

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**204059 Total Inorganic Nitrogen Base Concentrate**

Revision date: 02.07.2015

Product code: 204059

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**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier**

204059 Total Inorganic Nitrogen Base Concentrate

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

Water analysis

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

Company name: HACH LANGE GmbH  
Street: Willstätterstr. 11  
Place: D-40549 Düsseldorf  
Telephone: +49 (0)211 5288-383  
e-mail: SDS@hach.com  
Internet: www.de.hach.com  
Responsible Department: HACH LANGE Ltd.  
5, Pacific Way  
Salford Manchester M50 1DL - United Kingdom  
Tel. +44 (0) 161 872 1487 \* Fax +44 (0) 161 848 7324  
e-Mail: info-uk@hach.com

HACH LANGE Ltd.  
Unit 1, Chestnut Road Western Industrial Estate  
IRL-Dublin 12  
Tel. +353 (0)1 4602522  
e-Mail: info-ie@hach.com

**1.4. Emergency telephone number:**

Poison Control Center Mainz: Tel: +49 (0) 6131 19240 - 24 hour emergency service -

**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture****Regulation (EC) No. 1272/2008**

Hazard categories:

Substance or mixture corrosive to metals: Met. Corr. 1

Skin corrosion/irritation: Skin Corr. 1A

Serious eye damage/eye irritation: Eye Dam. 1

Hazard Statements:

May be corrosive to metals.

Causes severe skin burns and eye damage.

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

sodium hydroxide; caustic soda

**Signal word:** Danger**Pictograms:****Hazard statements**

H290

May be corrosive to metals.

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H314 Causes severe skin burns and eye damage.

#### Precautionary statements

P234 Keep only in original packaging.  
 P260 Do not breathe dust/fume/gas/mist/vapours/spray.  
 P280 Wear protective gloves/protective clothing/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.  
 P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
 P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.  
 P310 Immediately call a POISON CENTER/doctor.

#### Additional advice on labelling

Classification according to EU Directives 67/548/EEC or 1999/45/EC

The product is classified as dangerous in accordance with Regulation (EC) No. 1272/2008.

#### 2.3. Other hazards

no data available

### SECTION 3: Composition/information on ingredients

#### 3.2. Mixtures

##### Hazardous components

CAS No	Chemical name	Quantity
	EC No	
	Index No	
	REACH No	
	Classification according to Regulation (EC) No. 1272/2008 [CLP]	
7732-18-5	Water	80-90 %
	231-791-2	
1310-73-2	sodium hydroxide; caustic soda	10-20 %
	215-185-5	
	011-002-00-6	
	Skin Corr. 1A; H314	

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

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

##### General information

Take off all contaminated clothing immediately.  
 Show this safety data sheet to the doctor in attendance.

##### After inhalation

Move to fresh air. Consult a physician. In the case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

##### After contact with skin

Wash off immediately with plenty of water for at least 15 minutes. Consult a physician. Take off all contaminated clothing immediately.  
 Show this safety data sheet to the doctor in attendance.

##### After contact with eyes

Rinse immediately with plenty of water for at least 15 minutes. Call a physician immediately.

##### After ingestion

Do NOT induce vomiting. Drink 1 or 2 glasses of water.

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Never give anything by mouth to an unconscious person.  
Call a physician immediately.

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

Irritation and corrosion

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

Treat symptomatically.

### **SECTION 5: Firefighting measures**

#### **5.1. Extinguishing media**

##### **Suitable extinguishing media**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

##### **Unsuitable extinguishing media**

None known.

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

The product itself does not burn.

#### **5.3. Advice for firefighters**

In the event of fire, wear self-contained breathing apparatus.

In order to avoid contact with skin, keep a safety distance and wear suitable protective clothing.

#### **Additional information**

Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

### **SECTION 6: Accidental release measures**

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

Use personal protective equipment.

#### **6.2. Environmental precautions**

Do not flush into surface water or sanitary sewer system.

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

Soak up with inert absorbent material and dispose of as hazardous waste.

Keep in suitable, closed containers for disposal.

#### **6.4. Reference to other sections**

13. Disposal considerations

### **SECTION 7: Handling and storage**

#### **7.1. Precautions for safe handling**

##### **Advice on safe handling**

Avoid contact with skin and eyes. Do not breathe vapours or spray mist. Use only in well-ventilated areas.

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

None known.

See also section 5

##### **Further information on handling**

Observe label precautions.

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

##### **Requirements for storage rooms and vessels**

Keep away from heat. Keep container tightly closed in a dry and well-ventilated place.

Storage temperature 10-25°C

##### **Hints on joint storage**

Do not store near acids.

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

Reagent for analysis

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

##### Exposure limits (EH40)

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

##### Additional advice on limit values

None known.

#### 8.2. Exposure controls

##### Appropriate engineering controls

The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Ensure that eye flushing systems and safety showers are located close to the working place.

##### Protective and hygiene measures

Wash hands before breaks and at the end of workday.

General industrial hygiene practice.

##### Eye/face protection

Safety glasses with side-shields

##### Hand protection

Use barrier skin cream.

Chemical resistant gloves made of butyl rubber or nitrile rubber category III according to EN 374. In full contact:

Gloves material: Viton, Layer thickness: 0.70 mm, Breakthrough time: >480 min. In splash contact: Glove

material: nitrile rubber, Layer thickness 0,20 mm, Breakthrough time: > 30 min

##### Skin protection

Avoid contact with skin, eyes and clothing.

##### Respiratory protection

Ensure adequate ventilation, especially in confined areas.

Breathing apparatus only if aerosol or dust is formed. Recommended Filter type: ABEK-filter

##### Environmental exposure controls

Do not flush into surface water or sanitary sewer system.

### SECTION 9: Physical and chemical properties

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

Physical state:	liquid
Colour:	colourless
Odour:	odourless
pH-Value (at 20 °C):	>11

##### Changes in the physical state

Melting point:	no data available
Initial boiling point and boiling range:	100 °C
Sublimation point:	not applicable
Softening point:	not applicable
Pour point:	not applicable
:	not applicable

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Flash point: not applicable

**Flammability**

Solid: not applicable

Gas: not applicable

**Explosive properties**

not applicable

Lower explosion limits: no data available

Upper explosion limits: no data available

Ignition temperature: not applicable

**Auto-ignition temperature**

Solid: not applicable

Gas: not applicable

Decomposition temperature: no data available

**Oxidizing properties**

not applicable

Vapour pressure: no data available

Vapour pressure: no data available

Density (at 20 °C): 1,181 g/cm<sup>3</sup>

Bulk density: no data available

Water solubility:  
(at 20 °C) soluble**Solubility in other solvents**

no data available

Partition coefficient: no data available

Viscosity / dynamic: no data available

Viscosity / kinematic: no data available

Flow time: no data available

Vapour density: no data available

Evaporation rate: no data available

Solvent separation test: no data available

Solvent content: no data available

**9.2. Other information**

Solid content: no data available

no data available

**SECTION 10: Stability and reactivity****10.1. Reactivity**

No dangerous reaction known under conditions of normal use.

**10.2. Chemical stability**

Stable under recommended storage conditions.

**10.3. Possibility of hazardous reactions**

Reacts with the following substances: Acid

**10.4. Conditions to avoid**

Extremes of temperature and direct sunlight. Decomposes on heating.

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#### 10.5. Incompatible materials

Acids

#### 10.6. Hazardous decomposition products

None known.

### SECTION 11: Toxicological information

#### 11.1. Information on toxicological effects

##### **Toxicokinetics, metabolism and distribution**

No toxicology information is available.

##### **Acute toxicity**

No data is available on the product itself.

##### **Irritation and corrosivity**

Causes skin and eye burns.

##### **Sensitising effects**

None known.

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

Contains no ingredient listed as a carcinogen

##### **STOT-single exposure**

The substance or mixture is not classified as specific target organ toxicant, single exposure.

##### **STOT-repeated exposure**

The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

##### **Aspiration hazard**

No aspiration toxicity classification

##### **Specific effects in experiment on an animal**

No toxicology information is available.

##### **Additional information on tests**

None known.

##### **Practical experience**

##### **Observations relevant to classification**

None known.

##### **Other observations**

None known.

##### **Further information**

Other dangerous properties can not be excluded. Handle in accordance with good industrial hygiene and safety practice.

### SECTION 12: Ecological information

#### 12.1. Toxicity

No data is available on the product itself.

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h]   [d]	Species	Source	Method
1310-73-2	sodium hydroxide; caustic soda					
	Acute fish toxicity	LC50 mg/l	45,4	96 h Onchorhynchus mykiss		

#### 12.2. Persistence and degradability

The methods for determining biodegradability are not applicable to inorganic substances.

#### 12.3. Bioaccumulative potential

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no data available

#### **12.4. Mobility in soil**

no data available

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

no data available

#### **12.6. Other adverse effects**

no data available

#### **Further information**

no data available

### SECTION 13: Disposal considerations

#### **13.1. Waste treatment methods**

##### **Advice on disposal**

In accordance with local and national regulations.

##### **Waste disposal number of waste from residues/unused products**

160506 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing hazardous substances, including mixtures of laboratory chemicals; hazardous waste

##### **Waste disposal number of used product**

160506 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing hazardous substances, including mixtures of laboratory chemicals; hazardous waste

##### **Waste disposal number of contaminated packaging**

160506 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing hazardous substances, including mixtures of laboratory chemicals; hazardous waste

### SECTION 14: Transport information

#### **Land transport (ADR/RID)**

<b>14.1. UN number:</b>	UN1824
<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
Transport category:	2
Hazard No:	80
Tunnel restriction code:	E

#### **Other applicable information (land transport)**

Excepted Quantities: E2

#### **Inland waterways transport (ADN)**

##### **Other applicable information (inland waterways transport)**

Not tested

#### **Marine transport (IMDG)**

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**14.1. UN number:** UN1824  
**14.2. UN proper shipping name:** SODIUM HYDROXIDE SOLUTION  
**14.3. Transport hazard class(es):** 8  
**14.4. Packing group:** II  
Hazard label: 8



Marine pollutant: --  
Special Provisions: -  
Limited quantity: 1 L  
EmS: F-A, S-B  
Segregation group: alkalis

**Other applicable information (marine transport)**

Excepted Quantities: E2

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

**14.1. UN number:** UN1824  
**14.2. UN proper shipping name:** SODIUM HYDROXIDE SOLUTION  
**14.3. Transport hazard class(es):** 8  
**14.4. Packing group:** II  
Hazard label: 8



Special Provisions: A3 A803  
Limited quantity Passenger: 0.5 L  
IATA-packing instructions - Passenger: 851  
IATA-max. quantity - Passenger: 1 L  
IATA-packing instructions - Cargo: 855  
IATA-max. quantity - Cargo: 30 L

**Other applicable information (air transport)**Excepted Quantities: E2  
Passenger-LQ: Y840**14.5. Environmental hazards**

ENVIRONMENTALLY HAZARDOUS: no

**14.6. Special precautions for user**

not applicable

**14.7. Transport in bulk according to Annex II of Marpol and the IBC Code**

not applicable

**Other applicable information**

Additional Information: This product may be shipped as part of a chemical kit composed of various compatible dangerous goods for analytical or testing purposes. This kit would have the following classification: Proper Shipping Name: Chemical Kit, Hazard Class: 9, UN Number 3316, Package group II, EMS Code: F-A, S-P  
These transport data apply to the entire pack

**SECTION 15: Regulatory information****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**



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#### National regulatory information

Employment restrictions: Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC).  
Water contaminating class (D): 1 - slightly water contaminating

#### 15.2. Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out.

### SECTION 16: Other information

#### Changes

Revision: 2.07.2015  
Safety datasheet sections which have been updated: 2, 11  
Revision: 14.01.2013

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

H290 May be corrosive to metals.  
H314 Causes severe skin burns and eye damage.

#### Further Information

The information is based on present level of our knowledge. It does not, however, give assurances of product properties and establishes no contract legal rights.

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

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### 2605150 Total Inorganic Nitrogen Reductant Ampules

Revision date: 22.06.2018

Product code: 2605150

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

### 1.1. Product identifier

2605150 Total Inorganic Nitrogen Reductant Ampules

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

#### Use of the substance/mixture

Water analysis

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

Company name: HACH LANGE GmbH  
Street: Willstätterstr. 11  
Place: D-40549 Düsseldorf  
Telephone: +49 (0)211 5288-383  
e-mail: SDS@hach.com  
Internet: www.de.hach.com  
Responsible Department: HACH LANGE Ltd.  
5, Pacific Way  
Salford Manchester M50 1DL - United Kingdom  
Tel. +44 (0) 161 872 1487 \* Fax +44 (0) 161 848 7324  
e-Mail: info-uk@hach.com

HACH LANGE Ltd.  
Unit 1, Chestnut Road Western Industrial Estate  
IRL-Dublin 12  
Tel. +353 (0)1 4602522  
e-Mail: info-ie@hach.com

### 1.4. Emergency telephone number:

Poison Control Center Mainz: Tel: +49 (0) 6131 19240 - 24 hour emergency service -

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

#### Regulation (EC) No. 1272/2008

Hazard categories:

Substance or mixture corrosive to metals: Met. Corr. 1

Skin corrosion/irritation: Skin Corr. 1

Specific target organ toxicity - repeated exposure: STOT RE 1

Hazard Statements:

May be corrosive to metals.

Causes severe skin burns and eye damage.

Causes damage to organs through prolonged or repeated exposure.

The product is classified as dangerous in accordance with Regulation (EC) No. 1272/2008.

### 2.2. Label elements

#### Regulation (EC) No. 1272/2008

#### Hazard components for labelling

hydrochloric acid ... %

Titanium(III) chloride-aluminum chloride

Signal word: Danger

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#### Pictograms:



#### Hazard statements

- H290 May be corrosive to metals.  
 H314 Causes severe skin burns and eye damage.  
 H372 Causes damage to organs through prolonged or repeated exposure.

#### Precautionary statements

- P280 Wear protective gloves/protective clothing/eye protection/face protection.  
 P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.  
 P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.  
 P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
 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.  
 P363 Wash contaminated clothing before reuse.  
 P405 Store locked up.  
 P501 Dispose of contents/container to Disposal.  
 P260 Do not breathe dust/fume/gas/mist/vapours/spray.  
 P270 Do not eat, drink or smoke when using this product.  
 P234 Keep only in original packaging.  
 P390 Absorb spillage to prevent material damage.

#### Additional advice on labelling

The product is classified as dangerous in accordance with Regulation (EC) No. 1272/2008.

#### 2.3. Other hazards

None known.

### SECTION 3: Composition/information on ingredients

#### 3.2. Mixtures

##### Hazardous components

CAS No	Chemical name	Quantity
	EC No	
	Index No	
	REACH No	
	Classification according to Regulation (EC) No. 1272/2008 [CLP]	
7732-18-5	Water	>90 %
	231-791-2	
	hydrochloric acid ... %	5-10 %
	231-595-7	
	017-002-01-X	
	Met. Corr. 1, Skin Corr. 1B, STOT SE 3; H290 H314 H335	
12003-13-3	Titanium(III) chloride-aluminum chloride	< 10 %
	234-421-8	
	Pyr. Sol. 1, Met. Corr. 1, Acute Tox. 4, Skin Corr. 1B, STOT SE 3, STOT RE 1; H250 H290 H302 H314 H335 H372	

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

### SECTION 4: First aid measures

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#### 4.1. Description of first aid measures

##### General information

Take off all contaminated clothing immediately.  
Show this safety data sheet to the doctor in attendance.  
Observe label precautions.

##### After inhalation

Move to fresh air.  
If symptoms persist, call a physician.

##### After contact with skin

Wash off immediately with plenty of water for at least 15 minutes.  
Take off all contaminated clothing immediately.  
If skin irritation persists, call a physician.

##### After contact with eyes

In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

##### After ingestion

Clean mouth with water and drink afterwards plenty of water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person.

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

irritant effects, Allergic reactions, sensitising effects

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

Treat symptomatically.

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

##### Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.  
The product itself does not burn.

Water, Carbon dioxide (CO<sub>2</sub>), Alcohol-resistant foam Dry powder

##### Unsuitable extinguishing media

Water spray jet

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

Fire may liberate hazardous vapours.  
Hydrogen, by reaction with metals

#### 5.3. Advice for firefighters

In order to avoid contact with skin, keep a safety distance and wear suitable protective clothing.  
In the event of fire, wear self-contained breathing apparatus.  
In the case of respirable dust and/or fumes, use self-contained breathing apparatus and dust impervious protective suit.

##### Additional information

Prevent fire extinguishing water from contaminating surface water or the ground water system.  
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

### SECTION 6: Accidental release measures

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

Use personal protective equipment. Only qualified personnel equipped with suitable protective equipment may intervene. Immediately evacuate personnel to safe areas.  
Do not breathe vapours, mist or gas. @N06.0011589

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#### **6.2. Environmental precautions**

Do not flush into surface water or sanitary sewer system.

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

Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local/national regulations (see section 13).

#### **6.4. Reference to other sections**

13. Disposal considerations

## SECTION 7: Handling and storage

### **7.1. Precautions for safe handling**

#### **Advice on safe handling**

Use only in well-ventilated areas.  
Avoid contact with skin and eyes.  
Do not breathe vapours/dust.  
Do not breathe vapours/dust.  
Wash thoroughly after handling.

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

See also section 5

#### **Further information on handling**

Observe label precautions.  
Avoid contact with skin, eyes and clothing.

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

#### **Requirements for storage rooms and vessels**

Keep in a dry, cool place.

#### **Hints on joint storage**

Do not store together with Bases, Metals

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

Water analysis

## SECTION 8: Exposure controls/personal protection

### **8.1. Control parameters**

#### **Additional advice on limit values**

None known.

### **8.2. Exposure controls**

#### **Appropriate engineering controls**

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

The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

#### **Protective and hygiene measures**

Wash hands before breaks and after work.  
Ensure that eye flushing systems and safety showers are located close to the working place.

#### **Eye/face protection**

Safety glasses with side-shields

#### **Hand protection**

Use barrier skin cream.  
Chemical resistant gloves made of butyl rubber or nitrile rubber category III according to EN 374. In full contact:  
Gloves material: Viton, Layer thickness: 0.70 mm, Breakthrough time: >480 min. In splash contact: Glove

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material: nitrile rubber, Layer thickness 0,20 mm, Breakthrough time: &gt; 30 min

**Skin protection**

Remove and wash contaminated clothing before re-use.

**Respiratory protection**

Ensure adequate ventilation, especially in confined areas.

**Environmental exposure controls**

Should not be released into the environment.

## SECTION 9: Physical and chemical properties

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

Physical state:	liquid
Colour:	colourless
Odour:	irritating
pH-Value (at 20 °C):	< 0,5

**Changes in the physical state**

Melting point:	no data available
Initial boiling point and boiling range:	102 °C
Sublimation point:	no data available
Softening point:	no data available
Pour point:	not applicable
:	no data available
Flash point:	no data available
Sustaining combustion:	No data available

**Flammability**

Solid:	not applicable
Gas:	not applicable

**Explosive properties**

not applicable

Lower explosion limits:	not applicable
Upper explosion limits:	not applicable
Ignition temperature:	not applicable

**Auto-ignition temperature**

Solid:	not applicable
Gas:	no data available

Decomposition temperature:	not applicable
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**Oxidizing properties**

not applicable

Vapour pressure:	no data available
Vapour pressure:	no data available
Density (at 20 °C):	1,245 g/cm <sup>3</sup>
Bulk density:	not applicable
Water solubility: (at 20 °C)	miscible

**Solubility in other solvents**

miscible

Partition coefficient:	not applicable
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Viscosity / dynamic:	no data available
Viscosity / kinematic:	no data available
Flow time:	no data available
Vapour density:	no data available
Evaporation rate:	no data available
Solvent separation test:	no data available
Solvent content:	no data available

#### 9.2. Other information

Solid content:	not applicable
no data available	

### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

Corrosive to metals

#### 10.2. Chemical stability

Stable at normal ambient temperature and pressure.

#### 10.3. Possibility of hazardous reactions

No dangerous reaction known under conditions of normal use.

#### 10.4. Conditions to avoid

Extremes of temperature and direct sunlight.

#### 10.5. Incompatible materials

Metals, Incompatible with bases.

#### 10.6. Hazardous decomposition products

Hydrogen chloride gas

#### Further information

Stable under recommended storage conditions.

### SECTION 11: Toxicological information

#### 11.1. Information on toxicological effects

##### Toxicokinetics, metabolism and distribution

No toxicology information is available.

##### Acute toxicity

No data is available on the product itself.

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
12003-13-3	Titanium(III) chloride-aluminum chloride				
	oral	ATE 500 mg/kg			

##### Irritation and corrosivity

The product causes burns of eyes, skin and mucous membranes.

##### Sensitising effects

No known effect.

##### Carcinogenic/mutagenic/toxic effects for reproduction

Contains no ingredient listed as a carcinogen

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#### **STOT-single exposure**

The substance or mixture is classified as specific target organ toxicant, single exposure, category 1.

#### **STOT-repeated exposure**

The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

#### **Aspiration hazard**

No aspiration toxicity classification

#### **Specific effects in experiment on an animal**

HCl: LC50/inhalation/1h/rat = 3124 ppm

#### **Additional information on tests**

No known effect.

#### **Practical experience**

#### **Observations relevant to classification**

No known effect.

#### **Other observations**

No known effect.

#### **Further information**

Other dangerous properties can not be excluded. Handle in accordance with good industrial hygiene and safety practice.

## SECTION 12: Ecological information

### **12.1. Toxicity**

No data is available on the product itself.  
Do not flush into surface water or sanitary sewer system.  
Acute Fish toxicity HCl > 25 mg/l

### **12.2. Persistence and degradability**

This mixture contains no substance considered to be persistent, bioaccumulating nor toxic (PBT).

### **12.3. Bioaccumulative potential**

This mixture contains no substance considered to be persistent, bioaccumulating nor toxic (PBT).

### **12.4. Mobility in soil**

No information available.

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

This mixture contains no substance considered to be persistent, bioaccumulating nor toxic (PBT).

### **12.6. Other adverse effects**

No information available.

#### **Further information**

No information available.

## SECTION 13: Disposal considerations

### **13.1. Waste treatment methods**

#### **Advice on disposal**

In accordance with local and national regulations.

#### **Waste disposal number of waste from residues/unused products**

160506 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing hazardous substances, including mixtures of laboratory chemicals; hazardous waste

#### **Waste disposal number of used product**



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160506 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing hazardous substances, including mixtures of laboratory chemicals; hazardous waste

**Waste disposal number of contaminated packaging**

160506 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing hazardous substances, including mixtures of laboratory chemicals; hazardous waste

**Contaminated packaging**

Dispose of as unused product.

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

**14.1. UN number:** UN3264  
**14.2. UN proper shipping name:** CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (Titanium trichloride/hydrochloric acid)  
**14.3. Transport hazard class(es):** 8  
**14.4. Packing group:** II  
Hazard label: 8



Classification code: C1  
Special Provisions: 274  
Limited quantity: 1 L  
Transport category: 2  
Hazard No: 80  
Tunnel restriction code: E

**Other applicable information (land transport)**

Excepted Quantities: E1  
Excepted Quantities: E2

**Inland waterways transport (ADN)****Other applicable information (inland waterways transport)**

Not tested

**Marine transport (IMDG)**

**14.1. UN number:** UN3264  
**14.2. UN proper shipping name:** CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (Titanium trichloride/hydrochloric acid)  
**14.3. Transport hazard class(es):** 8  
**14.4. Packing group:** II  
Hazard label: 8



Special Provisions: 274  
Limited quantity: 1 L  
EmS: F-A, S-B

**Other applicable information (marine transport)**

Excepted Quantities: E1  
Excepted Quantities: E2

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

<b>14.1. UN number:</b>	UN3264
<b>14.2. UN proper shipping name:</b>	CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (Titanium trichloride/hydrochloric acid)
<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
IATA-packing instructions - Passenger:	851
IATA-max. quantity - Passenger:	1 L
IATA-packing instructions - Cargo:	855
IATA-max. quantity - Cargo:	30 L

#### Other applicable information (air transport)

Excepted Quantities: E1  
Passenger-LQ: Y841  
Excepted Quantities: E2  
Passenger-LQ: Y840

#### 14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: no

#### 14.6. Special precautions for user

no data available

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

Not relevant

#### Other applicable information

no data available

### SECTION 15: Regulatory information

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

##### National regulatory information

Water contaminating class (D): 3 - highly water contaminating

#### 15.2. Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out.

### SECTION 16: Other information

#### Changes

Revision: 05.12.2017  
Safety datasheet sections which have been updated: 2, 3, 4, 5, 6, 7, 8, 10, 15  
Revision: 05.12.2017  
Safety datasheet sections which have been updated: 2

Revision: 23.01.2013

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

H250	Catches fire spontaneously if exposed to air.
H290	May be corrosive to metals.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H335	May cause respiratory irritation.
H372	Causes damage to organs through prolonged or repeated exposure.

#### Further Information

The information is based on present level of our knowledge. It does not, however, give assurances of product properties and establishes no contract legal rights.

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