according to 1907/2006/EC, Article 31

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Version number 2.0

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

· 1.1 Product identifier

- · Trade name: Praseodymium, standard solution 1000 mg/l Pr for ICP (Pr in HNO3 2%)
- · Article number: PR0011
- 1.2 Relevant identified uses of the substance or mixture and uses advised against No further relevant information available.
- Application of the substance / the preparation: Laboratory reagent
- · 1.3 Details of the supplier of the safety data sheet
- Manufacturer/Supplier: Scharlab, S.L.
 C/Gato Pérez, 33. Pol.Ind. Mas d'en Cisa 08181 Sentmenat (Barcelona) SPAIN
 Tel: (+34) 93 745 64 00 - FAX: (+34) 93 715 27 65
 email: scharlab@scharlab.com
 Internet Web Site: www.scharlab.com
 Regional representation:

Scharlab, S.L. C/Gato Pérez, 33. Pol.Ind. Mas d'en Cisa 08181 Sentmenat (Barcelona) SPAIN Tel: (+34) 93 745 64 00 - FAX: (+34) 93 715 27 65 email: scharlab@scharlab.com Internet Web Site: www.scharlab.com

Further information obtainable from: technical department

· 1.4 Emergency telephone number:

Toxicological Information National Institute of Toxicology and Forensic Sciences: + 34 91 562 04 20. The information will be provided (24h/365 days) Please contact the regional Scharlab distributor/dealer in your country During normal opening times: Scharlab, S.L. (+34) 93 715 18 11

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture
 Classification according to Regulation (EC) No 1272/2008

GHS07

Skin Irrit. 2 H315 Causes skin irritation. Eye Irrit. 2 H319 Causes serious eye irritation.

· 2.2 Label elements

- Labelling according to Regulation (EC) No 1272/2008
- The product is classified and labelled according to the CLP regulation. • Hazard pictograms



- · Signal word Warning
- Hazard statements
- H315 Causes skin irritation.
- H319 Causes serious eye irritation.

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Trade name: Praseodymium, standard solution 1000 mg/l Pr for ICP (Pr in HNO3 2%) (Contd. of page 1) Precautionary statements P264 Wash thoroughly after handling. P280 Wear protective gloves / eye protection / face protection. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P332+P313 If skin irritation occurs: Get medical advice/attention. P362+P364 Take off contaminated clothing and wash it before reuse. P337+P313 If eye irritation persists: Get medical advice/attention. 2.3 Other hazards Results of PBT and vPvB assessment · PBT: Not applicable. · vPvB: Not applicable. **SECTION 3: Composition/information on ingredients** 3.2 Chemical characterisation: Mixtures Description: Aqueous solution Dangerous components: CAS: 7697-37-2 nitric acid 1-5% EINECS: 231-714-2 🚸 Ox. Liq. 2, H272; 📀 Skin Corr. 1A, H314 Reg.nr.: 01-2119487297-23-XXXX Additional information: For the wording of the listed hazard phrases refer to section 16. **SECTION 4: First aid measures** · 4.1 Description of first aid measures · After inhalation: In case of unconsciousness place patient stably in side position for transportation. · After skin contact: Immediately wash with water and soap and rinse thoroughly. After eye contact: Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor. · After swallowing: If symptoms persist consult doctor. 4.2 Most important symptoms and effects, both acute and delayed No further relevant information available. 4.3 Indication of any immediate medical attention and special treatment needed No further relevant information available. SECTION 5: Firefighting measures 5.1 Extinguishing media Suitable extinguishing agents: CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam. 5.2 Special hazards arising from the substance or mixture No further relevant information available. 5.3 Advice for firefighters Protective equipment: No special measures required. **SECTION 6: Accidental release measures** · 6.1 Personal precautions, protective equipment and emergency procedures Not required. · 6.2 Environmental precautions: Do not allow to enter sewers/ surface or ground water. (Contd. on page 3)

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- · 6.3 Methods and material for containment and cleaning up:
- Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Ensure adequate ventilation.
- 6.4 Reference to other sections
 See Section 7 for information on safe handling.
 See Section 8 for information on personal protection equipment.
 See Section 13 for disposal information.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling** Ensure good ventilation/exhaustion at the workplace. Prevent formation of aerosols.
- · Information about fire and explosion protection: No special measures required.
- · 7.2 Conditions for safe storage, including any incompatibilities
- · Storage:
- · Requirements to be met by storerooms and receptacles: No special requirements.
- · Information about storage in one common storage facility: Not required.
- · Further information about storage conditions: Keep container tightly sealed.
- · 7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

- · 8.1 Control parameters
- · Additional information about design of technical facilities: No further data; see item 7.
- · Ingredients with limit values that require monitoring at the workplace:

7697-37-2 nitric acid

- WEL Short-term value: 2.6 mg/m³, 1 ppm
- · Additional information: The lists valid during the making were used as basis.
- · 8.2 Exposure controls
- · Personal protective equipment:
- General protective and hygienic measures: Keep away from foodstuffs, beverages and feed. Immediately remove all soiled and contaminated clothing Wash hands before breaks and at the end of work. Avoid contact with the eyes and skin.
- Respiratory protection:
- In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.
- Protection of hands:



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore (Contd. on page 4)

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- to be checked prior to the application.
- · Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· Eye protection:

Tightly sealed goggles

SECTION 9: Physical and chemical properties

- 9.1 Information on basic physical and chemical properties
- · General Information
- Appearance:
 - Form:
- Colour:
- Odour:
- Odour threshold:
- pH-value:
- Change in condition Melting point/freezing point: 0°C Initial boiling point and boiling range: 100 °C
- · Flash point:
- · Flammability (solid, gas):
- Decomposition temperature:
- Auto-ignition temperature:
- · Explosive properties:
- · Explosion limits: Lower: Upper:
- · Vapour pressure at 20 °C:
- Density at 20 °C:
- Relative density
- Vapour density
- Evaporation rate
- Solubility in / Miscibility with water:
- Partition coefficient: n-octanol/water:
- · Viscositv: Dynamic: Kinematic:
- · Solvent content: Water:

Solids content:

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Fluid Colourless Odourless Not determined. Not determined.

Not applicable. Not applicable. Not determined. Product is not selfigniting.

Product does not present an explosion hazard.

Not determined. Not determined.

23 hPa

1 g/cm³ Not determined. Not determined. Not determined.

Not miscible or difficult to mix.

Not determined.

Not determined. Not determined.

98.0 % 0.2 %

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· 9.2 Other information

No further relevant information available.

SECTION 10: Stability and reactivity

- · 10.1 Reactivity No further relevant information available.
- · 10.2 Chemical stability
- *Thermal decomposition / conditions to be avoided:* No decomposition if used according to specifications.
- · 10.3 Possibility of hazardous reactions No dangerous reactions known.
- · 10.4 Conditions to avoid No further relevant information available.
- 10.5 Incompatible materials: No further relevant information available.
- 10.6 Hazardous decomposition products: No dangerous decomposition products known.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

- · Acute toxicity Based on available data, the classification criteria are not met.
- · Primary irritant effect:
- Skin corrosion/irritation Causes skin irritation.
- Serious eye damage/irritation
- Causes serious eye irritation.
- Respiratory or skin sensitisation Based on available data, the classification criteria are not met.
- · Additional toxicological information:
- · CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)
- · Germ cell mutagenicity Based on available data, the classification criteria are not met.
- · Carcinogenicity Based on available data, the classification criteria are not met.
- Reproductive toxicity Based on available data, the classification criteria are not met.
- STOT-single exposure Based on available data, the classification criteria are not met.
- STOT-repeated exposure Based on available data, the classification criteria are not met.
- · Aspiration hazard Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

- · 12.1 Toxicity
- Aquatic toxicity: No further relevant information available.
- 12.2 Persistence and degradability No further relevant information available.
- · 12.3 Bioaccumulative potential No further relevant information available.
- · 12.4 Mobility in soil No further relevant information available.
- · Additional ecological information:
- General notes:
- Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- · 12.5 Results of PBT and vPvB assessment
- · PBT: Not applicable.
- · vPvB: Not applicable.
- 12.6 Other adverse effects No further relevant information available.

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SECTION 13: Disposal considerations

- · 13.1 Waste treatment methods
- · Recommendation

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

- · Uncleaned packaging:
- · Recommendation: Disposal must be made according to official regulations.
- **SECTION 14: Transport information**
- · 14.1 UN-Number
- · ADR, IMDG, IATA
- 14.2 UN proper shipping name
- · ADR
- · IMDG, IATA
- 14.3 Transport hazard class(es)
- · ADR, IMDG, IATA

UN3264

3264 CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (NITRIC ACID, Terbium nitrate) CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (NITRIC ACID, Terbium nitrate)

- *
- · Class
- · Label
- · 14.4 Packing group
- ADR, IMDG, IATA
 14.5 Environmental hazards:
- Marine pollutant:
- 14.6 Special precautions for user
- Hazard identification number (Kemler code): 80
- · EMS Number:
- · Segregation groups
- · Stowage Category
- · Stowage Code
- 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code
- · Transport/Additional information:

· ADR

- Limited quantities (LQ)
- Transport category
- Tunnel restriction code
- · UN "Model Regulation":

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8 Corrosive substances.

No

8

Warning: Corrosive substances.

: 80 F-A,S-B

5L

3

Acids

SW2 Clear of living quarters.

Not applicable.

E UN 3264 CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (NITRIC ACID, TERBIUM NITRATE), 8, III

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SECTION 15: Regulatory information

- 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- · Directive 2012/18/EU
- · Named dangerous substances ANNEX I None of the ingredients is listed.
- REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3
- DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment Annex II
- None of the ingredients is listed.

· 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· Relevant phrases

H272 May intensify fire; oxidiser.

- H314 Causes severe skin burns and eye damage.
- Classification according to Regulation (EC) No 1272/2008

The classification of the mixture is generally based on the calculation method using substance data according to Regulation (EC) No 1272/2008.

- · Department issuing SDS: product safety department
- · Contact: msds@scharlab.com
- · Abbreviations and acronyms:

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail) ICAO: International Civil Aviation Organisation ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods by Road)

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

- EINECS: European Inventory of Existing Commercial Chemical Substances
- ELINCS: European List of Notified Chemical Substances
- CAS: Chemical Abstracts Service (division of the American Chemical Society)
- PBT: Persistent, Bioaccumulative and Toxic
- vPvB: very Persistent and very Bioaccumulative
- Ox. Liq. 2: Oxidizing liquids Category 2

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- Skin Corr. 1A: Skin corrosion/irritation Category 1A
- Skin Irrit. 2: Skin corrosion/irritation Category 2 Eye Irrit. 2: Serious eye damage/eye irritation – Category 2