

1 Identification

- Product identifier
- Trade name: Epifanes Poly-urethane Primer (comp.A)
- Relevant identified uses of the substance or mixture and uses advised against
- Product category PC9a Coatings and paints, thinners, paint removers
- Process category
PROC7 Industrial spraying
PROC10 Roller application or brushing
- Environmental release category
ERC10b Wide dispersive outdoor use of long-life articles and materials with high or intended release (including abrasive processing)
ERC2 Formulation of preparations
- Application of the substance / the mixture
See our technical datasheet for application of this product.
- Details of the supplier of the safety data sheet
- Manufacturer/Supplier:
W.Heeren & Zoon bv.
P.O. box 166
1430 AD Aalsmeer
Netherlands
tel.+31-(0)297-360366
fax +31-(0)297-342078
email: r&d@epifanes.nl
- Information department: environment protection department
- Emergency telephone number:
Emergency Phone Number (24 hours) CHEMTREC (800-424-9300)
Outside US: 703-527-3887

2 Hazard(s) identification

- Classification of the substance or mixture



GHS02 Flame

Flam. Liq. 2 H225 Highly flammable liquid and vapor.



GHS08 Health hazard

Carc. 2 H351 Suspected of causing cancer.

- Classification according to Directive 67/548/EEC or Directive 1999/45/EC



F; Highly flammable

R11: Highly flammable.

R52/53: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

- 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 international substances lists, and expanded upon from company and literature data.

(Contd. on page 2)

Trade name: Epifanes Poly-urethane Primer (comp.A)

(Contd. of page 1)

- Label elements
- GHS label elements
The product is classified and labeled according to the Globally Harmonized System (GHS).
- Hazard pictograms



GHS02 GHS08

- Signal word Danger
- Hazard-determining components of labeling:
4-methylpentan-2-one
Talc (Mg₃H₂(SiO₃)₄)
ethylbenzene
- Hazard statements
H225 Highly flammable liquid and vapor.
H351 Suspected of causing cancer.
- Precautionary statements
P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P260 Do not breathe dust/fume/gas/mist/vapors/spray.
P271 Use only outdoors or in a well-ventilated area.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P301+P310 If swallowed: Immediately call a poison center/doctor.
P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P501 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
Fire = 3
Reactivity = 0

- Other hazards
- Results of PBT and vPvB assessment
- PBT: Not applicable.
- vPvB: Not applicable.

3 Composition/information on ingredients

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

(Contd. on page 3)

Trade name: Epifanes Poly-urethane Primer (comp.A)

(Contd. of page 2)

· Dangerous components:		
CAS: 108-10-1 EINECS: 203-550-1 Index number: 606-004-00-4 Reg.nr.: 01-2119473980-30	4-methylpentan-2-one Xn R20 Xi R36/37 F R11 R66 ----- Flam. Liq. 2, H225 Carc. 2, H351 Acute Tox. 4, H332; Eye Irrit. 2A, H319; STOT SE 3, H335	2.5-10%
CAS: 64742-95-6 EINECS: 265-199-0 Reg.nr.: 01-2119486773-24	Solvent naphtha (petroleum), light arom. (Note-P) Xn R65 Xi R37 N R51/53 R10-66-67 ----- Flam. Liq. 3, H226 Asp. Tox. 1, H304 STOT SE 3, H335-H336	2.5-10%
CAS: 14807-96-6 EINECS: 238-877-9	Talc (Mg3H2(SiO3)4) Carc. 2, H351	2.5-10%
CAS: 1330-20-7 EINECS: 215-535-7 Index number: 601-022-00-9 Reg.nr.: 01-2119488216-32	xylene Xn R20/21 Xi R38 R10 ----- Flam. Liq. 3, H226 Acute Tox. 4, H312; Acute Tox. 4, H332; Skin Irrit. 2, H315	2.5-10%
CAS: 12001-26-2 Reg.nr.: onder C&L Inventory	Mica	2.5-10%
CAS: 546-93-0 EINECS: 208-915-9 Reg.nr.: 01-2119523999-20	Magnesite	2.5-10%
CAS: 100-41-4 EINECS: 202-849-4 Index number: 601-023-00-4 Reg.nr.: 01-2119489370-35	ethylbenzene Xn R20 F R11 ----- Flam. Liq. 2, H225 Carc. 2, H351 Acute Tox. 4, H332	≤ 2.5%
CAS: 95-63-6 EINECS: 202-436-9 Index number: 601-043-00-3 Reg.nr.: 01-2119472135-42	1,2,4-trimethylbenzene Xn R20 Xi R36/37/38 N R51/53 R10 ----- Flam. Liq. 3, H226 Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2A, H319; STOT SE 3, H335	≤0.5%

· Additional information:

Note P: The substance does not have to be classified as a carcinogen or mutagen as can be shown that the substance contains less than 0.1% (w / w) benzene (EINECS No 200-753-7.). This note applies only to certain complex oil-derived substances in Part 3.

(Contd. on page 4)

Trade name: Epifanes Poly-urethane Primer (comp.A)

(Contd. of page 3)

For the wording of the listed risk phrases refer to section 16.

4 First-aid measures

- Description of first aid measures
- After inhalation: Supply fresh air; consult doctor in case of complaints.
- After skin contact: Generally the product does not irritate the skin.
- 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:
CO₂, sand, extinguishing powder. Do not use water.
- For safety reasons unsuitable extinguishing agents:
Water
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.

6 Accidental release measures

- Personal precautions, protective equipment and emergency procedures
Wear protective equipment. Keep unprotected persons away.
- Environmental precautions:
Do not allow product to reach sewage system or any water course.
Prevent seepage into sewage system, workpits and cellars.
Inform respective authorities in case of seepage into water course or sewage system.
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).
Ensure adequate ventilation.
Do not flush with water or aqueous cleansing agents
- 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:
- Precautions for safe handling
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.

(Contd. on page 5)

Trade name: Epifanes Poly-urethane Primer (comp.A)

(Contd. of page 4)

- 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: Store in a cool location.
- Information about storage in one common storage facility: Not required.
- Further information about storage conditions:
Keep receptacle tightly sealed.
Store in cool, dry conditions in well sealed receptacles.
- 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:

108-10-1 4-methylpentan-2-one		
Inhalative	(Tgg)time weighted average 15 min. / Exposure time	208 mg/m ³ (Algemene bevolking/ General population)
	(Tgg)time weighted average 8 hours / Exposure time	104 mg/m ³ (Algemene bevolking/ General population)
14807-96-6 Talc (Mg3H2(SiO3)4)		
Inhalative	(Tgg)time weighted average 8 hours / Exposure time	0.25 mg/m ³ (Algemene bevolking/ General population)
1330-20-7 xylene		
Inhalative	(Tgg)time weighted average 15 min. / Exposure time	442 mg/m ³ (Algemene bevolking/ General population)
	(Tgg)time weighted average 8 hours / Exposure time	210 mg/m ³ (Algemene bevolking/ General population)
546-93-0 Magnesite		
Inhalative	(Tgg)time weighted average 8 hours / Exposure time	10 mg/m ³ (general population)

(Contd. on page 6)

Trade name: Epifanes Poly-urethane Primer (comp.A)

(Contd. of page 5)

100-41-4 ethylbenzene		
Inhalative	(Tgg)time weighted average 15 min. / Exposure time	430 mg/m ³ (Algemene bevolking/ General population)
	(Tgg)time weighted average 8 hours / Exposure time	215 mg/m ³ (Algemene bevolking/ General population)

108-10-1 4-methylpentan-2-one		
PEL	Long-term value: 410 mg/m ³ , 100 ppm	
REL	Short-term value: 300 mg/m ³ , 75 ppm Long-term value: 205 mg/m ³ , 50 ppm	
TLV	Short-term value: 307 mg/m ³ , 75 ppm Long-term value: 82 mg/m ³ , 20 ppm BEI	

1330-20-7 xylene		
PEL	Long-term value: 435 mg/m ³ , 100 ppm	
REL	Short-term value: 655 mg/m ³ , 150 ppm Long-term value: 435 mg/m ³ , 100 ppm	
TLV	Short-term value: 651 mg/m ³ , 150 ppm Long-term value: 434 mg/m ³ , 100 ppm BEI	

12001-26-2 Mica		
PEL	Long-term value: 20 mppcf ppm <1% crystalline silica	
REL	Long-term value: 3* mg/m ³ *respirable dust; containing < 1% quartz	
TLV	Long-term value: 3* mg/m ³ *as respirable fraction	

546-93-0 Magnesite		
PEL	Long-term value: 15* 5** mg/m ³ *total dust **respirable fraction	
REL	Long-term value: 10* 5** mg/m ³ *total dust **respirable fraction	
TLV	TLV withdrawn	

100-41-4 ethylbenzene		
PEL	Long-term value: 435 mg/m ³ , 100 ppm	
REL	Short-term value: 545 mg/m ³ , 125 ppm Long-term value: 435 mg/m ³ , 100 ppm	
TLV	Long-term value: 87 mg/m ³ , 20 ppm BEI	

Ingredients with biological limit values:

108-10-1 4-methylpentan-2-one		
BEI	1 mg/L Medium: urine Time: end of shift Parameter: MIBK	

(Contd. on page 7)

Trade name: Epifanes Poly-urethane Primer (comp.A)

(Contd. of page 6)

1330-20-7 xylene

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

100-41-4 ethylbenzene

BEI 0.7 g/g creatinine
Medium: urine
Time: end of shift at end of workweek
Parameter: Sum of mandelic acid and phenylglyoxylic acid (nonspecific, semi-quantitative)

-

Medium: end-exhaled air
Time: not critical
Parameter: Ethyl benzene (semi-quantitative)

- Additional information:
The lists that were valid during the creation were used as basis.
- Exposure controls
- Personal protective equipment:
- General protective and hygienic measures:
Wash hands before breaks and at the end of work.
Do not inhale gases / fumes / aerosols.
- Breathing equipment:
Suitable respiratory protective device recommended.
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.
Filter AX
- 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. 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 gloves made of the following materials are suitable:
Butyl rubber, glove thickness 0.7 mm, > 480 min breakthrough time / permeation to EN374.
- As protection from splashes gloves made of the following materials are suitable:
Nitrile
Glove thickness > 0.45 mm, breakthrough time > 30 min. to EN374

(Contd. on page 8)

Trade name: Epifanes Poly-urethane Primer (comp.A)

(Contd. of page 7)

· Eye protection:



Tightly sealed goggles

9 Physical and chemical properties

· Information on basic physical and chemical properties	
· General Information	
· Appearance:	
Form:	Fluid
Color:	According to product specification
· Odor:	Characteristic
· Odour threshold:	Not determined.
· pH-value:	Not determined.
· Change in condition	
Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	> 100 °C (> 212 °F)
· Flash point:	16 °C (61 °F)
· Flammability (solid, gaseous):	Not applicable.
· Ignition temperature:	460 °C (860 °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:	
Lower:	Not determined.
Upper:	Not determined.
· Vapor pressure:	Not determined.
· Density at 20 °C (68 °F):	1.6 g/cm ³ (13.352 lbs/gal)
· Relative density	Not determined.
· Vapour density	Not determined.
· Evaporation rate	Not determined.
· Solubility in / Miscibility with	
Water:	Not miscible or difficult to mix.
· Partition coefficient (n-octanol/water):	Not determined.
· Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
· Solvent content:	
Organic solvents:	26.0 %
VOC content:	26.0 %
	VOC content:
	415.8 g/l / 3.47 lb/gl

(Contd. on page 9)

Trade name: Epifanes Poly-urethane Primer (comp.A)

(Contd. of page 8)

Solids content: 75.6 %
 · Other information: No further relevant information available.

10 Stability and reactivity

- Reactivity
- 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:

108-10-1 4-methylpentan-2-one		
Oral	LD50	2080 mg/kg bw (rat)
Dermal	LD50	16000 mg/kg bw (rab)
Inhalative	LC50/4 h	8.3-16.6 mg/l (rat)
64742-95-6 Solvent naphtha (petroleum), light arom. (Note-P)		
Oral	LD50	3592 mg/kg (rat)
Dermal	LD50 (Konijn)	3160 mg/kg (rabbit)
Inhalative	LC50 (rat)	>6193 mg/m ³ (rat)
1330-20-7 xylene		
Oral	LD50	4300 mg/kg bw (rat)
Dermal	LD50	2000 mg/kg bw (rabbit)
100-41-4 ethylbenzene		
Oral	LD50	3500 mg/kg bw (rat)
Dermal	LD50	17800 mg/kg bw (rabbit)
95-63-6 1,2,4-trimethylbenzene		
Oral	LD50	5000 mg/kg bw (rat)

- Primary irritant effect:
- on the skin: No irritant effect.
- on the eye: No irritating effect.
- Sensitization: No sensitizing effects known.
- Additional toxicological information:

- Carcinogenic categories

IARC (International Agency for Research on Cancer)		
108-10-1	4-methylpentan-2-one	2B
14807-96-6	Talc (Mg ₃ H ₂ (SiO ₃) ₄)	2B
1330-20-7	xylene	3
100-41-4	ethylbenzene	2B
7631-86-9	silicon dioxide, chemically prepared	3

(Contd. on page 10)

Trade name: Epifanes Poly-urethane Primer (comp.A)

(Contd. of page 9)

98-82-8	cumene	2B
· NTP (National Toxicology Program)		
98-82-8	cumene	R
· OSHA-Ca (Occupational Safety & Health Administration)		
None of the ingredients is listed.		

12 Ecological information

· Toxicity

· Aquatic toxicity:

1330-20-7 xylene

EC50 1 mg/l (daphnia magna) (48 uur/hour)

LC50 13.5-2.6 mg/l (Fish Acute Toxicity Study) (96 uur/hour)

- Persistence and degradability No further relevant information available.
- Behavior in environmental systems:

· Bioaccumulative potential

1330-20-7 xylene

Log Kow 3 (not specified)

- Mobility in soil No further relevant information available.
- Ecotoxicological effects:
- Remark: Harmful to fish
- Additional ecological information:
- General notes:
Water hazard class 2 (Self-assessment): hazardous for water
Do not allow product to reach ground water, water course or sewage system.
Danger to drinking water if even small quantities leak into the ground.
Harmful to aquatic organisms
- Results of PBT and vPvB assessment
- PBT: Not applicable.
- vPvB: Not applicable.
- Other adverse effects No further relevant information available.

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

- UN-Number
- DOT, ADR, IMDG, IATA UN1263
- UN proper shipping name
- DOT CONSUMER COMMODITY, ORM-D
Paint

(Contd. on page 11)

Trade name: Epifanes Poly-urethane Primer (comp.A)

(Contd. of page 10)

<ul style="list-style-type: none"> · ADR · IMDG · IATA 	<p>1263 Paint CONSUMER COMMODITY, ORM-D PAINT PAINT</p>
<ul style="list-style-type: none"> · Transport hazard class(es) · DOT 	
	
<ul style="list-style-type: none"> · Class · Label 	<p>3 Flammable liquids 3</p>
<ul style="list-style-type: none"> · ADR 	
	
<ul style="list-style-type: none"> · Class · Label 	<p>3 (F1) Flammable liquids 3</p>
<ul style="list-style-type: none"> · IMDG, IATA 	
	
<ul style="list-style-type: none"> · Class · Label 	<p>3 Flammable liquids 3</p>
<ul style="list-style-type: none"> · Packing group · DOT, ADR, IMDG, IATA 	<p>II</p>
<ul style="list-style-type: none"> · Environmental hazards: · Marine pollutant: 	<p>No</p>
<ul style="list-style-type: none"> · Special precautions for user · Danger code (Kemler): · EMS Number: 	<p>Warning: Flammable liquids 33 F-E, S-E</p>
<ul style="list-style-type: none"> · Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code 	<p>Not applicable.</p>
<ul style="list-style-type: none"> · Transport/Additional information: · DOT · Quantity limitations · Remarks: 	<p>On passenger aircraft/rail: 5 L On cargo aircraft only: 60 L CERCLA/DOT RQ: 617gal./4786 lbs.</p>
<ul style="list-style-type: none"> · ADR · Excepted quantities (EQ) 	<p>Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml</p>

(Contd. on page 12)

Trade name: Epifanes Poly-urethane Primer (comp.A)

(Contd. of page 11)

- IMDG
- Limited quantities (LQ) 5L
- Excepted quantities (EQ) Code: E2
- Maximum net quantity per inner packaging: 30 ml
- Maximum net quantity per outer packaging: 500 ml
- UN "Model Regulation": UN1263, Paint, 3, II

15 Regulatory information

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

· Section 355 (extremely hazardous substances):

None of the ingredient is listed.

· Section 313 (Specific toxic chemical listings):

108-10-1	4-methylpentan-2-one
1330-20-7	xylene
100-41-4	ethylbenzene
78-93-3	butanone
95-63-6	1,2,4-trimethylbenzene
78-92-2	butanol
98-82-8	cumene

· TSCA (Toxic Substances Control Act):

108-10-1	4-methylpentan-2-one
64742-95-6	Solvent naphtha (petroleum), light arom. (Note-P)
14807-96-6	Talc (Mg3H2(SiO3)4)
1330-20-7	xylene
546-93-0	Magnesite
100-41-4	ethylbenzene
68611-44-9	Silicium hydrophobised high dispersion
108-83-8	2,6-dimethylheptan-4-one
7631-86-9	silicon dioxide, chemically prepared
78-93-3	butanone
25086-48-0	Azijnzure ethenylester, polymeer met chlooretheen en etenol. Acetic acid ethenylester, polymer with chlorethene and ethanol.
25551-13-7	trimethylbenzene
95-63-6	1,2,4-trimethylbenzene
77-58-7	dibutyltin dilaurate
123-86-4	n-butyl acetate

· Proposition 65

· Chemicals known to cause cancer:

108-10-1	4-methylpentan-2-one
100-41-4	ethylbenzene
98-82-8	cumene

(Contd. on page 13)

Trade name: Epifanes Poly-urethane Primer (comp.A)

(Contd. of page 12)

· 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:

108-10-1 | 4-methylpentan-2-one

· Cancerogenity categories

· EPA (Environmental Protection Agency)

108-10-1	4-methylpentan-2-one	I
1330-20-7	xylene	I
100-41-4	ethylbenzene	D
78-93-3	butanone	I
98-82-8	cumene	D, CBD

· TLV (Threshold Limit Value established by ACGIH)

14807-96-6	Talc (Mg ₃ H ₂ (SiO ₃) ₄)	A4
1330-20-7	xylene	A4
100-41-4	ethylbenzene	A3
77-58-7	dibutyltin dilaurate	A4

· MAK (German Maximum Workplace Concentration)

14807-96-6	Talc (Mg ₃ H ₂ (SiO ₃) ₄)	3B
100-41-4	ethylbenzene	3A

· 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).

· Hazard pictograms



GHS02 GHS08

· Signal word Danger

· Hazard-determining components of labeling:

4-methylpentan-2-one
Talc (Mg₃H₂(SiO₃)₄)
ethylbenzene

· Hazard statements

H225 Highly flammable liquid and vapor.
H351 Suspected of causing cancer.

· Precautionary statements

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P260 Do not breathe dust/fume/gas/mist/vapors/spray.
P271 Use only outdoors or in a well-ventilated area.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P301+P310 If swallowed: Immediately call a poison center/doctor.

(Contd. on page 14)

Trade name: Epifanes Poly-urethane Primer (comp.A)

(Contd. of page 13)

P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

- National regulations:
- Technical instructions (air):

Class	Share in %
NK	25-50

- Water hazard class:
Water hazard class 2 (Self-assessment): hazardous for water.
- 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.

- Date of preparation / last revision 03/31/2015 / 2
- 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)
HMIS: Hazardous Materials Identification System (USA)
VOC: Volatile Organic Compounds (USA, EU)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
Flam. Liq. 2: Flammable liquids, Hazard Category 2
Flam. Liq. 3: Flammable liquids, Hazard Category 3
Acute Tox. 4: Acute toxicity, Hazard Category 4
Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2
Eye Irrit. 2A: Serious eye damage/eye irritation, Hazard Category 2A
Carc. 2: Carcinogenicity, Hazard Category 2
STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3
Asp. Tox. 1: Aspiration hazard, Hazard Category 1
- * Data compared to the previous version altered.