

### Safety data sheet according to 1907/2006/EC, Article 31

Printing date 13.11.2023

Version number 7 (replaces version 6)

Revision: 13.11.2023

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

### · 1.1 Product identifier

· Product name: **QAC Titrant QA3**

### · Catalog number:

56Z018498, 56L018465, 56U018465, 56L008965, 56U008965, 56L018499, 56U018499, 56L018420, 56L018497, 56U018497, 56L718465, 56U718465, 56L018430, 56U018430, 56L0184, SDT091

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

· Application of the substance / the preparation: Reagent for water analysis

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

#### · Supplier:

Tintometer GmbH  
Schleefstraße 8-12  
44287 Dortmund  
Made in Germany  
www.lovibond.com

phone: +49 (0)231 94510-0  
e-mail: sales@lovibond.com

The Tintometer Limited  
Lovibond® House  
Sun Rise Way  
Amesbury  
Wiltshire SP4 7GR  
United Kingdom

phone : +44 1980 664800  
e-mail: SDS@lovibond.uk

#### · Informing department:

e-mail: sds@lovibond.com  
Product Safety Department

### · 1.4 Emergency telephone number:

+44 1235 239670  
Languages: English

## SECTION 2: Hazards identification

### · 2.1 Classification of the substance or mixture

· Classification according to Regulation (EC) No 1272/2008



GHS05 corrosion

Eye Dam. 1 H318 Causes serious eye damage.

### · 2.2 Label elements

· Labelling according to Regulation (EC) No 1272/2008

The product is classified and labelled according to the GB CLP regulation.

· Hazard pictograms



GHS05

· Signal word Danger

· Hazard-determining components of labelling:

sodium dodecyl sulphate  
butan-1-ol

· Hazard statements

H318 Causes serious eye damage.

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**Precautionary statements**

- P280 Wear protective gloves / eye protection.  
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 P310 Immediately call a doctor.

**2.3 Other hazards** At long or repeated contact with skin it may cause dermatitis due to the degreasing effect of the solvent.

**Results of PBT and vPvB assessment**

This mixture does not contain any substances that are assessed to be persistent, bioaccumulative and toxic (PBT) or very persistent and very bioaccumulative (vPvB), according to the criteria given in Annex XIII of Regulation (EC) No. 1907/2006.

**Determination of endocrine-disrupting properties**

The product does not contain substances with endocrine disrupting properties.

### SECTION 3: Composition/information on ingredients

**3.2 Mixtures**

**Description:** aqueous solution

**Dangerous components:**

CAS: 151-21-3 EINECS: 205-788-1 Reg.nr.: 01-21119489461-32-XXXX	sodium dodecyl sulphate ⚠ Flam. Sol. 2, H228; ⚠ Eye Dam. 1, H318; ⚠ Acute Tox. 4, H302; Acute Tox. 4, H332; Skin Irrit. 2, H315; STOT SE 3, H335; Aquatic Chronic 3, H412	3-<5%
CAS: 71-36-3 EINECS: 200-751-6 Index No: 603-004-00-6 Reg.nr.: 01-2119484630-38-XXXX	butan-1-ol ⚠ Flam. Liq. 3, H226; ⚠ Eye Dam. 1, H318; ⚠ Acute Tox. 4, H302; Skin Irrit. 2, H315; STOT SE 3, H335-H336	1-≤2.5%

**Additional information** For the wording of the listed hazard phrases refer to section 16.

### SECTION 4: First aid measures

**4.1 Description of first aid measures**

**General information** Instantly remove any clothing soiled by the product.

**After inhalation** Supply fresh air; consult doctor in case of symptoms.

**After skin contact**

Instantly wash with water and soap and rinse thoroughly.

The product is not skin irritating.

In case of persistent symptoms consult doctor.

**After eye contact**

Rinse opened eye for several minutes (at least 15 min) under running water.

Call a doctor immediately.

**After swallowing**

Rinse out mouth and then drink 1-2 glasses of water.

In case of persistent symptoms consult doctor.

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

Irritation and corrosion

Drying-out effect resulting in rough and chapped skin.

after inhalation:

mucosal irritations, cough, shortness of breath

fatigue

after swallowing:

mucous membrane irritation

**4.3 Indication of any immediate medical attention and special treatment needed:** No further relevant information available.

### SECTION 5: Firefighting measures

**5.1 Extinguishing media**

**Suitable extinguishing agents** Use fire fighting measures that suit the environment.

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

combustible

Formation of toxic gases is possible during heating or in case of fire.

Can be released in case of fire:

Sulphur oxides (SOx)

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### · 5.3 Advice for firefighters

#### · Protective equipment:

Wear self-contained breathing apparatus.  
Wear full protective suit.

#### · Additional information

Collect contaminated fire fighting water separately. It must not enter drains.  
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.  
Ambient fire may liberate hazardous vapours.

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## SECTION 6: Accidental release measures

### · 6.1 Personal precautions, protective equipment and emergency procedures

#### · Advice for non-emergency personnel:

Wear protective equipment. Keep unprotected persons away.  
Ensure adequate ventilation

#### · Advice for emergency responders: Protective equipment: see section 8

### · 6.2 Environmental precautions: Do not allow product to reach sewage system or water bodies.

### · 6.3 Methods and material for containment and cleaning up:

Ensure adequate ventilation.  
Absorb with liquid-binding material (sand, diatomite, universal binders).  
Dispose of contaminated material as waste according to item 13.

### · 6.4 Reference to other sections

See Section 8 for information on personal protection equipment.  
See Section 13 for information on disposal.

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## SECTION 7: Handling and storage

### · 7.1 Precautions for safe handling

#### · Advice on safe handling:

Use only in well ventilated areas.  
Keep ignition sources away - Do not smoke.

#### · Hygiene measures:

Avoid contact with the eyes.  
Take off immediately all contaminated clothing.  
Wash hands during breaks and at the end of the work.  
Do not eat, drink or smoke when using this product.

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

#### · Requirements to be met by storerooms and containers:

Store in cool location.  
Do not use light alloy containers.

#### · Information about storage in one common storage facility: Store away from oxidising agents.

#### · Further information about storage conditions:

Protect from heat and direct sunlight.  
Protect from the effects of light.  
Protect from humidity and keep away from water.

#### · Recommended storage temperature: 20°C +/- 5°C

### · 7.3 Specific end use(s) No further relevant information available.

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## SECTION 8: Exposure controls/personal protection

### · 8.1 Control parameters

#### · Components with limit values that require monitoring at the workplace:

**CAS: 71-36-3 butan-1-ol**

WEL (Great Britain)	Short-term value: 154 mg/m <sup>3</sup> , 50 ppm
	Sk

#### · Regulatory information WEL (Great Britain): EH40/2020

#### · DNELs

Derived No Effect Level (DNEL)

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<b>CAS: 151-21-3 sodium dodecyl sulphate</b>		
Dermal	DNEL	4060 mg/kg (Worker / long-term /systemic effects)
Inhalative	DNEL	285 mg/m <sup>3</sup> (Worker / long-term /systemic effects)
<b>CAS: 71-36-3 butan-1-ol</b>		
Oral	DNEL	3.125 mg/kg (Consumer / long-term / systemic effects)
Inhalative	DNEL	310 mg/m <sup>3</sup> (Worker / long-term / local effects)
		55 mg/m <sup>3</sup> (Consumer / long-term / local effects)

· **Recommended monitoring procedures:**

Methods for measurement of the workplace atmosphere have to correspond to the requirements of norms DIN EN 482 and DIN EN 689.

· **PNECs**

Predicted No Effect Concentration (PNEC)

<b>CAS: 151-21-3 sodium dodecyl sulphate</b>	
PNEC	1084 mg/l (Sewage treatment plant) 0.0137 mg/l (Marine water) 0.055 mg/l (Aquatic intermittent release)
PNEC	0.882 mg/kg (Soil) 0.482 mg/kg (Marine sediment) 4.82 mg/kg (Fresh water sediment)
<b>CAS: 71-36-3 butan-1-ol</b>	
PNEC	2476 mg/l (Sewage treatment plant) 0.0082 mg/l (Marine water) 2.25 mg/l (Aquatic intermittent release) 0.082 mg/l (Fresh water)
PNEC	0.015 mg/kg (Soil) 0.0178 mg/kg (Marine sediment) 0.178 mg/kg (Fresh water sediment)

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

· **8.2 Exposure controls**

· **Engineering measures:**

Technical measures and appropriate working operations should be given priority over the use of personal protective equipment. See item 7.

· **Individual protection measures, such as personal protective equipment**

Protective clothing should be selected specifically for the workplace, depending on concentration and quantity of the hazardous substances handled.

· **Eye/face protection**

Safety glasses

Use safety glasses that have been tested and approved in accordance with government standards such as EN 166.

· **Hand protection**

Protective gloves.

Preventive skin protection by use of skin-protecting agents is recommended.

After use of gloves apply skin-cleaning agents and skin cosmetics.

· **Material of gloves**

nitrile rubber, NBR

Recommended thickness of the material:  $\geq 0.11$  mm

· **Penetration time of glove material**

Value for the permeation: Level = 1 ( < 10 min )

The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Other skin protection (body protection):** Protective work clothing.

· **Breathing equipment:** Use breathing protection against the effects of fumes/dust/aerosol.

· **Recommended filter device for short term use:** Combination filter A-P2

· **Environmental exposure controls** Do not allow product to reach sewage system or water bodies.

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### SECTION 9: Physical and chemical properties

- **9.1 Information on basic physical and chemical properties**
- **Physical state** Fluid
- **Form:** Liquid
- **Colour:** Colourless
- **Odour:** Alcohol-like
- **Odour threshold:** CAS 71-36-3: > 0.1 ppm
- **Melting point/Freezing point:** Not determined.
- **Boiling point or initial boiling point and boiling range** Not determined.
- **Flammability** combustible
- **Explosive properties:** Product is not explosive. However, formation of explosive air/steam mixtures is possible.
- **Lower and upper explosion limit**
- **Lower:** Not determined.
- **Upper:** Not determined.
- **Flash point:** 80–93°C
- **Auto-ignition temperature:** Not determined.
- **Decomposition temperature:** Not determined.
- **pH** Neutral
- **Kinematic viscosity** Not determined.
- **Solubility**
- **Water:** Fully miscible
- **Partition coefficient n-octanol/water (log value)** Not applicable (mixture).
- **Vapour pressure:** Not determined.
- **Density and/or relative density**
- **Density at 20°C:** ~1 g/cm<sup>3</sup>
- **Relative density:** Not determined.
- **Relative gas density** Not determined.
- **Particle characteristics** Not applicable (liquid).

#### · 9.2 Other information

- **Information with regard to physical hazard classes**
- **Corrosive to metals** Void
- **Other safety characteristics**
- **Oxidising properties:** none
- **Additional information**
- **Solids content:** < 2.5 %
- **Solvent content:**
- **Organic solvents:** < 2.5 %
- **Water:** > 95 %

### SECTION 10: Stability and reactivity

- **10.1 Reactivity** Fumes can combine with air to form an explosive mixture.
- **10.2 Chemical stability** Stable at ambient temperature (room temperature).
- **10.3 Possibility of hazardous reactions** No further relevant information available.
- **10.4 Conditions to avoid** strong heating
- **10.5 Incompatible materials:** aluminium
- **10.6 Hazardous decomposition products:** see section 5

### SECTION 11: Toxicological information

- **11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**
- **Acute toxicity** Based on available data, the classification criteria are not met.

#### · LD/LC50 values that are relevant for classification:

CAS: 151-21-3 sodium dodecyl sulphate

Oral	LD50	1200 mg/kg (rat) (OECD 404) ECHA: LD50=1427 mg/kg (rat, male); LD50=977 mg/kg (rat, female) --> 1200 mg/kg bw (male, female)
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Dermal	LD50.	>2000 mg/kg (rat) (OECD 402) (Registrant, ECHA: read across CAS 142-31-4, limit test, no mortality occurred)
Inhalative	LC50/4h	1.5 mg/l (dust) (ATE)
	LC50	>3.9 mg/l/1h (rat) (RTECS)
<b>CAS: 71-36-3 butan-1-ol</b>		
Oral	LD50	790 mg/kg (rat) (RTECS)
Dermal	LD50	3400 mg/kg (rabbit) (OECD 402) (GESTIS)

- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.

- **Serious eye damage/irritation**

Causes serious eye damage.

Risk of corneal clouding.

- **Information on components:**

CAS 71-36-3: chronic: dermatitis

<b>CAS: 151-21-3 sodium dodecyl sulphate</b>		
Irritation of skin	OECD 404	(rabbit: no irritation)
Irritation of eyes	OECD 405	(rabbit: irritation)
<b>CAS: 71-36-3 butan-1-ol</b>		
Irritation of skin	OECD 404	(rabbit: irritation) (Draize Test)
Irritation of eyes	OECD 405	(rabbit: irritation) (OECD 405)

- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.

- **Information on components:**

<b>CAS: 151-21-3 sodium dodecyl sulphate</b>		
Sensitisation	OECD 406	(guinea pig: negative) (EPA OPP 81-6: Guinea pig maximisation test)

- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.

- **Carcinogenicity** Based on available data, the classification criteria are not met.

- **Reproductive toxicity** Based on available data, the classification criteria are not met.

- **Information on components:**

OECD 414: Teratogenicity testing

OECD 473: Mutagenicity testing

OECD 471, 474, 476, 487: Germ cell mutagenicity testing

<b>CAS: 151-21-3 sodium dodecyl sulphate</b>		
OECD 471	(negative) (Bacterial Reverse Mutation Test - Ames test) (Salmonella typhimurium)	
OECD 476	(negative) (In Vitro Mammalian Cell Gene Mutation Test)	
<b>CAS: 71-36-3 butan-1-ol</b>		
OECD 471	(negative) (Bacterial Reverse Mutation Test - Ames test) (Salmonella typhimurium)	
OECD 476	(negative) (In Vitro Mammalian Cell Gene Mutation Test)	

- **STOT (specific target organ toxicity) -single exposure** Based on available data, the classification criteria are not met.

- **STOT (specific target organ toxicity) -repeated exposure** Based on available data, the classification criteria are not met.

- **Aspiration hazard** Based on available data, the classification criteria are not met.

- **Information on likely routes of exposure**

The main intake route for 1-butanol is via the respiratory tract. In the event of liquid contact, there is the possibility of skin absorption, but this is of minor toxicological importance in occupational use. (GESTIS)

- **Additional toxicological information:**

<b>CAS: 71-36-3 butan-1-ol</b>		
.	(source: GESTIS)	
	Main toxic effects:	
	acute: strong irritating effect on the eyes, less so on the skin, irritation of the upper respiratory tract,	
	Disturbance in the central nervous system (narcotic effect)	
	chronic: skin damage (with frequent liquid contact); inflammation and corneal changes due to vapors in the eyes,	
	insufficient information on systemic effects	

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### 11.2 Information on other hazards

• **Endocrine disrupting properties** The product does not contain substances with endocrine disrupting properties.

### • Other information

According to the information available to us, the chemical, physical and toxicological properties of the substances mentioned in Chapter 3 have not been thoroughly investigated.

## SECTION 12: Ecological information

### • 12.1 Toxicity

#### • Aquatic toxicity:

##### **CAS: 151-21-3 sodium dodecyl sulphate**

EC50	6 mg/l/48h (Daphnia magna) (IUCLID)
EC10	3.6 mg/l (fathhead minnow) (28d, OECD 210) (ECHA)
NOEC	1.357 mg/l (fathhead minnow) (42 d) (ECHA)
EC50	53 mg/l/72h (Desmodesmus subspicatus) (DIN 38412) (IUCLID)
LC50	29 mg/l/96h (fathhead minnow) (OECD 203) (ECHA)

##### **CAS: 71-36-3 butan-1-ol**

EC50	1328 mg/l/48h (Daphnia magna) (OECD 202) (Registrant, ECHA)
EC50	225 mg/l/96h (Pseudokirchneriella subcapitata) (OECD 201) (Registrant, ECHA)
NOEC	4.1 mg/l (Daphnia magna) (OECD 211, 21d) (Registrant, ECHA)
LC50	1376 mg/l/96h (fathhead minnow) (OECD 203) (Registrant, ECHA)

#### • Bacterial toxicity:

##### **CAS: 151-21-3 sodium dodecyl sulphate**

EC50	0.46 mg/l (Photobacterium phosphoreum) (30 min) (IUCLID)
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##### **CAS: 71-36-3 butan-1-ol**

EC50	4390 mg/l (Pseudomonas putida) (DIN 38421 Teil 8, 17h) (Registrant, ECHA)
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### • 12.2 Persistence and degradability

The organic portion of the product is biodegradable.

##### **CAS: 151-21-3 sodium dodecyl sulphate**

OECD 301 B	95 % / 28 d (readily biodegradable) (CO2 Evolution Test)
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##### **CAS: 71-36-3 butan-1-ol**

OECD 301 E	98 % / 28 d (readily biodegradable) (Modified OECD Screening Test)
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### • 12.3 Bioaccumulative potential

Pow = n-octanol/wasser partition coefficient

log Pow 1-3 = Not worth-mentioning accumulating in organisms.

##### **CAS: 151-21-3 sodium dodecyl sulphate**

log Pow	1.6 (.) (experimental)
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##### **CAS: 71-36-3 butan-1-ol**

log Pow	1 (.) (OECD 117, 25°C) (Merck)
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• **12.4 Mobility in soil** No further relevant information available.

### • 12.5 Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be persistent, bioaccumulative and toxic (PBT) or very persistent and very bioaccumulative (vPvB), according to the criteria given in Annex XIII of Regulation (EC) No. 1907/2006.

• **12.6 Endocrine disrupting properties** The product does not contain substances with endocrine disrupting properties.

• **12.7 Other adverse effects** Avoid transfer into the environment.

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**· Water hazard:**

Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage system.  
Must not reach sewage water or drainage ditch undiluted or unneutralised.

### SECTION 13: Disposal considerations

**· 13.1 Waste treatment methods**
**· Recommendation**

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.  
Hand over to disposers of hazardous waste.

**· European waste catalogue**

16 05 06*	laboratory chemicals, consisting of or containing hazardous substances, including mixtures of laboratory chemicals
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**· Uncleaned packagings:**
**· Recommendation:** Disposal must be made according to official regulations.

**· Recommended cleaning agent:** Water, if necessary with cleaning agent.

### SECTION 14: Transport information

**· 14.1 UN number or ID number**
**· ADR, IMDG, IATA** Void

**· 14.2 UN proper shipping name**
**· ADR, IMDG, IATA** Void

**· 14.3 Transport hazard class(es)**
**· ADR, IMDG, IATA**
**· Class** Void

**· 14.4 Packing group**
**· ADR, IMDG, IATA** Void

**· 14.5 Environmental hazards:** Not applicable.

**· 14.6 Special precautions for user** Not applicable.

**· 14.7 Maritime transport in bulk according to IMO instruments** Not applicable.

**· Transport/Additional information:** Not dangerous according to the above specifications.

### \* SECTION 15: Regulatory information

**· 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
**· Poisons Act UK**
**· Regulated explosives precursors**

None of the ingredients is listed.

**· Regulated poisons**

None of the ingredients is listed.

**· Reportable explosives precursors**

None of the ingredients is listed.

**· Reportable poisons**

None of the ingredients is listed.

**· Regulation (EU) 2019/1148 on the marketing and use of explosives precursors** not regulated

**· Regulation (EU) No 649/2012 concerning the export and import of hazardous chemicals (PIC)**

None of the ingredients is listed.

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· <b>Regulation (EC) No 1334/2000 setting up a Community regime for the control of exports of dual-use items and technology:</b>
None of the ingredients is listed.
· <b>Regulation (EC) No 273/2004 on drug precursors</b>
None of the ingredients is listed.
· <b>Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors</b>
None of the ingredients is listed.
· <b>Regulation (EC) No 1005/2009 on substances that deplete the ozone layer:</b>
None of the ingredients is listed.
· <b>REGULATION (EU) 2019/1021 on persistent organic pollutants (POP)</b>
None of the ingredients is listed.
· <b>LIST OF SUBSTANCES SUBJECT TO AUTHORISATION (ANNEX XIV)</b>
None of the ingredients is listed.
· <b>Substances of very high concern (SVHC) according to REACH, Article 57</b>
This product does not contain any substances of very high concern above the legal concentration limit of $\geq 0.1\%$ (w / w).
· <b>Substances of very high concern (SVHC) according to UK REACH</b>
This product does not contain any substances of very high concern above the legal concentration limit of $\geq 0.1\%$ (w / w).
· <b>Directive 2012/18/EU (SEVESO III):</b>
· <b>Named dangerous substances - ANNEX I</b> None of the ingredients is listed.
· <b>REGULATION (EC) No 1907/2006 ANNEX XVII</b> Conditions of restriction: 3
· <b>Information about limitation of use:</b> Not required.
· <b>15.2 Chemical safety assessment:</b> A Chemical Safety Assessment has not been carried out.

### \* SECTION 16: Other information

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

This Safety Data Sheet is in compliance with Regulation (EC) No 1907/2006, Article 31 as amended by Regulation (EU) 2020/878.

· **Training hints** Provide adequate information, instruction and training for operators.

· **Relevant phrases**

H226 Flammable liquid and vapour.  
 H228 Flammable solid.  
 H302 Harmful if swallowed.  
 H315 Causes skin irritation.  
 H318 Causes serious eye damage.  
 H332 Harmful if inhaled.  
 H335 May cause respiratory irritation.  
 H336 May cause drowsiness or dizziness.  
 H412 Harmful to aquatic life with long lasting effects.

· **Abbreviations and acronyms:**

OECD: Organisation for Economic Co-operation and Development  
 STOT: specific target organ toxicity  
 SE: single exposure  
 RE: repeated exposure  
 EC50: half maximal effective concentration  
 IC50: half maximal inhibitory concentration  
 NOEL or NOEC: No Observed Effect Level or Concentration  
 ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)  
 RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)  
 IMDG: International Maritime Code for Dangerous Goods  
 IATA: International Air Transport Association  
 GHS: Globally Harmonised System of Classification and Labelling of Chemicals  
 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)  
 DNEL: Derived No-Effect Level (UK REACH)  
 PNEC: Predicted No-Effect Concentration (UK REACH)  
 LC50: Lethal concentration, 50 percent  
 LD50: Lethal dose, 50 percent

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PBT: Persistent, Bioaccumulative and Toxic  
SVHC: Substances of Very High Concern  
vPvB: very Persistent and very Bioaccumulative  
Flam. Liq. 3: Flammable liquids – Category 3  
Flam. Sol. 2: Flammable solids – Category 2  
Acute Tox. 4: Acute toxicity – Category 4  
Skin Irrit. 2: Skin corrosion/irritation – Category 2  
Eye Dam. 1: Serious eye damage/eye irritation – Category 1  
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3  
Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3

**Sources**

Data arise from safety data sheets, reference works and literature.

ECHA: European CHemicals Agency <http://echa.europa.eu>

GESTIS- Stoffdatenbank (Substance Database, Germany)

RTECS (Registry of Toxic Effects of Chemical Substances )

IUCLID (International Uniform Chemical Information Database)

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

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