



SAFETY DATA SHEET

In compliance with EC Regulations No.: 1907/2006 and 453/2010.

Date last modified: 28 January 2015 - version 3.0

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY

1.1 Product Identifier

Product Name: **BIOACTIVE LIQUID**

Product Code #: 550510 (5 lt)

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

Intended Use: Industrial applications; Sewage Water Treatment.

Uses advised against: This product is not recommended for any industrial, professional or consumer use other than the Intended Uses above.

1.3 Details of the supplier of the safety data sheet

Company/undertaking identification

Supplier/Manufacturer:

Marichem Marigases Hellas SA

Sfaktirias 64,

185 45 Piraeus,

Greece

Tel. No.: ++30 210 4148800

Fax No.: ++30 210 4133985

<http://www.marichem-marigases.com>

e-mail: mail@marichem-marigases.com

1.4 Emergency telephone number

Tel. No.: ++30 210 4148800 (including working hours)

Emergency Information:

Inside U.S. and Canada: (800)-424-9300 (CHEMTREC)

Outside U.S. and Canada: 1-703-527-3887 (CHEMTREC)

National Emergency Centre (Greece): ++30 210 7793777

2. HAZARDS IDENTIFICATION

2.1 Classification of the mixture

Classification under EC 1272/2008 regulation - GHS classification.

No need for classification according to GHS criteria for this product.

2.2 Label Elements

Labelling according to Regulation (EC) No. 1272/2008.

The substance is classified and labelled according to the CLP Regulation.

The product does not require a hazard warning label in accordance with GHS criteria.

2.3 Other hazards

Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

Product classification and labelling according to Directive 67/548/EEC, European [Dangerous Preparations Directive](#) (1999/45/EC), European Regulation 648/2004 and their amendments.

The preparation is not classified as dangerous according to Directive 1999/45/EC and its amendments.

No special labeling information required according to EU directives.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Chemical Composition:

· **Chemical characterization: Mixtures**

· **Description:** Mixture: consisting of the following components:

Ingredients	CAS Number	Proportion	Hazard Code(s)*
Calcium Nitrate 4-hydrate	13477-34-4	2.5% - 10%	H272; H319.
Alkyl Ether Sulfate	9004-82-4	<=2.5%	H315; H319.
Other ingredients that do not contribute to the classification of the product	-	82.5% - 95.5%	-

* See section 16 for the full text of the Hazard Code(s) declared above.

Occupational Exposure Limits, if available, are listed in section 8.

Other components:

55965-84-9 Mix of : 5-chloro-2-méthyl-2H-isothiazol-3-one [No. CE 247-500-7]; 2- methyl-2H-isothiazol-3-one [No. CE 220-239-6] (3:1)

T, N; R 23/24/25-34-43-50/53

24730-31-2 Surfactin (lipopeptide complex)

Biosurfactant: lipoprotein complex nature surfactant, derived from fermentation of non-pathogenic microorganisms (EFB class 1)

Regulation 648/2004 on Detergents:

anionic surfactants, perfumes < 5%

4. FIRST AID MEASURES

4.1 DESCRIPTION OF FIRST AID MEASURES

General information: No special measures required.

After excessive inhalation: Provide fresh air; consult a doctor in case of medical complaints.

After skin contact: Generally the product does not irritate the skin.

After eye contact: Rinse opened eye for several minutes under running water.

After swallowing: If symptoms persist consult a doctor.

4.2 MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED

No further relevant information available.

4.3 INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED

No further relevant information available.

5. FIRE-FIGHTING MEASURES

5.1 SUITABLE EXTINGUISHING AGENTS

CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

5.2 SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE

No further relevant information available.

5.3 ADVICE FOR FIRE-FIGHTERS

Protective equipment: No special measures required.

6. ACCIDENTAL RELEASE MEASURES

6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES

Not required.

6.2 ENVIRONMENTAL PRECAUTIONS

Dilute with plenty of water.

Do not allow the product to enter sewers/ surface water or ground water.

6.3 METHODS AND MATERIAL FOR CONTAINMENT AND CLEANING UP

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

6.4 REFERENCE TO OTHER SECTIONS

See Section 7 for information on safe handling.

See Section 8 for information on personal protective equipment.

See Section 13 for disposal information.

7. HANDLING AND STORAGE

7.1 PRECAUTIONS FOR SAFE HANDLING

No special measures required.

Information about fire - and explosion protection: No special measures required.

7.2 CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES

Storage:

Requirements to be met by storerooms and receptacles: No special requirements.

Information about storage in one common storage facility: Not required.

Further information about storage conditions: None.

7.3 SPECIFIC END USE(S)

No further relevant information available.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Additional information about design of technical facilities: No further data; see section 7.

8.1 CONTROL PARAMETERS

Ingredients with limit values that require monitoring at the workplace

The product does not contain any significant quantities of materials with critical values that have to be monitored at the workplace.

Additional information

The most current valid lists have been used as a basis for the production of this document.

8.2 EXPOSURE CONTROLS

Personal protective equipment

General protective and hygienic measures

The usual precautionary measures are to be adhered to when handling chemicals.

Respiratory protection

Not required.

Protection of hands

No personal protective equipment is required. In case of intensive use, follow the safety measures and hygiene usual for the use of chemicals.

Gloves material: -

Eye protection

Goggles recommended during refilling.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

9.1.1. Appearance

Physical State: Liquid

Color: Green
Odor: Characteristic mint-scent

9.1.2. Basic data

Boiling Point: Undetermined
Freezing Point: Undetermined
pH: 5.8 (+/-0.5) at 20⁰ C
Flash Point: Not applicable
Autoignition Temperature: Product is not self-igniting.
Danger of explosion: Product does not present an explosion hazard.
Vapour pressure at 20 °C: 23 hPa
Density at 20°C: 1 gr/cm³
Solubility in / Miscibility with water: Fully miscible.
9.2 Other Information: No further relevant information available.

10. STABILITY AND REACTIVITY

10.1 REACTIVITY

No hazardous reactions if stored and handled as prescribed/indicated.

10.2 CHEMICAL STABILITY

Stable under ordinary conditions of use and storage.

Thermal decomposition / conditions to be avoided:

No decomposition if used according to specifications.

10.3 POSSIBILITY OF HAZARDOUS REACTIONS

No dangerous reactions known.

10.4 CONDITIONS TO AVOID

No further relevant information available.

10.5 INCOMPATIBLE MATERIALS

No further relevant information available.

10.6 HAZARDOUS DECOMPOSITION PRODUCTS

No dangerous decomposition products known.

11. TOXICOLOGICAL INFORMATION

11.1 INFORMATION ON TOXICOLOGICAL EFFECTS

Acute toxicity:

Primary irritant effect:

On the skin: No irritant effect.

On the eyes: No irritant effect.

Sensitisation: No sensitising effects known.

Additional toxicological information:

The product is not subject to classification according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version.

When used and handled according to specifications, the product does not have any harmful effects to our experience and the information provided to us.

12. ECOLOGICAL INFORMATION

12.1 TOXICITY

Aquatic toxicity: No further relevant information available.

12.2 PERSISTENCE AND DEGRADABILITY

No further relevant information available.

12.3 BIOACCUMULATIVE POTENTIAL

No further relevant information available.

12.4 MOBILITY IN SOIL

No further relevant information available.

Additional ecological information:

General notes: Generally not hazardous for water.

12.5 RESULTS OF PBT AND vPvB ASSESSMENT

PBT: Not applicable.

vPvB: Not applicable.

12.6 OTHER ADVERSE EFFECTS

No further relevant information available.

The product is not harmful to the marine environment as per paragraphs 1.7.4 and 1.7.5. of Resolution MEPC. 219 (63) /Annex 24 - 2012 adoption of IMO's MARPOL Annex V.

13. DISPOSAL CONSIDERATIONS

13.1 WASTE TREATMENT METHODS

Recommendation: Smaller quantities can be disposed of with household waste.

Uncleaned packaging:

Recommendation: Disposal must be made according to official regulations.

Recommended cleansing agents: Water, if necessary together with cleansing agents.

14. TRANSPORT INFORMATION

14.1 No special transport information required according to ADR/RID, IMDG, US DOT and ICAO/IATA codes.

15. REGULATORY INFORMATION

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

If other regulatory information applies that is not already provided elsewhere in this safety data sheet, then it is described in this subsection.

15.2 Chemical Safety Assessment

A CSA has been carried out for the raw materials in this product, from the raw materials manufacturers (when needed to be carried out).

16. OTHER INFORMATION

16.1 Full text of Hazard Code(s) referred in Section 3

H272: May intensify fire; oxidiser.
H315: Causes skin irritation.
H319: Causes serious eye irritation.

16.2 Abbreviations and acronyms

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road).
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail).
IMDG: International Maritime Code for Dangerous Goods.
IATA: International Air Transport Association.
ICAO: International Civil Aviation Organization.
bw: Body weight.
Carc.: Carcinogenicity.
CAS number: Chemical Abstracts Service number.
CLP: Classification Labelling Packaging Regulation.
CSA: Chemical Safety Assessment.
CSR: Chemical Safety Report.
DNEL: Derived No Effect Level.
dw: Dry weight.
EC number: EINECS and ELINCS number.
EC: European Commission.
EC50: Half maximal effective concentration.
EINECS: European Inventory of Existing Commercial Chemical Substances.
ELINCS: European List of Notified Chemical Substances.
EmS: Emergency Schedule.
ERC: Environmental Release Category.
ES: Exposure scenario.
food: oral feed.

GHS: Globally Harmonized System of Classification and Labelling of Chemicals.
Irrit.: Irritation.
LC50: Lethal concentration, 50 %.
LD50: Median Lethal dose.
LOAEC: Lowest Observed Adverse Effect Concentration.
LOAEL: Lowest Observed Adverse Effect Level.
MK value: Maximum Concentration value.
NCO: An international corporation that provides customer service contracting.
NOAEC: No Observed Adverse Effect Concentration.
NOAEL: No Observed Adverse Effect Level.
NOEC: No Observed Effect Concentration.
OECD: Organisation for Economic Cooperation and Development.
PBT: Persistent, Bioaccumulative and Toxic.
PNEC: Predicted No Effect Concentration.
PROC: Process category.
REACH: The Registration, Evaluation, Authorisation and Restriction of Chemicals.
Resp.: Respiratory.
Sens.: Sensitization.
STEL value: Short Term Exposure Limit value.
STOT RE: Specific target organ toxicity — repeated exposure.
STOT SE: Specific target organ toxicity — single exposure.
STOT: Specific Target Organ Toxicity.
STP: Sewage Treatment Plant.
SU: Sector of use.
Tox.: Toxicity.
TWA value: Time Weighted Average value.
vPvB: Very Persistent and Very Bioaccumulative.

16.3 Notice to reader

All information, instructions and statements contained in this Material Safety Data Sheet are compiled in accordance with European Directives, corresponding national legislation and on the basis of information given by our suppliers.

The information disclosed in this Material Safety Data Sheet (which supersedes all previous versions) is believed to be correct, at the date of issue, to the best of our current knowledge and experience. It only relates to the specific product designated herein and it may not be valid when said product is used in combination with any other products or in any processed form, unless specified in the text. This document aims to provide the necessary health and safety information of the product and is not to be considered a warranty or quality specification. It is the responsibility of the recipient of this Material Safety Data Sheet to ensure that information given here is read and understood by all who use, handle, dispose of or in any way come in contact with the product.

Also, it is the responsibility of the user to comply with local legislation relating to safety, health, environment and waste management. Data and information provided concerning the product are informative, exclusively presented to the customer.