

# SAFETY DATA SHEET

## ELS® Liquid Concentrate

SDS #: ELSC-C  
Revision date: 2021-02-04  
Version 1.04



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

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

#### 1.1. Product Identifier

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

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

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

#### 1.3. Details of the supplier of the safety data sheet

<b>Manufacturer/Supplier</b>	PeroxyChem LLC 2005 Market Street Suite 3200 Philadelphia, PA 19103 267/422-2400 (General Information) sdsinfo-pxc@evonik.com (E-Mail General Information)
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<b>Responsible Persons</b>	Evonik Operations GmbH Rellinghauser Str. 1-11 45128 Essen Germany Tel: +49 6181 59 4787 E-mail: sds-hu@evonik.com
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#### 1.4. Emergency telephone numbers

24-Hour Health Emergency: +49 2365 49 2232

## 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

Chemical name	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	-	01-2120057650-60-XXX X
Lecithin	232-307-2	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

<b>Skin Contact</b>	Wash skin with soap and water. Get medical attention if irritation develops and persists.
<b>Eye Contact</b>	In case of contact, immediately flush eyes with plenty of water. Get medical attention if irritation develops and persists.
<b>Inhalation</b>	Move to fresh air in case of accidental inhalation of vapors. Consult a physician if necessary.
<b>Ingestion</b>	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 (CO<sub>2</sub>), 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**

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

<b>Appearance</b>	Amber viscous liquid
<b>Color</b>	Amber
<b>Physical State</b>	Liquid
<b>Odor</b>	odorless
<b>Odor threshold</b>	Not applicable
<b>pH</b>	6.5 - 6.9
<b>Flash point</b>	> 200 °F
<b>Melting Point/Range</b>	No information available
<b>Freezing Point</b>	No information available
<b>Boiling Point/Range</b>	No information available
<b>Autoignition temperature</b>	No information available
<b>Explosive properties</b>	Not explosive
<b>Vapor pressure</b>	No information available
<b>Vapor density</b>	No information available
<b>Relative Density</b>	No information available No data available
<b>Partition coefficient</b>	No information available
<b>Water solubility</b>	Dispersible in water
<b>Viscosity</b>	No information available
<b>Evaporation Rate</b>	No information available
<b>Decomposition temperature</b>	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	232-307-2	-	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:** 2021-02-04

**Revision note** SDS sections updated: 1

### **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 Weighted Average  
 UN United Nations  
 vPvB Very Persistent and Very Bioaccumulative / mPmB Muy Persistente y Muy Bioacumulativo  
 WGK Wassergefährdungsklassen

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**End of Safety Data Sheet**