



## Safety Data Sheet

acc. to OSHA HCS

Printing date 09/11/2019

Reviewed on 06/28/2019

### 1 Identification

- **Product identifier**
- **Trade name:** 622C ADDITIVE MIXING GREEN
- **Article number:** 622C
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
General Paint Co. S.A.L.  
P.O. Box 7623  
Beirut  
LEBANON  
info@generalpaint.biz
- **Information department:** Product Safety Department
- **Emergency telephone number:** 1-800-535-5053 contract number (89244)

### 2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS02 Flame

Flam. Liq. 3 H226 Flammable liquid and vapor.



GHS07

Skin Sens. 1 H317 May cause an allergic skin reaction.

STOT SE 3 H336 May cause drowsiness or dizziness.

- **Label elements**

- **GHS label elements**

The product is classified and labeled according to the Globally Harmonized System (GHS).

- **Hazard pictograms**



GHS02 GHS07

- **Signal word** Warning

- **Hazard-determining components of labeling:**

n-butyl acetate  
methyl methacrylate  
2,3-epoxypropyl neodecanoate  
2-hydroxyethyl methacrylate

(Contd. on page 2)

US



## Safety Data Sheet

acc. to OSHA HCS

Printing date 09/11/2019

Reviewed on 06/28/2019

**Trade name: 622C ADDITIVE MIXING GREEN**

(Contd. of page 1)

- **Hazard statements**

*Flammable liquid and vapor.  
May cause an allergic skin reaction.  
May cause drowsiness or dizziness.*

- **Precautionary statements**

*Keep away from heat/sparks/open flames/hot surfaces. - No smoking.  
Ground/bond container and receiving equipment.  
Use explosion-proof electrical/ventilating/lighting/equipment.  
Use only non-sparking tools.  
Take precautionary measures against static discharge.  
Avoid breathing dust/fume/gas/mist/vapors/spray  
Use only outdoors or in a well-ventilated area.  
Contaminated work clothing must not be allowed out of the workplace.  
Wear protective gloves/protective clothing/eye protection/face protection.  
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.  
IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
Call a poison center/doctor if you feel unwell.  
Specific treatment (see on this label).  
If skin irritation or rash occurs: Get medical advice/attention.  
Wash contaminated clothing before reuse.  
In case of fire: Use for extinction: CO<sub>2</sub>, powder or water spray.  
Store in a well-ventilated place. Keep container tightly closed.  
Store in a well-ventilated place. Keep cool.  
Store locked up.  
Dispose of contents/container in accordance with local/regional/national/international regulations.*

- **Classification system:**

- **NFPA ratings (scale 0 - 4)**



*Health = 0  
Fire = 3  
Reactivity = 0*

- **HMIS-ratings (scale 0 - 4)**



*HEALTH 0 Health = 0  
FIRE 3 Fire = 3  
REACTIVITY 0 Reactivity = 0*

- **Other hazards**

- **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.
- **vPvB:** Not applicable.

US

(Contd. on page 3)



## Safety Data Sheet

acc. to OSHA HCS

Printing date 09/11/2019

Reviewed on 06/28/2019

**Trade name: 622C ADDITIVE MIXING GREEN**

(Contd. of page 2)

### 3 Composition/information on ingredients

- **Chemical characterization: Mixtures**
- **Description:** Mixture of the substances listed below with nonhazardous additions.

- **Dangerous components:**

123-86-4	<i>n</i> -butyl acetate	>25-≤50%
1330-20-7	xylene	>2.5-≤10%
108-65-6	2-methoxy-1-methylethyl acetate	>2.5-≤10%
64742-95-6	Solvent naphtha (petroleum), light arom.	>2.5-≤10%
80-62-6	methyl methacrylate	≤2.5%
26761-45-5	2,3-epoxypropyl neodecanoate	≤2.5%
868-77-9	2-hydroxyethyl methacrylate	≤2.5%

### 4 First-aid measures

- **Description of first aid measures**
- **General information:** Immediately remove any clothing soiled by the product.
- **After inhalation:**  
Supply fresh air and to be sure call for a doctor.  
In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:** Rinse opened eye for several minutes under running water.
- **After swallowing:** If symptoms persist consult doctor.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed**  
No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

### 5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**  
CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** No special measures required.

US

(Contd. on page 4)



## Safety Data Sheet

acc. to OSHA HCS

Printing date 09/11/2019

Reviewed on 06/28/2019

**Trade name: 622C ADDITIVE MIXING GREEN**

(Contd. of page 3)

### 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**  
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Dispose contaminated material as waste according to item 13.  
Ensure adequate ventilation.
- **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.
- **Protective Action Criteria for Chemicals**

• **PAC-1:**

123-86-4	<i>n</i> -butyl acetate	5 ppm
1330-20-7	xylene	130 ppm
108-65-6	2-methoxy-1-methylethyl acetate	50 ppm
80-62-6	methyl methacrylate	17 ppm
868-77-9	2-hydroxyethyl methacrylate	1.9 mg/m <sup>3</sup>
79-41-4	methacrylic acid	6.7 ppm
77-58-7	dibutyltin dilaurate	1.1 mg/m <sup>3</sup>
100-41-4	ethylbenzene	33 ppm
97-88-1	<i>n</i> -butyl methacrylate	19 mg/m <sup>3</sup>
556-67-2	octamethylcyclotetrasiloxane	30 ppm

• **PAC-2:**

123-86-4	<i>n</i> -butyl acetate	200 ppm
1330-20-7	xylene	920* ppm
108-65-6	2-methoxy-1-methylethyl acetate	1,000 ppm
80-62-6	methyl methacrylate	120 ppm
868-77-9	2-hydroxyethyl methacrylate	21 mg/m <sup>3</sup>
79-41-4	methacrylic acid	61 ppm
77-58-7	dibutyltin dilaurate	8 mg/m <sup>3</sup>
100-41-4	ethylbenzene	1100* ppm
97-88-1	<i>n</i> -butyl methacrylate	210 mg/m <sup>3</sup>
556-67-2	octamethylcyclotetrasiloxane	68 ppm

• **PAC-3:**

123-86-4	<i>n</i> -butyl acetate	3000* ppm
1330-20-7	xylene	2500* ppm

(Contd. on page 5)



## Safety Data Sheet

acc. to OSHA HCS

Printing date 09/11/2019

Reviewed on 06/28/2019

**Trade name: 622C ADDITIVE MIXING GREEN**

		(Contd. of page 4)
108-65-6	2-methoxy-1-methylethyl acetate	5000* ppm
80-62-6	methyl methacrylate	570 ppm
868-77-9	2-hydroxyethyl methacrylate	1,000 mg/m <sup>3</sup>
79-41-4	methacrylic acid	220 ppm
77-58-7	dibutyltin dilaurate	48 mg/m <sup>3</sup>
100-41-4	ethylbenzene	1800* ppm
97-88-1	n-butyl methacrylate	1,300 mg/m <sup>3</sup>
556-67-2	octamethylcyclotetrasiloxane	130 ppm

### 7 Handling and storage

- **Handling:**
- **Precautions for safe handling**  
Ensure good ventilation/exhaustion at the workplace.  
Prevent formation of aerosols.
- **Information about protection against explosions and fires:**  
Keep ignition sources away - Do not smoke.  
Protect against electrostatic charges.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Keep receptacle tightly sealed.
- **Storage class:** 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.
- **Control parameters**
- **Components with limit values that require monitoring at the workplace:**  
The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit.  
At this time, the other constituents have no known exposure limits.

#### 123-86-4 n-butyl acetate

PEL	Long-term value: 710 mg/m <sup>3</sup> , 150 ppm
REL	Short-term value: 950 mg/m <sup>3</sup> , 200 ppm Long-term value: 710 mg/m <sup>3</sup> , 150 ppm
TLV	Short-term value: 712 mg/m <sup>3</sup> , 150 ppm Long-term value: 238 mg/m <sup>3</sup> , 50 ppm

(Contd. on page 6)



## Safety Data Sheet

acc. to OSHA HCS

Printing date 09/11/2019

Reviewed on 06/28/2019

**Trade name: 622C ADDITIVE MIXING GREEN**

(Contd. of page 5)

**1330-20-7 xylene**

PEL	Long-term value: 435 mg/m <sup>3</sup> , 100 ppm
REL	Short-term value: 655 mg/m <sup>3</sup> , 150 ppm Long-term value: 435 mg/m <sup>3</sup> , 100 ppm
TLV	Short-term value: 651 mg/m <sup>3</sup> , 150 ppm Long-term value: 434 mg/m <sup>3</sup> , 100 ppm BEI

**108-65-6 2-methoxy-1-methylethyl acetate**

WEEL	Long-term value: 50 ppm
------	-------------------------

**80-62-6 methyl methacrylate**

PEL	Long-term value: 410 mg/m <sup>3</sup> , 100 ppm
REL	Long-term value: 410 mg/m <sup>3</sup> , 100 ppm
TLV	Short-term value: 410 mg/m <sup>3</sup> , 100 ppm Long-term value: 205 mg/m <sup>3</sup> , 50 ppm DSEN

· **Ingredients with biological limit values:**

**1330-20-7 xylene**

BEI	1.5 g/g creatinine Medium: urine Time: end of shift Parameter: Methylhippuric acids
-----	--

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

· **Exposure controls**

· **Personal protective equipment:**

· **General protective and hygienic measures:**

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

· **Breathing equipment:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

· **Protection of hands:**



Protective gloves

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. As the product is a preparation of several

(Contd. on page 7)

US



## Safety Data Sheet

acc. to OSHA HCS

Printing date 09/11/2019

Reviewed on 06/28/2019

**Trade name: 622C ADDITIVE MIXING GREEN**

(Contd. of page 6)

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 through time has to be found out by the manufacturer of the protective gloves and has to be observed.

- **Eye protection:**



Tightly sealed goggles

### 9 Physical and chemical properties

- **Information on basic physical and chemical properties**

- **General Information**

- **Appearance:**

<b>Form:</b>	Liquid
<b>Color:</b>	Green
· <b>Odor:</b>	Characteristic
· <b>Odor threshold:</b>	Not determined.

- **pH-value:** Not determined.

- **Change in condition**

<b>Melting point/Melting range:</b>	Undetermined.
<b>Boiling point/Boiling range:</b>	124 °C (255.2 °F)

- **Flash point:** 25 °C (77 °F)

- **Flammability (solid, gaseous):** Not applicable.

- **Ignition temperature:** 370 °C (698 °F)

- **Decomposition temperature:** Not determined.

- **Auto igniting:** Product is not selfigniting.

- **Danger of explosion:** Product is not explosive. However, formation of explosive air/vapor mixtures are possible.

- **Explosion limits:**

<b>Lower:</b>	1.2 Vol %
<b>Upper:</b>	7.5 Vol %

- **Vapor pressure at 20 °C (68 °F):** 10.7 hPa (8 mm Hg)

- **Density at 20 °C (68 °F):** 0.995 g/cm<sup>3</sup> (8.30328 lbs/gal)

- **Relative density** Not determined.

- **Vapor density** Not determined.

(Contd. on page 8)



## Safety Data Sheet

acc. to OSHA HCS

Printing date 09/11/2019

Reviewed on 06/28/2019

**Trade name: 622C ADDITIVE MIXING GREEN**

(Contd. of page 7)

· <b>Evaporation rate</b>	Not determined.
· <b>Solubility in / Miscibility with Water:</b>	Not miscible or difficult to mix.
· <b>Partition coefficient (n-octanol/water):</b>	Not determined.
· <b>Viscosity:</b>	
<b>Dynamic:</b>	Not determined.
<b>Kinematic:</b>	Not determined.
· <b>Solvent content:</b>	
<b>Organic solvents:</b>	42.0 %
<b>Coating VOC content:</b>	41.96 %
	417.5 g/l / 3.48 lb/gal
<b>Material VOC content:</b>	417.5 g/l / 3.48 lb/gal
<b>Solids content:</b>	57.4 %
· <b>Other information</b>	No further relevant information available.

### 10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:**  
No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

### 11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**

- **LD/LC50 values that are relevant for classification:**

#### 1330-20-7 xylene

Oral	LD50	4,300 mg/kg (rat)
Dermal	LD50	2,000 mg/kg (rabbit)

#### 64742-95-6 Solvent naphtha (petroleum), light arom.

Oral	LD50	>6,800 mg/kg (rat)
Dermal	LD50	>3,400 mg/kg (rab)
Inhalative	LC50/4 h	>10.2 mg/l (rat)

(Contd. on page 9)





## Safety Data Sheet

acc. to OSHA HCS

Printing date 09/11/2019

Reviewed on 06/28/2019

**Trade name: 622C ADDITIVE MIXING GREEN**

(Contd. of page 8)

- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** No irritating effect.
- **Sensitization:** Sensitization possible through skin contact.
- **Additional toxicological information:**

The product shows the following dangers according to internally approved calculation methods for preparations:

Irritant

- **Carcinogenic categories**

- **IARC (International Agency for Research on Cancer)**

1330-20-7	xylene	3
80-62-6	methyl methacrylate	3
100-41-4	ethylbenzene	2B

- **NTP (National Toxicology Program)**

None of the ingredients is listed.

- **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

### 12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.

- **Additional ecological information:**

- **General notes:**

Water hazard class 3 (Self-assessment): extremely hazardous for water

Do not allow product to reach ground water, water course or sewage system, even in small quantities.

Danger to drinking water if even extremely small quantities leak into the ground.

- **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.

- **vPvB:** Not applicable.

- **Other adverse effects** No further relevant information available.

US

(Contd. on page 10)



## Safety Data Sheet

acc. to OSHA HCS

Printing date 09/11/2019

Reviewed on 06/28/2019



**Trade name: 622C ADDITIVE MIXING GREEN**

(Contd. of page 9)

### 13 Disposal considerations

- **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.

### 14 Transport information

- |                                       |   |
|---------------------------------------|---|
| · <b>UN-Number</b>                    |   |
| · <b>DOT, ADR, IMDG, IATA</b>         | UN1263  |
| · <b>UN proper shipping name</b>      |   |
| · <b>DOT</b>                          | Paint   |
| · <b>ADR</b>                          | 1263 PAINT  |
| · <b>IMDG, IATA</b>                   | PAINT   |
| · <b>Transport hazard class(es)</b>   |   |
| · <b>DOT</b>                          |   |
|                                       |  |
| · <b>Class</b>                        | 3 Flammable liquids   |
| · <b>Label</b>                        | 3   |
|                                       |   |
| · <b>ADR, IMDG, IATA</b>              |   |
|                                       |  |
| · <b>Class</b>                        | 3 Flammable liquids   |
| · <b>Label</b>                        | 3   |
| · <b>Packing group</b>                |   |
| · <b>DOT, ADR, IMDG, IATA</b>         | III   |
| · <b>Environmental hazards:</b>       |   |
| · <b>Marine pollutant:</b>            | No  |
| · <b>Special precautions for user</b> | Warning: Flammable liquids  |
| · <b>EMS Number:</b>                  | F-E, <u>S</u> -E  |

(Contd. on page 11)



## Safety Data Sheet

acc. to OSHA HCS

Printing date 09/11/2019

Reviewed on 06/28/2019

**Trade name: 622C ADDITIVE MIXING GREEN**

(Contd. of page 10)

· <b>Stowage Category</b>	A
· <b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b>	Not applicable.
· <b>Transport/Additional information:</b>	
· <b>DOT</b>	
· <b>Quantity limitations</b>	On passenger aircraft/rail: 60 L On cargo aircraft only: 220 L
-----	
· <b>ADR</b>	
· <b>Excepted quantities (EQ)</b>	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
-----	
· <b>IMDG</b>	
· <b>Limited quantities (LQ)</b>	5L
· <b>Excepted quantities (EQ)</b>	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· <b>UN "Model Regulation":</b>	UN 1263 PAINT, 3, III

### 15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Sara**

· **Section 355 (extremely hazardous substances):**

None of the ingredients is listed.

· **Section 313 (Specific toxic chemical listings):**

1330-20-7	xylene
80-62-6	methyl methacrylate
100-41-4	ethylbenzene

· **TSCA (Toxic Substances Control Act):**

123-86-4	n-butyl acetate	ACTIVE
1330-20-7	xylene	ACTIVE
108-65-6	2-methoxy-1-methylethyl acetate	ACTIVE
80-62-6	methyl methacrylate	ACTIVE
26761-45-5	2,3-epoxypropyl neodecanoate	ACTIVE
868-77-9	2-hydroxyethyl methacrylate	ACTIVE
79-41-4	methacrylic acid	ACTIVE
77-58-7	dibutyltin dilaurate	ACTIVE

(Contd. on page 12)



## Safety Data Sheet

acc. to OSHA HCS

Printing date 09/11/2019

Reviewed on 06/28/2019

**Trade name: 622C ADDITIVE MIXING GREEN**

(Contd. of page 11)

136-53-8	ZINC 2-ETHYLEXANOATE	ACTIVE
100-41-4	ethylbenzene	ACTIVE
97-88-1	n-butyl methacrylate	ACTIVE
64742-88-7	Solvent naphtha (petroleum), medium aliph.	ACTIVE
556-67-2	octamethylcyclotetrasiloxane	ACTIVE

· **Hazardous Air Pollutants**

1330-20-7	xylene
80-62-6	methyl methacrylate
100-41-4	ethylbenzene

· **Proposition 65**

· **Chemicals known to cause cancer:**

100-41-4	ethylbenzene
----------	--------------

· **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.

· **Chemicals known to cause developmental toxicity:**

None of the ingredients is listed.

· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)**

1330-20-7	xylene	I
80-62-6	methyl methacrylate	E, NL
100-41-4	ethylbenzene	D

· **TLV (Threshold Limit Value established by ACGIH)**

1330-20-7	xylene	A4
80-62-6	methyl methacrylate	A4
77-58-7	dibutyltin dilaurate	A4
100-41-4	ethylbenzene	A3

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is listed.

· **GHS label elements**

The product is classified and labeled according to the Globally Harmonized System (GHS).

(Contd. on page 13)



## Safety Data Sheet

acc. to OSHA HCS

Printing date 09/11/2019

Reviewed on 06/28/2019

**Trade name: 622C ADDITIVE MIXING GREEN**

(Contd. of page 12)

**· Hazard pictograms**

GHS02 GHS07

**· Signal word** Warning**· Hazard-determining components of labeling:**

n-butyl acetate  
methyl methacrylate  
2,3-epoxypropyl neodecanoate  
2-hydroxyethyl methacrylate

**· Hazard statements**

Flammable liquid and vapor.  
May cause an allergic skin reaction.  
May cause drowsiness or dizziness.

**· Precautionary statements**

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.  
Ground/bond container and receiving equipment.  
Use explosion-proof electrical/ventilating/lighting/equipment.  
Use only non-sparking tools.  
Take precautionary measures against static discharge.  
Avoid breathing dust/fume/gas/mist/vapors/spray  
Use only outdoors or in a well-ventilated area.  
Contaminated work clothing must not be allowed out of the workplace.  
Wear protective gloves/protective clothing/eye protection/face protection.  
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.  
IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
Call a poison center/doctor if you feel unwell.  
Specific treatment (see on this label).  
If skin irritation or rash occurs: Get medical advice/attention.  
Wash contaminated clothing before reuse.  
In case of fire: Use for extinction: CO<sub>2</sub>, powder or water spray.  
Store in a well-ventilated place. Keep container tightly closed.  
Store in a well-ventilated place. Keep cool.  
Store locked up.  
Dispose of contents/container in accordance with local/regional/national/international regulations.

**· 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 SDS:** Product safety department

(Contd. on page 14)

US



## Safety Data Sheet

acc. to OSHA HCS

Printing date 09/11/2019

Reviewed on 06/28/2019

**Trade name: 622C ADDITIVE MIXING GREEN**

(Contd. of page 13)

- **Contact:** N/A
- **Date of preparation / last revision** 09/11/2019 / -
- **Abbreviations and acronyms:**

*RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)*

*ICAO: International Civil Aviation Organisation*

*ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)*

*IMDG: International Maritime Code for Dangerous Goods*

*DOT: US Department of Transportation*

*IATA: International Air Transport Association*

*ACGIH: American Conference of Governmental Industrial Hygienists*

*EINECS: European Inventory of Existing Commercial Chemical Substances*

*ELINCS: European List of Notified Chemical Substances*

*CAS: Chemical Abstracts Service (division of the American Chemical Society)*

*NFPA: National Fire Protection Association (USA)*

*HMS: Hazardous Materials Identification System (USA)*

*VOC: Volatile Organic Compounds (USA, EU)*

*LC50: Lethal concentration, 50 percent*

*LD50: Lethal dose, 50 percent*

*PBT: Persistent, Bioaccumulative and Toxic*

*vPvB: very Persistent and very Bioaccumulative*

*NIOSH: National Institute for Occupational Safety*

*OSHA: Occupational Safety & Health*

*TLV: Threshold Limit Value*

*PEL: Permissible Exposure Limit*

*REL: Recommended Exposure Limit*

*BEI: Biological Exposure Limit*

*Flam. Liq. 3: Flammable liquids – Category 3*

*Skin Sens. 1: Skin sensitisation – Category 1*

*STOT SE 3: Specific target organ toxicity (single exposure) – Category 3*

US