

SAFETY DATA SHEET

ELS® Liquid Concentrate

SDS # : ELSC-C
Revision date: 2018-12-11
Version 1.02



According to Regulation (EC) No. 1907/2006, as amended by Regulation (EC) No. 453/2010

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

1.1. Product Identifier

Product Name ELS® Liquid Concentrate
Alternate Commercial Name ELS® Concentrate
REACH registration number Not applicable
Pure substance/mixture Mixture

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

Recommended Use: Bioremediation product for the remediation of contaminated soil and groundwater
Restrictions on Use Use as recommended by the label: For groundwater treatment.

1.3. Details of the supplier of the safety data sheet

Manufacturer/Supplier
PeroxyChem LLC
2005 Market Street
Suite 3200
Philadelphia, PA 19103
267/422-2400 (General Information)
sdsinfo@peroxychem.com (E-Mail General Information)

1.4. Emergency telephone numbers

For leak, fire, spill or accident emergencies, call:
1 800 / 424 9300 (CHEMTREC - U.S.A.)
1 703 / 527 3887 (CHEMTREC - Collect - All Other Countries)
1 303/ 389-1409 (Medical - U.S. - Call Collect)

2. HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

The preparation is not classified in accordance with Directive 1272/2008.

Occupational exposure limits, if available, are listed in section 8.

2.2. Label Elements

Not classified as a dangerous substances or preparation according to Regulation (EC) 1272/2008.

2.3. OTHER INFORMATION

General Hazards

Warning! Product can make the ground slippery

3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	EC-No	CAS-No	Weight %	Classification according to Regulation (EC) No. 1272/2008 [CLP]	REACH registration number
Sorbitan monooleate, ethoxylated 9005-65-6 (5 - 15)	-	9005-65-6	5 - 15	-	01-2120057650-60-XX XX
Lecithin 8002-43-5 (70 - 90)	Present	8002-43-5	70 - 90	-	NA

Occupational exposure limits, if available, are listed in section 8.

4. FIRST AID MEASURES

4.1. Description of first-aid measures

Skin Contact Wash skin with soap and water. Get medical attention if irritation develops and persists.
Eye Contact In case of contact, immediately flush eyes with plenty of water. Get medical attention if irritation develops and persists.
Inhalation Move to fresh air in case of accidental inhalation of vapors. Consult a physician if necessary.
Ingestion If swallowed, do not induce vomiting - seek medical advice. Call a POISON CENTER or doctor/physician if exposed or you feel unwell.

4.2. Most important symptoms and effects, both acute and delayed

None known

4.3. Indication of immediate medical attention and special treatment needed, if necessary

Indication of immediate medical attention and special treatment needed, if necessary Treat symptomatically.

5. FIRE-FIGHTING MEASURES

5.1. Extinguishing media

Suitable Extinguishing Media

Carbon dioxide (CO₂), Dry chemical, Dry powder

5.2. Special hazards arising from the substance or mixture

Special exposure hazards arising from the substance or preparation itself, combustion products, resulting gases

Not easily combustible. Dried product is capable of burning.

5.3. Advice for firefighters

Special protective equipment for fire-fighters

As in any fire, wear self-contained breathing apparatus and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

For personal protection see Section 8.

6.2. Environmental Precautions

Prevent undiluted spillage from entering sewers, basements or watercourses.

6.3. Methods and materials for containment and cleaning up

Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. After cleaning, flush away traces with water

6.4. Reference to other sections.

See section 13 for disposal information.

7. HANDLING AND STORAGE

7.1. Precautions for Safe Handling

Handle in accordance with good industrial hygiene and safety practice.

7.2. Conditions for safe storage, including any incompatibilities

Storage

Any vessel that contains wet ELS must be vented due to potential pressure build up from fermentation gases. Keep away from open flames, hot surfaces and sources of ignition.

Materials to avoid

Strong oxidizing agents, Alkalis, Water.

7.3. Specific end uses

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

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Exposure Limits

Contains no substances with occupational exposure limit values

8.2. Exposure Controls

Engineering measures None under normal use conditions.

Personal protective equipment

Respiratory Protection	In case of insufficient ventilation wear suitable respiratory equipment.
Eye/Face Protection	Safety glasses with side-shields
Skin and Body Protection	Wear suitable protective clothing.
Hand Protection	Protective gloves

Hygiene measures Do not eat, drink or smoke when using this product. Wash hands before breaks and at the end of workday.

Environmental exposure controls No special environmental precautions required.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance	Amber viscous liquid
Color	Amber
Physical State	Liquid
Odor	odorless
Odor threshold	Not applicable
pH	6.5 - 6.9
Flash point	> 200 °F
Melting Point/Range	No information available
Freezing Point	No information available
Boiling Point/Range	No information available
Autoignition temperature	No information available
Explosive properties	Not explosive
Vapor pressure	No information available
Vapor density	No information available
Relative Density	No information available
Partition coefficient	No information available
Water solubility	Dispersible in water
Viscosity	No information available
Evaporation Rate	No information available
Decomposition temperature	No information available

9.2. OTHER INFORMATION

Bulk Density

10. STABILITY AND REACTIVITY

10.1. Reactivity

None under normal use conditions

10.2. Chemical Stability

Stable under recommended storage conditions.

10.3. Possibility of Hazardous Reactions

None under normal processing.

10.4. Conditions to avoid

Temperatures above 71°C.

10.5. incompatible materials

Strong oxidizing agents, Alkalis, Water.

10.6. Hazardous Decomposition Products

May emit toxic fumes under fire conditions: Carbon oxides (COx)

11. TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Acute toxicity

LD50 Dermal	There are no data available for this product
LD50 Oral	There are no data available for this product.
LC50 Inhalation	No information available
Skin Contact	May cause slight irritation.
Eye Contact	May cause slight irritation.
Inhalation	No known effect.
Ingestion	No known effect.

Chronic toxicity

Sensitization	Not expected to be sensitizing based on the components.
Carcinogenicity	Contains no ingredient listed as a carcinogen.
Mutagenicity	This product is not recognized as mutagenic by Research Agencies
Reproductive toxicity	This product does not contain any known or suspected reproductive hazards

12. ECOLOGICAL INFORMATION

12.1. Toxicity

Ecotoxicity effects

Not dangerous to the environment according to Regulation (CE) No 1272/2008 and its amendments.

12.2. Persistence and degradability

Expected to biodegrade, based on component information.

12.3. Bioaccumulative potential

Bioaccumulation is unlikely.

12.4. Mobility in soil

Will likely be mobile in the environment due to its water solubility but will likely degrade over time.

12.5. Results of PBT and vPvB assessment

This mixture contains no substance considered to be persistent, bioaccumulating nor toxic (PBT)

12.6. Other Adverse Effects

None known.

13. DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Waste from residues / unused products Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of in compliance with local regulations.

Product / Packaging disposal Dispose of as hazardous waste in compliance with local and national regulations.

Contaminated Packaging Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. TRANSPORT INFORMATION

ADR/RID NOT REGULATED

IMDG/IMO NOT REGULATED

ICAO/IATA NOT REGULATED

15. REGULATORY INFORMATION

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

International Inventories

Chemical name	TSCA (United States)	DSL (Canada)	EINECS/ELI NCS (Europe)	ENCS (Japan)	China (IECSC)	KECL (Korea)	PICCS (Philippines)	AICS (Australia)	NZIoC (New Zealand)
Sorbitan monooleate, ethoxylated 9005-65-6	X	X	X	X	X	X	X	X	X
Lecithin 8002-43-5	X	X	X	-	X	X	X	X	X

Directive 2008/98/EC on waste

Not applicable

Major Accidents (Directive 2012/18/EU)

Not applicable

CWC (Chemical Weapons Convention) - Annex on Chemicals

Not applicable

EU Export and import of dangerous chemicals (Regulation (EC) No 304/2003)

Not Applicable

15.2. Chemical Safety Report

Not Applicable.

16. OTHER INFORMATION

Full text of H-phrases referred to in sections 2 and 3

None

Issuing Date: 2018-12-11

Restrictions on Use

This product's foreseen or recommended applications are: Bioremediation product for the remediation of contaminated soil and groundwater

Revision date: 2018-12-11

Revision note Qualify trade name.

List of Abbreviations and Acronyms

- ATE Acute Toxicity Estimate
- ADR European Agreement concerning the International Carriage of Dangerous Goods by Road
- AND European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
- CE50 Concentración Efectiva Media
- CEN European Committee for Standardisation
- C&L Classification and Labelling
- CLP Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
- CLV Ceiling Limit Value Par CAS# Chemical Abstracts Service number
- CMR Carcinogen, Mutagen, or Reproductive Toxicant
- CSA Chemical Safety Assessment
- CSR Chemical Safety Report
- DNEL Derived No Effect Level
- DOT Department of Transportation
- DPD Dangerous Preparations Directive 1999/45/EC
- DSD Dangerous Substances Directive 67/548/EEC
- DU Downstream User
- EC European Community
- ECHA European Chemicals Agency
- EC-Number EINECS and ELINCS Number (see also EINECS and ELINCS)
- EEA European Economic Area (EU + Iceland, Liechtenstein and Norway)
- EEC European Economic Community
- EINECS European Inventory of Existing Commercial Substances
- ELINCS European List of notified Chemical Substances
- EN European Standard
- EQS Environmental Quality Standard
- EU European Union
- Euphrac European Phrase Catalogue EWC
- European Waste Catalogue (replaced by LoW –see below)
- FDS Ficha de Datos de Seguridad
- GES Generic Exposure Scenario
- GHS Globally Harmonized System
- IATA International Air Transport Association
- ICAO-TI Technical Instructions for the Safe Transport of Dangerous Goods by Air
- IMDG International Maritime Dangerous Goods
- IMO International Maritime Organization
- IMSBC International Maritime Solid Bulk Cargoes
- IT Information Technology
- IUCLID International Uniform Chemical Information Database
- IUPAC International Union for Pure Applied Chemistry
- JRC Joint Research Centre
- Kow octanol-water partition coefficient
- LC50 Lethal Concentration to 50 % of a test population Lethal Dose to 50% of a test population (Median Lethal Dose)
- LE Legal Entity
- LLV Level Limit Value
- LoW List of Wastes (see <http://ec.europa.eu/environment/waste/framework/list.htm>)
- LR Lead Registrant
- M/I Manufacturer / Importer
- MS Member States
- MSDS Material Safety Data Sheet
- NOEC No observed effect concentration
- OC Operational Conditions
- OECD Organization for Economic Co-operation and Development
- OEL Occupational Exposure Limit
- OJ Official Journal
- OR Only Representative

OSHA European Agency for Safety and Health at work
PBT Persistent, Bioaccumulative and Toxic substance
PEC Predicted Effect Concentration
PNEC(s) Predicted No Effect Concentration(s)
PPE Personal Protection Equipment
(Q)SAR Qualitative Structure Activity Relationship
RCR Risk Characterization ratio
REACH Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
RID Regulations concerning the International Carriage of Dangerous Goods by Rail
RIP REACH Implementation Project
RMM Risk Management Measure
SADT Self-accelerating decomposition temperature
SCBA Self-Contained Breathing Apparatus
SDS Safety data sheet
SIEF Substance Information Exchange Forum
SME Small and Medium sized Enterprises
STEL Short-term exposure limit
STOT Specific Target Organ Toxicity (STOT)
RE Repeated Exposure(STOT)
SE Single Exposure Par SVHC Substances of Very High Concern
TSCA Toxic Substances Control Act
TWA Time Weighed Average
UN United Nations
vPvB Very Persistent and Very Bioaccumulative / mPmB Muy Persistente y Muy Bioacumulativo
WGK Wassergefährdungsklassen

Disclaimer

PeroxyChem believes that the information and recommendations contained herein (including data and statements) are accurate as of the date hereof. **NO WARRANTY OF FITNESS FOR ANY PARTICULAR PURPOSE, WARRANTY OF MERCHANTABILITY OR ANY OTHER WARRANTY, EXPRESSED OR IMPLIED, IS MADE CONCERNING THE INFORMATION PROVIDED HEREIN.** The information provided herein relates only to the specified product designated and may not be applicable where such product is used in combination with any other materials or in any process. Further, since the conditions and methods of use are beyond the control of PeroxyChem, PeroxyChem expressly disclaims any and all liability as to any results obtained or arising from any use of the products or reliance on such information.

Prepared By:

PeroxyChem
© 2018 PeroxyChem. All Rights Reserved.

End of Safety Data Sheet