Gamma Butyrolactone

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

1.1 Product identifier

Product name:	Gamma Butyrolactone
Substance name:	γ-Butyrolactone
CAS Number:	96-48-0
EC Number:	202-509-5

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

Recommended use:	Solvent. Intermediate. Laboratory chemicals Viscosity adjustors
Restrictions on use:	Cosmetics Soluble coatings on children's toys

1.3 Details of the supplier of the safety data sheet

Company name:	East Harbour Group Ltd 20 Clough Road, Severalls Industrial Park Colchester, Essex, CO4 9QS United Kingdom
Telephone:	+44 (0) 333 242 0100
Email:	info@eastharbourgroup.com

1.4 Emergency telephone number

Emergency telephone:	0800 246 1274

Section 2: Hazardous identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008) as amended by GB-CLP Regulation, UK SI 2019/720, and UK SI 2020/1567)

Acute toxicity, Category 4	H302: Harmful if swallowed.
Serious eye damage, Category 1	H318: Causes serious eye damage.
Specific target organ toxicity - single exposure, Category 3, Central nervous system	H336: May cause drowsiness or dizziness.

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2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008) as amended by GB-CLP Regulation, UK SI 2019/720, and UK SI 2020/1567)

Hazard pictograms

Signal word Danger

Hazard statements

H302 Harmful if swallowed.
H318 Causes serious eye damage.
H336 May cause drowsiness or dizziness.

Precautionary statements

Prevention:
P261 Avoid breathing mist or vapours.
P264 Wash skin thoroughly after handling.
P280 Wear eye protection/ face protection.

Response:
P304 + P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor if you feel unwell.
P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/ doctor.

Storage:
P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Section 3: Composition/information on ingredients

3.1 Substances

Substance name: γ-Butyrolactone
EC-No.: 202-509-5

Components

Chemical Name	CAS No. EC No.	Concentration (% w/w)
γ-butyrolactone	96-48-0 202-509-5	>= 90 - <= 100

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Section 4: First aid measures

4.1 Description of first aid measures

General advice

Move out of dangerous area.
Consult a physician
Show this material safety data sheet to the doctor in attendance
Do not leave victim unattended

If Inhaled

Consult a physician after significant exposure.
If unconscious, place in recovery position and seek medical advice.

In case of skin contact

Wash off with soap and plenty of water.

In case of eye contact

Small amounts splashed into eyes can cause irreversible tissue damage and blindness.
In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
Continue rinsing eyes during transport to hospital.
Remove contact lenses.
Protect unharmed eye.
Keep eye wide open while rinsing.
If eye irritation persists, consult a specialist.

If swallowed

Clean mouth with water and drink afterwards plenty of water.
Keep respiratory tract clear.
Do NOT induce vomiting.
Do not give milk or alcoholic beverages.
Never give anything by mouth to an unconscious person.
If symptoms persist, call a physician.
Take victim immediately to hospital.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms

Gastrointestinal discomfort
Extremely corrosive and destructive to tissue.
Tearing
Nasal irritation
Blurred vision
Nausea

Risks

Harmful is swallowed.
Causes serious eye damage.
May cause drowsiness or dizziness.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment

Treat symptomatically.

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Section 5: Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media High volume water jet

5.2 Special hazards arising from the substance or mixture

Specific hazards during firefighting

Do not allow run-off from firefighting to enter drains or water courses.

Hazardous combustion products

Carbon dioxide (CO2)
Carbon monoxide
Hydrocarbons
Nitrogen oxides (NOx)

5.3 Advice for firefighters

Special protective equipment for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

Specific extinguishing methods

Standard procedure for chemical fires.

Further information

Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

Section 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions

Use personal protective equipment.
Ensure adequate ventilation.

6.2 Environmental precautions

Environmental precautions

Prevent product from entering drains.
Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform respective authorities.

6.3 Methods and material for containment and cleaning up

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Methods for cleaning up
Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).
Keep in suitable, closed containers for disposal.

6.4 Reference to other sections
See sections: 7, 8, 11, 12 and 13.

Section 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling	Avoid formation of aerosol. Do not breathe vapors/dust. Avoid exposure - obtain special instructions before use. Avoid contact with skin and eyes. For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. Provide sufficient air exchange and/or exhaust in work rooms. To avoid spills during handling keep bottle on a metal tray. Dispose of rinse water in accordance with local and national regulations.
Advice on protection against fire and explosion	Normal measures for preventive fire protection.
Hygiene measures	When using do not eat or drink. When using do not smoke. Wash hands before breaks and at the end of workday.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers
Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Observe label precautions. Electrical installations / working materials must comply with the technological safety standards.

Advice on common storage
Do not store near acids.

Further information on storage stability
No decomposition if stored and applied as directed.

7.3 Specific end use(s)
Specific use(s)
Refer to the Exposure Scenarios in the Annex of this SDS

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Section 8: Exposure controls/personal protection

8.1 Control parameters
Contains no substances with occupational exposure limit values.

Derived No Effect Level (DNEL)

Substance name	End Use	Routes of exposure	Potential health effects	Value
γ-butyrolactone	Workers	Inhalation	Long-term systemic effects	130 mg/m3
	Workers	Inhalation	Acute systemic effects	958 mg/m3
	Workers	Inhalation	Long-term systemic effects	19 mg/m3
	GEN POP - General population	Inhalation	Long-term systemic effects	28 mg/m3
	GEN POP - General population	Inhalation	Acute systemic effects	340 mg/m3
	GEN POP - General population	Inhalation	Long-term systemic effects	8 mg/m3
	GEN POP - General population	Dermal	Long-term systemic effects	8 mg/m3

8.2 Exposure controls
Engineering measures
Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below exposure guidelines (if applicable) or below levels that cause known, suspected or apparent adverse effects.

8.3 Personal protective equipment
Eye protection Tightly fitting safety goggles
Eye wash bottle with pure water

Hand protection
Material butyl-rubber
Break through time 480 min
Glove thickness > 0.5 mm

Remarks
The exact break through time can be obtained from the protective glove producer and this has to be observed. Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.

Skin and body protection Work uniform or laboratory coat.

Respiratory protection
In the case of vapour formation use a respirator with an approved filter within the capabilities of the respirator/filter combination.
Where concentrations are above recommended limits or are unknown, or a cartridge type respirator is not adequate, wear a positive-pressure supplied-air respirator.

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Section 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance	Liquid
Colour	Clear
Odor	Mild
Odor Threshold	No data available
pH	4.5 Concentration: 10%
Melting Point/ freezing point	-44 - -42 °C
Boiling Point/ boiling range	204.6 °C
Flash Point	106 °C
Evaporation Rate	Not determined
Upper explosion limit / Upper flammability limit	Not determined
Lower explosion limit / Lower flammability limit	Not determined
Vapor Pressure	0.344 hPa (20°C)
Relative Vapor Density	Not determined
Relative Density	No data available
Density	1,124 g/cm3 (25°C)
Solubility(ies)	
Water Solubility	Completely miscible
Solubility in other solvents	No data available
Partition Coefficient: n-octanol/water	Log Pow: -0.566
Decomposition temperature	No data available
Viscosity	
Viscosity, dynamic	2 mPa.s (20°C)
Viscosity, kinematic	Not determined
Oxidizing properties	Not applicable

9.2 Other information

Molecular weight	No data available
Self-ignition	435°C

Section 10: Stability and Reactivity

10.1 Reactivity

No dangerous reaction known under conditions of normal use.

10.2 Chemical Stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

Hazardous reactions

Vapors may form explosive mixture with air.

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10.4 Conditions to avoid
Conditions to avoid
Protect from frost, heat and sunlight.

10.5 Incompatible materials
Materials to avoid
Oxidizing agents

10.6 Hazardous decomposition products
Hazardous decomposition products
Carbon monoxide
Carbon dioxide (CO2)
Nitrogen oxides (NOx)
Hydrocarbons
Acetone

Section 11: Toxicological Information

11.1 Information on toxicological effects

Information on likely routes of exposure	Inhalation Skin contact Eye Contact Ingestion

Acute toxicity
Harmful if swallowed.

Product

Acute oral toxicity	LD50(Rat): 1.582 mg/kg
Acute inhalation toxicity	LC50(Rat): > 5.1 mg/l Exposure time: 4 h Test atmosphere: dust/mist
Acute dermal toxicity	LD50(Guinea pig): > 5 g/kg

Components
γ-butyrolactone

Acute oral toxicity	LD50(Rat): 1.582 mg/kg
Acute inhalation toxicity:	LC50(Rat): > 5.1 mg/l Exposure time: 4 h Test atmosphere: dust/mist
Acute dermal toxicity:	LD50(Guinea pig): > 5 g/kg

Skin corrosion/irritation
Not classified based on available information.

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Product

Result	No skin irritation
Remarks	Extremely corrosive and destructive to tissue.

Components

γ-butyrolactone

Result	No skin irritation

Serious eye damage/eye irritation

Causes serious eye damage.

Product

Result	Corrosive
Remarks	May cause irreversible eye damage.

Components:

γ-butyrolactone

Result	Corrosive

Respiratory or skin sensitisation

Skin sensitisation

Not classified based on available information.

Respiratory sensitisation

Not classified based on available information.

Product

Test Type	Local lymph node assay
Species	Mouse
Assessment	Does not cause skin sensitisation.
Result	negative

Components

γ-butyrolactone

Test Type	Local lymph node assay
Species	Mouse
Assessment	Does not cause skin sensitisation.
Result	negative

Germ cell mutagenicity

Not classified based on available information.

Product

Genotoxicity in vitro:	Test Type: Ames test Result: negative Test Type: Chromosome aberration test in vitro

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	Result: negative
Genotoxicity in vivo:	Test Type: In vivo micronucleus test Test species: Mouse Result: negative

Components
γ-butyrolactone

Genotoxicity in vitro	Test Type: Ames test Result: negative
	Test Type: Chromosome aberration test in vitro Result: negative
Genotoxicity in vivo	Test Type: In vivo micronucleus test Test species: Mouse Result: negative

Carcinogenicity
Not classified based on available information.

Product:

Species	Rat, (male)
Application Route	Oral
	225 mg/kg bw/day
Result	negative
Target Organs	No specific target organs noted
GLP	yes
Remarks	No significant adverse effects were reported

Species	Rat, (female)
Application Route	Oral
NOAEL	225 mg/kg bw/day
Result	negative
Target Organs	No specific target organs noted
GLP	yes
Remarks	Significant toxicity observed in testing

Species	Mouse, (male and female)
Application Route	Oral
NOAEL	262 mg/kg bw/day
Result	negative
Target Organs	No specific target organs noted
GLP	yes
Remarks	Significant toxicity observed in testing

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Components
γ-butyrolactone

Species	Rat, (male)
Application Route	Oral
NOAEL	225 mg/kg bw/day
Result	negative
Target Organs	No specific target organs noted
GLP	yes
Remarks	No significant adverse effects were reported

Species	Rat, (female)
Application Route	Oral
NOAEL	225 mg/kg bw/day
Result	negative
Target Organs	No specific target organs noted
GLP	yes
Remarks	Significant toxicity observed in testing

Species	Mouse, (male and female)
Application Route	Oral
NOAEL	262 mg/kg bw/day
Result	negative
Target Organs	No specific target organs noted
GLP	yes
Remarks	Significant toxicity observed in testing

Reproductive toxicity
Not classified based on available information.

Product

Effects on foetal development	Species: Rat, male and female Strain: Sprague-Dawley Application Route: Oral Dose: 0,10,50,125,500 mg/kg bw/day Duration of Single Treatment: 21 d General Toxicity Maternal: 500 mg/kg bw/day Teratogenicity: 500 mg/kg bw/day Result: No teratogenic effects GLP: no Remarks: No significant adverse effects were reported

Components
γ-butyrolactone

Effects on foetal development	Species: Rat, male and female Strain: Sprague-Dawley Application Route: Oral Dose: 0,10,50,125,500 mg/kg bw/day

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Duration of Single Treatment: 21 d
General Toxicity Maternal: 500 mg/kg bw/day
Teratogenicity: 500 mg/kg bw/day
Result: No teratogenic effects
GLP: no
Remarks: No significant adverse effects were reported

STOT - single exposure
May cause drowsiness or dizziness.

Components
γ-butyrolactone

Exposure routes	Inhalation
Assessment	The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with narcotic effects.

STOT - repeated exposure
Not classified based on available information.

Repeated dose toxicity
Product

Species	Rat, male
NOAEL	225 mg/kg
Application Route	Oral
Exposure time	90-day
Method	Gavage
GLP	yes
Target Organs	No specific target organs noted

Species	Rat, female
NOAEL	450 mg/kg
Application Route	Oral
Exposure time	90-day
Method	Gavage
GLP	yes
Target Organs	No specific target organs noted

Species	Mouse, male and female
NOAEL	525 mg/kg
Application Route	Oral
Exposure time	90-day
Method	Gavage
GLP	yes
Target Organs	No specific target organs noted

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Components
γ-butyrolactone

Species	Rat, male
NOAEL	225 mg/kg
Application Route	Oral
Exposure time	90-day
Method	Gavage
GLP	yes
Target Organs	No specific target organs noted
Species	Rat, female
NOAEL	450 mg/kg
Application Route	Oral
Exposure time	90-day
Method	Gavage
GLP	yes
Target Organs	No specific target organs noted
Species	Mouse, male and female
NOAEL	525 mg/kg
Application Route	Oral
Exposure time	90-day
Method	Gavage
GLP	yes
Target Organs	No specific target organs noted

Aspiration toxicity
Not classified based on available information.

Further information
Product
Remarks
Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.
Concentrations substantially above the TLV value may cause narcotic effects.
Solvents may degrease the skin.

Section 12: Ecological Information

12.1 Toxicity
Product

Toxicity to fish	LC50 (Lepomis macrochirus (Bluegill sunfish)): 56 mg/l Exposure time: 96 h Test Type: static test
Toxicity to daphnia and other aquatic invertebrates	EC50 (Daphnia magna (Water flea)): > 500 mg/l

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	Exposure time: 48 h
Toxicity to algae/aquatic plants	ErC50 (Desmodesmus subspicatus (green algae)): > 1.000 mg/l
	EC10 (Desmodesmus subspicatus (green algae)): 84.4 mg/l
Toxicity to microorganisms	IC50 (Ciliate (Tetrahymena pyriformis)): 4.518 mg/l

Components
γ-butyrolactone

Toxicity to fish:	LC50 (Lepomis macrochirus (Bluegill sunfish)): 56 mg/l
	Exposure time: 96 h
	Test Type: static test
Toxicity to daphnia and other aquatic invertebrates	EC50 (Daphnia magna (Water flea)): > 500 mg/l
	Exposure time: 48 h
Toxicity to algae/aquatic plants	ErC50 (Desmodesmus subspicatus (green algae)): > 1.000mg/l
	EC10 (Desmodesmus subspicatus (green algae)): 84.4mg/l
Toxicity to microorganisms	IC50 (Ciliate (Tetrahymena pyriformis)): 4.518 mg/l

12.2 Persistence and degradability
Product

Biodegradability	Result: Readily biodegradable.
	Biodegradation: 95 %
	Exposure time: 14 d

Components
γ-butyrolactone

Biodegradability	Result: Readily biodegradable.
	Biodegradation: 95 %
	Exposure time: 14 d

12.3 Bioaccumulative potential
Components
γ-butyrolactone

Partition coefficient: n-octanol/water:	log Pow: -0,566 (25 °C)

12.4 Mobility in soil
No data available

12.5 Results of PBT and vPvB assessment
Product
Assessment
This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Components

γ-butyrolactone
Assessment
This substance is not considered to be persistent, bioaccumulating and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulating (vPvB).

12.6 Other adverse effects
Product
Endocrine disrupting potential
The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Additional ecological Information
An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.
Harmful to aquatic life.

Section 13: Disposal considerations

13.1 Waste treatment methods

Product	The product should not be allowed to enter drains, water courses or the soil. Do not contaminate ponds, waterways or ditches with chemical or used container. Send to a licensed waste management company.
Contaminated packaging	Empty remaining contents. Dispose of as unused product. Do not re-use empty containers.

Section 14: Transport Information

14.1 UN number
RID: Not dangerous goods
INTERNATIONAL MARITIME DANGEROUS GOODS: Not dangerous goods
INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER: Not dangerous goods
INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO: Not dangerous goods
ADR: Not dangerous goods
ADN: Not dangerous goods

14.2 UN proper shipping name
RID: Not dangerous goods
INTERNATIONAL MARITIME DANGEROUS GOODS: Not dangerous goods
INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER: Not dangerous goods
INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO: Not dangerous goods

ADR: Not dangerous goods
ADN: Not dangerous goods

14.3 Transport hazard class(es)
RID: Not dangerous goods
INTERNATIONAL MARITIME DANGEROUS GOODS: Not dangerous goods
INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER: Not dangerous goods
INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO: Not dangerous goods
ADR: Not dangerous goods
ADN: Not dangerous goods

14.4 Packing group
RID: Not dangerous goods
INTERNATIONAL MARITIME DANGEROUS GOODS: Not dangerous goods
INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER: Not dangerous goods
INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO: Not dangerous goods
ADR: Not dangerous goods
ADN: Not dangerous goods

14.5 Environmental hazards
RID: Not applicable
INTERNATIONAL MARITIME DANGEROUS GOODS: Not applicable
INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER: Not applicable
INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO: Not applicable
ADR: Not applicable
ADN: Not applicable

14.6 Special precautions for user
Not applicable

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Ship Type: Not applicable
Hazard code(s): Not applicable
Pollutant Category: Not applicable

Dangerous goods descriptions (if indicated above) may not reflect quantity, end-use or region-specific exceptions that can be applied. Consult shipping documents for descriptions that are specific to the shipment.

Section 15: Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
Relevant EU provisions transposed through retained EU law
UK REACH List of restrictions (Annex 17)
Conditions of restriction for the following entries should be considered: Number on list 3

UK REACH Candidate list of substances of very high concern (SVHC) for Authorisation
Not applicable

The Persistent Organic Pollutants Regulations (retained Regulation (EU) 2019/1021 as amended for Great Britain)
Not applicable

Regulation (EC) No 1005/2009 on substances that deplete the ozone layer UK REACH List of substances subject to authorisation (Annex XIV)
Not applicable

GB Export and import of hazardous chemicals - Prior Informed Consent (PIC) Regulation
Not applicable

Control of Major Accident Hazards Regulations 2015 (COMAH)
Not applicable

The ingredients of this product are reported in the following inventories

TCSI	On the inventory, or in compliance with the inventory
TSCA	On the inventory, or in compliance with the inventory
AIIC	On the inventory, or in compliance with the inventory
DSL	All components of this product are on the Canadian DSL
ENCS	On the inventory, or in compliance with the inventory
ISHL	On the inventory, or in compliance with the inventory
KECI	On the inventory, or in compliance with the inventory
PICCS	On the inventory, or in compliance with the inventory
IECSC	On the inventory, or in compliance with the inventory

15.2 Chemical Safety Assessment
No data available

Section 16: Other Information

Full text of other abbreviations

ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways;
ADR	Agreement concerning the International Carriage of Dangerous Goods by Road;
AIIC	Australian Inventory of Industrial Chemicals;
ASTM	American Society for the Testing of Materials;
bw	Body weight;
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008;
CMR	Carcinogen, Mutagen or Reproductive Toxicant;
DIN	Standard of the German Institute for Standardisation;
DSL	Domestic Substances List (Canada);
ECHA	European Chemicals Agency;

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EC-Number	European Community number;
ECx	Concentration associated with x% response;
ELx	Loading rate associated with x% response;
EmS	Emergency Schedule;
ENCS	Existing and New Chemical Substances (Japan);
ErCx	Concentration associated with x% growth rate response;
GHS	Globally Harmonized System;
GLP	Good Laboratory Practice;
IARC	International Agency for Research on Cancer;
IATA	International Air Transport Association;
IBC	International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk;
IC50	Half maximal inhibitory concentration;
ICAO	International Civil Aviation Organization;
IECSC	Inventory of Existing Chemical Substances in China;
IMDG	International Maritime Dangerous Goods;
IMO	International Maritime Organization;
ISHL	Industrial Safety and Health Law (Japan);
ISO	International Organisation for Standardization;
KECI	Korea Existing Chemicals Inventory;
LC50	Lethal Concentration to 50 % of a test population;
LD50	Lethal Dose to 50% of a test population (Median Lethal Dose);
MARPOL	International Convention for the Prevention of Pollution from Ships;
n.o.s.	Not Otherwise Specified;
NO(A)EC	No Observed (Adverse) Effect Concentration;
NO(A)EL	No Observed (Adverse) Effect Level;
NOELR	No Observable Effect Loading Rate;
NZIoC	New Zealand Inventory of Chemicals;
OECD	Organization for Economic Cooperation and Development;
OPPTS	Office of Chemical Safety and Pollution Prevention;
PBT	Persistent, Bioaccumulative and Toxic substance;
PICCS	Philippines Inventory of Chemicals and Chemical Substances;
(Q)SAR	(Quantitative) Structure Activity Relationship;
REACH	Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals;
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail;
SADT	Self-Accelerating Decomposition Temperature;
SDS	Safety Data Sheet;
SVHC	substance of very high concern;
TCSI	Taiwan Chemical Substance Inventory;
TECI	Thailand Existing Chemicals Inventory;
TSCA	Toxic Substances Control Act (United States);
UN	United Nations;
UNRTDG	United Nations Recommendations on the Transport of Dangerous Goods;
vPvB	Very Persistent and Very Bioaccumulative