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The OSHA Hazard Communication Standard (in the United States)  
The Hazardous Products Regulations (in Canada)

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Zep Inc. assumes no liability or responsibility for loss or damage resulting from the improper use or handling of this product, from incompatible product combinations, or from the failure to follow instructions, warnings, and advisories in the manufacturer's product label and Safety Data Sheet.

Sincerely,

Product Stewardship Team  
Zep Inc.

# Safety Data Sheet (SDS)

according to Regulation (EC) No. 1907/2006

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

### 1.1. Product identifier

Trade Name : CROWN ANTIFREEZE LLC-10 Pink (A-110)

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

Type of use : Engine Coolant for Automobiles

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

Manufacturer : KD Finechem Co., Ltd (☎ +82-31-680-0505)

Address : 286, Pyeongtaekhang-ro, Poseung-eup, Pyeongtaek-si, Gyeonggi-do, Korea

Supplier : KD Finechem Co., Ltd (☎ +82-31-680-0505)

Address : 286, Pyeongtaekhang-ro, Poseung-eup, Pyeongtaek-si, Gyeonggi-do, Korea

### 1.4. Emergency telephone number

☎ TEL. +82-31-680-0505 / FAX. +82-31-680-0507

## SECTION 2 Hazards identification

### 2.1 Classification of the substance or mixture

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

1) **Physicochemical** : Not Classified

2) **Health hazards** :

Acute toxicity (inhalation: dust / mist) : Category 4 (H302)

Specific target organ toxicity following repeat exposure : Category 2 (H373)

3) **Environmental hazards** : Not Classified

### 2.2 Label elements

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

1) Pictogram



2) Signal Word : Warning

3) Hazard Statement(s)

H302 : Harmful if swallowed.

H373 : May cause damage to organs (Kidney) through prolonged or repeated exposure if swallowed.

4) Precautionary Statement(s)

#### ■ Precautionary

P260 : Do not breathe dust/fume/gas/mist/vapours/spray.

P264 : Wash ... thoroughly after handling.

P270 : Do not eat, drink or smoke when using this product.

#### ■ Response

P301+P312 : IF SWALLOWED: Call a POISON CENTER/ doctor/.../ if you feel unwell.

P314 : Get medical advice/attention if you feel unwell.

P330 : Rinse mouth.

#### ■ Storage

No data available

## ■ Disposal

P501 : Dispose of contents and container in accordance with applicable regulations.

**2.3 Other hazards.**

Chemicals Name	NFPA Ratings	Health	Fire	Reactivity
1. ETHYLENE GLYCOL		2	1	0
2. WATER		0	0	0
3. Sebacic Acid		0	0	0
4. Potassium hydroxide		3	0	1

**SECTION 3 Composition/information on ingredients**

Chemical Name	CAS No.	EC No.	%	Classification
1. ETHYLENE GLYCOL	107-21-1	203-473-3	90 ~ 94 %	Acute Tox. 4 / H302 STOT RE 2 / H373
	REACH Registration No.		01-2119456816-28-0000	
2. WATER	7732-18-5	231-791-2	1 ~ 5 %	Not Classified
	REACH Registration No.		-	
3. Sebacic Acid	111-20-6	203-845-5	1 ~ 5 %	Not Classified
	REACH Registration No.		01-2119519212-52-0000	
4. Potassium hydroxide	1310-58-3	215-181-3	1 ~ 3 %	Skin Corr. 1A / H314 Acute Tox. 4 / H302
	REACH Registration No.		-	

**SECTION 4 First aid measures****4.1 Description of first aid measures****4.1.1. General advice**

Consult a physician.

Show this safety data sheet to the doctor in attendance.

**4.1.2. Following inhalation**

If breathed in, move person into fresh air.

If not breathing, give artificial respiration.

Consult a physician.

**4.1.3. Following skin contact**

Wash off with soap and plenty of water.

Consult a physician.

**4.1.4 Following eye contact**

Flush eyes with water as a precaution.

**4.1.5 Following ingestion**

Never give anything by mouth to an unconscious person.

Rinse mouth with water.

Consult a physician.

#### **4.1.6 Self-protection of the first aider**

First aider : Pay attention to self-protection

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

agitation, Nausea, Vomiting, Tiredness, ataxia (impaired locomotor coordination), CNS disorders, Unconsciousness

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

Laxative: Sodium sulfate (1 tablespoon/1/4 l water).

## **SECTION 5 Firefighting measures**

### **5.1. Extinguishing media**

#### **Suitable extinguishing media :**

Use Water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

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

Carbon oxides

### **5.3. Advice for firefighters**

Wear self contained breathing apparatus for fire fighting if necessary.

### **5.4 Further information**

No data available

## **SECTION 6 Accidental release measures**

### **6.1. Personal precautions, protective equipment and emergency procedures**

Use personal protective equipment.

Avoid breathing vapors, mist or gas.

Ensure adequate ventilation.

Evacuate personnel to safe areas.

For personal protection see section 8.

### **6.2. Environmental precautions**

Prevent further leakage or spillage if safe to do so.

Do not let product enter drains.

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

Soak up with inert absorbent material and dispose of as hazardous waste.

Keep in suitable, closed containers for disposal.

### **6.4. Reference to other sections**

For disposal see section 13.

## **SECTION 7 Handling and storage**

### **7.1. Precautions for safe handling**

Avoid contact with skin and eyes.

Avoid inhalation of vapour or mist.

For precautions see section 2.2.

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

Store in cool place.

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.

Hygroscopic

Storage class (TRGS 510): Combustible liquids

## 7.3 Specific end uses

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

# SECTION 8 Exposure controls/personal protection

## 8.1 Control parameters

### Exposure limit value

#### 1. ETHYLENE GLYCOL

##### Occupational exposure limit values (Workplace Exposure Limits)

**KOREA OEL** : Ceiling=100mg/m<sup>3</sup> (Vapor or Mist)

**ACGIH** : TWA=10mg/m<sup>3</sup> (25ppm), Ceiling=100mg/m<sup>3</sup> , STEL=50ppm

**OSHA** : Ceiling=125mg/m<sup>3</sup> (50ppm)

**NIOSH** : Ceiling=50ppm

**Austria** : TWA=26mg/m<sup>3</sup> (10ppm)

**Croatia** : TWA=52mg/m<sup>3</sup> (20ppm), STEL=104mg/m<sup>3</sup> (40ppm)

**Czech Republic** : TWA=50mg/m<sup>3</sup>, Ceiling=100mg/m<sup>3</sup>

**Australia** : TWA=10mg/m<sup>3</sup> (Dust), 52mg/m<sup>3</sup> (20ppm) (Vapor), STEL=104mg/m<sup>3</sup> (40ppm)(Vapor)

**Bahrain** : STEL=45mg/m<sup>3</sup>

**China** : : TWA=20mg/m<sup>3</sup> , STEL=40mg/m<sup>3</sup> (25ppm)

##### DNELs (Derived no effect levels) :

Worker DNEL longterm	Systemic effects	dermal	106 mg/kg Body weight
Worker DNEL longterm	Local effects	inhalation	35 mg/m <sup>3</sup>
Consumer DNEL, longterm	Systemic effects	dermal	53 mg/kg Body weight
Consumer DNEL, longterm	Local effects	inhalation	7 mg/m <sup>3</sup>

##### PNECs (Predicted no effect concentrations) :

PNEC Fresh water	10 mg/l
PNEC Marine water	1 mg/l
PNEC Aquatic intermittent release	10 mg/l
PNEC Fresh water sediment	20,9 mg/kg
PNEC Soil	1,53 mg/kg
PNEC Sewage treatment plant	199,5 mg/kg

#### 2. WATER

##### Occupational exposure limit values (Workplace Exposure Limits)

##### DNELs (Derived no effect levels) :

No data available

**PNECs (Predicted no effect concentrations) :**

No data available

**3. Sebacic acid****Occupational exposure limit values (Workplace Exposure Limits)****DNELs (Derived no effect levels) :**

No data available

**PNECs (Predicted no effect concentrations) :**

No data available

**4. Potassium hydroxide****Occupational exposure limit values (Workplace Exposure Limits)****KOREA OEL :** Ceiling= 2 mg/m<sup>3</sup>**ACGIH :** STEL= 2 mg/m<sup>3</sup>**DNELs (Derived no effect levels) :**

Worker DNEL longterm	Local effects	inhalation	1 mg/m <sup>3</sup>
Consumer DNEL, longterm	Local effects	inhalation	1 mg/m <sup>3</sup>

**PNECs (Predicted no effect concentrations) :**

No data available

**8.2 Exposure controls****8.2.1. Appropriate engineering controls**

Handle in accordance with good industrial hygiene and safety practice.

Wash hands before breaks and at the end of workday.

**8.2.2. Personal protective equipment****8.2.2.1. Eye/face protection**

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

**8.2.2.2. Skin protection**

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product.

Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices.

Wash and dry hands.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

**8.2.2.3. Respiratory protection**

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls.

If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

**8.2.2.4. Thermal hazards**

No specific measures.

**8.2.3. Environmental exposure controls**

Prevent further leakage or spillage if safe to do so.

Do not let product enter drains.

Discharge into the environment must be avoided.

## SECTION 9 Physical and chemical properties

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

- A. Appearance** : Physical state - liquid, Color - Clear Pink
- B. Odor** : Softly peculiar smell
- C. Odor Threshold** : 25 ppm (Ethylene Glycol)
- D. pH** : 7.0 ~ 9.0
- E. Melting Point / Freezing Point** : - 13°C
- F. Boiling Point / range** : More than 100°C
- G. Flash Point** : 111°C
- H. Evaporation rate** : No data available
- I. Flammability Limit (Lower/Upper)** : 3.2 ~15.3% (Ethylene Glycol)
- J. Vapor pressure** : 0.0075 kPa (Ethylene Glycol)
- K. Solubility in water** : Soluble
- L. Vapor density (Air=1)** : 2.1 (Ethylene Glycol)
- M. Specific Gravity** : 1.120 ~ 1.150
- N. Partition Coefficient (n-Octanol/Water)** : -1.36 (Log Kow) (Ethylene Glycol)
- O. Auto-ignition temperature** : 398°C
- P. Thermal decomposition** : No data available
- Q. Viscosity** : 36.01cst (15°C), 18.09 cst (25°C)
- R. Molecular weight** : Not Applicable / Mixture

## SECTION 10 Stability and reactivity

- 10.1 Reactivity** : No data available
- 10.2 Chemical stability** : Stable under recommended storage conditions.
- 10.3 Possibility of hazardous reactions** : No data available
- 10.4 Conditions to avoid** : No data available
- 10.5 Incompatible materials** : Strong acids, Strong oxidizing agents, Strong bases, Aldehydes, Aluminum
- 10.6 Hazardous decomposition products**  
In the event of fire: see section 5

## SECTION 11 Toxicological information

### 11.1 Information on toxicological effects

#### 1. ETHYLENE GLYCOL

##### Acute toxicity

Oral : LD50 7,712 mg/kg bw / Rat male, female / according to BASF-internal standards

Inhalation : LC50 > 2.5 mg/L air / Rat male, female

Dermal : LD50 > 3,500 mg/kg bw / Mouse male, female

Skin contact : Skin - Rabbit(Ethylene glycol) Result: No skin irritation

Eye contact or Irritation : Eyes - Rabbit(Ethylene glycol) Result: Mild eye irritation - 24 h

Sensitization : No data available

Carcinogenicity :

OSHA : Not listed

NTP : Not listed

IARC (GROUP) : Not listed

ACGIH : A4

EC : Not listed

Mutagenesis : No data available

Reproductive toxicity : Laboratory experiments have shown teratogenic effects. Overexposure may cause reproductive disorder(s) based on tests with laboratory animals.

Specified target organ general toxicity - single exposure : No data available

Specified target organ general toxicity - repetitive exposure : May cause damage to organs through prolonged or repeated exposure. - Kidney

Aspiration respiratory organs hazard : No data available

Signs and Symptoms of Exposure : No data available

Additional Information : No data available

## 2. WATER

Acute toxicity

Oral : LD50 90000mg/kg Rat

Inhalation : No data available

Dermal : No data available

Skin contact : No data available

Eye contact or Irritation : No data available

Sensitization : No data available

Carcinogenicity :

OSHA : Not listed

NTP : Not listed

IARC (GROUP) : Not listed

ACGIH : Not listed

EC: Not listed

Mutagenesis : No data available

Reproductive toxicity : No data available

Specified target organ general toxicity - single exposure : No data available

Specified target organ general toxicity - repetitive exposure : No data available

Aspiration respiratory organs hazard : No data available

Signs and Symptoms of Exposure : No data available

Additional Information : No data available

## 3. Sebacic Acid

Acute toxicity

Oral : LD50 Oral - Rat - male - > 5.000 mg/kg (OECD Test Guideline 401)

Skin : LD50 Dermal - Rat - male and female - > 2.000 mg/kg (OECD Test Guideline 402)

Inhalation : No data available

Skin contact : No data available

Eye contact or Irritation : No irritation as a result of GLP experiment using rabbit.

Sensitization : No data available

Carcinogenicity :

KOSHA : Not listed



OSHA : Not listed

NTP : Not listed

IARC (GROUP) : Not listed

ACGIH : Not listed

EC: Not listed

Mutagenesis : Ames test Salmonella typhimurium Result: negative

Reproductive toxicity : No data available

Specified target organ general toxicity - single exposure : No data available

Specified target organ general toxicity - repetitive exposure : No data available

Aspiration respiratory organs hazard : No data available

#### 4. Potassium hydroxide

Acute toxicity

Oral : LD50 333 mg/kg Rat (OECD TG 425)

Skin : No data available

Inhalation : No data available

Skin contact : Skin - Rabbit - Causes burns. (IUCLID)

Eye contact or Irritation : Eyes - Rabbit - Causes serious eye damage. - OECD Test Guideline 405

Sensitization : No data available

Carcinogenicity :

KOSHA : Not listed

OSHA : Not listed

NTP : Not listed

IARC (GROUP) : Not listed

ACGIH : Not listed

EC: Not listed

Mutagenesis : Genotoxicity in vitro - Ames test - S. typhimurium - with and without metabolic activation - negative

Reproductive toxicity : No data available

Specified target organ general toxicity - single exposure : No data available

Specified target organ general toxicity - repetitive exposure : No data available

Aspiration respiratory organs hazard : No data available

#### 11.2 Further information

No data available

## SECTION 12 Ecological information

### 12.1 Toxicity

#### 1. ETHYLENE GLYCOL

Fishes : LC50 72860mg/L 96hr Pimephales promelas

Crustacea : LC50 MIN 100mg/L 48hr Daphnia magna(OECD Guideline 202, GLP)

Seaweeds : EC50 6500~13000mg/L 96hr (Pseudokirchnerella subcapitata, EPA 600/9-78-018)

#### 2. WATER

Fishes : No data available

Crustacea : No data available

Seaweeds : No data available

### 3. Sebacic Acid

Fishes : LC50 993.789 mg/L 96 hr (ECOSAR)

Crustacea : LC50 1078.932 mg/L 48hr (ECOSAR)

Seaweeds : EC50 681.937 mg/L 96hr (ECOSAR)

### 4. Potassium hydroxide

Fishes : LC50 - 165 mg/L - 24 h

Crustacea : No data available

Seaweeds : No data available

## 12.2 Persistence and Degradability

### 1. ETHYLENE GLYCOL

Persistence : No data available

Degradability : 100 %; 10 d; aerobic OECD Test Guideline 301A Readily biodegradable

Biochemical Oxygen Demand (BOD) : 780 mg/g (5 d) (IUCLID)

Chemical Oxygen Demand (COD) : 1.190 mg/g (IUCLID)

Theoretical oxygen demand (ThOD) : 1.290 mg/g (IUCLID)

Ratio BOD/ThBOD : BOD5 60 % (IUCLID)

### 2. WATER

Persistence : log Kow - 1.38

Degradability : No data available

### 3. Sebacic Acid

Persistence : log Kow 1.71

Degradability : No data available

### 4. Potassium hydroxide

Persistence : No data available

Degradability : No data available

## 12.3 Bioaccumulative potential

### 1. ETHYLENE GLYCOL

Accumulation : Partition coefficient: n-octanol/water log Pow: -1,36 (experimental)

### 2. WATER

Accumulation : No data available

### 3. Sebacic Acid

Accumulation : BCF 0.3

### 4. Potassium hydroxide

Accumulation : No data available

## 12.4 Mobility in Soil

1. ETHYLENE GLYCOL : 0.2 (Estimated Value) (Ref. HSDB)

2. WATER : No data available.

3. Sebacic Acid : No data available.

4. Potassium hydroxide : No data available.

## 12.5 Result of PBT and vPvB 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.

## 12.6 Other adverse effects

Discharge into the environment must be avoided.

## SECTION 13 Disposal considerations

### 13.1 Waste treatment methods

#### Waste disposal according to directive 2008/98/EC, covering waste and dangerous waste.

##### 13.1.1. Product / Packaging disposal

Offer surplus and non-recyclable solutions to a licensed disposal company.

Dispose of as unused product.

##### 13.1.2. Waste treatment-relevant information

Can be incinerated together with household waste in compliance with applicable technical regulations following consultation with approved waste disposal management companies and authorities in charge.

##### 13.1.3. Sewage disposal-relevant information

Release to the environment or sewage system is prohibited. Must be treated as hazardous waste.

##### 13.1.4. Other disposal recommendations

Handle contaminated packages in the same way as the substance itself.

## SECTION 14 Transport information

### 14.1 UN number

ADR/RID: -

IMDG: -

IATA: -

### 14.2 UN proper shipping name

ADR/RID : Not regulated as dangerous goods

IMDG : Not regulated as dangerous goods

IATA : Not regulated as dangerous goods

### 14.3. Transport hazard class(es)

ADR/RID: -

IMDG: -

IATA: -

### 14.4. Packing group

ADR/RID: -

IMDG: -

IATA: -

### 14.5. Environmental hazards

ADR/RID: -

IMDG: -

IATA: -

### 14.6. Special precautions for user

No data available

### 14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

No data available

## SECTION 15 Regulatory Information

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

#### 1. Ethylene Glycol

##### E.U

Harmonised Classification : Acute Tox. 4 \* (H302)

Major Accident Hazard Legislation : SEVESO III(Directive 2012/18/EU) - Not applicable

Regulation (EC) No 1005/2009 on substances that deplete the ozone layer : not regulated

Regulation (EC) No 850/2004 of the European Parliament and of the Council of 29 April 2004 on persistent organic

pollutants(POPs) and amending Directive 79/117/EEC : not regulated

Substances of very high concern (SVHC) : not regulated

Take note of Dir 94/33/EC on the protection of young people at work.

#### **U.S**

OSHA regulation (29 CFR1910.119) : No

CERCLA 103 regulation(40 CFR 302.4) : 2267.95kg 5000lb

EPCRA 302 regulation(40 CFR355.30) : No

EPCRA 304 regulation(40 CFR355.40) : No

EPCRA 313 regulation(40 CFR372.65) : Yes

US. Toxic Substances Control Act : Listed

CEPA - Domestic Substances List (DSL) : Listed

CALIFORNIA PROPOSITION 65 : Yes (Developmental)

### **2. Water**

#### **E.U**

Harmonised Classification : -

Major Accident Hazard Legislation : SEVESO III(Directive 2012/18/EU) - Not applicable

Regulation (EC) No 1005/2009 on substances that deplete the ozone layer : not regulated

Regulation (EC) No 850/2004 of the European Parliament and of the Council of 29 April 2004 on persistent organic pollutants(POPs) and amending Directive 79/117/EEC : not regulated

Substances of very high concern (SVHC) : not regulated

#### **U.S**

OSHA regulation (29 CFR1910.119) : No

CERCLA 103 regulation(40 CFR 302.4) : No

EPCRA 302 regulation(40 CFR355.30) : No

EPCRA 304 regulation(40 CFR355.40) : No

EPCRA 313 regulation(40 CFR372.65) : No

US. Toxic Substances Control Act : Listed

CEPA - Domestic Substances List (DSL) : Listed

CALIFORNIA PROPOSITION 65 : No

### **3. Sebacic Acid**

#### **E.U**

Harmonised Classification : -

Major Accident Hazard Legislation : SEVESO III(Directive 2012/18/EU) - Not applicable

Regulation (EC) No 1005/2009 on substances that deplete the ozone layer : not regulated

Regulation (EC) No 850/2004 of the European Parliament and of the Council of 29 April 2004 on persistent organic pollutants(POPs) and amending Directive 79/117/EEC : not regulated

Substances of very high concern (SVHC) : not regulated

#### **U.S**

OSHA regulation (29 CFR1910.119) : No

CERCLA 103 regulation(40 CFR 302.4) : No

EPCRA 302 regulation(40 CFR355.30) : No

EPCRA 304 regulation(40 CFR355.40) : No

EPCRA 313 regulation(40 CFR372.65) : No

US. Toxic Substances Control Act : Listed

CEPA - Domestic Substances List (DSL) : Listed

CALIFORNIA PROPOSITION 65 : No

#### 4. Potassium hydroxide

##### E.U

Harmonised Classification : Acute Tox. 4(H302), Skin Corr. 1A (H314)

Major Accident Hazard Legislation : SEVESO III(Directive 2012/18/EU) - Not applicable

Regulation (EC) No 1005/2009 on substances that deplete the ozone layer : not regulated

Regulation (EC) No 850/2004 of the European Parliament and of the Council of 29 April 2004 on persistent organic pollutants(POPs) and amending Directive 79/117/EEC : not regulated

Substances of very high concern (SVHC) : not regulated

##### U.S

OSHA regulation (29 CFR1910.119) : No

CERCLA 103 regulation(40 CFR 302.4) : No

EPCRA 302 regulation(40 CFR355.30) : No

EPCRA 304 regulation(40 CFR355.40) : No

EPCRA 313 regulation(40 CFR372.65) : No

US. Toxic Substances Control Act : Listed

CEPA - Domestic Substances List (DSL) : Listed

CALIFORNIA PROPOSITION 65 : No

#### 15.2 Chemical safety assessment

Advice on product handling can be found in sections 7 and 8 of this safety data sheet.

## SECTION 16 Other Information

The information presented herein is believed to be factual as it has been derived from the works from the works and opinions of persons believed to be qualified experts; however, nothing contained in this information is to be taken as a warrant or representation for which KD Finechem Co., LTD. Bears legal responsibility. The user should review any recommendation in the specific context of the intended use to determine whether they are appropriate.

#### (i) Indication of changes

##### A. Issue date :

19. Nov. 2018

##### B. Last revision :

1st 01.Jul. 2021

#### (ii) Abbreviations and acronyms

ADN = Accord Européen relatif au Transport International des Marchandises Dangereuses par voie de Navigation du Rhin

ADR = Accord européen relatif au transport international des marchandises Dangereuses par Route

CLP = Classification, Labelling and Packaging Regulation according to 1272/2008/EC

IATA = International Air Transport Association

IMDG = International Maritime Dangerous Goods Code

LEL = Lower Explosive Limit/Lower Explosion Limit

UEL = Upper Explosion Limit/Upper Explosive Limit

REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals

EC50 = Median Effective Concentration

LC50 = Median lethal concentration

LD50 = Median lethal dose

TLV = Threshold limits

TWA = time weighted average

STEL = Short term exposure limit