thoroughly after handling.
P270 Do not eat, drink or smoke when using the product.
P271 Use only in open air or in a well-ventilated area.
P280 Use protective clothing/protective gloves/eye protection/face protection.
P312 In case of health problems, call the National Toxicological Information Center or a doctor.
P330 Rinse your mouth.

P363	Wash contaminated clothing before using it.
P301+P312	Following ingestion: If you have any health problems, call the National Toxicology Information Center or a doctor immediately.
P302+P352	Following skin contact: Wash with plenty of soap and water.
P303+P361+P353	Following skin contact: Remove/take off all contaminated clothing. Immediately rinse the skin with water.
P304+P340	Following inhalation: Move the victim to fresh air and keep in a relaxed, motionless position that allows comfortable breathing.
P370+P378	In case of fire: If it's safe, stop the leakage.
P403+P235	Keep in a well-ventilated place. Store in a cool place.
P501	Dispose of contents/container in accordance with local regulations.

3 – COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous components:

INDEX	CAS	EC	Name	Classification	%
611-031-00-X	569-61-9	209-321-2	C.I. Basic Red 9	H350	0.1
604-001-00-2	108-95-2	203-632-7	Phenol	H341 H331 H311 H301 H373 H314	≥ 3 - < 5

For the full text of the H-statements specified in this section, see Section 16.

4 – FIRST AID MEASURES

Following inhalation:

Move the victim to fresh air.

Following respiratory arrest:

Provide artificial breathing from mouth to mouth or mechanical ventilation. If necessary, use an oxygen mask. Call the doctor immediately.

Following eye contact:

Rinse the eyes with eyelids open under running water for a few minutes. Seek an ophthalmologist immediately.

Following skin contact:

Rinse affected areas with polyethylene glycol 400 or 2:1 polyethylene glycol 300/ethanol mixture and wash with plenty of water. If none of the listed substances is available, wash with plenty of water. Remove contaminated clothing immediately. Get medical help immediately.

Following ingestion:

Allow victim to drink plenty of water, do not induce vomiting (risk of perforation!). Call the doctor immediately.

5 – FIRE-FIGHTING MEASURES

Suitable extinguishing media:

To extinguish use a snow, foam or powder fire extinguisher, depending on the materials stored in the immediate vicinity.

Special hazards:

Flammable. Vapors are heavier than air.

Forms explosive mixtures with air at elevated temperatures.

In the event of fire, hazardous vapors or fumes may develop.

Special protective equipment for firefighters and firefighting unit equipment:

Do not stay in a hazardous area without an insulating respirator. To avoid contact with the skin, observe a safe distance and wear suitable protective clothing.

Additional information:

Cool the container with sprayed water from a safe distance. Prevent the penetration of fire-extinguishing water into surface and underground water.

6 – ACCIDENTAL RELEASE MEASURES

Personal precautions:

Avoid contact with the substance. Do not inhale fumes / aerosols. Provide fresh air supply in confined spaces.

Environmental precautions:

Avoid penetration into the drainage system. Risk of explosion!

Cleaning methods:

Remove with absorbent material. Send for disposal. Clean the affected area.

7 – HANDLING AND STORAGE

Handling:

Notes on fire and explosion prevention: keep away from sources of ignition. Take measures to prevent electrostatic discharge.

Notes on safe handling: Work with the suction chamber. Do not inhale the substance. Prevent generation of vapors/aerosols.

Storage:

Keep tightly closed in a well-ventilated place away from sources of ignition and heat. Store at 5 – 25 °C.

8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure limits:

Components with parameters subject to inspection at the workplace.

Nature	Value	Inspection parameters	Limiting value, Remarks
phenol (108-95-2) ECTLV	Effects upon skin contact:		The factor can be easily absorbed by the skin
	Average maximum permissible exposure limit (MPEL average):	2 ppm 7.8 mg/m ³	
SLK OELs	Effects upon skin contact:		The factor can be easily absorbed by the skin
	Average maximum permissible exposure limit (MPEL average):	2 ppm 7.8 mg/m ³	

Personal protective equipment:

For a specific workplace, it is necessary to choose specific work clothes, depending on the concentration and amount of dangerous substances being handled. The resistance of chemical protective clothing must be checked with the supplier concerned.

Hand protection:

Use disposable vinyl gloves.

Eye protection:

Use tightly fitting safety goggles.

Respiratory protection:

Required if vapors / aerosols are formed.

General hygiene:

Immediately replace contaminated clothing. Use a lotion as a protective barrier. After work, wash your hands and face. Work with the suction chamber. Do not inhale the substance.

For more detailed information, see Section 11 – Toxicological Information

9 – PHYSICAL AND CHEMICAL PROPERTIES

Basic information:

Physical state:	liquid
Color:	dark red
Odor:	phenolic
pH value:	~ 3.6 (at 20 °C)
Flash point:	48 °C

10 – STABILITY AND REACTIVITY

Conditions to be avoided:

Heating.

Substances to be avoided:

No information available.

Hazardous decomposition products:

No information available.

Additional information:

After heating – an explosive mixture with air in gaseous state / in the form of vapor

11 – TOXICOLOGICAL INFORMATION

Acute toxicity:

Quantitative data on the toxicity of this product are not available

Subacute to chronic toxicity:

Applicable to partial component:

Possible mutagenic effect on humans. Suspicion is based on proven damage to genetic material in germ cells of humans and animals, with further clarification needed (external safety data sheet).

Additional toxicological data:

Property to be expected based on the components of the product:

Following inhalation: irritation of mucous membranes, cough and shortness of breath, absorption.

Following skin contact: burns, danger of skin absorption.

Following eye contact: burns.

Following ingestion: burns in the oral cavity, throat, oesophagus and digestive tract, the risk of perforation of the esophagus and stomach, absorption, nausea, vomiting.

Following absorption of the toxic amount:

Systemic effects: cough, shortness of breath, headache, drowsiness, dizziness, confusion, unconsciousness, respiratory arrest, CNS disorders, cardiovascular disorders, changes in blood count.

Damage: liver, kidneys, heart.

Possible irreversible damage.

Additional information:

Other dangerous properties cannot be excluded.

The product should be handled with caution usual for chemicals handling.

12 – ECOLOGICAL INFORMATION

Ecotoxic effects:

Quantitative data on the ecological effects of this product are not available.

Other ecological data:

For ethanol, the following applies in general: biodegradable, when used properly, no degradation of waste water treatment plants is expected to occur. Toxicity to fish: LC₅₀: 10,000 mg/l. Toxicity to Daphnia: EC₅₀: 7800 mg/l. Toxicity to bacteria: *Ps. putida* EC₅₀: 6500 mg/l. Toxicity to algae: *Sc. quadricauda* EC₅₀: 5000 mg/l, *M. aeruginosa* EC₅₀: 1450 mg/l. Avoid penetration into water, sewage and soil!

13 – DISPOSAL MEASURES

Product:

The product is hazardous waste and must be disposed of in accordance with valid legislation.

Packaging:

The product packaging must be disposed of in accordance with applicable legislation.

14 – TRANSPORT INFORMATION

Land transport: ADR, RID

UN 1992 FLAMMABLE LIQUID, TOXIC, I. N., class 3 (II)

River transport: ADN, ADNR

not tested

Maritime transport: IMDG-Code

UN 1992 FLAMMABLE LIQUID, TOXIC, I. N., class 3 (II)

Air transport: CAO, PAX

UN 1992 FLAMMABLE LIQUID, TOXIC, I. N., class 3 (II)

The transport regulations are cited in accordance with international regulations and are in a form applicable in the Slovak Republic. Possible national variations in individual countries are not considered.

15 – REGULATORY INFORMATION

16 – OTHER INFORMATION

Full text of H-data used in the Safety Data Sheet:

H226	Flammable liquid and vapor.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H311	Toxic in contact with skin.
H312	Harmful in contact with skin.
H314	Causes serious skin burns and eye damage.
H331	Toxic if inhaled.
H332	Harmful if inhaled.
H341	Suspected of causing genetic defects.
H350	May cause cancer.
H373	May cause damage to the central nervous system, kidneys, liver, skin.

*The information provided in this Safety Data Sheet is based on the current state of our knowledge.
It characterizes the product with respect to the adequate safety precautions. It does not represent any guarantee of the product's properties.*