

**\* 1 Identification**

- : Product identifier**
- : Trade name:** **Unisol® Liquid Red B**
  - : Application of the substance / the mixture** Dyestuff/Coloring agent
- : Details of the supplier of the safety data sheet**
- : Manufacturer/Supplier:**
  - United Color Manufacturing, Inc.
  - 660 Newtown-Yardley Road
  - Newtown, PA 18940 USA
- : For more information** Website: [www.unitedcolor.com](http://www.unitedcolor.com)
- : Telephone:** U.S. (215) 860-2165 / 800-852-5942
- : Emergency telephone number:**
  - Within Continental U.S., CHEMTREC 1-800-424-9300
  - Outside U.S., CHEMTREC +1-703-527-3887

**\* 2 Hazard(s) identification**

**: Classification of the substance or mixture**



Flame

Flammable liquid and vapor.



Health hazard

Suspected of causing cancer.  
 Suspected of damaging fertility or the unborn child.  
 May cause damage to the hearing organs through prolonged or repeated exposure.  
 May be fatal if swallowed and enters airways.



Causes skin irritation.  
 May cause respiratory irritation.

**: Label elements**

**: GHS label elements**

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

**: Hazard pictograms**



GHS02



GHS07



GHS08

**: Signal word** Danger

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

2-Naphthalenol, 1-[2-[4-(2-phenyldiazenyl)phenyl]diazenyl]-, ar-heptyl ar',ar"-Me derivs.  
 xylene  
 ethylbenzene



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**: Hazard statements**

Flammable liquid and vapor.  
 Causes skin irritation.  
 Suspected of causing cancer.  
 Suspected of damaging fertility or the unborn child.  
 May cause respiratory irritation.  
 May cause damage to the hearing organs through prolonged or repeated exposure.  
 May be fatal if swallowed and enters airways.

**: Precautionary statements**

Keep away from heat/sparks/open flames/hot surfaces. No smoking.  
 Use explosion-proof electrical/ventilating/lighting/equipment.  
 Do not breathe dust/fume/gas/mist/vapors/spray.  
 Use only outdoors or in a well-ventilated area.  
 Wear protective gloves / eye protection / face protection.  
 Ground/bond container and receiving equipment.  
 Use only non-sparking tools.  
 Take precautionary measures against static discharge.  
 Wash thoroughly after handling.  
 Obtain special instructions before use.  
 Do not handle until all safety precautions have been read and understood.  
 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.  
 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 exposed or concerned: Get medical advice/attention.  
 If skin irritation occurs: Get medical advice/attention.  
 Get medical advice/attention if you feel unwell.  
 Do NOT induce vomiting.  
 In case of fire: Use for extinction: CO2, powder or water spray.  
 Take off contaminated clothing and wash it before reuse.  
 Store locked up.  
 Store in a well-ventilated place. Keep container tightly closed.  
 Store in a well-ventilated place. Keep cool.  
 Dispose of contents/container in accordance with local/regional/national/international regulations.

**: Classification system:**

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



Health = 2  
 Fire = 3  
 Reactivity = 0

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



HEALTH 2 Health = 2  
 FIRE 3 Fire = 3  
 REACTIVITY 0 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.

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<b>: Dangerous components:</b>		
92257-31-3	2-Naphthalenol, 1-[2-[4-(2-phenyldiazenyl)phenyl]diazenyl]-, ar-heptyl ar',ar''-Me derivs.	60-80%
1330-20-7	xylene	25-35%
100-41-4	ethylbenzene	5-20%

**: Additional information:** EPA Accession number 35371

**\* 4 First-aid measures**

**: Description of first aid measures**

**: General information:**

Immediately remove any clothing soiled by the product.  
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

**: After inhalation:** 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:** Immediately call a 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, 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**

During heating or in case of fire poisonous gases are produced.

**: Advice for firefighters**

**: Protective equipment:** Mouth respiratory protective device.

**\* 6 Accidental release measures**

**: Personal precautions, protective equipment and emergency procedures**

Mount respiratory protective device.

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.

**\* 7 Handling and storage**

**: Handling:**

**: Precautions for safe handling**

Ensure good ventilation/exhaustion at the workplace.

Open and handle receptacle with care.

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Prevent formation of aerosols.

**: Information about protection against explosions and fires:**

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

Keep respiratory protective device available.

**: 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.

**: 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:**

**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

**100-41-4 ethylbenzene**

PEL Long-term value: 435 mg/m<sup>3</sup>, 100 ppm

REL Short-term value: 545 mg/m<sup>3</sup>, 125 ppm

Long-term value: 435 mg/m<sup>3</sup>, 100 ppm

TLV Long-term value: 87 mg/m<sup>3</sup>, 20 ppm

BEI

**: Ingredients with biological limit values:**

**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:**

Keep away from foodstuffs, beverages and feed.

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Immediately remove all soiled and contaminated clothing.  
Wash hands before breaks and at the end of work.  
Store protective clothing separately.  
Avoid contact with the skin.  
Avoid contact with the eyes and skin.

**: 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 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**

<b>: Information on basic physical and chemical properties</b>	
<b>: General Information</b>	
<b>: Appearance:</b>	
<b>: Form:</b>	Fluid
<b>: Color:</b>	Red
<b>: Odor:</b>	Aromatic
<b>: Odor threshold:</b>	Not determined.
<b>: pH-value:</b>	Not determined.
<b>: Change in condition</b>	
<b>: Melting point/Melting range:</b>	Undetermined.
<b>: Boiling point/Boiling range:</b>	137 °C (279 °F)
<b>: Flash point:</b>	> 28 °C (> 82 °F)
<b>: Flammability (solid, gaseous):</b>	Not applicable.
<b>: Ignition temperature:</b>	430 °C (806 °F)
<b>: Decomposition temperature:</b>	Not determined.

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: <b>Auto igniting:</b>	Product is not selfigniting.
: <b>Danger of explosion:</b>	Product is not explosive. However, formation of explosive air/vapor mixtures are possible.
: <b>Explosion limits:</b>	
: <b>Lower:</b>	1.1 Vol %
: <b>Upper:</b>	7.0 Vol %
: <b>Vapor pressure at 20 °C (68 °F):</b>	6.7 hPa (5 mm Hg) <110 kPa
: <b>Density:</b>	Not determined.
: <b>Relative density</b>	Not determined.
: <b>Vapor density</b>	Not determined.
: <b>Evaporation rate</b>	Not determined.
: <b>Solubility in / Miscibility with</b>	
: <b>Water:</b>	Not miscible or difficult to mix.
: <b>Partition coefficient (n-octanol/water):</b>	Not determined.
: <b>Viscosity:</b>	
: <b>Dynamic at 20 °C (68 °F):</b>	100 mPas
: <b>Kinematic at 40 °C (104 °F):</b>	20 mm <sup>2</sup> /s
: <b>Solvent content:</b>	
: <b>Organic solvents:</b>	35.0 %
: <b>VOC content:</b>	35.0 %
: <b>Solids content:</b>	65.0 %
: <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:**

: <b>LD/LC50 values that are relevant for classification:</b>		
<b>92257-31-3 2-Naphthalenol, 1-[2-[4-(2-phenyldiazenyl)phenyl]diazenyl]-, ar-heptyl ar',ar"-Me derivs.</b>		
Oral	LD50	>5000 mg/kg (rat)
<b>1330-20-7 xylene</b>		
Oral	LD50	4300 mg/kg (rat)
Dermal	LD50	2000 mg/kg (rabbit)
<b>100-41-4 ethylbenzene</b>		
Oral	LD50	3500 mg/kg (rat)
Dermal	LD50	17800 mg/kg (rabbit)

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**: Primary irritant effect:**

- : **on the skin:** Irritant to skin and mucous membranes.
- : **on the eye:** No irritating effect.

: **Sensitization:** No sensitizing effects known.

**: Additional toxicological information:**

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

**: Carcinogenic Status:**

Contains an o-Toluidine-based azo dye. Metabolic studies on some Azo-dyes, following prolonged skin or oral cavity contact, have detected reduction of azo bonds to aromatic amines. This product, therefore, could potentially metabolize to o-toluidine and o-aminoazotoluene upon prolonged skin or oral cavity contact. o-Toluidine and o-aminoazotoluene have been identified as animal carcinogens.

**: Reproductive effects:**

May affect reproductive system. Contains: a version of 2-Naphthalenol,1-[4-(phenylazo)phenyl]azo]-,ar-heptyl ar',ar''-me derivatives. A reproductive screening study in rats with some versions of 2-Naphthalenol,1-[4-(phenylazo)phenyl]azo]-,ar-heptyl ar',ar''-me derivatives produced adverse effects on reproduction [ovarian atrophy; reduced litter size; reduced pup weight with no apparent abnormal morphology of the surviving pups] at 20 and 80 mg/kg/day. The relevance of these findings for humans is uncertain, but may be predictive of the potential to cause harm.

**: Carcinogenic categories**

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

1330-20-7	xylene	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:**

**100-41-4 ethylbenzene**

EC50	3.6 mg/kg (Algae)
	1.81 mg/kg (daphnia)
	4.2 mg/kg (fish)

: **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 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.

**: Results of PBT and vPvB assessment**

: **PBT:** Not applicable.

: **vPvB:** Not applicable.

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

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**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>	UN1307
<b>: DOT, IMDG, IATA</b>	UN1307
<b>: UN proper shipping name</b>	
<b>: DOT</b>	RQ Xylenes solution
<b>: IMDG</b>	XYLENES solution
<b>: IATA</b>	Xylenes solution
<b>: Transport hazard class(es)</b>	
<b>: DOT</b>	
	
<b>: Class</b>	3 Flammable liquids
<b>: Label</b>	3
<b>: IMDG, IATA</b>	
	
<b>: Class</b>	3 Flammable liquids
<b>: Label</b>	3
<b>: Packing group</b>	
<b>: DOT, IMDG, IATA</b>	III
<b>: Environmental hazards:</b>	
<b>: Marine pollutant:</b>	No
<b>: Special precautions for user</b>	Warning: Flammable liquids
<b>: Danger code (Kemler):</b>	30
<b>: EMS Number:</b>	F-E,S-D
<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>: Hazardous substance:</b>	200 lbs, 90.8 kg

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<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 1307 XYLENES SOLUTION, 3, III

**\*15 Regulatory information**

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

<b>: Section 355 (extremely hazardous substances):</b>		
None of the ingredients is listed.		
<b>: Section 313 (Specific toxic chemical listings):</b>		
1330-20-7	xylene	
100-41-4	ethylbenzene	
<b>: Sara 311/312 Hazards</b> <b>Fire Hazard, Acute Health Hazard, Chronic Health Hazard</b>		
None of the ingredients is listed.		
<b>: CERCLA Hazardous Substances and Corresponding RQ's</b>		
1330-20-7	xylene	100 lbs or 45.4 kgs
100-41-4	ethylbenzene	1000 lbs or 454 kgs
<b>: Clean Water Act</b>		
None of the ingredients is listed.		
<b>: Massachusetts Extraordinary Harardous Substances</b>		
None of the ingredients is listed.		
<b>: Sara Section 302 (Reportable Ingredients)</b>		
None of the ingredients is listed.		
<b>: SARA Section 304 (Reportable Ingredients)</b>		
None of the ingredients is listed.		
<b>: TSCA (Toxic Substances Control Act):</b>		
All ingredients are listed.		
<b>: California Right to Know Law</b>		
1330-20-7	xylene	Yes
100-41-4	ethylbenzene	Yes
<b>: Massachusetts Right to Know Law</b>		
1330-20-7	xylene	Yes
100-41-4	ethylbenzene	Yes
<b>: Minnesota Right to Know Law</b>		
1330-20-7	xylene	Yes
100-41-4	ethylbenzene	Yes
<b>: New Jersey Right to Know Law</b>		
1330-20-7	xylene	
100-41-4	ethylbenzene	

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<b>: Pennsylvania Right to Know Law</b>		
1330-20-7	xylene	Yes
100-41-4	ethylbenzene	Yes
<b>: Rhode Island Right to Know Law</b>		
1330-20-7	xylene	Yes
100-41-4	ethylbenzene	Yes
<b>: New Jersey Special Hazardous Substances</b>		
None of the ingredients is listed.		
<b>: Illinois Toxic Air Contaminants</b>		
None of the ingredients is listed.		
<b>: Pennsylvania Right to Know Special Hazardous Substances</b>		
None of the ingredients is listed.		
<b>: Proposition 65</b>		
<b>: Chemicals known to cause cancer:</b>		
100-41-4	ethylbenzene	
<b>: Chemicals known to cause reproductive toxicity for females:</b>		
None of the ingredients is listed.		
<b>: Chemicals known to cause reproductive toxicity for males:</b>		
None of the ingredients is listed.		
<b>: Chemicals known to cause developmental toxicity:</b>		
None of the ingredients is listed.		
<b>: Pennsylvania Right to Know Environmental Hazard</b>		
None of the ingredients is listed.		
<b>: Carcinogenic categories</b>		
<b>: EPA (Environmental Protection Agency)</b>		
1330-20-7	xylene	I
100-41-4	ethylbenzene	D
<b>: TLV (Threshold Limit Value established by ACGIH)</b>		
1330-20-7	xylene	A4
100-41-4	ethylbenzene	A3
<b>: NIOSH-Ca (National Institute for Occupational Safety and Health)</b>		
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 GHS07 GHS08

**: Signal word** Danger

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

2-Naphthalenol, 1-[2-[4-(2-phenyldiazenyl)phenyl]diazenyl]-, ar-heptyl ar',ar''-Me derivs.  
xylene  
ethylbenzene

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**: Hazard statements**

Flammable liquid and vapor.  
Causes skin irritation.  
Suspected of causing cancer.  
Suspected of damaging fertility or the unborn child.  
May cause respiratory irritation.  
May cause damage to the hearing organs through prolonged or repeated exposure.  
May be fatal if swallowed and enters airways.

**: Precautionary statements**

Keep away from heat/sparks/open flames/hot surfaces. No smoking.  
Use explosion-proof electrical/ventilating/lighting/equipment.  
Do not breathe dust/fume/gas/mist/vapors/spray.  
Use only outdoors or in a well-ventilated area.  
Wear protective gloves / eye protection / face protection.  
Ground/bond container and receiving equipment.  
Use only non-sparking tools.  
Take precautionary measures against static discharge.  
Wash thoroughly after handling.  
Obtain special instructions before use.  
Do not handle until all safety precautions have been read and understood.  
IF SWALLOWED: Immediately call a POISON CENTER/ doctor.  
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 exposed or concerned: Get medical advice/attention.  
If skin irritation occurs: Get medical advice/attention.  
Get medical advice/attention if you feel unwell.  
Do NOT induce vomiting.  
In case of fire: Use for extinction: CO2, powder or water spray.  
Take off contaminated clothing and wash it before reuse.  
Store locked up.  
Store in a well-ventilated place. Keep container tightly closed.  
Store in a well-ventilated place. Keep cool.  
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.

None

**: Department issuing SDS:** Regulatory Affairs department.

**: Contact:** J. Frederico, Ph.D

**: Date of preparation / last revision** 01/15/2016 / -

**: Abbreviations and acronyms:**

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

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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, Hazard Category 3  
Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2  
Carc. 2: Carcinogenicity, Hazard Category 2  
Repr. 2: Reproductive toxicity, Hazard Category 2  
STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3  
STOT RE 2: Specific target organ toxicity - Repeated exposure, Hazard Category 2  
Asp. Tox. 1: Aspiration hazard, Hazard Category 1

: \* **Data compared to the previous version altered.**