

# Classification, labelling and packaging

Compliance with EC regulation 1272/2008



ABioSA GUIDE

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**forestry, fisheries  
& the environment**

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# Contents

<b>Introduction</b>	<b>3</b>	<b>Section 8: Exposure controls and personal protection</b>	<b>11</b>
<b>Glossary</b>	<b>3</b>	<b>Section 9: Physical and chemical properties</b>	<b>12</b>
<b>What is CLP?</b>	<b>3</b>	<b>Section 10: Stability and reactivity</b>	<b>13</b>
<b>Harmonized classification</b>	<b>4</b>	<b>Section 11: Toxicological information</b>	<b>14</b>
<b>Hazard classification – Safety Data Sheets</b>	<b>5</b>	<b>Section 12: Ecological information</b>	<b>15</b>
<b>Section 1: Identification of the substance and company</b>	<b>6</b>	<b>Section 13: Disposal considerations</b>	<b>15</b>
<b>Section 2: Hazard identification</b>	<b>7</b>	<b>Section 14: Transport information</b>	<b>16</b>
<b>Section 3: Composition and information on ingredients</b>	<b>8</b>	<b>Section 15: Regulatory information</b>	<b>18</b>
<b>Section 4: First aid measures</b>	<b>8</b>	<b>Section 16: Other information</b>	<b>19</b>
<b>Section 5: Fire-fighting measures</b>	<b>9</b>	<b>Hazard classification – Labelling</b>	<b>21</b>
<b>Section 6: Accidental release measures</b>	<b>9</b>	<b>References</b>	<b>22</b>
<b>Section 7: Handling and storage</b>	<b>10</b>	<b>Disclaimer</b>	<b>22</b>

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*A glossary of biotrade terms can be found at [www.abs-biotrade.info/resources](http://www.abs-biotrade.info/resources)*

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**Adrie El Mohamadi**  
Component Manager

The ABS Capacity Development Initiative  
(ABS Compliant Biotrade in Southern Africa)  
Center for Cooperation with the Private Sector (CCPS)

**Deutsche Gesellschaft für  
Internationale Zusammenarbeit (GIZ) GmbH**  
+27 12 423 7955 | +27 82 902 4083  
adrie.elmohamadi@giz.de  
[www.giz.de](http://www.giz.de) & [www.abs-biotrade.info](http://www.abs-biotrade.info)

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## Introduction

This ABioSA guide aims to help biotrade SMEs to understand and comply with the requirements for Classification, Labelling and Packaging (CLP) as defined by European Commission EC Regulation 1272/2008.

It will help businesses exporting ingredients and finished products to develop Safety Data Sheets (SDS) and labels that are compliant with the requirements of the European Union market.

## Glossary

- **CLP** – Classification, Labelling and Packaging (defined by EC Regulation 1272/2008)
- **ECHA** – European Chemicals Agency
- **GHS** – Globally Harmonized System of Classification and Labelling of Chemicals
- **REACH** – Registration, Evaluation, Authorisation and Restriction of Chemicals
- **SDS** – Safety Data Sheet

## What is CLP?

The Globally Harmonized System of Classification and Labelling of Chemicals (GHS) is an internationally agreed standard managed by the United Nations. Widely known as the *Purple Book*, GHS is an international approach to communication of hazards, standardised hazard testing criteria, universal warning pictograms, and harmonized labels and Safety Data Sheets. It classifies chemicals by types of hazards and provides information to users of dangerous goods.

It is important for companies supplying raw materials and final products into the EU market to have compliant SDS.

The EU has adapted the UN GHS *Purple Book* to create regulations specific to the region. The GHS regulation in the EU is known as Classification, Labelling and Packaging (CLP) Regulation EC 1272/2008.

CLP is regulated in all member states of the EU and applicable to all industrial sectors. All manufacturers, importers, or downstream users of substances or mixtures are required to classify, label, and package their chemicals according to CLP regulations before they are placed on the market.

The main purpose of CLP is to ensure safe use of chemicals, the free movement of substances and mixtures, and the protection of consumers and the environment.

## Harmonized classification

A harmonized classification in CLP refers to the standard classification and labelling of certain chemicals. This ensures that the risks associated with these chemicals are adequately managed. A list of harmonized classifications can be found in Annex VI to the CLP regulation, or on the website of the European Chemicals Agency, [ECHA](#).

### Formaldehyde

Substance description ? Scientific properties Brief Profile

#### Hazard classification & labelling ?

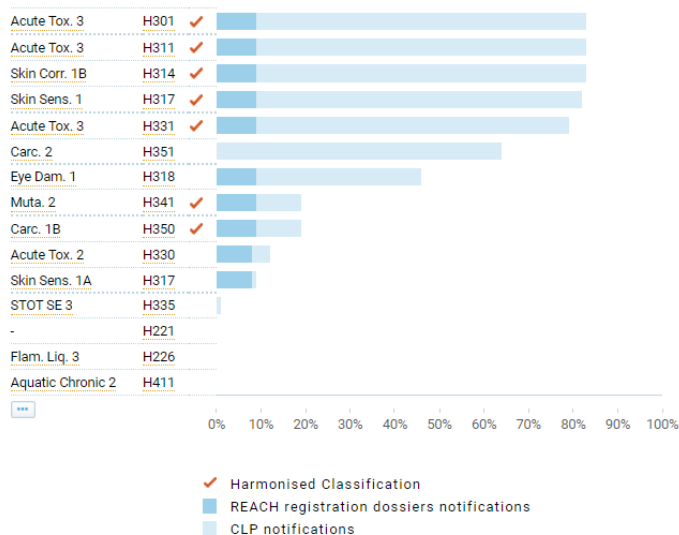


**Danger!** According to the **harmonised classification and labelling (ATP06)** approved by the European Union, this substance is toxic if swallowed, is toxic in contact with skin, causes severe skin burns and eye damage, is toxic if inhaled, may cause cancer, is suspected of causing genetic defects and may cause an allergic skin reaction.

**Additionally**, the classification provided by companies to ECHA in **REACH registrations** identifies that this substance is fatal if inhaled and causes serious eye damage.

**Additionally**, the classification provided by companies to ECHA in **CLP notifications** identifies that this substance is suspected of causing cancer.

#### Breakdown of all 6292 C&L notifications submitted to ECHA ?



Extract from ECHA with the red tick showing the harmonized classification of Formaldehyde

## Hazard classification – Safety Data Sheets

CLP regulation refers to the **REACH** regulation (EC 1907/2006) for the regulatory requirements needed to compile a Safety Data Sheet (SDS).

The purpose of a SDS is to enable users of a substance or mixture to take the necessary precautions to ensure protection of human health, safety and the environment.

The SDS should be compiled by a competent person with appropriate training and in a clear and concise manner. The length of the SDS depends on the hazard classification and amount of information available. A standard SDS contains 16 sections:

	Identification of the substance or mixture and of the company or undertaking		Physical and chemical properties
	Hazards identification		Stability and reactivity
	Composition/information on ingredients		Toxicological information
	First aid measures		Ecological information
	Fire-fighting measures		Disposal considerations
	Accidental release measures		Transport information
	Handling and storage		Regulatory information
	Exposure controls and personal protection		Other information

## **SDS Section 1: Identification of the substance or mixture and of the company/undertaking**

The mandatory subsections for Section 1 are as follows:

- 1.1. Product identifier
- 1.2. Relevant identified uses of the substance or mixture and uses advised against
- 1.3. Details of the supplier of the Safety Data Sheet
- 1.4. Emergency telephone number

Refer to Annex II of EC No. 1907/2006 for the detailed regulatory requirements

### **SECTION 1: Identification of the substance/mixture and of the company/undertaking**

#### **1.1. Product identifier**

Product form	: Substance
Trade name	: GIZ - CLP Knowledge product
Product code	: 10023004
Type of product	: Essential oil
Product group	: End product

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

##### **1.2.1. Relevant identified uses**

Intended for general public	
Main use category	: Consumer use
Industrial/Professional use spec	: Commercial & consumer uses
Use of the substance/mixture	: Cosmetic final product and cosmetic raw material
Function or use category	: Cosmetics

##### **1.2.2. Uses advised against**

No additional information available

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

##### **Supplier**

Lisam South Africa  
14 Townsend Rd  
Bedfordview  
2008  
T +27 824588444  
[letesha.moodley@lisam.com](mailto:letesha.moodley@lisam.com)

#### **1.4. Emergency telephone number**

Emergency number : +27824588444

*Example of a compliant SDS Section 1, generated by LISAM's ExESS software*

## SDS Section 2: Hazard identification

The mandatory subsections for Section 2 are as follows:

- 2.1. Classification of the substance or mixture
- 2.2. Label elements
- 2.3. Other hazards

To acquire the correct label elements for Section 2, Regulation EC No. 1271/2008 must be followed for the correct classification of the substance or mixture. Refer to Annex II of EC No. 1907/2006 for the detailed regulatory requirements.

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

##### Classification according to Regulation (EC) No. 1272/2008 [CLP]

Flammable liquids, Category 3	H226
Acute toxicity (inhalation:vapour) Category 3	H331
Skin corrosion/irritation, Category 2	H315
Serious eye damage/eye irritation, Category 2	H319
Skin sensitisation, Category 1	H317
Reproductive toxicity, Category 2	H361
Specific target organ toxicity — Single exposure, Category 3, Narcosis	H336
Specific target organ toxicity — Repeated exposure, Category 2	H373
Aspiration hazard, Category 1	H304
Hazardous to the aquatic environment — Chronic Hazard, Category 2	H411

Full text of H-statements: see section 16

##### Adverse physicochemical, human health and environmental effects

Flammable liquid and vapour. Suspected of damaging fertility or the unborn child. May cause damage to organs through prolonged or repeated exposure. May cause drowsiness or dizziness. Toxic if inhaled. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation. May be fatal if swallowed and enters airways. Toxic to aquatic life with long lasting effects.

#### 2.2. Label elements

##### Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP)



Signal word (CLP)

Hazard statements (CLP)

Precautionary statements (CLP)

- : Danger
- : H226 - Flammable liquid and vapour.  
H304 - May be fatal if swallowed and enters airways.  
H315 - Causes skin irritation.  
H317 - May cause an allergic skin reaction.  
H319 - Causes serious eye irritation.  
H331 - Toxic if inhaled.  
H336 - May cause drowsiness or dizziness.  
H361 - Suspected of damaging fertility or the unborn child.  
H373 - May cause damage to organs through prolonged or repeated exposure.  
H411 - Toxic to aquatic life with long lasting effects.
- : P102 - Keep out of reach of children.  
P201 - Obtain special instructions before use.  
P202 - Do not handle until all safety precautions have been read and understood.  
P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.  
No smoking.  
P233 - Keep container tightly closed.  
P240 - Ground and bond container and receiving equipment.

#### 2.3. Other hazards

No additional information available

*Example of a compliant SDS Section 2, generated by LISAM's ExESS software*

### SDS Section 3: Composition/information on ingredients

This section of the SDS details the chemical identity of the ingredients, including any impurities or additives. The mandatory subsections for Section 3 are as follows:

- 3.1. Substances
- 3.2. Mixtures

Refer to Annex II of EC No. 1907/2006 for the specific regulatory requirements

#### SECTION 3: Composition/information on ingredients

##### 3.1. Substances

Name : GIZ - CLP Knowledge product

Name	Product identifier	%
Tea tree oil	CAS-No.: 85085-48-9 EC-No.: 285-377-1, 614-679-1	100

Full text of H-statements: see section 16

##### 3.2. Mixtures

Not applicable

*Example of a compliant SDS Section 3, generated by LISAM's ExESS software*

### SDS Section 4: First aid measures

Section 4 of the SDS should detail the initial first aid procedures in a manner that can be clearly understood by an untrained responder and can be carried out without the use of specialised equipment. The mandatory subsections for Section 4 are as follows:

- 4.1. Description of first aid measures
- 4.2. Most important symptoms and effects, both acute and delayed
- 4.3. Indication of any immediate medical attention and special treatment needed

Refer to Annex II of EC No. 1907/2006 for additional information.

#### SECTION 4: First aid measures

##### 4.1. Description of first aid measures

First-aid measures general	: Call a physician immediately.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing. Call a doctor.
First-aid measures after skin contact	: Rinse skin with water/shower. Take off immediately all contaminated clothing. If skin irritation or rash occurs: Get medical advice/attention.
First-aid measures after eye contact	: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
First-aid measures after ingestion	: Do not induce vomiting. Call a physician immediately.

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

Symptoms/effects	: May cause drowsiness or dizziness.
Symptoms/effects after skin contact	: Irritation. May cause an allergic skin reaction.
Symptoms/effects after eye contact	: Eye irritation.
Symptoms/effects after ingestion	: Risk of lung oedema.

##### 4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

*Example of a compliant SDS Section 4, generated by LISAM's ExESS software*



**SDS Section 5: Firefighting measures**

This section of the SDS should include the appropriate fire-fighting requirements and equipment to contain a fire caused by the substance or mixture, or arising in the vicinity. The mandatory subsections for Section 5 are as follows:

- 5.1. Extinguishing media
- 5.2. Special hazards arising from the substance or mixture

**SECTION 5: Firefighting measures****5.1. Extinguishing media**

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.

**5.2. Special hazards arising from the substance or mixture**

Fire hazard : Flammable liquid and vapour.  
 Hazardous decomposition products in case of fire : Toxic fumes may be released.

**5.3. Advice for firefighters**

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

*Example of a compliant SDS Section 5, generated by LISAM's ExESS software*

**Section 6: Accidental release measures**

This section should indicate the appropriate response to minimise the effects of spills, leaks or releases on personnel, property and the environment. The mandatory subsections for Section 6 are as follows:

- 6.1. Personal precautions, protective equipment and emergency procedures
- 6.2. Environmental precautions
- 6.3. Methods and material for containment and clean up.

Refer to Annex II of EC No. 1907/2006 for additional information (EC, 2006) .

**SECTION 6: Accidental release measures****6.1. Personal precautions, protective equipment and emergency procedures****6.1.1. For non-emergency personnel**

Emergency procedures : Ventilate spillage area. No open flames, no sparks, and no smoking. Do not breathe dust/fume/gas/mist/vapours/spray. Avoid contact with skin and eyes.

**6.1.2. For emergency responders**

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

**6.2. Environmental precautions**

Avoid release to the environment.

**6.3. Methods and material for containment and cleaning up**

For containment : Collect spillage.  
 Methods for cleaning up : Take up liquid spill into absorbent material. Notify authorities if product enters sewers or public waters.  
 Other information : Dispose of materials or solid residues at an authorized site.

**6.4. Reference to other sections**

For further information refer to section 13.

*Example of a compliant SDS Section 6, generated by LISAM's ExESS software*

## Section 7: Handling and storage

This section of the SDS should provide advice on safe handling practices and storage, and appropriate precautionary measures according to the uses described in section 1.2. It relates to the safe handling of the substance/s, and protection of health, safety, and the environment. It assists employers in developing suitable health and safety procedures. The mandatory subsections for Section 7 are as follows:

- 7.1. Precautions for safe handling
- 7.2. Conditions for safe storage, including any materials or conditions that are not compatible with the product and may cause an adverse effect
- 7.3. Specific end uses

Refer to Annex II of EC No. 1907/2006 for additional information.

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

Precautions for safe handling	: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Ground/bond container and receiving equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Flammable vapours may accumulate in the container. Use explosion-proof equipment. Wear personal protective equipment. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe dust/fume/gas/mist/vapours/spray. Use only outdoors or in a well-ventilated area. Avoid contact with skin and eyes.
Hygiene measures	: Wash contaminated clothing before reuse. Contaminated work clothing should not be allowed out of the workplace. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

#### 7.2. Conditions for safe storage, including any incompatibilities

Technical measures	: Ground/bond container and receiving equipment.
Storage conditions	: Store in a well-ventilated place. Keep cool. Keep container tightly closed. Store locked up.

#### 7.3. Specific end use(s)

No additional information available

*Example of a compliant SDS Section 7, generated by LISAM's ExESS software*

### Section 8: Exposure controls/personal protection

This section of the SDS should include the occupational exposure limits and required risk management measures. The mandatory subsections for Section 8 is as follows:

- 8.1. Control parameters
- 8.2. Exposure controls

Refer to Annex II of EC No. 1907/2006 for additional information.

## SECTION 8: Exposure controls and personal protection

### 8.1. Control parameters

#### 8.1.1. National occupational exposure and biological limit values

No additional information available

#### 8.1.2. Recommended monitoring procedures

No additional information available

#### 8.1.3. Air contaminants formed

No additional information available

#### 8.1.4. DNEL and PNEC

No additional information available

#### 8.1.5. Control banding

No additional information available

### 8.2. Exposure controls

#### 8.2.1. Appropriate engineering controls

**Appropriate engineering controls:**  
Ensure good ventilation of the work station.

#### 8.2.2. Personal protection equipment

**Personal protective equipment:**

Gloves. Protective clothing.

**Personal protective equipment symbol(s):**



##### 8.2.2.1. Eye and face protection

**Eye protection:**  
Safety glasses

##### 8.2.2.2. Skin protection

**Skin and body protection:**  
Wear suitable protective clothing

**Hand protection:**

Protective gloves

##### 8.2.2.3. Respiratory protection

**Respiratory protection:**  
[In case of inadequate ventilation] wear respiratory protection.

##### 8.2.2.4. Thermal hazards

No additional information available

#### 8.2.3. Environmental exposure controls

**Environmental exposure controls:**

Avoid release to the environment.

*Example of a compliant SDS Section 8, generated by LISAM's ExESS software*

## Section 9: Physical and chemical properties

The information listed in Section 9 of the SDS should include the observed data related to the substance or mixture. Where applicable, Section 9 should include the test method as well as the units of measurement. The mandatory subsections for Section 9 are as follows:

- 9.1. Information on basic physical and chemical properties
- 9.2. Other information

Refer to Annex II of EC No. 1907/2006 for additional information.

### SECTION 9: Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Colorless to yellowish liquid.
Colour	: Colourless to Pale Yellow.
Odour	: characteristic.
Odour threshold	: No data available
pH	: 8,6
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: Not applicable
Freezing point	: -22 °C
Boiling point	: 97 – 220 °C
Flash point	: 54 – 55 °C @ 102.1 - 102.2 kPa
Auto-ignition temperature	: 252 °C 101.7 - 102.2 kPa
Decomposition temperature	: No data available
Flammability (solid, gas)	: Not applicable
Vapour pressure	: 21 hPa @ 25 °C
Relative vapour density at 20 °C	: No data available
Relative density	: 0,89 @ 20 °C
Solubility	: Water: 1,42 g/l @ 20 °C
Partition coefficient n-octanol/water (Log Pow)	: 3,4 – 5,5
Viscosity, kinematic	: 1,704 – 2,864 mm <sup>2</sup> /s
Viscosity, dynamic	: 1,516 – 2,549 mPa·s
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

#### 9.2. Other information

No additional information available

*Example of a compliant SDS Section 9, generated by LISAMss ExESS software*

**SDS Section 10: Stability and reactivity**

Section 10 of the SDS should include the stability and reactivity of the substance or mixture. It should also include the possibility of hazardous reactions that might occur under certain conditions. The mandatory subsections for Section 10 are as follows :

- 10.1. Reactivity
- 10.2. Chemical stability
- 10.3. Possibility of hazardous reactions
- 10.4. Conditions to avoid
- 10.5. Incompatible materials
- 10.6. Hazardous decomposition products

Refer to Annex II of EC No. 1907/2006 for additional information.

**SECTION 10: Stability and reactivity****10.1. Reactivity**

Flammable liquid and vapour.

**10.2. Chemical stability**

Stable under normal conditions.

**10.3. Possibility of hazardous reactions**

No dangerous reactions known under normal conditions of use.

**10.4. Conditions to avoid**

Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.

**10.5. Incompatible materials**

No additional information available

**10.6. Hazardous decomposition products**

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

*Example of a compliant SDS Section 10, generated by LISAM's ExESS software*

### SDS Section 11: Toxicological information

Section 11 of the SDS details various toxicological effects and is used by health care professionals, occupational health and safety professionals, and toxicologists. It is also important for poison centres, enabling them to give correct and concise information in case of emergencies. The mandatory subsections for Section 11 are as follows:

#### 11.1. Information on toxicological effects

Refer to Annex II of EC No. 1907/2006 for additional information.

SECTION 11: Toxicological information	
<b>11.1. Information on toxicological effects</b>	
Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Toxic if inhaled.
<b>GIZ - CLP Knowledge product</b>	
LD50 oral rat	1,9 – 2,6 ml/kg
LC50 Inhalation - Rat	4,29 – 5,23 mg/l mg/L air
<b>Tea tree oil (85085-48-9)</b>	
LD50 oral	1900 mg/kg bodyweight
Skin corrosion/irritation	: Causes skin irritation. pH: 8,6
Serious eye damage/irritation	: Causes serious eye irritation. pH: 8,6
Respiratory or skin sensitisation	: May cause an allergic skin reaction.
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Suspected of damaging fertility or the unborn child.
STOT-single exposure	: May cause drowsiness or dizziness.
<b>Tea tree oil (85085-48-9)</b>	
STOT-single exposure	May cause drowsiness or dizziness.
STOT-repeated exposure	: May cause damage to organs through prolonged or repeated exposure.
<b>GIZ - CLP Knowledge product</b>	
LOAEL (oral, rat, 90 days)	45 mg/kg bodyweight/day
Aspiration hazard	: May be fatal if swallowed and enters airways.
<b>GIZ - CLP Knowledge product</b>	
Viscosity, kinematic	1,704 – 2,864 mm <sup>2</sup> /s

Example of a compliant SDS Section 11, generated by LISAM's ExESS software

**SDS Section 12: Ecological information**

Section 12 of the SDS describes the information required to evaluate the environmental impact of the substance or mixture. This information is also important and useful in the handling of spills and leaks, evaluation of waste, and transport. The mandatory subsections for section 12 are as follows:

- 12.1. Toxicity
- 12.2. Persistence and degradability
- 12.3. Bio-accumulative potential
- 12.4. Mobility in soil
- 12.5. Results of PBT and vPvB assessment
- 12.6. Other adverse effects

Refer to Annex II of EC No. 1907/2006 for additional information.

SECTION 12: Ecological information	
<b>12.1. Toxicity</b>	
Ecology - general	: Toxic to aquatic life with long lasting effects.
Hazardous to the aquatic environment, short-term (acute)	: Not classified
Hazardous to the aquatic environment, long-term (chronic)	: Toxic to aquatic life with long lasting effects.
<b>GIZ - CLP Knowledge product</b>	
EC50 72h - Algae [1]	80 mg/l
<b>12.2. Persistence and degradability</b>	
No additional information available	
<b>12.3. Bioaccumulative potential</b>	
<b>GIZ - CLP Knowledge product</b>	
Partition coefficient n-octanol/water (Log Pow)	3,4 – 5,5
<b>12.4. Mobility in soil</b>	
No additional information available	
<b>12.5. Results of PBT and vPvB assessment</b>	
No additional information available	
<b>12.6. Other adverse effects</b>	
No additional information available	

*Example of a compliant SDS Section 12, generated by LISAM's ExESS software*

**SDS Section 13: Disposal considerations**

Section 13 of the SDS should describe the proper waste management of the substance or mixture and its container. The mandatory subsection for section 13 is as follows:

- 13.1. Waste treatment methods

Refer to Annex II of EC No. 1907/2006 for additional information.

SECTION 13: Disposal considerations	
<b>13.1. Waste treatment methods</b>	
Waste treatment methods	: Dispose of contents/container in accordance with licensed collector's sorting instructions.
Additional information	: Flammable vapours may accumulate in the container.

*Example of a compliant SDS Section 13, generated by LISAMs ExESS software*

## SDS Section 14: Transport information

This section of the SDS should provide the basic transport classification of the substance or mixture. If the information is not available, this should be stated on the SDS. Relevant information for all modes of transport should be given where applicable. The mandatory subsections for Section 14 are as follows:

- 14.1. UN number
- 14.2. UN Proper shipping name
- 14.3. Transport hazard class(es)
- 14.4. Packing group
- 14.5. Environmental hazards
- 14.6. Special precautions for user
- 14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Refer to Annex II of EC No. 1907/2006 for additional information.

### 14.1. UN number

UN-No. (ADR)	: UN 1169
UN-No. (IMDG)	: UN 1169
UN-No. (IATA)	: UN 1169
UN-No. (ADN)	: UN 1169
UN-No. (RID)	: UN 1169

### 14.2. UN proper shipping name

Proper Shipping Name (ADR)	: EXTRACTS, AROMATIC, LIQUID
Proper Shipping Name (IMDG)	: EXTRACTS, AROMATIC, LIQUID
Proper Shipping Name (IATA)	: Extracts, aromatic, liquid
Proper Shipping Name (ADN)	: EXTRACTS, AROMATIC, LIQUID
Proper Shipping Name (RID)	: EXTRACTS, AROMATIC, LIQUID
Transport document description (ADR)	: UN 1169 EXTRACTS, AROMATIC, LIQUID, 3, III, (D/E), ENVIRONMENTALLY HAZARDOUS
Transport document description (IMDG)	: UN 1169 EXTRACTS, AROMATIC, LIQUID, 3, III, MARINE POLLUTANT/ENVIRONMENTALLY HAZARDOUS
Transport document description (IATA)	: UN 1169 Extracts, aromatic, liquid, 3, III, ENVIRONMENTALLY HAZARDOUS
Transport document description (ADN)	: UN 1169 EXTRACTS, AROMATIC, LIQUID, 3, III, ENVIRONMENTALLY HAZARDOUS
Transport document description (RID)	: UN 1169 EXTRACTS, AROMATIC, LIQUID, 3, III, ENVIRONMENTALLY HAZARDOUS

### 14.3. Transport hazard class(es)

#### ADR

Transport hazard class(es) (ADR)	: 3
Danger labels (ADR)	: 3



#### IMDG

Transport hazard class(es) (IMDG)	: 3
Danger labels (IMDG)	: 3



#### IATA

Transport hazard class(es) (IATA)	: 3
Danger labels (IATA)	: 3





**ADN**  
 Transport hazard class(es) (ADN) : 3  
 Danger labels (ADN) : 3



**RID**  
 Transport hazard class(es) (RID) : 3  
 Danger labels (RID) : 3



#### 14.4. Packing group

Packing group (ADR) : III  
 Packing group (IMDG) : III  
 Packing group (IATA) : III  
 Packing group (ADN) : III  
 Packing group (RID) : III

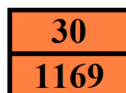
#### 14.5. Environmental hazards

Dangerous for the environment : Yes  
 Marine pollutant : Yes  
 Other information : No supplementary information available

#### 14.6. Special precautions for user

##### Overland transport

Classification code (ADR) : F1  
 Special provisions (ADR) : 601  
 Limited quantities (ADR) : 5I  
 Excepted quantities (ADR) : E1  
 Packing instructions (ADR) : P001, IBC03, LP01, R001  
 Mixed packing provisions (ADR) : MP19  
 Portable tank and bulk container instructions (ADR) : T2  
 Portable tank and bulk container special provisions (ADR) : TP1  
 Tank code (ADR) : LGBF  
 Vehicle for tank carriage : FL  
 Transport category (ADR) : 3  
 Special provisions for carriage - Packages (ADR) : V12  
 Special provisions for carriage - Operation (ADR) : S2  
 Hazard identification number (Kemler No.) : 30  
 Orange plates :



Tunnel restriction code (ADR) : D/E

##### Transport by sea

Special provisions (IMDG) : 223, 955  
 Limited quantities (IMDG) : 5 L  
 Excepted quantities (IMDG) : E1  
 Packing instructions (IMDG) : P001, LP01  
 IBC packing instructions (IMDG) : IBC03  
 Tank instructions (IMDG) : T2  
 Tank special provisions (IMDG) : TP1  
 EmS-No. (Fire) : F-E  
 EmS-No. (Spillage) : S-D  
 Stowage category (IMDG) : A  
 Properties and observations (IMDG) : Usually consist of alcoholic solutions. Miscibility with water depends upon the composition.

##### Air transport

PCA Excepted quantities (IATA) : E1  
 PCA Limited quantities (IATA) : Y344  
 PCA limited quantity max net quantity (IATA) : 10L  
 PCA packing instructions (IATA) : 355  
 PCA max net quantity (IATA) : 60L  
 CAO packing instructions (IATA) : 366  
 CAO max net quantity (IATA) : 220L  
 Special provisions (IATA) : A3  
 ERG code (IATA) : 3L

#### Inland waterway transport

Classification code (ADN)	: F1
Special provisions (ADN)	: 601
Limited quantities (ADN)	: 5 L
Excepted quantities (ADN)	: E1
Equipment required (ADN)	: PP, EX, A
Ventilation (ADN)	: VE01
Number of blue cones/lights (ADN)	: 0

#### Rail transport

Classification code (RID)	: F1
Special provisions (RID)	: 601
Limited quantities (RID)	: 5L
Excepted quantities (RID)	: E1
Packing instructions (RID)	: P001, IBC03, LP01, R001
Mixed packing provisions (RID)	: MP19
Portable tank and bulk container instructions (RID)	: T2
Portable tank and bulk container special provisions (RID)	: TP1
Tank codes for RID tanks (RID)	: LGBF
Transport category (RID)	: 3
Special provisions for carriage – Packages (RID)	: W12
Colis express (express parcels) (RID)	: CE4
Hazard identification number (RID)	: 30

#### 14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

*Example of a compliant SDS Section 14, generated by LISAM's ExESS software*

### Section 15: Regulatory information

Section 15 of the SDS focuses on regulatory information related to the substance or mixture not already provided in the SDS. The mandatory subsections for Section 15 are as follows:

- 15.1. Safety, health, and environmental regulations or legislation specific to the substance or mixture
- 15.2. Chemical safety assessment

Refer to Annex II of EC No. 1907/2006 for additional information.

#### SECTION 15: Regulatory information

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

###### 15.1.1. EU-Regulations

No REACH Annex XVII restrictions

GIZ - CLP Knowledge product is not on the REACH Candidate List

GIZ - CLP Knowledge product is not on the REACH Annex XIV List

GIZ - CLP Knowledge product is not subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

GIZ - CLP Knowledge product is not subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

###### 15.1.2. National regulations

No additional information available

##### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out

*Example of a compliant SDS Section 15, generated by LISAM's ExESS software*

### Section 16: Other information

Section 16 of the SDS should describe the information used in the compilation of the SDS such as a key/legend of abbreviations and acronyms, literature references, data sources, etc.

SECTION 16: Other information	
Abbreviations and acronyms	
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
BLV	Biological limit value
BOD	Biochemical oxygen demand (BOD)
COD	Chemical oxygen demand (COD)
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC-No.	European Community number
EC50	Median effective concentration
EN	European Standard
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
Abbreviations and acronyms	
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
OEL	Occupational Exposure Limit
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
STP	Sewage treatment plant
ThOD	Theoretical oxygen demand (ThOD)
TLM	Median Tolerance Limit
VOC	Volatile Organic Compounds
CAS-No.	Chemical Abstract Service number
N.O.S.	Not Otherwise Specified
vPvB	Very Persistent and Very Bioaccumulative
ED	Endocrine disrupting properties

Full text of H- and EUH-statements	
Acute Tox. 3 (Inhalation:vapour)	Acute toxicity (inhalation:vapour) Category 3
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Chronic 2	Hazardous to the aquatic environment — Chronic Hazard, Category 2
Asp. Tox. 1	Aspiration hazard, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Flam. Liq. 3	Flammable liquids, Category 3
Repr. 2	Reproductive toxicity, Category 2
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Skin sensitisation, Category 1
STOT RE 2	Specific target organ toxicity — Repeated exposure, Category 2
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Narcosis
H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H331	Toxic if inhaled.
H336	May cause drowsiness or dizziness.
H361	Suspected of damaging fertility or the unborn child.
H373	May cause damage to organs through prolonged or repeated exposure.
H411	Toxic to aquatic life with long lasting effects.

*Example of a compliant SDS Section 16, generated by LISAM's ExESS software*

## Hazard classification - Labelling

According to Article 17 of the CLP regulation, there are some mandatory fields that should be on the label:

- a. Name, address and telephone number of the supplier
- b. Nominal quantity of the substance or mixture
- c. Product identifiers (as specified in Article 18)
- d. Hazard pictograms (if applicable, in accordance with Article 19)
- e. Signal words (if applicable, in accordance with Article 20)
- f. Hazard statements (if applicable, in accordance with Article 21)
- g. Precautionary statements (if applicable, in accordance with Article 22)

h. Supplemental information in accordance with Article 25

The label must be written in the official language of the EU member state, or a combined label with multiple languages can be used.

According to Article 31 of the CLP regulation, labels should be firmly affixed to the primary packaging. The label should be legible horizontally when the packaging is placed down normally, the hazard pictograms should stand out, and label elements should be clearly marked.

The size and dimensions of the label depends on the capacity of the product/packaging. The table below shows the required dimensions of labels and pictograms according to CLP regulations.

Size of packaging	Dimension of the label (mm)	Dimension of each pictogram (mm)
≤ 3 litres	At least 52 × 74	Not smaller than 10 × 10, if possible, at least 16 × 16
> 3 litres but ≤ 50 litres	At least 74 × 105	At least 23 × 23
> 50 litres but ≤ 500 litres	At least 105 × 148	At least 32 × 32
> 500 litres	At least 148 × 210	At least 46 × 46

*Size of labels and pictograms according to CLP regulation*



**Supplier information**

Lisam South Africa  
 14 Townsend Rd Bedfordview 2008  
 +27 824588444

Net weight: 220 kg  
 Gross weight: 200 kg  
 Production date: 21/06/2021  
 Child-resistant fastening: Applicable  
 Tactile warning: Applicable

**ENGLISH - Danger**

H226 - Flammable liquid and vapour, H304 - May be fatal if swallowed and enters airways, H315 - Causes skin irritation, H317 - May cause an allergic skin reaction, H319 - Causes serious eye irritation, H331 - Toxic if inhaled, H336 - May cause drowsiness or dizziness, H361 - Suspected of damaging fertility or the unborn child, H373 - May cause damage to organs through prolonged or repeated exposure, H411 - Toxic to aquatic life with long lasting effects. P201 - Obtain special instructions before use, P202 - Do not handle until all safety precautions have been read and understood, P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking, P233 - Keep container tightly closed, P240 - Ground and bond container and receiving equipment, P241 - Use explosion-proof electrical/ventilating/lighting equipment.

**FRANÇAIS - Danger**

H226 - Liquide et vapeurs inflammables, H304 - Peut être mortel en cas d'ingestion et de pénétration dans les voies respiratoires, H315 - Provoque une irritation cutanée, H317 - Peut provoquer une allergie cutanée, H319 - Provoque une sévère irritation des yeux, H331 - Toxique par inhalation, H336 - Peut provoquer somnolence ou vertiges, H361 - Susceptible de nuire à la fertilité ou au fœtus, H373 - Risque présumé d'effets graves pour les organes à la suite d'expositions répétées ou d'une exposition prolongée, H411 - Toxique pour les organismes aquatiques, entraîne des effets néfastes à long terme. P201 - Se procurer les instructions spéciales avant utilisation, P202 - Ne pas manipuler avant d'avoir lu et compris toutes les précautions de sécurité, P210 - Tenir à l'écart de la chaleur, des surfaces chaudes, des étincelles, des flammes nues et de toute autre source d'inflammation. Ne pas fumer, P233 - Maintenir le récipient fermé de manière étanche, P240 - Mise à la terre et liaison équipotentielle du récipient et du matériel de réception, P241 - Utiliser du matériel électrique/de ventilation/d'éclairage antidéflagrant.



*Example of a label, generated by LISAM's ExESS software.*

## References

EC, 2006. *EUR-Lex*. [Online]

Available at: <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:02006R1907-20140410&from=EN>

[Accessed 15 June 2021].

EC, 2008. *EUR-Lex*. [Online]

Available at: <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:02008R1272-20201114&from=EN>

[Accessed 6 June 2021].

ECHA, 2021. *Guidance for Annex V Exemptions from the obligation to register*. [Online]

Available at: [https://echa.europa.eu/documents/10162/23036412/annex\\_v\\_en.pdf/8db56598-f7b7-41ba-91df-c55f9f626545](https://echa.europa.eu/documents/10162/23036412/annex_v_en.pdf/8db56598-f7b7-41ba-91df-c55f9f626545)

[Accessed 29 January 2021].

ECHA, n.d. *ECHA*. [Online]

Available at: <https://echa.europa.eu/regulations/clp/understanding-clp>

[Accessed 3 June 2021].

UNION, T. E. P. A. T. C. O. T. E., 2009. *EU-Lex*. [Online]

Available at: <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32009R1223&from=EN>

[Accessed 22 January 2021].

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