

Safety Data Sheet
according to 1907/2006/EC, Article 31

Revision: 13.07.2010

Printing date 13.07.2010

1 Identification of substance**Product details**

Trade name

**Europium, plasma standard solution, Specpure ®,
Eu 10000 µg/ml**

Stock number:

35761

Manufacturer/Supplier:

Alfa Aesar GmbH & Co.KG
Benzstrasse 3
D-76185 Karlsruhe / GermanyE-mail: gcat@matthey.com
www.alfa-chemcat.comInforming department:
Emergency information:Product safety department.
Giftnotruf Universität Mainz / Poison Information Center Mainz
www.giftinfo.uni-mainz.de Telefon:+49(0)6131/19240**2 Hazards identification**

Hazard designation:



C Corrosive

Information pertaining to particular dangers
for man and environment
GHS label elements

R 34 Causes burns.

**Danger**

H314 - Causes severe skin burns and eye damage.

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P301+P330+P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/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.

P405 Store locked up.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

Prevention:
Response:Storage:
Disposal:**3 Composition/information on ingredients**

Chemical characterization:

Nitric acid (CAS# 7697-37-2), 5%

Designation: (CAS#)

Identification number(s):

231-714-2

EINECS Number:

007-004-00-1

Index number:

Additional information:

Elements and concentrations in micrograms/milliliter are as follows (balance is water):
Eu 10000**4 First aid measures**General information
After inhalationInstantly remove any clothing soiled by the product.
Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.

After skin contact

Seek immediate medical advice.
Instantly wash with water and soap and rinse thoroughly.

After eye contact

Seek immediate medical advice.
Rinse opened eye for several minutes under running water. Then consult doctor.

After swallowing

Seek immediate medical advice.

5 Fire fighting measuresSuitable extinguishing agents
Special hazards caused by the material, its
products of combustion or flue gases:

Use fire fighting measures that suit the environment.

Protective equipment:

Can be released in case of fire:
Nitrogen oxides (NOx)
Wear self-contained breathing apparatus.
Wear full protective suit.**6 Accidental release measures**

Person-related safety precautions:

Wear protective equipment. Keep unprotected persons away.
Ensure adequate ventilationMeasures for environmental protection:
Measures for cleaning/collecting:Do not allow material to be released to the environment without proper governmental permits.
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Use neutralizing agent.

Additional information:

Dispose of contaminated material as waste according to item 13.
Ensure adequate ventilation.
See Section 7 for information on safe handling
See section 8 for information on personal protection equipment.
See Section 13 for information on disposal.**7 Handling and storage**Handling
Information for safe handling:Keep containers tightly sealed.
Store in cool, dry place in tightly closed containers.
Ensure good ventilation/exhaustion at the workplace.Information about protection against
explosions and fires:

No special measures required.

Storage
Requirements to be met by storerooms and
containers:
Information about storage in one common
storage facility:

No special requirements.

Further information about storage
conditions:Do not store together with alkalis (caustic solutions).
Store away from metals.Keep container tightly sealed.
Store in cool, dry conditions in well sealed containers.
Store in a locked cabinet or with access restricted to technical experts or their assistants.**8 Exposure controls and personal protection**Additional information about design of
technical systems:

Properly operating chemical fume hood designed for hazardous chemicals and having an average face velocity of at least 100 feet per minute.

Components with critical values that require
monitoring at the workplace:

Nitric acid

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	ppm	
ACGIH TLV		2; 4-STEL
Austria MAK	2	
Belgium TWA		2; 4-STEL
Denmark TWA	2	
Finland TWA		2; 5-STEL (skin)
France VME		2; 5-VLE
Germany MAK	2	
Hungary STEL	5	
Japan OEL	2	
Korea TLV		2; 4-STEL
Netherlands TWA	2	
Norway TWA	2	
Poland TWA		5 mg/m ³ ; 10 mg/m ³ -STEL
Russia TWA		2; 2-STEL (skin)
Sweden NGV		2; 5-KTV
Switzerland TWA		2; 4-STEL
United Kingdom LTEL		2; 4-STEL
USA PEL	2	
Additional information:		No data

Additional information:**Personal protective equipment
General protective and hygienic measures**

The usual precautionary measures should be adhered to in handling the chemicals.
Keep away from foodstuffs, beverages and food.
Instantly remove any soiled and impregnated garments.
Wash hands during breaks and at the end of the work.
Do not inhale gases / fumes / aerosols.
Avoid contact with the eyes and skin.
Use breathing protection with high concentrations.
Safety glasses
Tightly sealed safety glasses.
Full face protection
Face protection
Protective work clothing.

Breathing equipment:**Eye protection:****Body protection:****9 Physical and chemical properties:****General Information**

Form:	Liquid
Smell:	Characteristic
Change in condition	
Melting point/Melting range:	Not determined
Boiling point/Boiling range:	Approx. 1 °C
Sublimation temperature / start:	Not determined
Flash point:	Not applicable Not determined
Ignition temperature:	Not determined
Decomposition temperature:	Not determined
Danger of explosion:	Product is not explosive.
Critical values for explosion:	
Lower:	Not determined
Upper:	Not determined
Steam pressure:	Not determined
Density at 20°C	Approx. 1 g/cm ³

10 Stability and reactivity**Thermal decomposition / conditions to be avoided:****Materials to be avoided:**

No decomposition if used and stored according to specifications.

Bases

Metal powders

Sulfides

Aqueous solutions are incompatible with alkali and alkaline earth metals and many reactive organic and inorganic chemicals.

Dangerous reactions:

Reacts with alkaline metals

Reacts with alkali and metals

Dangerous products of decomposition:

Nitrogen oxides (NOx)

11 Toxicological information**Acute toxicity:****LD/LC50 values that are relevant for classification:**Oral: LDLo: 430 mg/kg (hmn)(HNO₃)Unreported: LDLo: 110 mg/kg (man)(HNO₃)**Primary irritant effect:****on the skin:**

Corrosive effect on skin and mucous membranes.

Irritant for skin and mucous membranes.

on the eye:

Strong corrosive effect.

Irritant effect.

Sensitization:**Additional toxicological information:**

No sensitizing effect known.

Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.

No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH.

12 Ecological information:**Additional ecological information:****General notes:**

Water hazard class 1 (Self-assessment): slightly hazardous for water.

Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage system.

Do not allow material to be released to the environment without proper governmental permits.

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13 Disposal considerations

Product:
Recommendation Consult state, local or national regulations for proper disposal.
Hand over to disposers of hazardous waste.
Must be specially treated under adherence to official regulations.

Uncleaned packagings:
Recommendation: Disposal must be made according to official regulations.

14 Transport information**Land transport ADR/RID and GGVS/GGVE (cross-border/domestic)**

ADR/RID-GGVS/E Class: 8 (C1) Corrosive substances.
Kemler Number: 80
UN-Number: 3264
Packaging group: III
Label: 8
Designation of goods: 3264 CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (Nitric acid)
Limited quantities (LQ): LQ7
Transport category: 3
Tunnel restriction code: E

Maritime transport IMDG/GGVSea:

IMDG/GGVSea Class: 8
UN Number: 3264
Label: 8
Packaging group: III
Marine pollutant: No
Segregation groups: Acids
Correct technical name: CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (Nitric acid)

Air transport ICAO-TI and IATA-DGR:

ICAO/IATA Class: 8
UN/ID Number: 3264
Label: 8
Packaging group: III
Correct technical name: CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (Nitric acid)

UN "Model Regulation":

UN3264, CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S., 8, III

15 Regulatory information**Designation according to EC guidelines:****Code letter and hazard designation of product:**

C Corrosive

Risk phrases: 34 Causes burns.
Safety phrases: 23 Do not breathe fumes.
26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

National regulations

Information about limitation of use: Employment restrictions concerning young persons must be observed.
For use only by technically qualified individuals.

Water hazard class: Water hazard class 1 (Self-assessment): slightly hazardous for water.

16 Other information:

Employers should use this information only as a supplement to other information gathered by them, and should make independent judgement of suitability of this information to ensure proper use and protect the health and safety of employees. This information is furnished without warranty, and any use of the product not in conformance with this Material Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.

Department issuing data specification sheet: Health, Safety and Environmental Department.

Contact: Zachariah Holt

Abbreviations and acronyms: ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)
ICAO: International Civil Aviation Organization
ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent