

Safety Data Sheet

according to 1907/2006/EC, Article 31

Printing date 14.07.2010

Revision: 14.07.2010

1 Identification of substance

Product details

Trade name

Cyanide, standard solution, Specpure®, CN 1000 µg/ml

Stock number:

43804

Manufacturer/Supplier:

Alfa Aesar GmbH & Co.KG
Benzstrasse 3
D-76185 Karlsruhe / GermanyE-mail: gcat@matthey.com
www.alfa-chemcat.com

Informing department:

Product safety department.

Emergency information:

Giftnotruf Universität Mainz / Poison Information Center Mainz
www.giftinfo.uni-mainz.de Telefon: +49(0)6131/19240

2 Hazards identification

Hazard designation:



Xn Harmful

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

R 20/21/22 Harmful by inhalation, in contact with skin and if swallowed.

**Warning**

H302 - Harmful if swallowed.

H312 - Harmful in contact with skin.

H332 - Harmful if inhaled.

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

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

P302+P352 IF ON SKIN: Wash with plenty of soap and water.

P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P322 Specific measures (see on this label).

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

Prevention:

Response:

Disposal:

3 Composition/information on ingredients

Chemical characterization:

Designation: (CAS#)

Potassium cyanide (CAS# 151-50-8), 0.25%
Potassium hydroxide (CAS# 1310-58-3), 0.1%
Water (CAS# 7732-18-5), Balance

4 First aid measures

After inhalation

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.

After swallowing

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

5 Fire fighting measures

Suitable extinguishing agents

Use fire fighting measures that suit the environment.

Protective equipment:

Wear self-contained breathing apparatus.
Wear full protective suit.

6 Accidental release measures

Person-related safety precautions:

Wear protective equipment. Keep unprotected persons away.

Measures for environmental protection:

Ensure adequate ventilation

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).
Dispose of contaminated material as waste according to item 13.

Additional information:

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:

The product is not flammable

Storage

Requirements to be met by storerooms and
containers:

No special requirements.

Information about storage in one common
storage facility:

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

Further information about storage
conditions:Keep container tightly sealed.
Store in cool, dry conditions in well sealed containers.

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:

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Potassium cyanide (as CN)
mg/m³

ACGIH TLV	5-Ceiling (skin)
Austria MAK	5 (skin)
Denmark TWA	5 (skin)
France VME	5 (skin)
Germany MAK	5 (skin)
Poland TWA	0.3; 10-Ceiling
Switzerland MAK-W	5; 10-KZG-W (skin)
United Kingdom TWA	5 (skin)
USA PEL	5

Potassium hydroxide
mg/m³

ACGIH TLV	2-Ceiling
Austria MAK	2
Belgium	2-STEEL
Denmark TWA	2
Finland TWA	2
Japan	2-STEEL
Korea TLV	2-Ceiling
Netherlands MAC-TGG	2
Norway TWA	2
Poland TWA	0.5; 1-STEEL
Switzerland MAK-W	2
United Kingdom	2-STEEL
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.
Avoid contact with the eyes and skin.
Use breathing protection with high concentrations.
Safety glasses
Protective work clothing.

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

Form:	Liquid
Colour:	Clear
Smell:	Odourless

Change in condition	
Melting point/Melting range:	0°C (approx)
Boiling point/Boiling range:	100°C (approx)
Sublimation temperature / start:	Not determined

Flash point:	Not determined
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Ignition temperature:	Not determined
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Decomposition temperature:	Not determined
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Danger of explosion:	Product is not explosive.
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Critical values for explosion:	
Lower:	Not determined
Upper:	Not determined

Steam pressure:	Not determined
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Density at 20°C	1 g/cm ³ (approx)
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Solubility in / Miscibility with Water:	Fully miscible
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10 Stability and reactivity**Thermal decomposition / conditions to be avoided:****Materials to be avoided:****Dangerous reactions:****Dangerous products of decomposition:**

No decomposition if used and stored according to specifications.
Aqueous solutions are incompatible with alkali and alkaline earth metals and many reactive organic and inorganic chemicals.
Reacts with alkaline metals
Reacts with alkaline earth metals
Hydrogen cyanide (prussic acid)

11 Toxicological information**Acute toxicity:****Primary irritant effect:****on the skin:****on the eye:****Sensitization:****Additional toxicological information:**

May cause irritation
May cause irritation
No sensitizing effect known.
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.

13 Disposal considerations**Product:****Recommendation**

Consult state, local or national regulations for proper disposal.
Hand over to disposers of hazardous waste.

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Must be specially treated under adherence to official regulations.

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Uncleaned packagings:

Recommendation:

Recommended cleaning agent:

Disposal must be made according to official regulations.

Water, if necessary with cleaning agent.

14 Transport information

Land transport ADR/RID and GGVS/GGVE (cross-border/domestic)

ADR/RID-GGVS/E Class:

None

Maritime transport IMDG/GGVSea:

IMDG/GGVSea Class:

None

Marine pollutant:

No

Air transport ICAO-TI and IATA-DGR:

ICAO/IATA Class:

None

Transport/Additional information:

Not dangerous according to the above specifications.

15 Regulatory information

Designation according to EC guidelines:

Code letter and hazard designation of product:



Xn Harmful

Risk phrases:

20/21/22 Harmful by inhalation, in contact with skin and if swallowed.

Safety phrases:

9 Keep container in a well-ventilated place.
36/37 Wear suitable protective clothing and gloves.

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

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

CAS: Chemical Abstracts Service (division of the American Chemical Society)