

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

## Reagenz A zur photometrischen Ammonium-Stickstoff-Bestimmung

Revision date: 07.01.2025

Product code: 32692

Page 1 of 12

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

**1.1. Product identifier**

Reagenz A zur photometrischen Ammonium-Stickstoff-Bestimmung

UFI: TSHW-S2M0-F00R-6G0C

**1.2. Relevant identified uses of the substance or mixture and uses advised against****Use of the substance/mixture**

Laboratory chemicals

Industrial uses: Uses of substances as such or in preparations at industrial sites

Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

**Uses advised against**

Do not use for private purposes (household).

**1.3. Details of the supplier of the safety data sheet**

Company name:	AnalytiChem GmbH	
	ACD	
Street:	Stempelstraße 6	
Place:	D-47167 Duisburg	
Telephone:	0203/5194-0	Telefax: 0203/5194-290
E-mail:	info@analytichem.de	
Contact person:	Abteilung Produktsicherheit	Telephone: 0203/5194-107/117
E-mail:	produktsicherheit@analytichem.de	
Internet:	www.analytichem.de	
Responsible Department:	Abteilung Produktsicherheit	

**1.4. Emergency telephone number:**

For Hazardous Materials [or Dangerous Goods] Incidents Spill, Leak, Fire, Exposure, or Accident Call CHEMTREC Day or Night Within USA and Canada: 1-800-424-9300 Outside USA and Canada: +1 703-741-5970 (collect calls accepted)

**Further Information**

This product is a mixture. REACH Registration Number see section 3.

## SECTION 2: Hazards identification

**2.1. Classification of the substance or mixture****Regulation (EC) No 1272/2008**

Met. Corr. 1; H290

Skin Corr. 1B; H314

Eye Dam. 1; H318

Aquatic Chronic 3; H412

Full text of hazard statements: see SECTION 16.

**2.2. Label elements****Regulation (EC) No 1272/2008****Hazard components for labelling**

sodium hydroxide

**Signal word:** Danger**Pictograms:**

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**Reagenz A zur photometrischen Ammonium-Stickstoff-Bestimmung**

Revision date: 07.01.2025

Product code: 32692

Page 2 of 12

**Hazard statements**

- H290 May be corrosive to metals.  
H314 Causes severe skin burns and eye damage.  
H412 Harmful to aquatic life with long lasting effects.

**Precautionary statements**

- P260 Do not breathe dust/fume/gas/mist/vapours/spray.  
P280 Wear protective gloves/protective clothing and eye protection/face protection.  
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.  
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 POISON CENTER/doctor.

**2.3. Other hazards**

No information available.

**SECTION 3: Composition/information on ingredients**

**3.2. Mixtures**

**Chemical characterization**

Mixtures in aqueous solution

**Relevant ingredients**

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification (Regulation (EC) No 1272/2008)			
1310-73-2	sodium hydroxide			1 - < 5 %
	215-185-5	011-002-00-6	01-2119457892-27	
	Met. Corr. 1, Skin Corr. 1A; H290 H314			
7681-52-9	sodium hypochlorite, solution			< 1 %
	231-668-3	017-011-00-1	01-2119488154-34	
	Met. Corr. 1, Skin Corr. 1B, Eye Dam. 1, STOT SE 3, Aquatic Acute 1, Aquatic Chronic 1; H290 H314 H318 H335 H400 H410 EUH031			

Full text of H and EUH statements: see section 16.

**Specific Conc. Limits, M-factors and ATE**

CAS No	EC No	Chemical name	Quantity
		Specific Conc. Limits, M-factors and ATE	
1310-73-2	215-185-5	sodium hydroxide	1 - < 5 %
		Skin Corr. 1A; H314: >= 5 - 100 Skin Corr. 1B; H314: >= 2 - < 5 Skin Irrit. 2; H315: >= 0,5 - < 2 Eye Irrit. 2; H319: >= 0,5 - < 2	
7681-52-9	231-668-3	sodium hypochlorite, solution	< 1 %
		inhalation: LC50 = > 10,5 mg/l (vapours); dermal: LD50 = > 20000 mg/kg; oral: LD50 = 1100 mg/kg Aquatic Acute 1; H400: M=10 Aquatic Chronic 1; H410: M=1 EUH; EUH031: >= 5 - 100	

**Further Information**

This product does not contain substances of very high concern according to Regulation (EC) No 1907/2006 (REACH), Article 57 above the respective regulatory concentration limit of = 0.1 % (w/w).

**SECTION 4: First aid measures**

**4.1. Description of first aid measures**

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Reagenz A zur photometrischen Ammonium-Stickstoff-Bestimmung

Revision date: 07.01.2025

Product code: 32692

Page 3 of 12

#### General information

First aider: Pay attention to self-protection!

#### After inhalation

Provide fresh air.

Call a physician immediately.

#### After contact with skin

Wash immediately with: Water

Take off immediately all contaminated clothing and wash it before reuse.

Call a physician immediately.

#### After contact with eyes

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist.

Remove contact lenses, if present and easy to do. Continue rinsing.

#### After ingestion

Rinse mouth immediately and drink plenty of water.

Call a physician immediately.

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

Skin corrosion/irritation

Dyspnoea

Cough

Circulatory collapse

Risk of serious damage to eyes.

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

No data available

## SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

##### Suitable extinguishing media

Co-ordinate fire-fighting measures to the fire surroundings.

##### Unsuitable extinguishing media

no restriction

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

Non-combustible liquids

#### 5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus.

Avoid contact with skin, eyes and clothes.

#### Additional information

Suppress gases/vapours/mists with water spray jet.

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

## SECTION 6: Accidental release measures

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

##### General advice

Corrosive to metals.

##### For non-emergency personnel

Provide adequate ventilation.

Use personal protection equipment.

Avoid contact with skin, eyes and clothes.

Remove persons to safety.

Emergency procedures

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Reagenz A zur photometrischen Ammonium-Stickstoff-Bestimmung

Revision date: 07.01.2025

Product code: 32692

Page 4 of 12

Consult an expert

Do not breathe dust/fume/gas/mist/vapours/spray.

#### For emergency responders

Precautionary statements For emergency responders : Personal protection equipment: see section 8

#### 6.2. Environmental precautions

Do not allow to enter into surface water or drains.

#### 6.3. Methods and material for containment and cleaning up

##### For containment

Cover drains.

Prevent spread over a wide area (e.g. by containment or oil barriers).

Collect in closed and suitable containers for disposal.

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents).

##### For cleaning up

Clean contaminated articles and floor according to the environmental legislation.

##### Other information

Provide adequate ventilation.

Do not breathe dust/fume/gas/mist/vapours/spray.

Wear breathing apparatus if exposed to vapours/dusts/aerosols.

#### 6.4. Reference to other sections

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

## SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

##### Advice on safe handling

Do not breathe vapour/aerosol.

Read label before use.

##### Advice on protection against fire and explosion

No special fire protection measures are necessary.

##### Advice on general occupational hygiene

Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme.

Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat or drink.

##### Further information on handling

Take off immediately all contaminated clothing and wash it before reuse.

If handled uncovered, arrangements with local exhaust ventilation have to be used.

Draw up and observe skin protection programme. Wash hands before breaks and after work.

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

##### Requirements for storage rooms and vessels

Provide adequate ventilation as well as local exhaust at critical locations.

Unsuitable container/equipment material:

Metal

Aluminium

Tin

Zinc

##### Hints on joint storage

national regulations

##### Further information on storage conditions

Keep container tightly closed.

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**Reagenz A zur photometrischen Ammonium-Stickstoff-Bestimmung**

Revision date: 07.01.2025

Product code: 32692

Page 5 of 12

Protect against: Light, Heat

**7.3. Specific end use(s)**

Laboratory chemicals

**SECTION 8: Exposure controls/personal protection**

**8.1. Control parameters**

**Occupational exposure limits**

CAS No	Substance	ppm	mg/m <sup>3</sup>	fib/cm <sup>3</sup>	Category	Origin
1310-73-2	Sodium hydroxide	-	2		STEL (15 min)	

**DNEL/DMEL values**

CAS No	Substance	Exposure route	Effect	Value
1310-73-2	sodium hydroxide			
Worker DNEL, long-term		inhalation	local	1 mg/m <sup>3</sup>
Consumer DNEL, long-term		inhalation	local	1 mg/m <sup>3</sup>
7681-52-9	sodium hypochlorite, solution			
Worker DNEL, long-term		inhalation	systemic	1,55 mg/m <sup>3</sup>
Worker DNEL, acute		inhalation	systemic	3,1 mg/m <sup>3</sup>
Worker DNEL, long-term		inhalation	local	1,55 mg/m <sup>3</sup>
Worker DNEL, acute		inhalation	local	3,1 mg/m <sup>3</sup>
Worker DNEL, long-term		dermal	local	0,5 %
Consumer DNEL, long-term		inhalation	systemic	1,55 mg/m <sup>3</sup>
Consumer DNEL, acute		inhalation	systemic	3,1 mg/m <sup>3</sup>
Consumer DNEL, long-term		inhalation	local	1,55 mg/m <sup>3</sup>
Consumer DNEL, acute		inhalation	local	3,1 mg/m <sup>3</sup>
Consumer DNEL, long-term		dermal	local	0,5 %
Consumer DNEL, long-term		oral	systemic	0,26 mg/kg bw/day

**PNEC values**

CAS No	Substance	Value
7681-52-9	sodium hypochlorite, solution	
Freshwater		0,00021 mg/l
Freshwater (intermittent releases)		0,00026 mg/l
Marine water		0,000042 mg/l
Secondary poisoning		11,1 mg/kg
Micro-organisms in sewage treatment plants (STP)		4,69 mg/l

**8.2. Exposure controls**

**Appropriate engineering controls**

Technical measures and the application of suitable work processes have priority over personal protection equipment.

If handled uncovered, arrangements with local exhaust ventilation have to be used.

Do not breathe vapour/aerosol.

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**Reagenz A zur photometrischen Ammonium-Stickstoff-Bestimmung**

Revision date: 07.01.2025

Product code: 32692

Page 6 of 12

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

**Eye/face protection**

Suitable eye protection: goggles.

**Hand protection**

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

Protective gloves are recommended Company KCL GmbH, D-36124 Eichenzell, email: [vertrieb@kcl.de](mailto:vertrieb@kcl.de) With specification (test according to EN374):

By long-term hand contact

Trade name/designation: KCL 741 Dermatril® L  
Recommended material: NBR (Nitrile rubber) 0,11 mm  
Wearing time with permanent contact: > 480 min

By short-term hand contact

Trade name/designation: KCL 741 Dermatril® L  
Recommended material: NBR (Nitrile rubber) 0,11 mm  
Wearing time with occasional contact (splashes): > 480 min

The breakthrough times stated above were determined by KCL in laboratory tests acc. to EN374 with samples of the recommended glove types. This recommendation applies only to the product stated in the safety data sheet (>,<) supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: [www.kcl.de](http://www.kcl.de)).

**Skin protection**

Wear suitable protective clothing.

**Respiratory protection**

Respiratory protection necessary at: aerosol or mist formation  
The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.

**Environmental exposure controls**

Do not allow to enter into surface water or drains.

**SECTION 9: Physical and chemical properties**

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

Physical state:	Liquid	
Colour:	colourless	
Odour:	characteristic	
Melting point/freezing point:		No data available
Boiling point or initial boiling point and boiling range:		No data available
Flammability:		not applicable
Lower explosion limits:		No data available
Upper explosion limits:		No data available
Flash point:		X
Auto-ignition temperature:		No data available
Decomposition temperature:		No data available

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Reagenz A zur photometrischen Ammonium-Stickstoff-Bestimmung

Revision date: 07.01.2025

Product code: 32692

Page 7 of 12

pH-Value:	alkaline
Viscosity / kinematic:	No data available
Water solubility:	very soluble
Solubility in other solvents not determined	
Partition coefficient n-octanol/water:	No data available
Vapour pressure:	No data available
Vapour pressure:	No data available
Density (at 20 °C):	1,0836 g/cm <sup>3</sup>
Bulk density:	No data available
Relative vapour density:	No data available

#### 9.2. Other information

##### Information with regard to physical hazard classes

Sustaining combustion:	No data available
Self-ignition temperature	
Solid:	not applicable
Gas:	not applicable
Oxidizing properties Not oxidising.	

##### Other safety characteristics

Evaporation rate:	No data available
Solvent separation test:	No data available
Solvent content:	No data available
Solid content:	No data available
Sublimation point:	No data available
Softening point:	No data available
Pour point:	No data available
Viscosity / dynamic:	No data available
Flow time:	No data available

##### Further Information

Corrosive to metals.

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Corrosive to metals.

### 10.2. Chemical stability

Protect against: Light, Heat

### 10.3. Possibility of hazardous reactions

Metal, Light metal (Formation of: Hydrogen)  
Phenols  
Combustible substance  
Alkaline earth metal (Metal powder)  
Acids, Nitriles

### 10.4. Conditions to avoid

Light, Heat

### 10.5. Incompatible materials

Aluminium, Brass, Glass  
Tin, Zinc, Aluminium  
plastic

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**Reagenz A zur photometrischen Ammonium-Stickstoff-Bestimmung**

Revision date: 07.01.2025

Product code: 32692

Page 8 of 12

**10.6. Hazardous decomposition products**

No known hazardous decomposition products.

**Further information**

No data available

**SECTION 11: Toxicological information**

**11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008**

**Toxicokinetics, metabolism and distribution**

There are no data available on the preparation/mixture itself.

**Acute toxicity**

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

If swallowed danger of perforation of the esophagus and the stomach (strong corrosive effects).

Mucous membrane irritation in the mouth, throat, esophagus and gastrointestinal tract.

**ATEmix calculated**

ATE (oral) > 2000 mg/kg; ATE (dermal) > 2000 mg/kg; ATE (inhalation vapour) > 20 mg/l; ATE (inhalation dust/mist) > 5 mg/l

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
7681-52-9	sodium hypochlorite, solution				
	oral	LD50 mg/kg 1100	Rat	Study report (1981)	OECD Guideline 401
	dermal	LD50 mg/kg > 20000	Rabbit	Study report (1978)	OECD Guideline 402
	inhalation (1 h) vapour	LC50 mg/l > 10,5	Rat	Study report (1962)	OECD Guideline 403

**Irritation and corrosivity**

Skin corrosion/irritation: Causes severe skin burns and eye damage.

Serious eye damage/eye irritation: Causes serious eye damage.

Risk of serious damage to eyes.

**Sensitising effects**

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

**Carcinogenic/mutagenic/toxic effects for reproduction**

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.

**STOT-single exposure**

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

**STOT-repeated exposure**

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

**Aspiration hazard**

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

**Specific effects in experiment on an animal**

There are no data available on the preparation/mixture itself.

**Additional information on tests**

There are no data available on the preparation/mixture itself.

**Practical experience**

There are no data available on the preparation/mixture itself.

**11.2. Information on other hazards**



**Reagenz A zur photometrischen Ammonium-Stickstoff-Bestimmung**

Revision date: 07.01.2025

Product code: 32692

Page 9 of 12

**Other information**

There are no data available on the preparation/mixture itself.

**Further information**

Skin corrosion/irritation  
Dyspnoea  
Cough  
Circulatory collapse  
Risk of serious damage to eyes.

**SECTION 12: Ecological information**

**12.1. Toxicity**

Harmful to aquatic life with long lasting effects.

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h]   [d]	Species	Source	Method
1310-73-2	sodium hydroxide					
	Acute crustacea toxicity	EC50 mg/l	40,4	48 h	Ceriodaphnia sp.	Ecotoxicology and Environmental Safety,4 other: acute 48-h immobilization test ac
7681-52-9	sodium hypochlorite, solution					
	Acute fish toxicity	LC50 mg/l	0,05	96 h	different fish species	Publication (1978) Public available literature. No guidelin
	Acute algae toxicity	ErC50 mg/l	0,036	72 h	Pseudokirchneriella subcapitata	Study report (2013) OECD Guideline 201
	Acute crustacea toxicity	EC50 mg/l	0,141	48 h	Daphnia magna	Study report (2009) OECD Guideline 202
	Fish toxicity	NOEC mg/l	0,062	15 d	Brevoortia tyrannus	Publication (1980) Organisms were exposed to cooling waters
	Crustacea toxicity	NOEC mg/l	0,015	21 d	V. iris	Environmental Toxicology and Chemistry, 21 d long-term toxicity to mussel test.
	Acute bacteria toxicity	EC50 ( )	563 mg/l	3 h	activated sludge of a predominantly domestic sewage	Study report (2013) OECD Guideline 209

**12.2. Persistence and degradability**

There are no data available on the preparation/mixture itself.

**12.3. Bioaccumulative potential**

There are no data available on the preparation/mixture itself.

**Partition coefficient n-octanol/water**

CAS No	Chemical name	Log Pow
7681-52-9	sodium hypochlorite, solution	-3,42

**12.4. Mobility in soil**

There are no data available on the preparation/mixture itself.

**12.5. Results of PBT and vPvB assessment**

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

**12.6. Endocrine disrupting properties**

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

**12.7. Other adverse effects**

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

**Reagenz A zur photometrischen Ammonium-Stickstoff-Bestimmung**

Revision date: 07.01.2025

Product code: 32692

Page 10 of 12

There are no data available on the preparation/mixture itself.

**Further information**

Do not allow to enter into surface water or drains.  
Harmful effect due to pH shift.

**SECTION 13: Disposal considerations****13.1. Waste treatment methods****Disposal recommendations**

Waste disposal according to directive 2008/98/EC, covering waste and dangerous waste.  
Do not empty into drains.  
Handle contaminated packages in the same way as the substance itself.

**Contaminated packaging**

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

**SECTION 14: Transport information****Land transport (ADR/RID)**

<b>14.1. UN number or ID number:</b>	UN 1824
<b>14.2. UN proper shipping name:</b>	SODIUM HYDROXIDE SOLUTION
<b>14.3. Transport hazard class(es):</b>	8
<b>14.4. Packing group:</b>	II
Hazard label:	8
Classification code:	C5
Limited quantity:	1 L
Excepted quantity:	E2
Transport category:	2
Hazard No:	80
Tunnel restriction code:	E

**Inland waterways transport (ADN)**

<b>14.1. UN number or ID number:</b>	UN 1824
<b>14.2. UN proper shipping name:</b>	SODIUM HYDROXIDE SOLUTION
<b>14.3. Transport hazard class(es):</b>	8
<b>14.4. Packing group:</b>	II
Hazard label:	8
Classification code:	C5
Limited quantity:	1 L
Excepted quantity:	E2

**Marine transport (IMDG)**

<b>14.1. UN number or ID number:</b>	UN 1824
<b>14.2. UN proper shipping name:</b>	SODIUM HYDROXIDE SOLUTION
<b>14.3. Transport hazard class(es):</b>	8
<b>14.4. Packing group:</b>	II
Hazard label:	8
Special Provisions:	-
Limited quantity:	1 L
Excepted quantity:	E2
EmS:	F-A, S-B
Segregation group:	alkalis

**Air transport (ICAO-TI/IATA-DGR)**

<b>14.1. UN number or ID number:</b>	UN 1824
<b>14.2. UN proper shipping name:</b>	SODIUM HYDROXIDE SOLUTION

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**Reagenz A zur photometrischen Ammonium-Stickstoff-Bestimmung**

Revision date: 07.01.2025

Product code: 32692

Page 11 of 12

<b>14.3. Transport hazard class(es):</b>	8	
<b>14.4. Packing group:</b>	II	
Hazard label:	8	
Special Provisions:	A3 A803	
Limited quantity Passenger:	0.5 L	
Passenger LQ:	Y840	
Excepted quantity:	E2	
IATA-packing instructions - Passenger:		851
IATA-max. quantity - Passenger:		1 L
IATA-packing instructions - Cargo:		855
IATA-max. quantity - Cargo:		30 L

**14.5. Environmental hazards**

ENVIRONMENTALLY HAZARDOUS: No

**14.6. Special precautions for user**

Warning: strongly corrosive.

**14.7. Maritime transport in bulk according to IMO instruments**

not applicable

**SECTION 15: Regulatory information**

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

**EU regulatory information**

Restrictions on use (REACH, annex XVII):

Entry 3, Entry 75

Information according to Directive 2012/18/EU (SEVESO III): Not subject to 2012/18/EU (SEVESO III)

**National regulatory information**

Employment restrictions: Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC). Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.

Water hazard class (D): 1 - slightly hazardous to water

**SECTION 16: Other information**

**Changes**

This data sheet contains changes from the previous version in section(s): 1.

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**Reagenz A zur photometrischen Ammonium-Stickstoff-Bestimmung**

Revision date: 07.01.2025

Product code: 32692

Page 12 of 12

**Abbreviations and acronyms**

Met. Corr: Substance or mixture corrosive to metals  
 Skin Corr: Skin corrosion  
 Eye Dam: Eye damage  
 STOT SE: Specific target organ toxicity - single exposure  
 Aquatic Acute: Acute aquatic hazard  
 Aquatic Chronic: Chronic aquatic hazard  
 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  
 IATA: International Air Transport Association  
 GHS: Globally Harmonized 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  
 LC50: Lethal concentration, 50%  
 LD50: Lethal dose, 50%

**Classification for mixtures and used evaluation method according to Regulation (EC) No 1272/2008 [CLP]**

Classification	Classification procedure
Met. Corr. 1; H290	On basis of test data
Skin Corr. 1B; H314	Calculation method
Eye Dam. 1; H318	Calculation method
Aquatic Chronic 3; H412	Calculation method

**Relevant H and EUH statements (number and full text)**

H290 May be corrosive to metals.  
 H314 Causes severe skin burns and eye damage.  
 H318 Causes serious eye damage.  
 H335 May cause respiratory irritation.  
 H400 Very toxic to aquatic life.  
 H410 Very toxic to aquatic life with long lasting effects.  
 H412 Harmful to aquatic life with long lasting effects.  
 EUH031 Contact with acids liberates toxic gas.

**Further Information**

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

Provide appropriate information, instructions and training to users

*(The data for the relevant ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)*