

# Safety Data Sheet

according to Regulations 1907/2006/EC (REACH) and 2015/830/EU

REF: 931066	VISOCOLOR ECO pH 4.0-9.0	Page: 1/10
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## SECTION 1: Identification of the substance/mixture and of the company

### 1.1 Product identifier

REF 931066  
 no data available VISOCOLOR ECO pH 4.0-9.0  
 REACH Registration number(s): see SECTION 3.1/3.2 or  
 A registration number for the substance(s) does not exist because the annual tonnage does not require registration or the substance or its use is excluded from registration.  
 2 x 24 mL pH-1 UFI: DCEU-93XJ-120C-S47R

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

**Relevant identified uses**  
 Product for analytical use.  
 Exposure Scenario Classification according REACH, RIP 3.2 Codes: SU 0-2, PC 21, PROC 15, AC 0  
 The exposure scenario is integrated into sections 1-16.  
**Uses advised against**  
 not described

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

**Manufactured by:**  
 MACHEREY-NAGEL GmbH & Co. KG  
 Valencienner Str. 11, 52355 Düren, Germany  
 Phone: +49 2421 969 0 E-mail: sds@mn-net.com (msds@mn-net.com)

### 1.4 Emergency telephone number

Outside Germany (DE): Call your regional Poisons Information Service or call local Life Saving Service.  
 DE: Gemeinsames Giftinformationszentrum (GGIZ)  
 99089 Erfurt tel. +49 361 730 730, <<https://www.ggiz-erfurt.de>>

You find our current versions of SDS in Internet:

<<http://www.mn-net.com/SDS>>

*Lieferant / Supplier:*  
 Carl Roth GmbH + Co KG  
 Schoemperlenstr. 3-5  
 76185 Karlsruhe, Germany  
 +49 721 5606 0  
 sicherheit@carlroth.de

## SECTION 2: Hazard identification

### 2.0 Classification of the complete product according to Regulation (EC) 1272/2008



GHS02

Signal word DANGER

Hazard identification	Hazard classes/categories
H225	Flam. Liq. 2

### 2.1 Classification of the substance or mixture according to Regulation (EC) 1272/2008

24 mL pH-1



GHS02

Signal word DANGER

Hazard identification	Hazard classes/categories
H225	Flam. Liq. 2



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List of H phrases: see section 16.2

## 2.2 Label elements according regulation (EC) 1272/2008

According **CLP directive** inner packages must be only labelled with GHS symbol(s) and product identifier(s) (EU 1272/2008 Annex I - 1.5.1.2). Harmful chemicals/mixtures with signal word: **WARNING** and highly flammable chemicals/mixtures must not be labelled with H and P phrases until 125 mL (EU 1272/2008 Annex I - 1.5.2).

24 mL pH-1



GHS02

Signal word: DANGER

### Label elements of the complete product



GHS02

Signal word: DANGER

## 2.3 Other hazards

**Possible hazards from physicochemical properties**  
Flammable properties.

**Information pertaining to particular risks to human and possible symptoms**

**Information pertaining to particular risks to the environment**

**Possible endocrine disrupting effects**  
no data available

## SECTION 3: Composition / information on ingredients

### 3.1 Substances or 3.2 Mixtures

24 mL pH-1

Substance name:	<i>ethanol</i>		
CAS No.:	64-17-5		
	(denatured with 1% 2-butanone / 1% 2-propanol)		
Substance rating:	H225, Flam. Liq. 2		
Formula:	C <sub>2</sub> H <sub>6</sub> O; C <sub>2</sub> H <sub>5</sub> OH		
Pseudonym (de):	Äthylalkohol, vergällter Spiritus		
REACH Reg. No.:	01-2119457610-43-xxxx		
EC No.:	200-578-6	Indice No.:	603-002-00-5
Concentration:	90 - <100 %		
acc. CLP (GHS):	H225, Flam. Liq. 2		
Substance name:	<i>phenolphthalein (pH indicator)</i>		
CAS No.:	77-09-8		
Substance rating:	H341, Muta. 2, H350, Carc. 1B, H361f, Repr. 2		
Formula:	C <sub>20</sub> H <sub>14</sub> O <sub>4</sub>		
Pseudonym (de):	Indikator pH 8,2-9,8		
REACH Reg. No.:	01-2119498295-24-0000		
<b>SVHC listed:</b>	<b>listed (19/12/2011) Cand. Lst. REACH Art59(10) (&gt; 1%)</b>		
EC No.:	201-004-7	Indice No.:	604-076-00-1
Concentration:	0,01 - <0,1 %		
acc. CLP (GHS):	The criteria for classification are not fulfilled.		



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Substance name:	<i>indicator dye(s)</i>
CAS No.:	-
Substance rating:	No criteria for classification or naming of chemical not required.
Concentration:	0,01 - <0,1 %
acc. CLP (GHS):	The criteria for classification are not fulfilled.

### 3.3 Remarks

When not listed, mixtures are added with water [CAS No. 7732-18-5] to 100%. List of H and P phrases: see section 16.2.

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

Place insured person out of danger zone to fresh air immediately. Ensure quiet, warmth, and provide resuscitation if necessary. If necessary contact medical advice.

#### 4.1.1 After SKIN Contact

Remove contaminated clothing. Rinse the affected skin or mucous membrane thoroughly under running water. (If possible) use soap.

#### 4.1.2 After EYE Contact

After contact with the eyes rinse thoroughly under running water with the eyelid wide open with eye washing bottle, eye douche or running water (protect intact eye).

#### 4.1.3 After INHALATION of vapours

After inhalation of foam or vapour fresh air should be inhaled. Keep airways free. ---

#### 4.1.4 After ORAL Intake

After oral intake lots of water should be drunk after it has been ingested.

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

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

No additionally recommendations. ---

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

#### 5.1.1 Suitable extinguishing media

Fire extinguishers appropriate to the fire classification, and, if applicable, a fire blanket must be available in a prominent location in the work area. All extinguishers like FOAM, WATER SPRAY, DRY POWDER, CARBON DIOXIDE can be used. Fire extinguishers appropriate to the fire classification, and, if applicable, a fire blanket must be available in a prominent location in the work area. All extinguishers like FOAM, WATER SPRAY, DRY POWDER, CARBON DIOXIDE can be used.

#### 5.1.2 Unsuitable extinguishing media

no data available

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

DANGER: Highly flammable (GHS regulation). Forms explosive vapour-air mixtures. Formation of hazardous and caustic vapour-air mixtures possible.

### 5.3 Advice for firefighters

Product package burns like paper or plastic.

### 5.4 Additional information

## SECTION 6: Accidental release measures

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

Do not breathe vapours. Regular staff training is necessary.



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- 6.2 Environmental precautions**  
not necessary
- 6.3 Methods and material for containment and cleaning up**  
Bind any escaping liquid with inert absorbent.  
Collect small amounts of leaked liquid and flush with water into drains.
- 6.4 Reference to other sections**

## SECTION 7: Handling and storage

- 7.1 Precautions for safe handling**  
Handling in accordance with the test instruction, that comes with the product.
- 7.2 Conditions for safe storage, including any incompatibilities**  
Safe storage is guaranteed in the original packaging . Storage class (German chemical industry): see chapter 12.1  
Storage class (VCI): 3  
Water hazard class (DE): 2
- 7.2.1 Requirements for stock rooms and containers**  
Keep original product packages tightly closed during handling and storage.
- 7.3 Specific end use(s)**  
Product for analytical use.

## SECTION 8: Exposure controls /personal protection

### 8.1 Control parameters

<b>24 mL pH-1</b>		
Chemical:	<i>ethanol</i>	CAS No.: 64-17-5
DNEL:	[derm] 343 mg/kg; [inh] 950 mg/m <sup>3</sup>	
	<small>DNEL = Derived No-Effect Level (for workers)</small>	
PNEC (fresh water):	0.96 mg/L	
	<small>PNEC = Predicted No Effect Concentration</small>	
TRGS 900 (DE):	200 mL/m <sup>3</sup> / 380 mg/m <sup>3</sup>	
	<small>E/e respirable</small>	
Short-term exposure factor:	4 (II), Y	
	<small>skin resorptive (H), respiratory sensitizable (Sa), skin sensitizable (Sh), teratogenic (Z) not securely excluded / (Y) certainly excluded</small>	
SUVA(CH) MAK value:	500 ppm / 960 mg/m <sup>3</sup>	
NIOSH:	[TWA] 1000 ppm / 1900 mg/m <sup>3</sup>	
	<small>[TWA] Time-weighted average to a reference period of 8 hours, [STEL] Short-term exposure limit related to a 15-minute period</small>	
OSHA:	[TWA] 1000 ppm / 1900 mg/m <sup>3</sup>	
Chemical:	<i>phenolphthalein (pH indicator)</i>	CAS No.: 77-09-8
NIOSH:	not listed, NTP Report on Carcinogens (RoC) List Yes (Reasonably anticipated to be a human carcinogen)	
	<small>[TWA] Time-weighted average to a reference period of 8 hours, [STEL] Short-term exposure limit related to a 15-minute period</small>	
OSHA:	not listed	
Chemical:	<i>indicator dye(s)</i>	CAS No.: -

### 8.2 Exposure controls

Good ventilation and extraction system in the room, floor resistant to chemicals with floor drainage and washing facilities. The highest level of cleanliness must be maintained at the workplace.

- 8.2.1 Respiratory protection**  
No additional recommendations.
- 8.2.2 Skin protection / Hand protection**  
Yes, gloves according EN 374 (permeation time >30 min - level 2), consist of PVC, natural latex, Neopren, or Nitril (f.ex. from Ansell or KCL). Use for short times chemical resistant latex gloves with code EN 374-3 level 1.
- 8.2.3 Eye / Face Protection**  
Yes, safety glasses according EN 166 with integrated side shields or wrap-around protection.



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**8.2.4 Skin protection**

Not necessary.

**8.2.5 Personal hygiene**

Eating, drinking, smoking, taking snuff and storage of food in work areas and at outdoor workplaces is prohibited. Avoid contact with the skin, eyes and clothing. Rinse any clothing on which the substance has been spilled, and soak it in water. Wash hands thoroughly with soap and water when stopping work and before eating, and then apply protective skin cream.

**8.2.6 Thermal hazards**

no data available

**8.3 Limitation and monitoring of environmental exposure**

Do not release product into environment.

## SECTION 9: Physical and chemical properties

**9.1 Information on basic physical and chemical properties**

**24 mL pH-1**

a) State of aggregation:	
b) Colour:	colourless
c) Odor:	red
d) Melting point:	-114 °C
e) Boiling point:	78 °C
f) Flammability:	no data available
g) Explosive limits (lower / upper):	3.5 ...15 Vol%
h) Flash point:	> 12 °C
i) Flashing temperature:	425 °C
j) Decomposition temperature:	no data available
k) pH value:	7
l) Kinematic viscosity:	no data available
m) Solubility in water:	0-100 %
n) Dispersion coefficient (o/w) :	no data available
o) Vapour pressure (20°C):	59 hPa
p) Specific gravity:	0,79-0,86 g/cm <sup>3</sup>
q) Relative vapour density (air=1) :	1,59
r) Particle size:	no data available

**9.2 Other information**

No data is available for the other parameters for the mixtures, since no registration and no chemical safety report is required.

**Properties relevant to substance groups**

Substances are highly volatile and form flammable gas-air mixtures.

## SECTION 10: Stability and reactivity

**10.1 Reactivity**

no further data available.

**10.2 Chemical stability**

no known instability.

**10.3 Possibility of hazardous reactions**

No further data available.

**10.4 Conditions to avoid**

**10.5 Incompatible materials**

no additional data available

**10.6 Hazardous decomposition products**

In the original package all parts/all reagents are safety and separated stored. Decompositions are not observed during the expiration period under recommended conditions.



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## SECTION 11: Toxicological information

### 11.1 Information on the hazard classes according regulation (EC) 1272/2008

Following information is valid for pure substances. Quantitative data on the toxicity of this product are not available.

#### 24 mL pH-1

Chemical: *ethanol* CAS No.: 64-17-5  
 TSCA Inventory: listed California Proposition 65 List: not listed  
 ACGIH: 1000 ppm  
 Exposure Routes: inhalation, ingestion, skin and/or eye contact  
 Target Organs: Eyes, skin, respiratory system, central nervous system, liver, blood, reproductive system  
 Symptoms: irritation eyes, skin, nose; headache, drowsiness, lassitude (weakness, exhaustion), narcosis; cough; liver damage; anemia; reproductive, teratogenic  
 Australia NICNAS: not listed Canada CEPA 1999: DSL yes  
 Japan CSCL/PRTR: not listed, Japan PDSCL: not listed  
 Japan ISHL: listed ≥0,1%/≥0,1%, Article 57-2 (SDS required)  
 South Korea TCCA: not listed  
 Korea Exist.Chem.Inventory: KE-13217  
 LD50 orl rat : 6200 mg/kg  
 LC<sub>10</sub> ihl gpg : 21,900 mg/L  
 LC<sub>10</sub> orl hmn : 1400 mg/kg  
 LC50 ihl mus : 123,4 mg/L/4H  
 LC50 ihl rat : 115,9-133,8 mg/L/4H  
 LD50 orl mus : 3450 mg/kg  
 TRGS 905 (DE): K5, M5, R F C

Chemical: *phenolphthalein (pH indicator)* CAS No.: 77-09-8  
 TSCA Inventory: listed California Proposition 65 List: listed, cancer  
 Australia NICNAS: not listed Canada CEPA 1999: DSL yes  
 Japan CSCL/PRTR: PRTR - Class II Designated Chemical Substance, Japan PDSCL: not listed  
 Japan ISHL: not listed  
 South Korea TCCA: not listed  
 Korea Exist.Chem.Inventory: KE-03234  
 LD50 orl rat : > 1000 mg/kg

EU carcinogen: Carcinogenicity cat. 2, Germ Cell Mutagenicity cat. 3, >5% Reproductive Toxicity cat. 3  
 TRGS 905 (DE): Karzinogenität Kat. 2

Chemical: *indicator dye(s)* CAS No.: -  
 TSCA Inventory: all listed, <1%

### 11.2 Other hazards

**Possible endocrine disrupting effects**  
 no data available

**Other information**  
 no additional data available

## SECTION 12: Ecological information

### 12.1 Toxicity

Following information is valid for pure substances.

#### 24 mL pH-1

Chemical: *ethanol* CAS No.: 64-17-5  
 PNEC (fresh water) : 0.96 mg/L  
 PNEC = Predicted No Effect Concentration  
 LC50 daphnia magna/48h : >100 mg/L  
 LC50 pimephales promelas/96h : 13400 - 15100 mg/L  
 LC50 leuciscus idus/96h : [48h] 8140 mg/L  
 LC50 fish/96h : 13 g/L  
 EC50 daphnia/48h : 9.3-14.2 g/L  
 IC50 scenedesmus quadricauda/72h : [7d] 5000 mg/L  
 EC10 pseudomonas putita/16h : [EC5] 6500 mg/L  
 Water hazard class (DE): 1 WGK No.: 0096  
 Dispersion coefficient (o/w) : -0,31



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Storage class (VCI): 3

Chemical: *phenolphthalein (pH indicator)*

CAS No.: 77-09-8

Water hazard class (DE): 1

Dispersion coefficient (o/w): 0,9

Storage class (VCI): 12-13

Chemical: *indicator dye(s)*

CAS No.: -

Storage class (VCI): 12-13

## 12.2 Persistence and degradability

not necessary

## 12.3 Bioaccumulative potential

not necessary

## 12.4 Mobility in soil

not necessary

## 12.5 Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT) or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher

## 12.6 Endocrine disrupting properties

no data available

## 12.7 Other adverse effects

no additional data available

## SECTION 13: Disposal considerations

Please observe local regulations for collection and disposal of hazardous waste and contact waste disposal company, where you will obtain information on laboratory waste disposal (waste code number 16 05 06).

### 13.1 Waste treatment methods

Normally it is possible to empty small amounts (diluted!) into drains.

## SECTION 14: Transport information

14.1. UN number: 3316

14.2. UN proper shipping name: Chemical Kit

14.3. Class: 9 14.4. Packing group: II

Road transport ADR

Classification code: M11 Tunnel restriction code: E

Limited Quantity: acc. ADR 3.3.1/251: see LQ in Alternative declaration for transportation

Air transport ICAO

PAX: 960 max. weight PAX: 10 KG

CAO: 960 max. weight CAO: 10 KG

Maritime transport IMDG

EmS: F-A, S-P Storage category: A

Or use **Alternative declaration for transportation:**UN 1993 class 3 II, **Excepted Quantities** ( $\leq 30$  mL/ $\sum \leq 500$  mL) = ADR/ IATA E2

or

14.1 UN number: 1993 14.2 UN proper shipping name: Flammable liquid, n.o.s. (ethanol mixture)

14.3 Class: 3 14.4 Packing group: II

Road transport ADR

Classification code: F1 Tunnel restriction code: E

Limited Quantity: 1 L Special instructions: 640C

Excepted Quantity: E 2

Air transport ICAO

Limited Quantity: LQ 4

Excepted Quantity: E 2

PAX: 353 max. weight PAX: 5 L

CAO: 364 max. weight CAO: 60 L

Maritime transport IMDG

EmS: F-E, S-E Storage category: B



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## 14.5 Environmental hazards

none, contains only small quantities of hazardous substances

## 14.6 Special precautions for user

not necessary

## 14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code

Not applicable.

## SECTION 15: Regulatory information

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

Dangerous Substances Protection Act (DE: Chemikaliengesetz - ChemG), Aug 2013, Stand: Okt 2020  
 Ordinance on protection against dangerous substances (E: Gefahrstoffverordnung - GefStoffV), Nov 2010, Stand: Mrz 2017  
 TRGS 201, Classification and labeling of activities involving hazardous substances, Feb 2017  
 TRGS 220, National aspects when preparing safety data sheets, Jan 2017  
 TRGS 400, Risk assessment for activities involving hazardous substances, Jul 2017  
 BekGS 408, Application of the GefStoffV and the TRGS with the entry into force of the CLP regulation, December 2009, status: Jan 2012  
 MN leaflet/instructions for use, also at [www.mn-net.com](http://www.mn-net.com)  
 If necessary, observe other country-specific regulations.

### 15.2 Chemical safety assessment

not necessary for these small amounts

## SECTION 16: Other information

### 16.1 Changes compared to the last version

in preparation

### 16.2 List of H and P phrases

#### 16.2.1 List of relevant H phrases

H225 Highly flammable liquid and vapour.

#### 16.2.2 List of relevant P phrases

### 16.3 Recommended restriction on use

Only for professional user.

An individual package of this product or test kit has a moderate hazardous potential.

### 16.4 Sources of key data

KÜHN, BIRETT leaflets on dangerous working materials  
 Directive 1999/92/EG Minimum requirements to improve the safety and health protection of workers at risk from potentially explosive atmospheres  
 SUVA .CH, limit values in the air at work 2009, revised on 01/2009  
 Regulation 790/2009/EU Adaptation of the CLP Regulation 1272/2008/EU to technical and scientific progress  
 Regulation 453/2010/EU REACH – REQUIREMENTS FOR THE PREPARATION OF SAFETY DATA SHEET  
 Regulation 487/2013/EU, 4. Adaptation of the CLP regulation to technical and scientific progress  
 Regulation 669/2018/EU, 4. Adaptation of the CLP regulation to technical and scientific progress  
 Regulation 1480/2018/EU, 4. Adaptation of the CLP regulation to technical and scientific progress  
 TRGS 900, German engineering rules on limit values in the air at work, as of 03/2019  
 Regulation 878/2020/EU  
 Regulation 849/2021/EU, 4. Adaptation of the CLP regulation to technical and scientific progress

#### Revisions/Updates

Reason for revision: 2014-02 Corrected structure of the sections according to Regulation 453/2010/EU, if necessary  
 2014-04 Adjustment of Regulation 487/2013/EU  
 2016-03 Adjustment of Regulation 1221/2015/EU  
 2017-08 Adaptation of the new ethanol denaturation 2016/1867/EU  
 2017-11 adaptation of the ECHA registration dossier  
 2022-11 Adjustment of Regulation 878/2020/EU



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## 16.5 Further information

MACHEREY-NAGEL GmbH & Co. KG provides the information contained herein in good faith being up-to-date of own realizations at revision time. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgement in determining its appropriateness for a particular purpose.

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## 16.6 Legend / Abbreviations

acc:	according
ADR:	Convention concerning the International Carriage of Dangerous Goods by Road
Act:	acute
BAT:	biological workplace tolerance value
CAO:	Cargo Aircraft Only
Carc:	carcinogen
CAS:	Chemical Abstracts Service
CLP:	Classification, Labelling and Packaging regulation
CMR:	carcinogen, mutagen, reproduction toxic
Corr:	corrosive
COD:	chemical oxygen demand
CSCL:	Chemical Substance Control Law (Jp)
Dam:	damage
DNEL:	Derived No-Effect Level (for workers)
derm:	dermal
dog:	dog
EC10:	Concentration causing a toxic effect in 10% of the test organisms
EC:	European Community
EC-Nr:	Substance number of the EC substance inventory
EmS:	Guide to accident management measures on ships
EU:	European Union
fish:	fish (not specified)
GHS:	Global Harmonized System of Classification and Labeling of Chemicals
gpg:	guinea pig
ICAO:	International Civil Aviation Organization
ihl:	inhaled
IMDG:	International Maritime Dangerous Goods Code
intrav:	intravenous
ipt:	intraperitoneal
ISHL:	Industrial Safety and Health Law (Jp)
LC50:	letale concentration 50%
LD50:	letale dosis 50%
leuciscus idus:	fisch, ide, orfe
MAK:	maximum workplace concentration
Met:	Metall
mus:	mouse
Muta:	mutagen
NIOSH:	National Institute for Occupational Safety and Health (US)
NRD:	Non-rapidly degradable
onchorhynchus mykiss:	fisch, rainbow trout
orl:	oral
OSHA:	Occupational Safety and Health Administration
PAX:	transport on passenger planes allowed
PBT:	persistent, bioaccumulating, toxic substance
pH:	pH value
pimephales promelas:	fisch, fathead minnow
PNEC:	Predicted No Effect Concentration
PROC 15:	Process category 'for laboratory use'
PRTR:	Law for PRTR and Promotion of Chemical Management (Jp)
PVC:	polyvinyl chloride
quail:	bird, quail
rat:	rat
rbt:	rabbit
RD:	rapidly degradable
RE:	repeated
REACH:	Registration, Evaluation, Authorisation and Restriction of Chemicals
REF:	item number, reference number
Reg.No.:	rRegistration number



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# Safety Data Sheet

according to Regulations 1907/2006/EC (REACH) and 2015/830/EU

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- Repr: harmful to reproduction
- Resp: respiratory
- RIP: REACH Implementations Projects
- scu: sub cutan
- SDS: safety data sheet
- Sens: sensitisation
- STEL: short term exposure limit
- STOT: Specific Target Organ Toxicity
- SVHC: Substance of Very High Concern
- t/a: tons per year
- TCCA: Toxic Chemicals Control Act (S. Korea)
- Tox: toxic
- TSCA: The Toxic Substances Control Act (US)
- TWA: time weighted average
- TRGS: technical regulations (DE)
- vPvB: very persistent, very bioaccumulating substance

## 16.7 Training advice

Regular safety training. Multiple safety training of staffs about danger and protection by using hazards in working area. Additionally training and introduction of staffs for using these products.



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