

Page 1 of 13
Safety data sheet according to Regulation (EC) No 1907/2006, Annex II
Revised on / Version: 22.06.2012 / 0014
Replaces revision of / Version: 13.02.2012 / 0013
Valid from: 22.06.2012
PDF print date: 22.06.2012
OCTANE PLUS 150ML Art.: 2956

Safety data sheet according to Regulation (EC) No 1907/2006, Annex II

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

1.1 Product identifier

OCTANE PLUS 150ML

Art.: 2956

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

Relevant identified uses of the substance or mixture:

Additives

Uses advised against:

No information available at present.

1.3 Details of the supplier of the safety data sheet

LIQUI MOLY GmbH, Jerg-Wieland-Straße 4, D-89081 Ulm-Lehr
Telephone (+49) 0731-1420-0, Fax (+49) 0731-1420-88

E-mail address of the competent person: info@chemical-check.de, k.schnurbusch@chemical-check.de

1.4 Emergency telephone

Advisory office in case of poisoning:

Telephone number of the company in case of emergencies:

Tel.: (+49) 0731-1420-0

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

2.1.1 Classification according to Regulation (EC) 1272/2008 (CLP)

Not determined

2.1.2 Classification according to Directives 67/548/EEC and 1999/45/EC (including amendments)

Xn, Harmful, R21/22

T, Toxic, R23

40 Limited evidence of a carcinogenic effect.

Dangerous for the environment, R52-53

Xn, Harmful, R65

R66

2.2 Label elements

2.2.1 Labeling according to Regulation (EC) 1272/2008 (CLP)

Not determined

2.2.2 Labeling according to Directives 67/548/EEC and 1999/45/EC (including amendments)

Symbols: T

Indications of danger:

Toxic

R-phrases:

21/22 Harmful in contact with skin and if swallowed.

23 Toxic by inhalation.



Page 2 of 13
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II
 Revised on / Version: 22.06.2012 / 0014
 Replaces revision of / Version: 13.02.2012 / 0013
 Valid from: 22.06.2012
 PDF print date: 22.06.2012
 OCTANE PLUS 150ML Art.: 2956

40 Limited evidence of a carcinogenic effect.
 52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
 65 Harmful: may cause lung damage if swallowed.
 66 Repeated exposure may cause skin dryness or cracking.
 S-phrases:
 (1/2) Keep locked up and out of the reach of children.
 13 Keep away from food, drink and animal feedingstuffs.
 23 Do not breathe vapour/spray.
 29/56 Do not empty into drains, dispose of this material and its container at hazardous or special waste collection point.
 36/37 Wear suitable protective clothing and gloves.
 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
 63 In case of accident by inhalation: remove casualty to fresh air and keep at rest.
 Additions:
 Tricarbonyl(methylcyclopentadienyl)manganese
 Fuels, jet aircraft, coal solvent extrn., hydrocracked hydrogenated
 Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)

2.3 Other hazards

The mixture does not contain any vPvB substance (vPvB = very persistent, very bioaccumulative) or is not included under XIII of the regulation (EC) 1907/2006.

The mixture does not contain any PBT substance (PBT = persistent, bioaccumulative, toxic) or is not included under XIII of the regulation (EC) 1907/2006.

SECTION 3: Composition/information on ingredients

3.1 Substance

n.a.

3.2 Mixture

Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)	
Registration number (REACH)	01-2119473977-17-XXXX
Index	---
EINECS, ELINCS, NLP	919-164-8 (REACH-IT List-No.)
CAS	(64742-82-1)
content %	80-100
Classification according to Directive 67/548/EEC	Harmful, Xn, R65 R66
Classification according to Regulation (EC) 1272/2008 (CLP)	Asp. Tox. 1, H304 Aquatic Chronic 3, H412

Tricarbonyl(methylcyclopentadienyl)manganese	
Registration number (REACH)	--
Index	---
EINECS, ELINCS, NLP	235-166-5
CAS	CAS 12108-13-3
content %	3-<7
Classification according to Directive 67/548/EEC	Very toxic, T+, R26 Toxic, T, R24/25 Dangerous for the environment, N, R50
Classification according to Regulation (EC) 1272/2008 (CLP)	Acute Tox. 2, H330 Acute Tox. 3, H311 Acute Tox. 3, H301 Aquatic Acute 1, H400

1,2,4-trimethylbenzene	Substance for which an EU exposure limit value applies.
Registration number (REACH)	--
Index	601-043-00-3
EINECS, ELINCS, NLP	202-436-9
CAS	CAS 95-63-6
content %	1-<2,5

GB

Page 3 of 13
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II
 Revised on / Version: 22.06.2012 / 0014
 Replaces revision of / Version: 13.02.2012 / 0013
 Valid from: 22.06.2012
 PDF print date: 22.06.2012
 OCTANE PLUS 150ML Art.: 2956

Classification according to Directive 67/548/EEC	Flammable, R10 Harmful, Xn, R20 Irritant, Xi, R36/37/38 Dangerous for the environment, N, R51 Dangerous for the environment, R53
Classification according to Regulation (EC) 1272/2008 (CLP)	Flam. Liq. 3, H226 Acute Tox. 4, H332 Eye Irrit. 2, H319 STOT SE 3, H335 Skin Irrit. 2, H315 Aquatic Chronic 2, H411
Fuels, jet aircraft, coal solvent extn., hydrocracked hydrogenated	
Registration number (REACH)	--
Index	648-154-00-3
EINECS, ELINCS, NLP	302-694-3
CAS	CAS 94114-58-6
content %	1-<2,5
Classification according to Directive 67/548/EEC	Carcinogen, R40, Carc. Cat. 3 Flammable, R10 Irritant, Xi, R37 Dangerous for the environment, N, R51-53 Harmful, Xn, R65 R66 R67
Classification according to Regulation (EC) 1272/2008 (CLP)	Carc. 2, H351 Flam. Liq. 3, H226 STOT SE 3, H335 Aquatic Chronic 2, H411 Asp. Tox. 1, H304 STOT SE 3, H336

For the text of the R-phrases / H-phrases and classification codes (GHS/CLP), see Section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

Inhalation

Remove person from danger area.
 Supply person with fresh air and consult doctor according to symptoms.
 Respiratory arrest - Artificial respiration apparatus necessary.

Skin contact

Remove polluted, soaked clothing immediately, wash thoroughly with plenty of water and soap. Call a doctor immediately, keep datasheet at hand

Eye contact

Remove contact lenses.
 Wash thoroughly for several minutes using copious water - call doctor immediately, have Data Sheet available.

Ingestion

Rinse the mouth thoroughly with water.
 Do not induce vomiting.
 Give water to drink.
 Consult doctor immediately - keep Data Sheet available.

4.2 Most important symptoms and effects, both acute and delayed

If applicable delayed symptoms and effects can be found in section 11 and the absorption route in section 4.1.

The following may occur:

Irritation of the eyes
 Product removes fat.
 Dermatitis (skin inflammation)
 Ingestion:
 Danger of aspiration
 Lung damage

Page 4 of 13
Safety data sheet according to Regulation (EC) No 1907/2006, Annex II
Revised on / Version: 22.06.2012 / 0014
Replaces revision of / Version: 13.02.2012 / 0013
Valid from: 22.06.2012
PDF print date: 22.06.2012
OCTANE PLUS 150ML Art.: 2956

Inhalation:
headaches
irritation of the respiratory tract
nausea
Dizziness
Other dangerous properties cannot be ruled out.

4.3 Indication of any immediate medical attention and special treatment needed

Symptomatic treatment

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

CO₂
Extinction powder
Foam
Water jet spray
Cool container at risk with water.

Unsuitable extinguishing media

High volume water jet

5.2 Special hazards arising from the substance or mixture

In case of fire the following can develop:

Oxides of carbon
Manganese oxides
Toxic pyrolysis products.
Flammable vapour/air mixtures

5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes.
Protective respirator with independent air supply.
Full protection
Dispose of contaminated extinction water according to official regulations.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Remove possible causes of ignition - do not smoke.
Ensure sufficient supply of air.
If air supply is not sufficient, wear protective breathing apparatus.
Avoid inhalation, and contact with eyes or skin.

6.2 Environmental precautions

If leakage occurs, dam up.
Prevent surface and ground-water infiltration, as well as ground penetration.
Prevent penetration into drains, cellars, working pits or other places in which accumulation could be hazardous.
If accidental entry into drainage system occurs, inform responsible authorities.

6.3 Methods and material for containment and cleaning up

Soak up with absorbent material (e.g. universal binding agent, sand, diatomaceous earth) and dispose of according to Section 13.

6.4 Reference to other sections

For personal protective equipment see Section 8 and for disposal instructions see Section 13.

SECTION 7: Handling and storage

In addition to information given in this section, relevant information can also be found in section 8 and 6.1.

7.1 Precautions for safe handling

7.1.1 General recommendations

Ensure good ventilation.
Suction measures at the workplace or on the processing machines required.
Keep away from sources of ignition - Do not smoke.
Take measures against electrostatic charging, if appropriate.

GB

Page 5 of 13
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II
 Revised on / Version: 22.06.2012 / 0014
 Replaces revision of / Version: 13.02.2012 / 0013
 Valid from: 22.06.2012
 PDF print date: 22.06.2012
 OCTANE PLUS 150ML Art.: 2956

Handle and open container with care.
 Eating, drinking, smoking, as well as food-storage, is prohibited in work-room.
 Observe directions on label and instructions for use.
 Use working methods according to operating instructions.
 Suction measures at the workplace or on the processing machines required.

7.1.2 Notes on general hygiene measures at the workplace

General hygiene measures for the handling of chemicals are applicable.
 Wash hands before breaks and at end of work.
 Keep away from food, drink and animal feedingstuffs.
 Remove contaminated clothing and protective equipment before entering areas in which food is consumed.

7.2 Conditions for safe storage, including any incompatibilities

Keep out of access to unauthorised individuals.
 Store product closed and only in original packing.
 Not to be stored in gangways or stair wells.
 Observe special storage conditions (in Germany, e.g., in accordance with the regulations in the "Betriebssicherheitsverordnung").
 Solvent resistant floor
 Do not store with oxidizing agents.
 Store in a well ventilated place.
 Store cool
 Keep locked away.

7.3 Specific end use(s)

No information available at present.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Workplace exposure limit (WEL) of the total hydrocarbon solvent content of the mixture (RCP method according to EH40):
 1200 mg/m³

Chemical Name	Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)	Content %:80-100
WEL-TWA: 1000 mg/m ³	WEL-STEL: ---	---
BMGV: ---	Other information: (WEL acc. to RCP-method, EH40)	
Chemical Name	1,2,4-trimethylbenzene	Content %:1-<2,5
WEL-TWA: 25 ppm (125 mg/m ³) (Trimethylbenzenes, all isomers or mixtures) (WEL), 20 ppm (100 mg/m ³) (EC)	WEL-STEL: ---	---
BMGV: ---	Other information: ---	
Chemical Name	Fuels, jet aircraft, coal solvent extrn., hydrocracked hydrogenated	Content %:1-<2,5
WEL-TWA: 1200 mg/m ³ (>=C7 normal and branched chain alkanes)	WEL-STEL: ---	---
BMGV: ---	Other information: ---	

WEL-TWA = Workplace Exposure Limit - Long-term exposure limit (8-hour TWA (= time weighted average) reference period) EH40. AGW = "Arbeitsplatzgrenzwert" (workplace limit value, Germany). | WEL-STEL = Workplace Exposure Limit - Short-term exposure limit (15-minute reference period). | BMGV = Biological monitoring guidance value EH40. BGW = "Biologischer Grenzwert" (biological limit value, Germany) | Other information: Sen = Capable of causing occupational asthma. Sk = Can be absorbed through skin. Carc = Capable of causing cancer and/or heritable genetic damage.

** = The exposure limit for this substance is repealed through the TRGS 900 (Germany) of January 2006 with the goal of revision.

8.2 Exposure controls

8.2.1 Appropriate engineering controls

Ensure good ventilation. This can be achieved by local suction or general air extraction.
 If this is insufficient to maintain the concentration under the WEL or AGW values, suitable breathing protection should be worn.
 Applies only if maximum permissible exposure values are listed here.

8.2.2 Individual protection measures, such as personal protective equipment

Page 6 of 13
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II
 Revised on / Version: 22.06.2012 / 0014
 Replaces revision of / Version: 13.02.2012 / 0013
 Valid from: 22.06.2012
 PDF print date: 22.06.2012
 OCTANE PLUS 150ML Art.: 2956

General hygiene measures for the handling of chemicals are applicable.
 Wash hands before breaks and at end of work.
 Keep away from food, drink and animal feedingstuffs.
 Remove contaminated clothing and protective equipment before entering areas in which food is consumed.

Eye/face protection:
 Tight fitting protective goggles with side protection (EN 166).

Skin protection - Hand protection:
 Solvent resistant protective gloves (EN 374).
 Protective hand cream recommended.
 If applicable
 Protective Viton gloves (EN 374)
 (Vitojet 890 / KLC)

Skin protection - Other:
 Protective working garments (e.g. safety shoes EN ISO 20345, long-sleeved protective working garments)

Respiratory protection:
 If OES or MEL is exceeded.
 Filter A P 3 (EN 14387), code colour brown, white
 If applicable
 At high concentrations:
 Respiratory protection appliance (insulation device) (e.g. EN 137 or EN 138)
 Observe wearing time limitations for respiratory protection equipment.

Thermal hazards:
 Not applicable

Additional information on hand protection - No tests have been performed.
 In the case of mixtures, the selection has been made according to the knowledge available and the information about the contents.
 Selection of materials derived from glove manufacturer's indications.
 Final selection of glove material must be made taking the breakthrough times, permeation rates and degradation into account.
 Selection of a suitable glove depends not only on the material but also on other quality characteristics and varies from manufacturer to manufacturer.
 In the case of mixtures, the resistance of glove materials cannot be predicted and must therefore be tested before use.
 The exact breakthrough time of the glove material can be requested from the protective glove manufacturer and must be observed.

8.2.3 Environmental exposure controls

No information available at present.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state:	Liquid
Colour:	Brown, Clear
Odour:	Characteristic
Odour threshold:	Not determined
pH-value:	n.a.
Melting point/freezing point:	Not determined
Initial boiling point and boiling range:	Not determined
Flash point:	63 °C
Evaporation rate:	Not determined
Flammability (solid, gas):	Not determined
Lower explosive limit:	Not determined
Upper explosive limit:	Not determined
Vapour pressure:	Not determined
Vapour density (air = 1):	Vapours heavier than air.
Density:	0,817 g/cm ³ (15°C)
Bulk density:	n.a.
Solubility(ies):	Not determined
Water solubility:	Insoluble
Partition coefficient (n-octanol/water):	Not determined

Page 7 of 13
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II
 Revised on / Version: 22.06.2012 / 0014
 Replaces revision of / Version: 13.02.2012 / 0013
 Valid from: 22.06.2012
 PDF print date: 22.06.2012
 OCTANE PLUS 150ML Art.: 2956

Auto-ignition temperature:	Not determined
Decomposition temperature:	Not determined
Viscosity:	<7 mm ² /s (40°C)
Explosive properties:	Not determined
Oxidising properties:	No

9.2 Other information

Miscibility:	Not determined
Fat solubility / solvent:	Not determined
Conductivity:	Not determined
Surface tension:	Not determined
Solvents content:	Not determined

SECTION 10: Stability and reactivity

10.1 Reactivity

The product has not been tested.

10.2 Chemical stability

Stable with proper storage and handling.

10.3 Possibility of hazardous reactions

No dangerous reactions are known.

10.4 Conditions to avoid

See also section 7.

10.5 Incompatible materials

See also section 7.

Avoid contact with strong oxidizing agents.

10.6 Hazardous decomposition products

See also section 5.2

No decomposition when used as directed.

SECTION 11: Toxicological information

Possibly more information on health effects, see Section 2.1 (classification).

OCTANE PLUS 150ML Art.: 2956

Toxicity/effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:						n.d.a.
Acute toxicity, by dermal route:						n.d.a.
Acute toxicity, by inhalation:						n.d.a.
Skin corrosion/irritation:						n.d.a.
Serious eye damage/irritation:						n.d.a.
Respiratory or skin sensitisation:						n.d.a.
Germ cell mutagenicity:						n.d.a.
Carcinogenicity:						n.d.a.
Reproductive toxicity:						n.d.a.
Specific target organ toxicity - single exposure (STOT-SE):						n.d.a.
Specific target organ toxicity - repeated exposure (STOT-RE):						n.d.a.
Aspiration hazard:						n.d.a.
Respiratory tract irritation:						n.d.a.
Repeated dose toxicity:						n.d.a.
Symptoms:						n.d.a.

Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)

Toxicity/effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	>5000	mg/kg	Rat	OECD 401 (Acute Oral Toxicity)	

Page 9 of 13
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II
 Revised on / Version: 22.06.2012 / 0014
 Replaces revision of / Version: 13.02.2012 / 0013
 Valid from: 22.06.2012
 PDF print date: 22.06.2012
 OCTANE PLUS 150ML Art.: 2956

Toxicity to algae:							n.d.a.
Persistence and degradability:							Isolate as much as possible with an oil separator.
Bioaccumulative potential:							n.d.a.
Mobility in soil:							n.d.a.
Results of PBT and vPvB assessment							n.d.a.
Other adverse effects:							n.d.a.
Other information:	AOX						According to the recipe, contains no AOX.

Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)							
Toxicity/effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
Toxicity to fish:	LL50	96h	>10- <100	mg/l	(Oncorhynchus mykiss)	OECD 203 (Fish, Acute Toxicity Test)	
Toxicity to daphnia:	EL50	48h	100- 200	mg/l	(Daphnia magna)	OECD 202 (Daphnia sp. Acute Immobilisation Test)	
Toxicity to daphnia:	NOEC/NO EL	21d	0,28	mg/l	(Daphnia magna)	OECD 211 (Daphnia magna Reproduction Test)	
Toxicity to algae:	EL50	72h	10-100	mg/l	(Pseudokirchneriella subcapitata)	OECD 201 (Alga, Growth Inhibition Test)	
Persistence and degradability:		28d	74,7	%		OECD 301 F (Ready Biodegradability - Manometric Respirometry Test)	Readily biodegradable
Bioaccumulative potential:			4,2-7,2				
Results of PBT and vPvB assessment							No PBT substance, No vPvB substance

Tricarbonyl(methylcyclopentadienyl)manganese							
Toxicity/effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
Toxicity to fish:	LC50	96h	0,21- 0,34	mg/l	(Pimephales promelas)		
Toxicity to daphnia:	LC50	48h	0,83	mg/l	(Daphnia magna)		

1,2,4-trimethylbenzene							
Toxicity/effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
Toxicity to fish:	LC50	96h	7,72	mg/l			
Toxicity to daphnia:	EC50	48h	3,6	mg/l			

SECTION 13: Disposal considerations

13.1 Waste treatment methods

For the substance / mixture / residual amounts

Soaked polluted cloths, paper or other organic materials represent a fire hazard and should be controlled, collected and disposed of. EC disposal code no.:

The waste codes are recommendations based on the scheduled use of this product. Owing to the user's specific conditions for use and disposal, other waste codes may be allocated under certain circumstances. (2001/118/EC, 2001/119/EC, 2001/573/EC)
 07 06 04 other organic solvents, washing liquids and mother liquors

Page 10 of 13
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II
 Revised on / Version: 22.06.2012 / 0014
 Replaces revision of / Version: 13.02.2012 / 0013
 Valid from: 22.06.2012
 PDF print date: 22.06.2012
 OCTANE PLUS 150ML Art.: 2956

07 07 04 other organic solvents, washing liquids and mother liquors

Recommendation:

Pay attention to local and national official regulations
 Implement substance recycling.
 E.g. suitable incineration plant.

For contaminated packing material


Pay attention to local and national official regulations
 Empty container completely.
 Suitable incineration plant.

SECTION 14: Transport information


General statements

UN number: 2810


Transport by road/by rail (ADR/RID)

UN proper shipping name: 
 UN 2810 TOXIC LIQUID, ORGANIC, N.O.S. (NAPHTHA (PETROLEUM),TRICARBONYL(METHYLCYCLOPENTADIENYL)MANGANESE)
 Transport hazard class(es): 6.1
 Packing group: II
 Classification code: T1
 LQ (ADR 2011): 100 ml
 LQ (ADR 2009): 17
 Environmental hazards: Not applicable
 Tunnel restriction code: D/E

Transport by sea (IMDG-code)

UN proper shipping name: 
 TOXIC LIQUID, ORGANIC, N.O.S. (NAPHTHA (PETROLEUM),TRICARBONYL(METHYLCYCLOPENTADIENYL)MANGANESE)
 Transport hazard class(es): 6.1
 Packing group: II
 EmS: F-A, S-A
 Marine Pollutant: n.a
 Environmental hazards: Not applicable

Transport by air (IATA)

UN proper shipping name: 
 Toxic liquid, organic, n.o.s. (NAPHTHA (PETROLEUM),TRICARBONYL(METHYLCYCLOPENTADIENYL)MANGANESE)
 Transport hazard class(es): 6.1
 Packing group: II
 Environmental hazards: Not applicable

Special precautions for user

Persons employed in transporting dangerous goods must be trained.
 All persons involved in transporting must observe safety regulations.
 Precautions must be taken to prevent damage.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Freight as packaged goods rather than in bulk, therefore not applicable.
 Minimum amount regulations have not been taken into account.
 Danger code and packing code on request.

SECTION 15: Regulatory information

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

For classification and labelling see Section 2.

Observe restrictions: Yes

Comply with trade association/occupational health regulations.

Observe youth employment law (German regulation).

Observe law on protection of expectant mothers (German regulation).

Regulation (EC) No 1907/2006, Annex XVII

VOC (1999/13/EC): ~ 96%

15.2 Chemical safety assessment

A chemical safety assessment is not provided for mixtures.

Safety data sheet according to Regulation (EC) No 1907/2006, Annex II
Revised on / Version: 22.06.2012 / 0014
Replaces revision of / Version: 13.02.2012 / 0013
Valid from: 22.06.2012
PDF print date: 22.06.2012
OCTANE PLUS 150ML Art.: 2956

SECTION 16: Other information

These details refer to the product as it is delivered.

Revised sections:

3

The following statements are the indicated R-phrases / H-phrases and classification codes (GHS/CLP) for the ingredients (listed in Section 3).

- 10 Flammable.
- 20 Harmful by inhalation.
- 21/22 Harmful in contact with skin and if swallowed.
- 23 Toxic by inhalation.
- 24/25 Toxic in contact with skin and if swallowed.
- 36/37/38 Irritating to eyes, respiratory system and skin.
- 37 Irritating to respiratory system.
- 50 Very toxic to aquatic organisms.
- 51 Toxic to aquatic organisms.
- 51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- 52 Harmful to aquatic organisms.
- 53 May cause long-term adverse effects in the aquatic environment.
- 40 Limited evidence of a carcinogenic effect.
- 65 Harmful: may cause lung damage if swallowed.
- 66 Repeated exposure may cause skin dryness or cracking.
- 26 Very toxic by inhalation.
- 67 Vapours may cause drowsiness and dizziness.
- H330 Fatal if inhaled.
- H226 Flammable liquid and vapour.
- H301 Toxic if swallowed.
- H304 May be fatal if swallowed and enters airways.
- H311 Toxic in contact with skin.
- H315 Causes skin irritation.
- H319 Causes serious eye irritation.
- H332 Harmful if inhaled.
- H335 May cause respiratory irritation.
- H336 May cause drowsiness or dizziness.
- H351 Suspected of causing cancer.
- H400 Very toxic to aquatic life.
- H411 Toxic to aquatic life with long lasting effects.
- H412 Harmful to aquatic life with long lasting effects.

Asp. Tox.-Aspiration hazard
Aquatic Chronic-Hazardous to the aquatic environment - chronic
Acute Tox.-Acute toxicity - inhalation
Acute Tox.-Acute toxicity - dermal
Acute Tox.-Acute toxicity - oral
Aquatic Acute-Hazardous to the aquatic environment - acute
Flam. Liq.-Flammable liquid
Eye Irrit.-Eye irritation
STOT SE-Specific target organ toxicity - single exposure - respiratory tract irritation
Skin Irrit.-Skin irritation
Carc.-Carcinogenicity
STOT SE-Specific target organ toxicity - single exposure - narcotic effects

Any abbreviations and acronyms used in this document:

AC Article Categories
acc., acc. to according, according to
ACGIH American Conference of Governmental Industrial Hygienists
ADR Accord européen relatif au transport international des marchandises Dangereuses par Route (= European Agreement concerning the International Carriage of Dangerous Goods by Road)
AOEL Acceptable Operator Exposure Level
AOX Adsorbable organic halogen compounds
approx. approximately
Art., Art. no. Article number

ATE	Acute Toxicity Estimate according to Regulation (EC) 1272/2008 (CLP)
BAM	Bundesanstalt für Materialforschung und -prüfung (Federal Institute for Materials Research and Testing, Germany)
BAuA	Bundesanstalt für Arbeitsschutz und Arbeitsmedizin (= Federal Institute for Occupational Health and Safety, Germany)
BCF	Bioconcentration factor
BGV	Berufsgenossenschaftliche Vorschrift (= Accident Prevention Regulation)
BHT	Butylhydroxytoluol (= 2,6-Di- <i>t</i> -butyl-4-methyl-phenol)
BMGV	Biological monitoring guidance value (EH40, UK)
BOD	Biochemical oxygen demand
BSEF	Bromine Science and Environmental Forum
bw	body weight
CAS	Chemical Abstracts Service
CESIO	Comité Européen des Agents de Surface et de leurs Intermédiaires Organiques
CIPAC	Collaborative International Pesticides Analytical Council
CLP	Classification, Labelling and Packaging (REGULATION (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures)
CMR	carcinogenic, mutagenic, reproductive toxic
COD	Chemical oxygen demand
CTFA	Cosmetic, Toiletry, and Fragrance Association
DMEL	Derived Minimum Effect Level
DNEL	Derived No Effect Level
DOC	Dissolved organic carbon
DT50	Dwell Time - 50% reduction of start concentration
DVS	Deutscher Verband für Schweißen und verwandte Verfahren e.V. (= German Association for Welding and Allied Processes)
dw	dry weight
e.g.	for example (abbreviation of Latin 'exempli gratia'), for instance
EC	European Community
ECHA	European Chemicals Agency
EEA	European Economic Area
EEC	European Economic Community
EINECS	European Inventory of Existing Commercial Chemical Substances
ELINCS	European List of Notified Chemical Substances
EN	European Norms
EPA	United States Environmental Protection Agency (United States of America)
ERC	Environmental Release Categories
ES	Exposure scenario
etc.	et cetera
EU	European Union
EWC	European Waste Catalogue
Fax.	Fax number
gen.	general
GHS	Globally Harmonized System of Classification and Labelling of Chemicals
GWP	Global warming potential
HET-CAM	Hen's Egg Test - Chorionallantoic Membrane
HGWP	Halocarbon Global Warming Potential
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IBC	Intermediate Bulk Container
IBC (Code)	International Bulk Chemical (Code)
IC	Inhibitory concentration
IMDG-code	International Maritime Code for Dangerous Goods
incl.	including, inclusive
IUCLID	International Uniform Chemical Information Database
LC	lethal concentration
LC50	lethal concentration 50 percent kill
LCLo	lowest published lethal concentration
LD	Lethal Dose of a chemical
LD50	Lethal Dose, 50% kill
LDLo	Lethal Dose Low
LOAEL	Lowest Observed Adverse Effect Level
LOEC	Lowest Observed Effect Concentration
LOEL	Lowest Observed Effect Level
LQ	Limited Quantities
MARPOL	International Convention for the Prevention of Marine Pollution from Ships
n.a.	not applicable

n.av. not available

n.c. not checked

n.d.a. no data available

NIOSH National Institute of Occupational Safety and Health (United States of America)

NOAEC No Observed Adverse Effective Concentration

NOAEL No Observed Adverse Effect Level

NOEC No Observed Effect Concentration

NOEL No Observed Effect Level

ODP Ozone Depletion Potential

OECD Organisation for Economic Co-operation and Development

org. organic

PAH polycyclic aromatic hydrocarbon

PBT persistent, bioaccumulative and toxic

PC Chemical product category

PE Polyethylene

PNEC Predicted No Effect Concentration

POCP Photochemical ozone creation potential

ppm parts per million

PROC Process category

PTFE Polytetrafluorethylene

REACH Registration, Evaluation, Authorisation and Restriction of Chemicals (REGULATION (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals)

REACH-IT List-No. 9xx-xxx-x No. is automatically assigned, e.g. to pre-registrations without a CAS No. or other numerical identifier. List Numbers do not have any legal significance, rather they are purely technical identifiers for processing a submission via REACH-IT.

RID Règlement concernant le transport International ferroviaire de marchandises Dangereuses (= Regulation concerning the International Carriage of Dangerous Goods by Rail)

SADT Self-Accelerating Decomposition Temperature

SAR Structure Activity Relationship

SU Sector of use

SVHC Substances of Very High Concern

Tel. Telephone

ThOD Theoretical oxygen demand

TOC Total organic carbon

TRGS Technische Regeln für Gefahrstoffe (=Technical Regulations for Hazardous Substances)

VbF Verordnung über brennbare Flüssigkeiten (= Regulation for flammable liquids (Austria))

VOC Volatile organic compounds

vPvB very persistent and very bioaccumulative

WEL-TWA, WEL-STEL WEL-TWA = Workplace Exposure Limit - Long-term exposure limit (8-hour TWA (= time weighted average) reference period), WEL-STEL = Workplace Exposure Limit - Short-term exposure limit (15-minute reference period) (EH40, UK).

WHO World Health Organization

wwt wet weight

The statements made here should describe the product with regard to the necessary safety precautions - they are not meant to guarantee definite characteristics - but they are based on our present up-to-date knowledge.
No responsibility.

These statements were made by:

Chemical Check GmbH, Wöbbeler Straße 2-4, D-32839 Steinheim, Tel.: +49 5233 94 17 0, Fax: +49 5233 94 17 90

© by Chemical Check GmbH Gefahrstoffberatung. The copying or changing of this document is forbidden except with consent of the Chemical Check GmbH Gefahrstoffberatung.