



# Universal Data Acquisition Standard 1 - 17 components; 10mg/l each of Ce ; Dy ; Er ; Eu ; Gd ; Ho ; La ; Lu ; Nd ; Pr ; Sm ; Sc ; Tb ; Th ; Tm ; Y ; Yb in HNO<sub>3</sub> 5% Equivalent to Perkin Elmer Ref: N9300232

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Date of issue: 07/09/2016

Revision date: 07/09/2016

Version: 1.1

[WWW.FASTMSDS.COM](http://WWW.FASTMSDS.COM)

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

#### 1.1. Product identifier

Product form : Mixture  
Name : Universal Data Acquisition Standard 1 - 17 components; 10mg/l each of Ce ; Dy ; Er ; Eu ; Gd ; Ho ; La ; Lu ; Nd ; Pr ; Sm ; Sc ; Tb ; Th ; Tm ; Y ; Yb in HNO<sub>3</sub> 5% Equivalent to Perkin Elmer Ref: N9300232  
Product code : EQ0207

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

##### 1.2.1. Relevant identified uses

Main use category : Industrial use, Professional use  
Use of the substance/mixture : Certified reference material for laboratory use  
Function or use category : Laboratory chemicals

##### 1.2.2. Uses advised against

No additional information available

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

**Spectracer UK Ltd.**  
Second Floor,  
27 Gloucester Place,  
London,  
W1U 8HU,  
United Kingdom.

Tel: +44 (0) 207 193 9114  
Fax: +44 (0) 203 432 4686  
Email: [contact@spectracer.co.uk](mailto:contact@spectracer.co.uk)  
Web: [www.spectracer.com](http://www.spectracer.com)

#### 1.4. Emergency telephone number

Emergency number : Tel: +44(0)1933 445260 Option 1. Language: English only.  
For Chemical Emergencies Only  
Llewellyn (Safety Advisors) Europe Ltd

| Country        | Organisation/Company                                     | Address   | Emergency number  | Comment |
|----------------|--|---|---|---------|
| Ireland        | National Poisons Information Centre<br>Beaumont Hospital | Beaumont Hospital Beaumont Road<br>9 Dublin           | : +353 1 8379964  |         |
| United Kingdom | National Poisons Information Service (NHS Direct)        | <a href="http://www.npis.org">http://www.npis.org</a> | 111 (England & Wales only) or 112 (EU) or 08454 24 24 24 (Scotland) |         |

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

##### Classification according to Regulation (EC) No. 1272/2008 [CLP]

Corrosive to metals, H290  
Category 1  
Skin corrosion/irritation, H314  
Category 1B

Full text of hazard classes and H-statements : see section 16

##### Adverse physicochemical, human health and environmental effects

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

# Universal Data Acquisition Standard 1 - 17 components; 10mg/l each of Ce ; Dy ; Er ; Eu ; Gd ; Ho ; La ; Lu ; Nd ; Pr ; Sm ; Sc ; Tb ; Th ; Tm ; Y ; Yb in HNO<sub>3</sub> 5% Equivalent to Perkin Elmer

## Ref: N9300232

### Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

WWW.FASTMSDS.COM

## 2.2. Label elements

### Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :



GHS05

Signal word (CLP) :

Danger

Hazardous ingredients :

nitric acid

Hazard statements (CLP) :

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

Precautionary statements (CLP) :

P234 - Keep only in original container  
P260 - Do not breathe dust/fume/gas/mist/vapours/spray  
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/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 or doctor  
P390 - Absorb spillage to prevent material damage  
P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation

## 2.3. Other hazards

No additional information available

## SECTION 3: Composition/information on ingredients

### 3.1. Substance

Not applicable

### 3.2. Mixture

| Name  | Product identifier  | %      | Classification according to Regulation (EC) No. 1272/2008 [CLP]          |
|---|---|--------|--|
| nitric acid   | (CAS No) 7697-37-2<br>(EC no) 231-714-2<br>(EC index no) 007-004-00-1<br>(REACH-no) 01-2119487297-23-XXXX | 5 - 15 | Ox. Liq. 2, H272<br>Met. Corr. 1, H290<br>Skin Corr. 1A, H314            |
| yttrium(III)nitrate,hexahydrate<br>substance with national workplace exposure limit(s) (AT, BE, DK, ES, FI, FR, GB, GR, IE, IT, PL, PT) | (CAS No) 13494-98-9   | < 0,1  | Skin Irrit. 2, H315<br>Eye Irrit. 2, H319<br>STOT SE 3, H335             |
| ammonium thiocyanate<br>substance with national workplace exposure limit(s) (BG, LV)  | (CAS No) 1762-95-4<br>(EC no) 217-175-6<br>(EC index no) 615-004-00-3                                     | < 0,1  | Acute Tox. 4 (Oral), H302<br>Eye Dam. 1, H318<br>Aquatic Chronic 3, H412 |

#### Specific concentration limits:

| Name        | Product identifier  | Specific concentration limits  |
|-------------|---|--|
| nitric acid | (CAS No) 7697-37-2<br>(EC no) 231-714-2<br>(EC index no) 007-004-00-1<br>(REACH-no) 01-2119487297-23-XXXX | ( 5 =<C < 20) Skin Corr. 1B, H314<br>( C >= 20) Skin Corr. 1A, H314<br>( C >= 65) Ox. Liq. 3, H272 |

Full text of H-statements: see section 16



# Universal Data Acquisition Standard 1 - 17 components; 10mg/l each of Ce ; Dy ; Er ; Eu ; Gd ; Ho ; La ; Lu ; Nd ; Pr ; Sm ; Sc ; Tb ; Th ; Tm ; Y ; Yb in HNO<sub>3</sub> 5% Equivalent to Perkin Elmer Ref: N9300232 Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

WWW.FASTMSDS.COM

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

|                                       |  |
|---------------------------------------|--|
| First-aid measures general            | : Call a physician immediately.  |
| First-aid measures after inhalation   | : Remove person to fresh air and keep comfortable for breathing.   |
| First-aid measures after skin contact | : Rinse skin with water/shower. Remove/Take off immediately all contaminated clothing. Call a physician immediately.                                 |
| First-aid measures after eye contact  | : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician immediately. |
| First-aid measures after ingestion    | : Rinse mouth. Do not induce vomiting. Call a physician immediately.   |

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

|                                      |                           |
|--------------------------------------|---------------------------|
| Symptoms/injuries after skin contact | : Burns.                  |
| Symptoms/injuries after eye contact  | : Serious damage to eyes. |
| Symptoms/injuries after ingestion    | : Burns.                  |

### 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 spray. Dry powder. Foam. Carbon dioxide. |
|------------------------------|--|

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

|  |                                |
|--|--------------------------------|
| Hazardous decomposition products in case of fire | : Toxic fumes may be released. |
|--|--------------------------------|

### 5.3. Advice for firefighters

|                                |  |
|--------------------------------|--|
| Protection during firefighting | : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing. |
|--------------------------------|--|

## SECTION 6: Accidental release measures

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

#### 6.1.1. For non-emergency personnel

|                      |   |
|----------------------|---|
| Emergency procedures | : Ventilate spillage area. Avoid contact with skin and eyes. Do not breathe dust/fume/gas/mist/vapours/spray. |
|----------------------|---|

#### 6.1.2. For emergency responders

|                      |   |
|----------------------|---|
| Protective equipment | : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection". |
|----------------------|---|

### 6.2. Environmental precautions

Avoid release to the environment.

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

|                         |   |
|-------------------------|---|
| Methods for cleaning up | : Take up liquid spill into absorbent material.                 |
| Other information       | : Dispose of materials or solid residues at an authorized site. |

### 6.4. Reference to other sections

For further information refer to section 13.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

|                               |   |
|-------------------------------|---|
| Precautions for safe handling | : Ensure good ventilation of the work station. Avoid contact with skin and eyes. Do not breathe dust/fume/gas/mist/vapours/spray. Wear personal protective equipment. |
| Hygiene measures              | : Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.                          |



# Universal Data Acquisition Standard 1 - 17 components; 10mg/l each of Ce ; Dy ; Er ; Eu ; Gd ; Ho ; La ; Lu ; Nd ; Pr ; Sm ; Sc ; Tb ; Th ; Tm ; Y ; Yb in HNO<sub>3</sub> 5% Equivalent to Perkin Elmer Ref: N9300232 Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

WWW.FASTMSDS.COM

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

Storage conditions : Store in corrosive resistant container with a resistant inner liner. Keep only in original container.  
Store locked up. Store in a well-ventilated place. Keep cool.

Incompatible materials : Metals.

## 7.3. Specific end use(s)

No additional information available

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

| nitric acid (7697-37-2) |  |   |
|-------------------------|--|---|
| EU                      | IOELV STEL (mg/m <sup>3</sup> )  | 2,6 mg/m <sup>3</sup> (Nitric acid; EU; Short time value; Indicative occupational exposure limit value) |
| EU                      | IOELV STEL (ppm)   | 1 ppm (Nitric acid; EU; Short time value; Indicative occupational exposure limit value)                 |
| Austria                 | Local name   | Salpetersäure   |
| Austria                 | MAK Short time value (mg/m <sup>3</sup> )                                | 2,6 mg/m <sup>3</sup>   |
| Austria                 | MAK Short time value (ppm)   | 1 ppm   |
| Belgium                 | Local name   | Acide nitrique  |
| Belgium                 | Short time value (mg/m <sup>3</sup> )                                    | 2,6 mg/m <sup>3</sup>   |
| Belgium                 | Short time value (ppm)   | 1 ppm   |
| Bulgaria                | Local name   | Азотна киселина•  |
| Bulgaria                | OEL STEL (mg/m <sup>3</sup> )  | 2,6 mg/m <sup>3</sup>   |
| Croatia                 | Local name   | Dušična kiselina  |
| Croatia                 | KGVI (kratkotrajna granična vrijednost izloženosti) (mg/m <sup>3</sup> ) | 2,6 mg/m <sup>3</sup>   |
| Croatia                 | KGVI (kratkotrajna granična vrijednost izloženosti) (ppm)                | 1 ppm   |
| Croatia                 | Naznake (HR)   | EU** O, C   |
| Czech Republic          | Local name   | Kyselina dusi ná  |
| Czech Republic          | Expoziční limity (PEL) (mg/m <sup>3</sup> )                              | 1 mg/m <sup>3</sup>   |
| Czech Republic          | Expoziční limity (PEL) (ppm)   | 0,39 ppm  |
| Czech Republic          | Expoziční limity (NPK-P) (mg/m <sup>3</sup> )                            | 2,5 mg/m <sup>3</sup>   |
| Czech Republic          | Expoziční limity (NPK-P) (ppm)   | 1 ppm   |
| Denmark                 | Local name   | Salpetersyre (2007)   |
| Denmark                 | Grænseværdie (kortvarig) (mg/m <sup>3</sup> )                            | 2,6 mg/m <sup>3</sup>   |
| Denmark                 | Grænseværdie (kortvarig) (ppm)   | 1 ppm   |
| Denmark                 | Anmærkninger (DK)  | ES  |
| Estonia                 | Local name   | Lämmastikhape   |
| Estonia                 | OEL STEL (mg/m <sup>3</sup> )  | 2,6 mg/m <sup>3</sup>   |
| Estonia                 | OEL STEL (ppm)   | 1 ppm   |
| Finland                 | Local name   | Typpi happo   |
| Finland                 | HTP-arvo (8h) (mg/m <sup>3</sup> )                                       | 1,3 mg/m <sup>3</sup>   |
| Finland                 | HTP-arvo (8h) (ppm)  | 0,5 ppm   |
| Finland                 | HTP-arvo (15 min)  | 2,6 mg/m <sup>3</sup>   |
| Finland                 | HTP-arvo (15 min) (ppm)  | 1 ppm   |
| France                  | Local name   | Acide nitrique  |
| France                  | VLE (mg/m <sup>3</sup> )   | 2,6 mg/m <sup>3</sup>   |
| France                  | VLE (ppm)  | 1 ppm   |



# Universal Data Acquisition Standard 1 - 17 components; 10mg/l each of Ce ; Dy ; Er ; Eu ; Gd ; Ho ; La ; Lu ; Nd ; Pr ; Sm ; Sc ; Tb ; Th ; Tm ; Y ; Yb in HNO<sub>3</sub> 5% Equivalent to Perkin Elmer Ref: N9300232 Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

WWW.FASTMSDS.COM

| nitric acid (7697-37-2) |   |   |
|-------------------------|---|---|
| Germany                 | Local name  | Salpetersäure   |
| Germany                 | TRGS 900 Occupational exposure limit value (mg/m <sup>3</sup> ) | 2,6 mg/m <sup>3</sup>   |
| Germany                 | TRGS 900 Occupational exposure limit value (ppm)                | 1 ppm   |
| Germany                 | Remark (TRGS 900)   | EU, 13, 16  |
| Greece                  | OEL STEL (mg/m <sup>3</sup> )                                   | 2,6 mg/m <sup>3</sup>   |
| Greece                  | OEL STEL (ppm)  | 1 ppm   |
| Hungary                 | Local name  | SALÉTRÓMSAV   |
| Hungary                 | CK-érték  | 2,6 mg/m <sup>3</sup>   |
| Hungary                 | Megjegyzések (HU)   | i, m; l.  |
| Ireland                 | Local name  | Nitric acid   |
| Ireland                 | OEL (15 min ref) (mg/m <sup>3</sup> )                           | 2,6 mg/m <sup>3</sup>   |
| Ireland                 | OEL (15 min ref) (ppm)  | 1 ppm   |
| Ireland                 | Notes (IE)  | IOELV   |
| Italy                   | Local name  | Acido nitrico   |
| Italy                   | OEL STEL (mg/m <sup>3</sup> )                                   | 2,6 mg/m <sup>3</sup>   |
| Italy                   | OEL STEL (ppm)  | 1 ppm   |
| Latvia                  | Local name  | Slāpekļskābe  |
| Latvia                  | OEL TWA (mg/m <sup>3</sup> )                                    | 2 mg/m <sup>3</sup>   |
| Latvia                  | OEL TWA (ppm)   | 0,78 ppm  |
| Latvia                  | OEL STEL (mg/m <sup>3</sup> )                                   | 2,6 mg/m <sup>3</sup>   |
| Latvia                  | OEL STEL (ppm)  | 1 ppm   |
| Lithuania               | Local name  | Nitrato rūgštis (azoto rūgštis)   |
| Lithuania               | TPRV (mg/m <sup>3</sup> )                                       | 2,6 mg/m <sup>3</sup>   |
| Lithuania               | TPRV (ppm)  | 1 ppm   |
| Luxembourg              | Local name  | Acide nitrique  |
| Luxembourg              | OEL STEL (mg/m <sup>3</sup> )                                   | 2,6 mg/m <sup>3</sup>   |
| Luxembourg              | OEL STEL (ppm)  | 1 ppm   |
| Malta                   | Local name  | Nitric acid   |
| Malta                   | OEL STEL (mg/m <sup>3</sup> )                                   | 2,6 mg/m <sup>3</sup>   |
| Malta                   | OEL STEL (ppm)  | 1 ppm   |
| Netherlands             | Local name  | Salpeterzuur  |
| Netherlands             | Grenswaarde TGG 15MIN (mg/m <sup>3</sup> )                      | 1,3 mg/m <sup>3</sup>   |
| Netherlands             | Grenswaarde TGG 15MIN (ppm)                                     | 0,5 ppm (Salpeterzuur; Netherlands; Short time value; Public occupational exposure limit value) |
| Poland                  | Local name  | Kwas azotowy(V)   |
| Poland                  | NDS (mg/m <sup>3</sup> )  | 1,4 mg/m <sup>3</sup>   |
| Poland                  | NDSch (mg/m <sup>3</sup> )                                      | 2,6 mg/m <sup>3</sup>   |
| Portugal                | Local name  | Ácido nítrico   |
| Portugal                | OEL TWA (ppm)   | 2 ppm   |
| Portugal                | OEL STEL (ppm)  | 4 ppm   |
| Romania                 | Local name  | Acid nitric   |
| Romania                 | OEL STEL (mg/m <sup>3</sup> )                                   | 2,6 mg/m <sup>3</sup>   |
| Romania                 | OEL STEL (ppm)  | 1 ppm   |
| Slovenia                | Local name  | dušikova kislina  |



# Universal Data Acquisition Standard 1 - 17 components; 10mg/l each of Ce ; Dy ; Er ; Eu ; Gd ; Ho ; La ; Lu ; Nd ; Pr ; Sm ; Sc ; Tb ; Th ; Tm ; Y ; Yb in HNO<sub>3</sub> 5% Equivalent to Perkin Elmer Ref: N9300232 Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

[WWW.FASTMSDS.COM](http://WWW.FASTMSDS.COM)

| nitric acid (7697-37-2) |   |   |
|-------------------------|---|---|
| Slovenia                | OEL TWA (mg/m <sup>3</sup> )            | 2,6 mg/m <sup>3</sup>   |
| Slovenia                | OEL TWA (ppm)                           | 1 ppm   |
| Slovenia                | OEL STEL (mg/m <sup>3</sup> )           | 2,6 mg/m <sup>3</sup>   |
| Slovenia                | OEL STEL (ppm)                          | 1 ppm   |
| Spain                   | Local name                              | Ácido nítrico   |
| Spain                   | VLA-EC (mg/m <sup>3</sup> )             | 2,6 mg/m <sup>3</sup>   |
| Spain                   | VLA-EC (ppm)                            | 1 ppm   |
| Spain                   | Notes                                   | (2007), VLI (Agente químico para el que la U.E. estableció en su día un valor límite indicativo. Todos estos agentes químicos figuran al menos en una de las directivas de valores límite indicativos publicadas hasta ahora (ver Anexo C. Bibliografía). Los estados miembros disponen de un tiempo fijado en dichas directivas para su transposición a los valores límites de cada país miembro. Una vez adoptados, estos valores tienen la misma validez que el resto de los valores adoptados por el país.) |
| Sweden                  | Local name                              | Nitric acid   |
| Sweden                  | kortidsvärde (KTV) (mg/m <sup>3</sup> ) | 13 mg/m <sup>3</sup>  |
| Sweden                  | kortidsvärde (KTV) (ppm)                | 5 ppm   |
| United Kingdom          | Local name                              | Nitric acid   |
| United Kingdom          | WEL STEL (mg/m <sup>3</sup> )           | 2,6 mg/m <sup>3</sup>   |
| United Kingdom          | WEL STEL (ppm)                          | 1 ppm   |
| Iceland                 | Local name                              | Saltpéturssýra  |
| Iceland                 | OEL (15 min ref) (mg/m <sup>3</sup> )   | 2,6 mg/m <sup>3</sup>   |
| Iceland                 | OEL (15 min ref) (ppm)                  | 1 ppm   |
| Norway                  | Local name                              | Salpetersyre  |
| Norway                  | Grenseverdier (AN) (mg/m <sup>3</sup> ) | 5 mg/m <sup>3</sup>   |
| Norway                  | Grenseverdier (AN) (ppm)                | 2 ppm   |
| Switzerland             | Local name                              | Acide nitrique  |
| Switzerland             | VME (mg/m <sup>3</sup> )                | 5 mg/m <sup>3</sup>   |
| Switzerland             | VME (ppm)                               | 2 ppm   |
| Switzerland             | VLE (mg/m <sup>3</sup> )                | 5 mg/m <sup>3</sup>   |
| Switzerland             | VLE (ppm)                               | 2 ppm   |
| Switzerland             | Remark (CH)                             | 15 min  |
| Australia               | Local name                              | Nitric acid   |
| Australia               | TWA (mg/m <sup>3</sup> )                | 5,2 mg/m <sup>3</sup>   |
| Australia               | TWA (ppm)                               | 2 ppm   |
| Australia               | STEL (mg/m <sup>3</sup> )               | 10 mg/m <sup>3</sup>  |
| Australia               | STEL (ppm)                              | 4 ppm   |
| USA - ACGIH             | Local name                              | Nitric acid   |
| USA - ACGIH             | ACGIH TWA (ppm)                         | 2 ppm   |
| USA - ACGIH             | ACGIH STEL (ppm)                        | 4 ppm   |
| USA - ACGIH             | Remark (ACGIH)                          | URT & eye irr; dental erosion   |
| USA - OSHA              | Local name                              | Nitric acid   |
| USA - OSHA              | OSHA PEL (TWA) (mg/m <sup>3</sup> )     | 5 mg/m <sup>3</sup>   |
| USA - OSHA              | OSHA PEL (TWA) (ppm)                    | 2 ppm   |

# Universal Data Acquisition Standard 1 - 17 components; 10mg/l each of Ce ; Dy ; Er ; Eu ; Gd ; Ho ; La ; Lu ; Nd ; Pr ; Sm ; Sc ; Tb ; Th ; Tm ; Y ; Yb in HNO<sub>3</sub> 5% Equivalent to Perkin Elmer Ref: N9300232

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

WWW.FASTMSDS.COM

| <b>ammonium thiocyanate (1762-95-4)</b>              |  |  |
|--|--|--|
| Bulgaria   | Local name   | Амониев сулфоцианид (роданид)  |
| Bulgaria   | OEL TWA (mg/m <sup>3</sup> )   | 5 mg/m <sup>3</sup>  |
| Latvia   | Local name   | Amonijarodanīds (amonijatiocianāts)  |
| Latvia   | OEL TWA (mg/m <sup>3</sup> )   | 5 mg/m <sup>3</sup>  |
| <b>yttrium(III)nitrates,hexahydrate (13494-98-9)</b> |  |  |
| Austria  | Local name   | Yttrium  |
| Austria  | MAK (mg/m <sup>3</sup> )   | 1 mg/m <sup>3</sup>  |
| Austria  | MAK Short time value (mg/m <sup>3</sup> )                                | 10 mg/m <sup>3</sup>   |
| Belgium  | Local name   | Yttrium (métal et composés) (en Y)   |
| Belgium  | Limit value (mg/m <sup>3</sup> )   | 1 mg/m <sup>3</sup>  |
| Croatia  | Local name   | Itrij  |
| Croatia  | GVI (granična vrijednost izloženosti) (mg/m <sup>3</sup> )               | 1 mg/m <sup>3</sup>  |
| Croatia  | KGVI (kratkotrajna granična vrijednost izloženosti) (mg/m <sup>3</sup> ) | 3 mg/m <sup>3</sup>  |
| Denmark  | Local name   | Yttrium, pulver og forbindelser, beregnet som Y                              |
| Denmark  | Grænseværdie (langvarig) (mg/m <sup>3</sup> )                            | 1 mg/m <sup>3</sup>  |
| Finland  | Local name   | Yttrium, metalli   |
| Finland  | HTP-arvo (8h) (mg/m <sup>3</sup> )                                       | 1 mg/m <sup>3</sup>  |
| France   | Local name   | Yttrium  |
| France   | VME (mg/m <sup>3</sup> )   | 1 mg/m <sup>3</sup>  |
| Greece   | OEL TWA (mg/m <sup>3</sup> )   | 5 mg/m <sup>3</sup>  |
| Ireland  | Local name   | Yttrium  |
| Ireland  | OEL (8 hours ref) (mg/m <sup>3</sup> )                                   | 1 mg/m <sup>3</sup>  |
| Ireland  | OEL (15 min ref) (mg/m <sup>3</sup> )                                    | 3 mg/m <sup>3</sup>  |
| Poland   | Local name   | It r i jego związku w przeliczeniu na Y                                      |
| Poland   | NDS (mg/m <sup>3</sup> )   | 1 mg/m <sup>3</sup>  |
| Portugal   | Local name   | Ítrio e compostos, expressos em Y  |
| Portugal   | OEL TWA (mg/m <sup>3</sup> )   | 1 mg/m <sup>3</sup>  |
| Slovenia   | Local name   | itrij  |
| Slovenia   | OEL TWA (mg/m <sup>3</sup> )   | 5 mg/m <sup>3</sup>  |
| Slovenia   | OEL STEL (mg/m <sup>3</sup> )  | 20 mg/m <sup>3</sup>   |
| Spain  | Local name   | Itrio  |
| Spain  | VLA-ED (mg/m <sup>3</sup> )  | 1 mg/m <sup>3</sup> metal<br>1 mg/m <sup>3</sup> Compuestos de itrio, como Y |
| United Kingdom                                       | Local name   | Yttrium  |
| United Kingdom                                       | WEL TWA (mg/m <sup>3</sup> )   | 1 mg/m <sup>3</sup>  |
| United Kingdom                                       | WEL STEL (mg/m <sup>3</sup> )  | 3 mg/m <sup>3</sup>  |
| Iceland  | Local name   | Yttrium, duft og sambönd, sem Y  |
| Iceland  | OEL (8 hours ref) (mg/m <sup>3</sup> )                                   | 1 mg/m <sup>3</sup>  |
| Norway   | Local name   | Yttrium  |
| Norway   | Grenseverdier (AN) (mg/m <sup>3</sup> )                                  | 1 mg/m <sup>3</sup>  |
| Australia  | Local name   | Yttrium, metal & compounds (as Y)  |
| Australia  | TWA (mg/m <sup>3</sup> )   | 1 mg/m <sup>3</sup>  |
| USA - ACGIH  | Local name   | Yttrium  |
| USA - ACGIH  | ACGIH TWA (mg/m <sup>3</sup> )   | 1 mg/m <sup>3</sup>  |
| USA - ACGIH  | Remark (ACGIH)   | Pulm fibrosis  |

# Universal Data Acquisition Standard 1 - 17 components; 10mg/l each of Ce ; Dy ; Er ; Eu ; Gd ; Ho ; La ; Lu ; Nd ; Pr ; Sm ; Sc ; Tb ; Th ; Tm ; Y ; Yb in HNO<sub>3</sub> 5% Equivalent to Perkin Elmer Ref: N9300232 Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

[WWW.FASTMSDS.COM](http://WWW.FASTMSDS.COM)

| yttrium(III)nitrate,hexahydrate (13494-98-9) |                                     |                     |
|--|-------------------------------------|---------------------|
| USA - OSHA                                   | Local name                          | Yttrium             |
| USA - OSHA                                   | OSHA PEL (TWA) (mg/m <sup>3</sup> ) | 1 mg/m <sup>3</sup> |

## 8.2. Exposure controls

- Appropriate engineering controls : Ensure good ventilation of the work station.
- Personal protective equipment : Avoid all unnecessary exposure. Gloves. Safety glasses. Protective clothing.
- Hand protection : Protective gloves
- Eye protection : Safety glasses
- Skin and body protection : Wear suitable protective clothing
- Respiratory protection : In case of insufficient ventilation, wear suitable respiratory equipment



- Environmental exposure controls : Avoid release to the environment.

## SECTION 9: Physical and chemical properties

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

- Physical state : Liquid
- Colour : No data available
- Odour : No data available
- Odour threshold : No data available
- pH : No data available
- Relative evaporation rate (butylacetate=1) : No data available
- Melting point : Not applicable
- Freezing point : No data available
- Boiling point : No data available
- Flash point : No data available
- Auto-ignition temperature : No data available
- Decomposition temperature : No data available
- Flammability (solid, gas) : Not applicable
- Vapour pressure : No data available
- Relative vapour density at 20 °C : No data available
- Relative density : No data available
- Solubility : Miscible with water.
- Log Pow : No data available
- Viscosity, kinematic : No data available
- Viscosity, dynamic : No data available
- Explosive properties : No data available
- Oxidising properties : No data available
- Explosive limits : No data available

### 9.2. Other information

No additional information available





# Universal Data Acquisition Standard 1 - 17 components; 10mg/l each of Ce ; Dy ; Er ; Eu ; Gd ; Ho ; La ; Lu ; Nd ; Pr ; Sm ; Sc ; Tb ; Th ; Tm ; Y ; Yb in HNO<sub>3</sub> 5% Equivalent to Perkin Elmer Ref: N9300232 Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

WWW.FASTMSDS.COM

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

### 10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

### 10.5. Incompatible materials

metals.

### 10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity : Not classified

| ammonium thiocyanate (1762-95-4)                   |   |
|--|---|
| LD50 oral rat                                      | 750 mg/kg (Rat; Inconclusive, insufficient data)                            |
| LD50 dermal rat                                    | > 2000 mg/kg bodyweight (Rat; Read-across; OECD 402: Acute Dermal Toxicity) |
| Skin corrosion/irritation                          | : Causes severe skin burns and eye damage.                                  |
| Serious eye damage/irritation                      | : Serious eye damage, category 1, implicit                                  |
| Respiratory or skin sensitisation                  | : Not classified  |
| Germ cell mutagenicity                             | : Not classified  |
| Carcinogenicity                                    | : Not classified  |
| Reproductive toxicity                              | : Not classified  |
| Specific target organ toxicity (single exposure)   | : Not classified  |
| Specific target organ toxicity (repeated exposure) | : Not classified  |
| Aspiration hazard                                  | : Not classified  |

## SECTION 12: Ecological information

### 12.1. Toxicity

Ecology - general : Before neutralisation, the product may represent a danger to aquatic organisms.

| nitric acid (7697-37-2)          |  |
|----------------------------------|--|
| LC50 fish 2                      | 72 ppm (LC50; 96 h)  |
| EC50 Daphnia 1                   | 180 mg/l (EC50; 48 h)  |
| Threshold limit algae 1          | > 19 mg/l (EC0)  |
| ammonium thiocyanate (1762-95-4) |  |
| EC50 Daphnia 1                   | 3,56 mg/l (EC50; OECD 202: Daphnia sp. Acute Immobilisation Test; 48 h; Daphnia magna; Static system; Fresh water; Experimental value)         |
| Threshold limit algae 1          | 150 mg/l (EC20; OECD 201: Alga, Growth Inhibition Test; 72 h; Pseudokirchneriella subcapitata; Static system; Fresh water; Experimental value) |

### 12.2. Persistence and degradability

| nitric acid (7697-37-2)       |                                   |
|-------------------------------|-----------------------------------|
| Persistence and degradability | Biodegradability: Not applicable. |



# Universal Data Acquisition Standard 1 - 17 components; 10mg/l each of Ce ; Dy ; Er ; Eu ; Gd ; Ho ; La ; Lu ; Nd ; Pr ; Sm ; Sc ; Tb ; Th ; Tm ; Y ; Yb in HNO<sub>3</sub> 5% Equivalent to Perkin Elmer

## Ref: N9300232

### Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

WWW.FASTMSDS.COM

| nitric acid (7697-37-2)         |                |
|---------------------------------|----------------|
| Biochemical oxygen demand (BOD) | Not applicable |
| Chemical oxygen demand (COD)    | Not applicable |
| ThOD                            | Not applicable |

| ammonium thiocyanate (1762-95-4) |  |
|----------------------------------|--|
| Persistence and degradability    | Readily biodegradable in water. Biodegradable in soil. No (test)data available on mobility of the substance. |
| Biochemical oxygen demand (BOD)  | < 0,010 g O <sub>2</sub> /g substance  |
| Chemical oxygen demand (COD)     | 0,8545 g O <sub>2</sub> /g substance   |

| yttrium(III)nitrate,hexahydrate (13494-98-9) |   |
|--|---|
| Persistence and degradability                | Biodegradability in soil: Not applicable. |
| Biochemical oxygen demand (BOD)              | Not applicable                            |
| Chemical oxygen demand (COD)                 | Not applicable                            |
| ThOD   | Not applicable                            |

#### 12.3. Bioaccumulative potential

| nitric acid (7697-37-2)   |  |
|---------------------------|--|
| BCF fish 1                | <= 1 (BCF)   |
| Log Pow                   | -2,3 (OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method) |
| Bioaccumulative potential | Bioaccumulation: Not applicable.   |

| ammonium thiocyanate (1762-95-4) |  |
|----------------------------------|--|
| Log Pow                          | -2,29 (Calculated; KOWWIN)                   |
| Bioaccumulative potential        | Low bioaccumulation potential (Log Kow < 4). |

| yttrium(III)nitrate,hexahydrate (13494-98-9) |                                     |
|--|-------------------------------------|
| Bioaccumulative potential                    | Bioaccumulation: No data available. |

#### 12.4. Mobility in soil

No additional information available

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

No additional information available

#### 12.6. Other adverse effects

No additional information available

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

### SECTION 14: Transport information






In accordance with ADR / RID / IMDG / IATA / ADN

| ADR  | IMDG   | IATA   | ADN  | RID  |
|--|--|--|--|--|
| <b>14.1. UN number</b>   |  |  |  |  |
| 3264   | 3264   | 3264   | 3264   | 3264   |
| <b>14.2. UN proper shipping name</b>                                 |  |  |  |  |
| CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (CONTAINS ; nitric acid) | CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (CONTAINS ; nitric acid) | Corrosive liquid, acidic, inorganic, n.o.s. (CONTAINS ; nitric acid) | CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (CONTAINS ; nitric acid) | CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (CONTAINS ; nitric acid) |
| <b>Transport document description</b>                                |  |  |  |  |
| UN 3264 CORROSIVE LIQUID, ACIDIC,                                    | UN 3264 CORROSIVE LIQUID, ACIDIC,                                    | UN 3264 Corrosive liquid, acidic, inorganic, n.o.s.                  | UN 3264 CORROSIVE LIQUID, ACIDIC,                                    | UN 3264 CORROSIVE LIQUID, ACIDIC,                                    |

# Universal Data Acquisition Standard 1 - 17 components; 10mg/l each of Ce ; Dy ; Er ; Eu ; Gd ; Ho ; La ; Lu ; Nd ; Pr ; Sm ; Sc ; Tb ; Th ; Tm ; Y ; Yb in HNO<sub>3</sub> 5% Equivalent to Perkin Elmer Ref: N9300232 Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

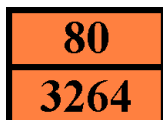
WWW.FASTMSDS.COM

| ADR  | IMDG  | IATA  | ADN  | RID   |
|--|---|---|--|---|
| INORGANIC, N.O.S.<br>(CONTAINS ; nitric acid),<br>8, II, (E)                     | INORGANIC, N.O.S.<br>(CONTAINS ; nitric acid),<br>8, II                           | (CONTAINS ; nitric acid),<br>8, II  | INORGANIC, N.O.S.<br>(CONTAINS ; nitric acid),<br>8, II                            | INORGANIC, N.O.S.<br>(CONTAINS ; nitric acid),<br>8, II                             |
| <b>14.3. Transport hazard class(es)</b>  |   |   |  |   |
| 8  | 8   | 8   | 8  | 8   |
|  |  |  |  |  |
| <b>14.4. Packing group</b>   |   |   |  |   |
| II   | II  | II  | II   | II  |
| <b>14.5. Environmental hazards</b>   |   |   |  |   |
| Dangerous for the environment : No   | Dangerous for the environment : No<br>Marine pollutant : No                       | Dangerous for the environment : No  | Dangerous for the environment : No   | Dangerous for the environment : No  |
| No supplementary information available   |   |   |  |   |

#### 14.6. Special precautions for user

##### - Overland transport

Classification code (ADR) : C1  
 Special provisions (ADR) : 274  
 Limited quantities (ADR) : 11  
 Excepted quantities (ADR) : E2  
 Packing instructions (ADR) : P001, IBC02  
 Mixed packing provisions (ADR) : MP15  
 Portable tank and bulk container instructions (ADR) : T11  
 Portable tank and bulk container special provisions (ADR) : TP2, TP27  
 Tank code (ADR) : L4BN  
 Vehicle for tank carriage : AT  
 Transport category (ADR) : 2  
 Hazard identification number (Kemler No.) : 80  
 Orange plates :



Tunnel restriction code (ADR) : E  
 EAC code : 2X  
 APP code : B

##### - Transport by sea

Special provisions (IMDG) : 274  
 Limited quantities (IMDG) : 1 L  
 Excepted quantities (IMDG) : E2  
 Packing instructions (IMDG) : P001  
 IBC packing instructions (IMDG) : IBC02  
 Tank instructions (IMDG) : T11  
 Tank special provisions (IMDG) : TP2, TP27  
 EmS-No. (Fire) : F-A



# Universal Data Acquisition Standard 1 - 17 components; 10mg/l each of Ce ; Dy ; Er ; Eu ; Gd ; Ho ; La ; Lu ; Nd ; Pr ; Sm ; Sc ; Tb ; Th ; Tm ; Y ; Yb in HNO<sub>3</sub> 5% Equivalent to Perkin Elmer Ref: N9300232

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

[WWW.FASTMSDS.COM](http://WWW.FASTMSDS.COM)

EmS-No. (Spillage) : S-B  
Stowage category (IMDG) : B  
Stowage and handling (IMDG) : SW2

### - Air transport

PCA Excepted quantities (IATA) : E2  
PCA Limited quantities (IATA) : Y840  
PCA limited quantity max net quantity (IATA) : 0.5L  
PCA packing instructions (IATA) : 851  
PCA max net quantity (IATA) : 1L  
CAO packing instructions (IATA) : 855  
CAO max net quantity (IATA) : 30L  
Special provisions (IATA) : A3  
ERG code (IATA) : 8L

### - Inland waterway transport

Classification code (ADN) : C1  
Special provisions (ADN) : 274  
Limited quantities (ADN) : 1 L  
Excepted quantities (ADN) : E2  
Carriage permitted (ADN) : T  
Equipment required (ADN) : PP, EP  
Number of blue cones/lights (ADN) : 0

### - Rail transport

Classification code (RID) : C1  
Special provisions (RID) : 274  
Limited quantities (RID) : 1L  
Excepted quantities (RID) : E2  
Packing instructions (RID) : P001, IBC02  
Mixed packing provisions (RID) : MP15  
Portable tank and bulk container instructions (RID) : T11  
Portable tank and bulk container special provisions (RID) : TP2, TP27  
Tank codes for RID tanks (RID) : L4BN  
Transport category (RID) : 2  
Colis express (express parcels) (RID) : CE6  
Hazard identification number (RID) : 80

### 14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

## SECTION 15: Regulatory information

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

#### 15.1.1. EU-Regulations

The following restrictions are applicable according to Annex XVII of the REACH Regulation (EC) No 1907/2006:

|  |             |
|--|-------------|
| 3. Liquid substances or mixtures which are regarded as dangerous in accordance with Directive 1999/45/EC or are fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008 | nitric acid |
|--|-------------|



# Universal Data Acquisition Standard 1 - 17 components; 10mg/l each of Ce ; Dy ; Er ; Eu ; Gd ; Ho ; La ; Lu ; Nd ; Pr ; Sm ; Sc ; Tb ; Th ; Tm ; Y ; Yb in HNO<sub>3</sub> 5% Equivalent to Perkin Elmer Ref: N9300232 Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

WWW.FASTMSDS.COM

|  |   |
|--|---|
| 3(a) Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 2.1 to 2.4, 2.6 and 2.7, 2.8 types A and B, 2.9, 2.10, 2.12, 2.13 categories 1 and 2, 2.14 categories 1 and 2, 2.15 types A to F          | nitric acid   |
| 3(b) Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 3.1 to 3.6, 3.7 adverse effects on sexual function and fertility or on development, 3.8 effects other than narcotic effects, 3.9 and 3.10 | Universal Data Acquisition Standard 1 - 17 components; 10mg/l each of Ce ; Dy ; Er ; Eu ; Gd ; Ho ; La ; Lu ; Nd ; Pr ; Sm ; Sc ; Tb ; Th ; Tm ; Y ; Yb in HNO <sub>3</sub> 5% Equivalent to Perkin Elmer Ref: N9300232 - nitric acid |

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

## 15.1.2. National regulations

### Germany

VwVwS Annex reference : Water hazard class (WGK) 1, low hazard to waters (Classification according to VwVwS, Annex 4)

12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV : Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

### Netherlands

SZW-lijst van kankerverwekkende stoffen : None of the components are listed

SZW-lijst van mutagene stoffen : None of the components are listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding : None of the components are listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid : None of the components are listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling : None of the components are listed

### Denmark

Recommendations Danish Regulation : Young people below the age of 18 years are not allowed to use the product  
Pregnant/breastfeeding women working with the product must not be in direct contact with the product

## 15.2. Chemical safety assessment

No chemical safety assessment has been carried out

## SECTION 16: Other information

Full text of H- and EUH-statements:

|                     |  |
|---------------------|--|
| Acute Tox. 4 (Oral) | Acute toxicity (oral), Category 4  |
| Aquatic Chronic 3   | Hazardous to the aquatic environment — Chronic Hazard, Category 3                          |
| Eye Dam. 1          | Serious eye damage/eye irritation, Category 1  |
| Eye Irrit. 2        | Serious eye damage/eye irritation, Category 2  |
| Met. Corr. 1        | Corrosive to metals, Category 1  |
| Ox. Liq. 2          | Oxidising Liquids, Category 2  |
| Skin Corr. 1A       | Skin corrosion/irritation, Category 1A   |
| Skin Corr. 1B       | Skin corrosion/irritation, Category 1B   |
| Skin Irrit. 2       | Skin corrosion/irritation, Category 2  |
| STOT SE 3           | Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation |
| H272                | May intensify fire; oxidiser   |
| H290                | May be corrosive to metals   |
| H302                | Harmful if swallowed   |
| H314                | Causes severe skin burns and eye damage  |



**Universal Data Acquisition Standard 1 - 17  
components; 10mg/l each of Ce ; Dy ; Er ; Eu ;  
Gd ; Ho ; La ; Lu ; Nd ; Pr ; Sm ; Sc ; Tb ; Th ; Tm  
; Y ; Yb in HNO<sub>3</sub> 5% Equivalent to Perkin Elmer  
Ref: N9300232**

**Safety Data Sheet**

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

[WWW.FASTMSDS.COM](http://WWW.FASTMSDS.COM)

|      |   |
|------|---|
| H315 | Causes skin irritation                            |
| H318 | Causes serious eye damage                         |
| H319 | Causes serious eye irritation                     |
| H335 | May cause respiratory irritation                  |
| H412 | Harmful to aquatic life with long lasting effects |

SDS EU Mod H F (REACH ANNEX II)

*This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.*