

Safety Data Sheet

according to Regulation (EU) No. 1907/2006

21223-32 Alkaline Cyanide Reagent

Print date : 30.04.2008

Product code : 2122332

Page 1 of 6

1. Identification of the substance/preparation and of the company/undertaking

Identification of the substance or preparation

21223-32 Alkaline Cyanide Reagent

Use of the substance/preparation

Water analysis

Company/undertaking identification

Company name : HACH LANGE GmbH
Street : Willstätterstr. 11
Place : D-40549 Düsseldorf
Telephone : +49 (0)211 5288-383
e-mail : marion.ives@hach-lange.de
Internet : www.hach-lange.com

Inquiry office : HACH LANGE Ltd.
Pacific Way
Salford Manchester M50 1DL - United Kingdom
Tel. +44 (0) 161 872 1487
e-Mail: martin.butterfield@hach-lange.co.uk

HACH LANGE Ltd.
Unit 1, Chestnut Road Western Industrial Estate
Dublin 12 - Ireland
Tel. +353 (0)1 4602522
e-Mail: joseph.diver@hach-lange.ie

2. Hazards identification

Classification

Indications of danger : Toxic, Corrosive, Harmful, Dangerous for the environment

R-phrases :

Contact with acids liberates very toxic gas.

Causes burns.

Toxic by inhalation, in contact with skin and if swallowed.

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

3. Composition/information on ingredients

Chemical characterization (preparation)

Hazardous components

EC-No.	CAS-No.	Chemical name	Quantity	Classification
231-791-2	7732-18-5	Water	85-90 %	
205-599-4	143-33-9	Sodium cyanide	1-7 %	T+, N R26/27/28-32-50-53
215-185-5	1310-73-2	caustic soda, sodium hydroxide	1-5 %	C R35

Full text of each relevant R phrase can be found in heading 16.

4. First aid measures

General information

Take off all contaminated clothing immediately.

Consult a physician. Show this safety data sheet to the doctor in attendance.

Safety Data Sheet

according to Regulation (EU) No. 1907/2006

21223-32 Alkaline Cyanide Reagent

Print date : 30.04.2008

Product code : 2122332

Page 2 of 6

After inhalation

Call a physician or Poison Control Centre immediately. Show this safety data sheet to the doctor in attendance.

After contact with skin

Wash off immediately with plenty of water for at least 15 minutes. Consult a physician. Show this safety data sheet to the doctor in attendance.

After contact with eyes

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. Show this safety data sheet to the doctor in attendance.

After ingestion

Call a physician or Poison Control Centre immediately. Show this safety data sheet to the doctor in attendance.

Advice to doctor

Treat symptomatically.

5. Fire-fighting measures

Suitable extinguishing media

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

Special exposure hazards arising from substance or preparation itself, combustion products, resulting gases

Fire may liberate hazardous vapours. (cyanides)

Special protective equipment for fire-fighters

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.

6. Accidental release measures

Personal precautions

Use personal protective equipment.

Environmental precautions

Do not flush into surface water or sanitary sewer system.

Methods for cleaning up/taking up

Soak up with inert absorbent material and dispose of as hazardous waste.

7. Handling and storage

Handling

Advice on safe handling

Use only in well-ventilated areas. Do not breathe vapours/dust.

Storage

Requirements for storage rooms and vessels

Keep tightly closed in a dry, cool and well-ventilated place. Accessible only for authorized persons.

8. Exposure controls/personal protection

Exposure limit values

Safety Data Sheet

according to Regulation (EU) No. 1907/2006

21223-32 Alkaline Cyanide Reagent

Print date : 30.04.2008

Product code : 2122332

Page 3 of 6

Exposure limits (EH40)

CAS-No.	Chemical name	ml/m ³	mg/m ³	F/ml	Category	Origin
1310-73-2	Sodium hydroxide	-	-		TWA (8 h)	WEL
		-	2		STEL (15 min)	WEL

Exposure controls

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.

Respiratory protection

Use respirator when performing operations involving potential exposure to vapour of the product.
respirator with Type: B filter

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

Eye protection

Safety glasses with side-shields

Skin protection

Remove and wash contaminated clothing before re-use.

9. Physical and chemical properties

General information

Physical state : liquid
Colour : colourless
Odour : odourless

Important health, safety and environmental information

pH-Value (at 20 °C) :	12,3	Test method
Changes in the physical state		
Boiling point :	92 °C	
Flash point :	not applicable	
Lower explosion limits :	not applicable	
Upper explosion limits :	not applicable	
Density (at 20 °C) :	1,112 g/cm ³	
Water solubility :	completely soluble	
(at 20 °C)		
Evaporation rate :	0,57	
(at 20 °C)		

10. Stability and reactivity

Conditions to avoid

No dangerous reaction known under conditions of normal use. Stable under recommended storage conditions. To avoid thermal decomposition, do not overheat.

Materials to avoid

acids, oxidizing agents

Safety Data Sheet

according to Regulation (EU) No. 1907/2006

21223-32 Alkaline Cyanide Reagent

Print date : 30.04.2008

Product code : 2122332

Page 4 of 6

Hazardous decomposition products

No decomposition if stored and applied as directed.

11. Toxicological information

Acute toxicity

LD50/oral/rat = 69 mg/kg

Specific effects in experiment on an animal

No data is available on the product itself.

Corrosive and irritant effects

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

12. Ecological information

Ecotoxicity

May cause long-term adverse effects in the aquatic environment.
Do not flush into surface water or sanitary sewer system.

13. Disposal considerations

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 dangerous substances, including mixtures of laboratory chemicals
Classified as 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 dangerous substances, including mixtures of laboratory chemicals
Classified as hazardous waste.

14. Transport information

Land transport (ADR/RID)

UN number : 2922
ADR/RID class : 8
Warning plate
Hazard label : 8, 6.1
ADR/RID packing group : II

Description of the goods

Corrosive liquid, toxic, n.o.s. (Sodium hydroxide/sodium cyanide solution)

Inland waterways transport

Other applicable information (inland waterways transport)

Not tested

Marine transport

UN number : 2922
IMDG code : 8
Marine pollutant : --
Hazard label : 8, 6.1
IMDG packing group : II

Safety Data Sheet

according to Regulation (EU) No. 1907/2006

21223-32 Alkaline Cyanide Reagent

Print date : 30.04.2008

Product code : 2122332

Page 5 of 6

EmS : F-A,S-B

Description of the goods

Corrosive liquid, toxic, n.o.s. (Sodium hydroxide/sodium cyanide solution)/IATA*/

Air transport

UN/ID number : 2922

ICAO/IATA-DGR : 8

Hazard label : 8, 6.1

ICAO packing group : II

Description of the goods

Corrosive liquid, toxic, n.o.s. (Sodium hydroxide/sodium cyanide solution)/IATA*/

Further 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

15. Regulatory information

Labelling

Danger symbols : T - Toxic; N - Dangerous for the environment



T - Toxic



N - Dangerous for the environment

Hazardous component(s) to be indicated on label

caustic soda, sodium hydroxide
Sodium cyanide

R phrases

- 32 Contact with acids liberates very toxic gas.
34 Causes burns.
23/24/25 Toxic by inhalation, in contact with skin and if swallowed.
51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

S phrases

- 07 Keep container tightly closed.
26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
28 After contact with skin, wash immediately with plenty of water.
35 This material and its container must be disposed of in a safe way.
45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
36/39 Wear suitable protective clothing and eye/face protection.

Additional advice on labelling

Classification according to European directive on classification of hazardous preparations 1999/45/EC.

National regulatory information

Employment restrictions : Observe employment restrictions for young people. Observe employment restrictions for child bearing mothers and nursing.
Water contaminating class (D) : 3 - highly water contaminating

Safety Data Sheet

according to Regulation (EU) No. 1907/2006

21223-32 Alkaline Cyanide Reagent

Print date : 30.04.2008

Product code : 2122332

Page 6 of 6

16. Other information

Full text of R-phrases referred to under sections 2 and 3

23/24/25	Toxic by inhalation, in contact with skin and if swallowed.
26/27/28	Very toxic by inhalation, in contact with skin and if swallowed.
32	Contact with acids liberates very toxic gas.
34	Causes burns.
35	Causes severe burns.
50	Very toxic to aquatic organisms.
51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
53	May cause long-term adverse effects in the aquatic environment.

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)