

Safety Data Sheet

according to Regulation (EC) No 1907/2006

2671846 Totan Nitrogen Persulfate Reagent PP

Revision date: 06.03.2017

Product code: 2671846

Page 1 of 9

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

2671846 Totan Nitrogen Persulfate Reagent PP
CAS No: 7727-21-1
Index No: 016-061-00-1
EC No: 231-781-8

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:

Oxidising solid: Ox. Sol. 3

Acute toxicity: Acute Tox. 4

Serious eye damage/eye irritation: Eye Irrit. 2

Specific target organ toxicity - single exposure: STOT SE 3

Skin corrosion/irritation: Skin Irrit. 2

Respiratory or skin sensitisation: Resp. Sens. 1

Respiratory or skin sensitisation: Skin Sens. 1

Hazard Statements:

May intensify fire; oxidiser.

Harmful if swallowed.

Causes serious eye irritation.

May cause respiratory irritation.

Causes skin irritation.

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

May cause an allergic skin reaction.

2.2. Label elements

Safety Data Sheet

according to Regulation (EC) No 1907/2006

2671846 Totan Nitrogen Persulfate Reagent PP

Revision date: 06.03.2017

Product code: 2671846

Page 2 of 9

Regulation (EC) No. 1272/2008

Hazard components for labelling

dipotassium peroxodisulphate; potassium persulphate

Signal word: Danger

Pictograms:



Hazard statements

H272 May intensify fire; oxidiser.
H302 Harmful if swallowed.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H317 May cause an allergic skin reaction.
H335 May cause respiratory irritation.

Precautionary statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P342+P311 If experiencing respiratory symptoms: Call a POISON CENTER/doctor.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313 If eye irritation persists: Get medical advice/attention.
P302+P352 IF ON SKIN: Wash with plenty of water.
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.

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

3.1. Substances

Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification according to Regulation (EC) No. 1272/2008 [CLP]			
7727-21-1	dipotassium peroxodisulphate; potassium persulphate			100 %
	231-781-8	016-061-00-1		
	Ox. Sol. 3, Acute Tox. 4, Eye Irrit. 2, STOT SE 3, Skin Irrit. 2, Resp. Sens. 1, Skin Sens. 1; H272 H302 H319 H335 H315 H334 H317			

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.

Safety Data Sheet

according to Regulation (EC) No 1907/2006

2671846 Totan Nitrogen Persulfate Reagent PP

Revision date: 06.03.2017

Product code: 2671846

Page 3 of 9

After inhalation

Move to fresh air. Give oxygen or artificial respiration if needed. Consult a physician.

After contact with skin

Wash off immediately with plenty of water. If symptoms persist, call a physician.

After contact with eyes

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

After ingestion

Do NOT induce vomiting. Clean mouth with water and drink afterwards plenty of water. Call a physician immediately. Show this safety data sheet to the doctor in attendance.

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

Allergic reactions, sensitising effects, irritant 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**

Water

Unsuitable extinguishing media

None known.

5.2. Special hazards arising from the substance or mixture

Oxidising

Keep away from combustible material. Fire may liberate hazardous vapours. The following may develop in event of fire: sulfur oxides.

5.3. Advice for firefighters

In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment.

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. Avoid contact with skin, eyes and clothing.

6.2. Environmental precautions

Do not flush into surface water or sanitary sewer system.

6.3. Methods and material for containment and cleaning up

Use mechanical handling equipment.

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, eyes and clothing.

Advice on protection against fire and explosionStrong oxidizing agents Reacts with the following substances: Reducing agents
Keep away from combustible materials.

Safety Data Sheet

according to Regulation (EC) No 1907/2006

2671846 Totan Nitrogen Persulfate Reagent PP

Revision date: 06.03.2017

Product code: 2671846

Page 4 of 9

Further information on handling

This information is not available.

7.2. Conditions for safe storage, including any incompatibilities**Requirements for storage rooms and vessels**

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

Hints on joint storage

Keep away from combustible material.

Further information on storage conditions

This information is not available.

7.3. Specific end use(s)

Water analysis

SECTION 8: Exposure controls/personal protection**8.1. Control parameters****Exposure limits (EH40)**

CAS No	Substance	ppm	mg/m ³	fibres/ml	Category	Origin
7727-21-1	(OLD) Dipotassium peroxodisulphate (measured as [S208])	-	1		TWA (8 h)	OES

Additional advice on limit values

no data available

8.2. Exposure controls**Appropriate engineering controls**

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

Protective and hygiene measures

The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace. Wash hands before breaks and after work.

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

Protective laboratory coats, gowns, or uniforms are recommended to prevent contamination of personal clothing.

Respiratory protection

Breathing apparatus only if aerosol or dust is formed.

Recommended Filter type: ABEK-filter

Environmental exposure controls

no data available

Safety Data Sheet

according to Regulation (EC) No 1907/2006

2671846 Totan Nitrogen Persulfate Reagent PP

Revision date: 06.03.2017

Product code: 2671846

Page 5 of 9

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state: solid
 Colour: white
 Odour: odourless

Test method

pH-Value (at 20 °C): 4,1 (5 % solution)

Changes in the physical state

Melting point: 100 °C Decomposition temperature
 Initial boiling point and boiling range: not applicable
 Sublimation point: not applicable
 Softening point: not applicable
 Pour point: not applicable
 Flash point: not applicable

Flammability

Solid: no data available
 Gas: no data available

Explosive properties

not applicable

Lower explosion limits: not applicable
 Upper explosion limits: not applicable
 Ignition temperature: no data available

Auto-ignition temperature

Solid: no data available
 Gas: not applicable

Decomposition temperature: approx. 100 °C

Oxidizing properties

Oxidising

Vapour pressure: no data available
 Vapour pressure: no data available

Density (at 20 °C): 2,48 g/cm³
 Bulk density: approx. 1150 kg/m³
 Water solubility: 52 g/L
 (at 20 °C)

Solubility in other solvents

no data available

Partition coefficient: not applicable
 Viscosity / dynamic: not applicable
 Viscosity / kinematic: not applicable
 Flow time: not applicable
 Vapour density: not applicable
 Evaporation rate: not applicable
 Solvent separation test: not applicable
 Solvent content: not applicable

Safety Data Sheet

according to Regulation (EC) No 1907/2006

2671846 Totan Nitrogen Persulfate Reagent PP

Revision date: 06.03.2017

Product code: 2671846

Page 6 of 9

9.2. Other information

Solid content:

not applicable

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

no data available

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

No dangerous reaction known under conditions of normal use.

10.4. Conditions to avoid

To avoid thermal decomposition, do not overheat.

10.5. Incompatible materials

Strong bases, Acids, Metals, Reducing agents, Combustible material

10.6. Hazardous decomposition productsSulphur oxides, nitrogen oxides (NO_x)**Further information**

no data available

SECTION 11: Toxicological information**11.1. Information on toxicological effects****Toxicokinetics, metabolism and distribution**

no data available

Acute toxicity

No data is available on the product itself.

CAS No	Chemical name					
	Exposure route	Dose	Species	Source	Method	
7727-21-1	dipotassium peroxodisulphate; potassium persulphate					
	oral	LD50 mg/kg	802	Rat	GESTIS	

Irritation and corrosivity

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

Sensitising effects

May cause sensitisation by skin contact.

May cause sensitisation by inhalation.

STOT-single exposure

H335 - May cause respiratory irritation.

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 data available

Additional information on tests

no data available

Safety Data Sheet

according to Regulation (EC) No 1907/2006

2671846 Totan Nitrogen Persulfate Reagent PP

Revision date: 06.03.2017

Product code: 2671846

Page 7 of 9

Practical experience

Observations relevant to classification

no data available

Other observations

no data available

Further information

no data available

SECTION 12: Ecological information

12.1. Toxicity

Acute fish toxicity = *Poecilia reticulato* LC50: 100 mg/l/96h

Toxicity to daphnia = *Daphnia magna* EC50: 357 mg/l/24h

Toxicity to bacteria = *Pseudomonas putida* EC50: 36 mg/l

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h] [d]	Species	Source	Method
7727-21-1	dipotassium peroxodisulphate; potassium persulphate					
	Acute fish toxicity	LC50	100 mg/l	96 h	<i>Poecilia reticulata</i>	Hommel

12.2. Persistence and degradability

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

12.3. Bioaccumulative potential

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

Do not flush into surface water or sanitary sewer system.

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

SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number:

UN1492

14.2. UN proper shipping name:

POTASSIUM PERSULPHATE

Safety Data Sheet

according to Regulation (EC) No 1907/2006

2671846 Totan Nitrogen Persulfate Reagent PP

Revision date: 06.03.2017

Product code: 2671846

Page 8 of 9

14.3. Transport hazard class(es): 5.1

14.4. Packing group: III

Hazard label: 5.1



Classification code: O2

Limited quantity: 5 kg

Transport category: 3

Hazard No: 50

Tunnel restriction code: E

Other applicable information (land transport)

Excepted Quantities: E1

Inland waterways transport (ADN)

Other applicable information (inland waterways transport)

Not tested

Marine transport (IMDG)

14.1. UN number: UN1492

14.2. UN proper shipping name: POTASSIUM PERSULPHATE

14.3. Transport hazard class(es): 5.1

14.4. Packing group: III

Hazard label: 5.1



Marine pollutant: --

Special Provisions: -

Limited quantity: 5 kg

EmS: F-A, S-Q

Other applicable information (marine transport)

Excepted Quantities: E1

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number: UN1492

14.2. UN proper shipping name: POTASSIUM PERSULPHATE

14.3. Transport hazard class(es): 5.1

14.4. Packing group: III

Hazard label: 5.1



Limited quantity Passenger: 10 kg

IATA-packing instructions - Passenger: 559

IATA-max. quantity - Passenger: 25 kg

IATA-packing instructions - Cargo: 563

IATA-max. quantity - Cargo: 100 kg

Other applicable information (air transport)

Excepted Quantities: E1

Passenger-LQ: Y546

Safety Data Sheet

according to Regulation (EC) No 1907/2006

2671846 Totan Nitrogen Persulfate Reagent PP

Revision date: 06.03.2017

Product code: 2671846

Page 9 of 9

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: no

14.6. Special precautions for user

Use personal protective equipment.

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

Not relevant

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

EU regulatory information

Additional information

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

National regulatory information

Employment restrictions:

Observe restrictions to employment for juvenils 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 contaminating class (D):

1 - slightly water contaminating

15.2. Chemical safety assessment

For this substance a chemical safety assessment has not been carried out.

SECTION 16: Other information

Changes

Revision: 6.03.2016

Safety datasheet sections which have been updated: 2

Revision: 13.12.2016

Safety datasheet sections which have been updated: 2, 4, 8, 11

This data sheet contains changes from the previous version in section(s): 4-15

Relevant H and EUH statements (number and full text)

H272	May intensify fire; oxidiser.
H302	Harmful if swallowed.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	May cause respiratory irritation.

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.

Safety Data Sheet

according to Regulation (EC) No 1907/2006

2714045 HR Total Nitrogen Hydroxide Vials

Revision date: 12.12.2017

Product code: 2714045

Page 1 of 8

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

1.1. Product identifier

2714045 HR Total Nitrogen Hydroxide Vials

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:

Serious eye damage/eye irritation: Eye Dam. 1

Hazard Statements:

Causes serious 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

H318 Causes serious eye damage.

Precautionary statements

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if

Safety Data Sheet

according to Regulation (EC) No 1907/2006

2714045 HR Total Nitrogen Hydroxide Vials

Revision date: 12.12.2017

Product code: 2714045

Page 2 of 8

P310 present and easy to do. Continue rinsing.
Immediately call a POISON CENTER/doctor.

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			> 98 %
	231-791-2			
1310-73-2	sodium hydroxide; caustic soda			<1 %
	215-185-5	011-002-00-6		
	Skin Corr. 1A; H314			
497-19-8	sodium carbonate			< 1,0 %
	207-838-8	011-005-00-2		
	Eye Irrit. 2; H319			

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.

After contact with skin

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

After contact with eyes

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

After ingestion

Do NOT induce vomiting. Drink 1 or 2 glasses of water.
Never give anything by mouth to an unconscious person.
Consult a physician.

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

Safety Data Sheet

according to Regulation (EC) No 1907/2006

2714045 HR Total Nitrogen Hydroxide Vials

Revision date: 12.12.2017

Product code: 2714045

Page 3 of 8

5.1. Extinguishing media

Suitable extinguishing media

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

5.2. Special hazards arising from the substance or mixture

The product itself does not burn.

Fire may liberate hazardous vapours.

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

Dilute with plenty of water.

6.3. Methods and material for containment and cleaning up

Sweep up or vacuum up spillage and collect in suitable container for disposal.

Small amounts: Flush into sewer with plenty of water.

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.

General industrial hygiene practice.

Advice on protection against fire and explosion

no data available

Further information on handling

no data available

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep containers tightly closed in a cool, well-ventilated place.

Hints on joint storage

Do not store near acids.

Further information on storage conditions

Keep locked up or in an area accessible only to qualified or authorised persons.

7.3. Specific end use(s)

Laboratory chemicals

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Safety Data Sheet

according to Regulation (EC) No 1907/2006

2714045 HR Total Nitrogen Hydroxide Vials

Revision date: 12.12.2017

Product code: 2714045

Page 4 of 8

Exposure limits (EH40)

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

Additional advice on limit values

no data available

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.

Protective and hygiene measures

Wash hands before breaks and at the end of workday.

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

Respiratory protection

Precautions for safe handling (ventilation, dust generation)

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):	12,9

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
Flash point:	not applicable

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:	no data available
--------	-------------------

Safety Data Sheet

according to Regulation (EC) No 1907/2006

2714045 HR Total Nitrogen Hydroxide Vials

Revision date: 12.12.2017

Product code: 2714045

Page 5 of 8

Gas:	no data available
Decomposition temperature:	no data available
Oxidizing properties	
not applicable	
Vapour pressure:	no data available
Vapour pressure:	no data available
Density (at 20 °C):	1 g/cm ³
Bulk density:	not applicable
Water solubility:	soluble
Solubility in other solvents	
soluble	
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
----------------	-------------------

SECTION 10: Stability and reactivity

10.1. Reactivity

Reacts with the following substances: Strong acids

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

Hazardous polymerisation does not occur.

10.4. Conditions to avoid

Extremes of temperature and direct sunlight.

10.5. Incompatible materials

Strong acids

10.6. Hazardous decomposition products

None known.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicokinetics, metabolism and distribution

None known.

Acute toxicity

No data is available on the product itself.

Safety Data Sheet

according to Regulation (EC) No 1907/2006

2714045 HR Total Nitrogen Hydroxide Vials

Revision date: 12.12.2017

Product code: 2714045

Page 6 of 8

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
497-19-8	sodium carbonate				
	oral	LD50 mg/kg	4090	Rat	IUCLID

Irritation and corrosivity

H318 - Causes serious eye damage.

Skin corrosion: Not applicable. (Test result)

Sensitising effects

None known.

Carcinogenic/mutagenic/toxic effects for reproduction

None known.

STOT-repeated exposure

None known.

Aspiration hazard

No aspiration toxicity classification

Specific effects in experiment on an animal

None known.

Additional information on tests

None known.

Practical experience
Observations relevant to classification

None known.

Other observations

None known.

Further information

None known.

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		
497-19-8	sodium carbonate					
	Acute fish toxicity	LC50	300 mg/l	96 h Lepomis macrochirus		
	Acute crustacea toxicity	EC50	265 mg/l	48 h Daphnia magna	IUCLID	

12.2. Persistence and degradability

None known.

12.3. Bioaccumulative potential

None known.

12.4. Mobility in soil

None known.

12.5. Results of PBT and vPvB assessment

Safety Data Sheet

according to Regulation (EC) No 1907/2006

2714045 HR Total Nitrogen Hydroxide Vials

Revision date: 12.12.2017

Product code: 2714045

Page 7 of 8

None known.

12.6. Other adverse effects

None known.

Further information

None known.

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)

Other applicable information (land transport)

Not subject to transport regulations.

Inland waterways transport (ADN)

Other applicable information (inland waterways transport)

Not tested

Marine transport (IMDG)

Other applicable information (marine transport)

Not subject to transport regulations.

Air transport (ICAO-TI/IATA-DGR)

Other applicable information (air transport)

Not subject to transport regulations.

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

SECTION 15: Regulatory information

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

EU regulatory information

Safety Data Sheet

according to Regulation (EC) No 1907/2006

2714045 HR Total Nitrogen Hydroxide Vials

Revision date: 12.12.2017

Product code: 2714045

Page 8 of 8

Additional information

The product does not need to be labelled in accordance with EC directives or respective national laws.

National regulatory information

Water contaminating class (D): - - not 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: 12.12.2017

Safety datasheet sections which have been updated: 1-16

Relevant H and EUH statements (number and full text)

H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.

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.)