Kit Components

Product code	Description
42587	**SERVALight Helios**

Components:

42587.A	SERVALight Helios Luminol Solution
42587.B	SERVALight Helios Peroxide Solution

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 25.04.2012 *Version number 1* *Revision: 25.04.2012*

1 Identification of the substance/mixture and of the company/undertaking

· **1.1. Product identifier**

· **Trade name:** **SERVALight Helios Luminol Solution**

· **Article number:** 42587.A
· **1.2. Relevant identified uses of the substance or mixture and uses advised against**
· **Application of the substance / the preparation** Laboratory chemicals

· **1.3. Details of the supplier of the safety data sheet**
· **Manufacturer/Supplier:**
SERVA Electrophoresis GmbH
Carl-Benz-Str. 7
D-69115 Heidelberg
Tel.: +49 6221 13840-0
FAX: +49 6221 13840-10
msds.info@serva.de

· **Information department:** Product Safety department Tel.: +49 6221 13840-35
· **1.4. Emergency telephone number:** +49 6131 19240 (university hospital Mainz)

2 Hazards identification

· **2.1. Classification of the substance or mixture**
· **Classification according to Regulation (EC) No 1272/2008**
The product is not classified according to the CLP regulation.

· **Classification according to Directive 67/548/EEC or Directive 1999/45/EC** not applicable
· **Information concerning particular hazards for human and environment:**
The product does not have to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.
· **Classification system:**
The classification was made according to the latest editions of the EU-lists, and expanded upon fom company and literature data.

· **2.2. Label elements**
· **Labelling according to Regulation (EC) No 1272/2008** Void
· **Hazard pictograms** Void
· **Signal word** Void
· **Hazard statements**
Safety data sheet available on request.
· **2.3. Other hazards**
· **Results of PBT and vPvB assessment**
· **PBT:** Not applicable.
· **vPvB:** Not applicable.

SERVA Electrophoresis GmbH

3 Composition/information on ingredients

· **3.2. Chemical characterization: Mixtures**
· **Description:** Mixture of the substances listed below with harmless additions.

· **Dangerous components:**

CAS: 77-86-1 EINECS: 201-064-4	trometamol	Xi R36/38 Skin Irrit. 2, H315; Eye Irrit. 2, H319	2.5-7%
CAS: 107-21-1 EINECS: 203-473-3	Ethanediol	Xn R22 Acute Tox. 4, H302	1-3%

(Contd. on page 2)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 25.04.2012 Version number 1 Revision: 25.04.2012

Trade name: SERVALight Helios Luminol Solution

(Contd. of page 1)

· **Additional information** *For the wording of the listed risk phrases refer to section 16.*

*

4 First aid measures

· **4.1. Description of first aid measures**
· **General information** *No special measures required.*
· **After inhalation** *Supply fresh air; consult doctor in case of complaints.*
· **After eye contact**
Rinse opened eye for several minutes under running water. Remove present contact lenses, if easy to do, and continue rinsing.
· **After swallowing** *If symptoms persist consult doctor.*
· **Information for 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 Firefighting measures

· **5.1. Extinguishing media**
· **Suitable extinguishing agents**
CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
· **5.2. Special hazards arising from the substance or mixture**
Formation of dangerous gases or vapours is possible in case of fire.
· **5.3. Advice for firefighters**
· **Protective equipment:** *Wear self-contained respiratory protective device.*

*

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 to enter sewers/ surface 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**
No dangerous substances are released.
See Section 7 for information on safe handling
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

*

7 Handling and storage

· **Handling**
· **7.1. Precautions for safe handling** *No special measures required.*
· **Information about protection against explosions and fires:** *No special measures required.*

· **7.2. Conditions for safe storage, including any incompatibilities**
· **Storage**
· **Requirements to be met by storerooms and receptacles:** *Store at +2 to +8 °C*
· **Information about storage in one common storage facility:** *Not required.*
· **Further information about storage conditions:** *Protect from exposure to the light.*
· **7.3. Specific end use(s)** *No further relevant information available.*

(Contd. on page 3)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 25.04.2012 Version number 1 Revision: 25.04.2012

Trade name: SERVALight Helios Luminol Solution

(Contd. of page 2)

*

8 Exposure controls/personal protection

· **Additional information about design of technical systems:** No further data; see item 7.

· **8.1. Control parameters**

· **Components with limit values that require monitoring at the workplace:**	
107-21-1 Ethanediol (1-3%)	
WEL	Short-term value: 104** mg/m³, 40** ppm Long-term value: 10* 52** mg/m³, 20** ppm Sk *particulate **vapour

· **Additional information:** The lists that were valid during the creation were used as basis.

· **8.2. Exposure controls**
· **Personal protective equipment**
· **General protective and hygienic measures**
The usual precautionary measures should be adhered to when handling chemicals.
· **Breathing equipment:**
Short term filter device:
Filter P2.
· **Protection of hands:**
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
· **Material of gloves**
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
· **Penetration time of glove material**
The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.
· **For the permanent contact of a maximum of 15 minutes gloves made of the following materials are suitable:**
Natural rubber, NR
· **Eye protection:** Safety glasses
· **Body protection:** Protective work clothing.

*

9 Physical and chemical properties

· **9.1. Information on basic physical and chemical properties**
· **General Information**
· **Appearance:**

Form:	Solution
Colour:	Colourless
· **Odour:**	Odourless
· **Odour threshold:**	Not determined.
· **pH-value at 20°C:**	9.4
· **Change in condition**	
Melting point/Melting range:	undetermined
Boiling point/Boiling range:	undetermined

(Contd. on page 4)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 25.04.2012 Version number 1 Revision: 25.04.2012

Trade name: SERVALight Helios Luminol Solution

(Contd. of page 3)

· **Flash point:**	Not applicable
· **Flammability (solid, gaseous)**	Not applicable.
· **Ignition temperature:**	
Decomposition temperature:	Not determined.
· **Self igniting:**	Product is not selfigniting.
· **Danger of explosion:**	Product does not present an explosion hazard.
· **Explosion limits:**	
Lower:	Not determined.
Upper:	Not determined.
· **Vapour pressure:**	Not determined.
· **Density:**	Not determined
· **Relative density**	Not determined.
· **Vapour density**	Not determined.
· **Evaporation rate**	Not determined.
· **Solubility in / Miscibility with**	
Water:	Fully miscible
· **Segregation coefficient (n-octanol/water):**	Not determined.
· **Viscosity:**	
dynamic:	Not determined.
kinematic:	Not determined.
· **Solvent content:**	
Organic solvents:	0.0 %
· **VOC %:**	0.00 %
· **Solids content:**	6.0 %
· **9.2. Other information**	No further relevant information available.

*

10 Stability and reactivity

· **10.1. Reactivity** No further relevant informations available
· **10.2. Chemical stability**
· **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** exposure to the light
· **10.5. Incompatible materials:** No further relevant information available.
· **10.6. Hazardous decomposition products:**
Carbon monoxide and carbon dioxide
Nitrogen oxides (NOx)
Sulphur oxides (SOx)
Hydrogen chloride (HCl)

11 Toxicological information

· **11.1. Information on toxicological effects**
· **Acute toxicity:**
· **Primary irritant effect:**
· **on the skin:** No irritant effect.
· **on the eye:** No irritating effect.
· **Sensitization:** No sensitizing effects known.

(Contd. on page 5)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 25.04.2012 Version number 1 Revision: 25.04.2012

Trade name: SERVALight Helios Luminol Solution

(Contd. of page 4)

· **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 according 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.
· **Behaviour in environmental systems:**
· **12.3. Bioaccumulative potential** No further relevant information available.
· **12.4. Mobility in soil** No further relevant information available.
· **Additional ecological information:**
· **General notes:**
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water.
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
· **12.5. Results of PBT and vPvB assessment**
· **PBT:** PBT - assessment not available.
· **vPvB:** vPvB - assessment not available.
· **12.6. Other adverse effects** No further relevant information available.

13 Disposal considerations

· **13.1. Waste treatment methods**
· **Recommendation** Smaller quantities can be disposed of with household waste.

· **Uncleaned packagings:**
· **Recommendation:** Disposal must be made according to official regulations.
· **Recommended cleansing agent:** Water, if necessary with cleansing agents.

*

14 Transport information

· **14.1. UN-Number**	
· **ADR, IMDG, IATA**	Void
· **14.2. UN proper shipping name**	
· **ADR, IMDG, IATA**	Void
· **14.3. Transport hazard class(es)**	
· **ADR, IMDG, IATA**	
· **Class**	Void
· **Label**	-
· **14.4. Packing group**	
· **ADR, IMDG, IATA**	Void
· **14.5. Environmental hazards:**	
· **Marine pollutant:**	No
· **14.6. Special precautions for user**	Not applicable.

(Contd. on page 6)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 25.04.2012 *Version number 1* *Revision: 25.04.2012*

Trade name: SERVALight Helios Luminol Solution

(Contd. of page 5)

· **14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** *Not applicable.*

15 Regulatory information

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

· **National regulations**

· **Water hazard class:** *Water hazard class 1 (Self-assessment): slightly hazardous for water.*
· **15.2. Chemical safety assessment:** *A Chemical Safety Assessment has not been carried out.*

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Relevant phrases**
H302 Harmful if swallowed.
H315 Causes skin irritation.
H319 Causes serious eye irritation.

R22 Harmful if swallowed.
R36/38 Irritating to eyes and skin.

· **Department issuing MSDS:** *Product safety department*
· **Contact:** *+49 6221 13840-35*
· **Abbreviations and acronyms:**
PBT: persistent, bioaccumulative, toxic substance (REACH)
vPvB: very persistent, very bioaccumulative substance (REACH)
REACH: Regulation concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals
CLP: Regulation on classification, labelling and packaging of substances and mixtures
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
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
· *** Data compared to the previous version altered.**

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 25.04.2012 Version number 1 Revision: 04.04.2012

1 Identification of the substance/mixture and of the company/undertaking

· **1.1. Product identifier**

· **Trade name:** **SERVALight Helios Peroxide Solution**

· **Article number:** 42587.B
· **1.2. Relevant identified uses of the substance or mixture and uses advised against**
· **Application of the substance / the preparation** Laboratory chemicals

· **1.3. Details of the supplier of the safety data sheet**
· **Manufacturer/Supplier:**
SERVA Electrophoresis GmbH
Carl-Benz-Str. 7
D-69115 Heidelberg
Tel.: +49 6221 13840-0
FAX: +49 6221 13840-10
msds.info@serva.de

· **Information department:** Product Safety department Tel.: +49 6221 13840-35
· **1.4. Emergency telephone number:** +49 6131 19240 (university hospital Mainz)

2 Hazards identification

· **2.1. Classification of the substance or mixture**
· **Classification according to Regulation (EC) No 1272/2008**
The product is not classified according to the CLP regulation.

· **Classification according to Directive 67/548/EEC or Directive 1999/45/EC** not applicable
· **Information concerning particular hazards for human and environment:**
The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.
· **Classification system:**
The classification was made according to the latest editions of the EU-lists, and expanded upon fom company and literature data.

· **2.2. Label elements**
· **Labelling according to Regulation (EC) No 1272/2008** Void
· **Hazard pictograms** Void
· **Signal word** Void
· **Hazard statements** Void
· **2.3. Other hazards**
· **Results of PBT and vPvB assessment**
· **PBT:** PBT - assessment not available.
· **vPvB:** vPvB - assessment not available.

SERVA Electrophoresis GmbH

3 Composition/information on ingredients

· **3.2. Chemical characterization: Mixtures**
· **Description:** Mixture of the substances listed below with harmless additions.

· **Dangerous components:** Void
· **Additional information** For the wording of the listed risk phrases refer to section 16.

4 First aid measures

· **4.1. Description of first aid measures**
· **After inhalation** Supply fresh air; consult doctor in case of complaints.
· **After skin contact** Immediately rinse with water.

(Contd. on page 2)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 25.04.2012 Version number 1 Revision: 04.04.2012

Trade name: SERVALight Helios Peroxide Solution

(Contd. of page 1)

· **After eye contact**
Rinse opened eye for several minutes under running water. Remove present contact lenses, if easy to do, and continue rinsing.
· **After swallowing** If symptoms persist consult doctor.
· **Information for 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 Firefighting measures

· **5.1. Extinguishing media**
· **Suitable extinguishing agents**
CO_2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
· **5.2. Special hazards arising from the substance or mixture** In case of fire building of toxic fumes is possible.
· **5.3. Advice for firefighters**
· **Protective equipment:** Wear self-contained respiratory protective device.

6 Accidental release measures

· **6.1. Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
· **6.2. Environmental precautions:**
Do not allow to enter sewers/ surface or ground water.
Dilute with plenty of 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 protection equipment.
See Section 13 for disposal information.

7 Handling and storage

· **Handling**
· **7.1. Precautions for safe handling** No special precautions are necessary if used correctly.
· **Information about protection against explosions and fires:** No special measures required.

· **7.2. Conditions for safe storage, including any incompatibilities**
· **Storage**
· **Requirements to be met by storerooms and receptacles:** Store at +2 to +8 °C
· **Information about storage in one common storage facility:** Not required.
· **Further information about storage conditions:** Protect from exposure to the light.
· **7.3. Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

· **Additional information about design of technical systems:** No further data; see item 7.

· **8.1. Control parameters**
· **Components with limit values that require monitoring at the workplace:**
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
· **Additional information:** The lists that were valid during the creation were used as basis.

(Contd. on page 3)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 25.04.2012 Version number 1 Revision: 04.04.2012

Trade name: SERVALight Helios Peroxide Solution

(Contd. of page 2)

· **8.2. Exposure controls**
· **Personal protective equipment**
· **General protective and hygienic measures**
The usual precautionary measures should be adhered to when handling chemicals.
· **Breathing equipment:**
Short term filter device:
Filter P2.
· **Protection of hands:**
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
· **Material of gloves**
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
· **Penetration time of glove material**
The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.
· **For the permanent contact of a maximum of 15 minutes gloves made of the following materials are suitable:**
Natural rubber, NR
· **Eye protection:** Safety glasses
· **Body protection:** Protective work clothing.

9 Physical and chemical properties

· **9.1. Information on basic physical and chemical properties**	
· **General Information**	
· **Appearance:**	
Form:	Solution
Colour:	Colourless
· **Odour:**	Odourless
· **Odour threshold:**	Not determined.
· **pH-value at 20°C:**	5
· **Change in condition**	
Melting point/Melting range:	undetermined
Boiling point/Boiling range:	undetermined
· **Flash point:**	Not applicable
· **Flammability (solid, gaseous)**	Not applicable.
· **Ignition temperature:**	
Decomposition temperature:	Not determined.
· **Self igniting:**	Product is not selfigniting.
· **Danger of explosion:**	Product does not present an explosion hazard.
· **Explosion limits:**	
Lower:	Not determined.
Upper:	Not determined.

(Contd. on page 4)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 25.04.2012 Version number 1 Revision: 04.04.2012

Trade name: SERVALight Helios Peroxide Solution

(Contd. of page 3)

· **Vapour pressure:**	Not determined.
· **Density:**	Not determined
· **Relative density**	Not determined.
· **Vapour density**	Not determined.
· **Evaporation rate**	Not determined.
· **Solubility in / Miscibility with Water:**	Fully miscible
· **Segregation coefficient (n-octanol/water):**	Not determined.
· **Viscosity:**	
dynamic:	Not determined.
kinematic:	Not determined.
· **Solvent content:**	
Organic solvents:	1.0 %
Solids content:	2.0 %
· **9.2. Other information**	No further relevant information available.

10 Stability and reactivity

· **10.1. Reactivity** No further relevant informations available
· **10.2. Chemical stability**
· **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** exposure to the light
· **10.5. Incompatible materials:** Avoid contact with strong oxidizers.
· **10.6. Hazardous decomposition products:** Carbon monoxide and carbon dioxide

11 Toxicological information

· **11.1. Information on toxicological effects**
· **Acute toxicity:**
· **Primary irritant effect:**
· **on the skin:** Irritant to skin and mucous membranes.
· **on the eye:** Irritating effect.
· **Sensitization:** No sensitizing effects known.

12 Ecological information

· **12.1. Toxicity**
· **Aquatic toxicity:** No further relevant information available.
· **12.2. Persistence and degradability** No further relevant information available.
· **Behaviour in environmental systems:**
· **12.3. Bioaccumulative potential** No further relevant information available.
· **12.4. Mobility in soil** No further relevant information available.
· **Additional ecological information:**
· **General notes:**
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water.
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
· **12.5. Results of PBT and vPvB assessment**
· **PBT:** PBT - assessment not available.
· **vPvB:** vPvB - assessment not available.

(Contd. on page 5)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 25.04.2012 Version number 1 Revision: 04.04.2012

Trade name: SERVALight Helios Peroxide Solution

(Contd. of page 4)

· **12.6. Other adverse effects** No further relevant information available.

13 Disposal considerations

· **13.1. Waste treatment methods**
· **Recommendation**
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

· **Uncleaned packagings:**
· **Recommendation:** Disposal must be made according to official regulations.
· **Recommended cleansing agent:** Water, if necessary with cleansing agents.

14 Transport information

· **14.1. UN-Number** · **ADR, ADN, IMDG, IATA**	Void
· **14.2. UN proper shipping name** · **ADR, ADN, IMDG, IATA**	Void
· **14.3. Transport hazard class(es)** · **ADR, ADN, IMDG, IATA** · **Class**	Void
· **14.4. Packing group** · **ADR, IMDG, IATA**	Void
· **14.5. Environmental hazards:** · **Marine pollutant:**	No
· **14.6. Special precautions for user**	Not applicable.
· **14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**	Not applicable.
· **UN "Model Regulation":**	-

15 Regulatory information

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

· **National regulations**

· **Technical instructions (air):**

Class	Share in %
II	0,5-1,5

· **Water hazard class:** Water hazard class 1 (Self-assessment): slightly hazardous for water.
· **15.2. Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Department issuing MSDS:** Product safety department
· **Contact:** +49 6221 13840-35
· **Abbreviations and acronyms:**
PBT: persistent, bioaccumulative, toxic substance (REACH)
vPvB: very persistent, very bioaccumulative substance (REACH)

(Contd. on page 6)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 25.04.2012 *Version number 1* *Revision: 04.04.2012*

Trade name: SERVALight Helios Peroxide Solution

(Contd. of page 5)

REACH: Regulation concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals
CLP: Regulation on classification, labelling and packaging of substances and mixtures
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
GHS: Globally Harmonized System of Classification and Labelling of Chemicals