

according to the (US) Hazard Communication Standard (29 CFR 1910.1200)

Date of issue: 10/09/2013 Version1.0

SECTION 1.Identification

Product identifier

Catalog No. 114417

Product name Cyanide Test Method: colorimetric with color card and comparator

block with long test tubes 0.002 - 0.004 - 0.007 - 0.010 - 0.013 - 0.016

- 0.020 - 0.025 - 0.030 mg/l CN⁻ MColortest™

CN-1

Relevant identified uses of the substance or mixture and uses advised against

Identified uses Reagent for analysis

Details of the supplier of the safety data sheet

Company EMD Millipore Corporation | 290 Concord Road, Billerica, MA 01821,

United States of America | SDS Phone Support: +1-978-715-1335 | General Inquiries: +1-978-715-4321 | Monday to Friday, 9:00 AM to

4:00 PM Eastern Time (GMT-5)

Emergency telephone 800-424-9300 CHEMTREC (USA)

+1-703-527-3887 CHEMTREC (International)

24 Hours/day; 7 Days/week

SECTION 2. Hazards identification

GHS Classification

Chronic aquatic toxicity, Category 3, H412

For the full text of the H-Statements mentioned in this Section, see Section 16.

GHS-Labeling

Hazard Statements

H412 Harmful to aquatic life with long lasting effects.

Precautionary Statements

P273 Avoid release to the environment.

OSHA Hazards

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Other hazards

None known.

SECTION 3. Composition/information on ingredients

according to the (US) Hazard Communication Standard (29 CFR 1910.1200)

Product number 114417 Version1.0

Product name Cyanide Test Method: colorimetric with color card and comparator block with long

test tubes 0.002 - 0.004 - 0.007 - 0.010 - 0.013 - 0.016 - 0.020 - 0.025 - 0.030

mg/I CN⁻ MColortest™

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Chemical nature Mixture of inorganic and organic compounds

Hazardous ingredients

Chemical Name (Concentration)

CAS-No.

Sodium chloride (>= 30 % - < 50 %)

7647-14-5

SECTION 4. First aid measures

Description of first-aid measures

Inhalation

After inhalation: fresh air.

Skin contact

After skin contact: wash off with plenty of water. Remove contaminated clothing.

Eye contact

After eye contact: rinse out with plenty of water.

Ingestion

After swallowing: make victim drink water (two glasses at most). Consult doctor if feeling unwell.

Most important symptoms and effects, both acute and delayed

irritant effects

Indication of any immediate medical attention and special treatment needed

No information available.

SECTION 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media

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

Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given.

Special hazards arising from the substance or mixture

Not combustible.

Ambient fire may liberate hazardous vapors.

Fire may cause evolution of:

Hydrogen chloride gas, Sulfur oxides

Advice for firefighters

according to the (US) Hazard Communication Standard (29 CFR 1910.1200)

Product number 114417 Version1.0

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test tubes 0.002 - 0.004 - 0.007 - 0.010 - 0.013 - 0.016 - 0.020 - 0.025 - 0.030

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Special protective equipment for fire-fighters

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

Further information

Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

SECTION 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Avoid inhalation of dusts. Evacuate the danger area, observe emergency procedures, consult an expert.

Advice for emergency responders: Protective equipment see section 8.

Environmental precautions

Do not empty into drains.

Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills.

Observe possible material restrictions (see sections 7 and 10).

Take up dry. Dispose of properly. Clean up affected area. Avoid generation of dusts.

SECTION 7. Handling and storage

Precautions for safe handling

Observe label precautions.

Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place. Keep away from heat and sources of ignition.

Store at +15°C to +25°C (+59°F to +77°F).

The data applies to the entire pack.

SECTION 8. Exposure controls/personal protection

Exposure limit(s)

Contains no substances with occupational exposure limit values.

Engineering measures

Individual protection measures

Protective clothing should be selected specifically for the workplace, depending on concentration and quantity of the hazardous substances handled. The chemical resistance of the protective equipment should be inquired at the respective supplier.

Hygiene measures

Change contaminated clothing. Wash hands after working with substance.

according to the (US) Hazard Communication Standard (29 CFR 1910.1200)

Product number 114417 Version1.0

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test tubes 0.002 - 0.004 - 0.007 - 0.010 - 0.013 - 0.016 - 0.020 - 0.025 - 0.030

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Eye/face protection Safety glasses Hand protection

Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

Respiratory protection

required when dusts are generated.

Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

SECTION 9. Physical and chemical properties

Physical state solid

Color white

Odor of chlorine

Odor Threshold No information available.

pH No information available.

Melting point No information available.

Boiling point No information available.

Flash point No information available.

Evaporation rate No information available.

Flammability (solid, gas) The product is not flammable.

Lower explosion limit No information available.

Upper explosion limit No information available.

Vapor pressure No information available.

Relative vapor density No information available.

Relative density No information available.

Water solubility at 68 °F (20 °C)

soluble

according to the (US) Hazard Communication Standard (29 CFR 1910.1200)

Product number 114417 Version1.0

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test tubes 0.002 - 0.004 - 0.007 - 0.010 - 0.013 - 0.016 - 0.020 - 0.025 - 0.030

mg/I CN⁻ MColortest™

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Partition coefficient: n-

octanol/water

No information available.

Autoignition temperature No information available.

Decomposition temperature No information available.

Viscosity, dynamic No information available.

SECTION 10. Stability and reactivity

Reactivity

See below

Chemical stability

The product is chemically stable under standard ambient conditions (room temperature) .

Possibility of hazardous reactions

no information available

Conditions to avoid

no information available

Incompatible materials

no information available

Hazardous decomposition products

in the event of fire: See section 5.

SECTION 11. Toxicological information

Information on toxicological effects

Likely route of exposure

Eye contact, Skin contact, Ingestion

Target Organs

Skin

Eyes

Stomach

Acute oral toxicity

Symptoms: Possible damages:, Irritation of mucous membranes

Skin irritation

Possible damages: slight irritation

Eye irritation

Possible damages: slight irritation

according to the (US) Hazard Communication Standard (29 CFR 1910.1200)

Product number 114417 Version1.0

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test tubes 0.002 - 0.004 - 0.007 - 0.010 - 0.013 - 0.016 - 0.020 - 0.025 - 0.030

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Specific target organ systemic toxicity - single exposure

The substance or mixture is not classified as specific target organ toxicant, single exposure.

Specific target organ systemic toxicity - repeated exposure

The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Aspiration hazard

Regarding the available data the classification criteria are not fulfilled.

Carcinogenicity

IARC No ingredient of this product present at levels greater than or

equal to 0.1% is identified as probable, possible or confirmed

human carcinogen by IARC.

OSHA No ingredient of this product present at levels greater than or

equal to 0.1% is identified as a carcinogen or potential

carcinogen by OSHA.

NTP No ingredient of this product present at levels greater than or

equal to 0.1% is identified as a known or anticipated carcinogen

by NTP.

ACGIH No ingredient of this product present at levels greater than or

equal to 0.1% is identified as a carcinogen or potential

carcinogen by ACGIH.

Further information

However, when the product is handled appropriately, hazardous effects are unlikely to occur. Handle in accordance with good industrial hygiene and safety practice.

Ingredients

Sodium chloride

Acute oral toxicity

LD50 rat: 3,000 mg/kg (RTECS)

Acute dermal toxicity

LD50 rabbit: > 10,000 mg/kg (RTECS)

Germ cell mutagenicity Genotoxicity in vitro

Mutagenicity (mammal cell test): micronucleus.

Result: negative (IUCLID)

Ames test Result: negative (IUCLID)

according to the (US) Hazard Communication Standard (29 CFR 1910.1200)

Product number 114417 Version1.0

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test tubes 0.002 - 0.004 - 0.007 - 0.010 - 0.013 - 0.016 - 0.020 - 0.025 - 0.030

mg/I CN⁻ MColortest™

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SECTION 12. Ecological information

Ecotoxicity

No information available.

Persistence and degradability

No information available.

Bioaccumulative potential

No information available.

Mobility in soil

No information available.

Other adverse effects

Ingredients

Sodium chloride

Toxicity to fish

LC50 Pimephales promelas (fathead minnow): 7,650 mg/l; 96 h (IUCLID)

Toxicity to daphnia and other aquatic invertebrates

EC50 Daphnia magna (Water flea): 1,000 mg/l; 48 h (IUCLID)

Biodegradability

The methods for determining the biological degradability are not applicable to inorganic substances.

SECTION 13. Disposal considerations

The information presented only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. Disposal should be in accordance with applicable regional, national and local laws and regulations.

SECTION 14. Transport information

Land transport (DOT)

UN number UN3316

Proper shipping name CHEMICAL KIT

Class 9
Packing group III
Environmentally hazardous ---

Air transport (IATA)

UN 3316

Proper shipping name CHEMICAL KIT

according to the (US) Hazard Communication Standard (29 CFR 1910.1200)

Product number 114417 Version1.0

Product name Cyanide Test Method: colorimetric with color card and comparator block with long

test tubes 0.002 - 0.004 - 0.007 - 0.010 - 0.013 - 0.016 - 0.020 - 0.025 - 0.030

mg/I CN⁻ MColortest™

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Class 9
Packing group III
Environmentally hazardous -Special precautions for user no

Sea transport (IMDG)

UN number UN 3316

Proper shipping name CHEMICAL KIT

Class 9
Packing group III
Environmentally hazardous -Special precautions for user yes
EmS F-A S-P

THIS TRANSPORT DATA APPLIES TO THE ENTIRE PACK!

SECTION 15. Regulatory information

United States of America

OSHA Hazards

Target organ effects

This information is based on 29 CFR 1910.1200 criteria prior to adoption of the GHS, and may deviate from the GHS information on the label and in section 2.

SARA 311/312 Hazards

Chronic Health Hazard

SARA 313

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

according to the (US) Hazard Communication Standard (29 CFR 1910.1200)

Product number 114417 Version1.0

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test tubes 0.002 - 0.004 - 0.007 - 0.010 - 0.013 - 0.016 - 0.020 - 0.025 - 0.030

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SARA 302

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

Clean Water Act

This product does not contain any Hazardous Substances listed under the U.S. CleanWater Act, Section 311,

Table 116.4A.

This product does not contain any Hazardous Chemicals listed under the U.S. CleanWater Act, Section 311,

Table 117.3.

DEA List I

Not listed

DEA List II

Not listed

US State Regulations

Massachusetts Right To Know

Ingredients

Sodium sulphate

Pennsylvania Right To Know

Ingredients
Sodium chloride

Sodium sulphate

New Jersey Right To Know

Ingredients

Sodium chloride

Sodium sulphate

California Prop 65 Components

This product does not contain any chemicals known to the State of California to cause cancer, birth, or any other reproductive defects.

Notification status

TSCA: Not Listed on TSCA inventory. For Research and Development

Use only. Not For Manufacturing or Commercial Purposes.

Ingredients

troclosene sodium, dihydrate

DSL: This product contains one or several components that are not on

the Canadian DSL nor NDSL.

Ingredients

troclosene sodium, dihydrate

SECTION 16. Other information

according to the (US) Hazard Communication Standard (29 CFR 1910.1200)

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test tubes 0.002 - 0.004 - 0.007 - 0.010 - 0.013 - 0.016 - 0.020 - 0.025 - 0.030

mg/I CN⁻ MColortest™

CN-1

Training advice

Provide adequate information, instruction and training for operators.

Full text of H-Statements referred to under sections 2 and 3.

H412 Harmful to aquatic life with long lasting effects.

Key or legend to abbreviations and acronyms used in the safety data sheet

Used abbreviations and acronyms can be looked up at www.wikipedia.org.

Date of issue: 10/09/2013

The information contained herein is based on the present state of our knowledge. It characterizes the product with regard to appropriate safety precautions. It does not represent a warranty of any product properties and we assume no liability for any loss or injury which may result from the use of this information. Users should conduct their own investigations to determine the suitability of the information.

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according to the (US) Hazard Communication Standard (29 CFR 1910.1200)

Date of issue: 10/09/2013 Version1.0

SECTION 1.Identification

Product identifier

Catalog No. 114417

Product name Cyanide Test Method: colorimetric with color card and comparator

block with long test tubes 0.002 - 0.004 - 0.007 - 0.010 - 0.013 - 0.016

- 0.020 - 0.025 - 0.030 mg/l CN⁻ MColortest™

CN-2

Relevant identified uses of the substance or mixture and uses advised against

Identified uses Reagent for analysis

Details of the supplier of the safety data sheet

Company EMD Millipore Corporation | 290 Concord Road, Billerica, MA 01821,

United States of America | SDS Phone Support: +1-978-715-1335 | General Inquiries: +1-978-715-4321 | Monday to Friday, 9:00 AM to

4:00 PM Eastern Time (GMT-5)

Emergency telephone 800-424-9300 CHEMTREC (USA)

+1-703-527-3887 CHEMTREC (International)

24 Hours/day; 7 Days/week

SECTION 2. Hazards identification

GHS Classification

Serious eye damage, Category 1, H318

For the full text of the H-Statements mentioned in this Section, see Section 16.

GHS-Labeling

Hazard pictograms



Signal Word
Danger

Hazard Statements

H318 Causes serious eye damage.

Precautionary Statements
P280 Wear eye protection.

according to the (US) Hazard Communication Standard (29 CFR 1910.1200)

Product number 114417 Version1.0

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test tubes 0.002 - 0.004 - 0.007 - 0.010 - 0.013 - 0.016 - 0.020 - 0.025 - 0.030

mg/I CN⁻ MColortest™

CN-2

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P313 Get medical advice/ attention.

OSHA Hazards

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Other hazards

None known.

SECTION 3. Composition/information on ingredients

Chemical nature Mixture of organic compounds

Hazardous ingredients

Chemical Name (Concentration) CAS-No.

1,3-Dimethylbarbituric acid (>= 70 % - < 90 %)

769-42-6

SECTION 4. First aid measures

Description of first-aid measures

Inhalation

After inhalation: fresh air.

Skin contact

After skin contact: wash off with plenty of water. Remove contaminated clothing.

Eye contact

After eye contact: rinse out with plenty of water. Call in ophthalmologist.

Ingestion

After swallowing: make victim drink water (two glasses at most). Consult doctor if feeling unwell.

Most important symptoms and effects, both acute and delayed

irritant effects, Risk of serious damage to eyes.

Indication of any immediate medical attention and special treatment needed

No information available.

SECTION 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media

Water, Carbon dioxide (CO2), Foam, Dry powder

according to the (US) Hazard Communication Standard (29 CFR 1910.1200)

Product number 114417 Version1.0

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test tubes 0.002 - 0.004 - 0.007 - 0.010 - 0.013 - 0.016 - 0.020 - 0.025 - 0.030

mg/I CN⁻ MColortest™

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Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given.

Special hazards arising from the substance or mixture

Combustible.

Development of hazardous combustion gases or vapors possible in the event of fire.

Fire may cause evolution of:

nitrogen oxides

Advice for firefighters

Special protective equipment for fire-fighters

In the event of fire, wear self-contained breathing apparatus.

Further information

Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

SECTION 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Avoid substance contact. Avoid inhalation of dusts. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert.

Advice for emergency responders: Protective equipment see section 8.

Environmental precautions

Do not empty into drains.

Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills.

Observe possible material restrictions (see sections 7 and 10).

Take up dry. Dispose of properly. Clean up affected area. Avoid generation of dusts.

SECTION 7. Handling and storage

Precautions for safe handling

Observe label precautions.

Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place. Keep away from heat and sources of ignition.

Store at +15°C to +25°C (+59°F to +77°F).

The data applies to the entire pack.

according to the (US) Hazard Communication Standard (29 CFR 1910.1200)

Product number 114417 Version1.0

Product name Cyanide Test Method: colorimetric with color card and comparator block with long

test tubes 0.002 - 0.004 - 0.007 - 0.010 - 0.013 - 0.016 - 0.020 - 0.025 - 0.030

mg/I CN⁻ MColortest™

CN-2

SECTION 8. Exposure controls/personal protection

Exposure limit(s)

Contains no substances with occupational exposure limit values.

Engineering measures

Individual protection measures

Protective clothing should be selected specifically for the workplace, depending on concentration and quantity of the hazardous substances handled. The chemical resistance of the protective equipment should be inquired at the respective supplier.

Hygiene measures

Immediately change contaminated clothing. Apply skin- protective barrier cream. Wash hands and face after working with substance.

Eye/face protection

Tightly fitting safety goggles

Hand protection

Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

Other protective equipment:

protective clothing

Respiratory protection

required when dusts are generated.

Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

SECTION 9. Physical and chemical properties

Physical state solid

Color beige

Odor odorless

Odor Threshold not applicable

pH No information available.

Melting point No information available.

Boiling point No information available.

Flash point No information available.

according to the (US) Hazard Communication Standard (29 CFR 1910.1200)

Product number 114417 Version1.0

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test tubes 0.002 - 0.004 - 0.007 - 0.010 - 0.013 - 0.016 - 0.020 - 0.025 - 0.030

mg/I CN⁻ MColortest™

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Evaporation rate No information available.

Flammability (solid, gas) No information available.

Lower explosion limit No information available.

Upper explosion limit No information available.

Vapor pressure No information available.

Relative vapor density No information available.

Relative density No information available.

Water solubility at 68 °F (20 °C)

soluble

Partition coefficient: n-

octanol/water

Autoignition temperature No information available.

Decomposition temperature No information available.

Viscosity, dynamic No information available.

Bulk density ca.500 kg/m³

SECTION 10. Stability and reactivity

Reactivity

The following applies in general to flammable organic substances and mixtures: in correspondingly fine distribution, when whirled up a dust explosion potential may generally be assumed.

No information available.

Chemical stability

The product is chemically stable under standard ambient conditions (room temperature) .

Possibility of hazardous reactions

Violent reactions possible with:

Strong oxidizing agents

Conditions to avoid

no information available

Incompatible materials

no information available

according to the (US) Hazard Communication Standard (29 CFR 1910.1200)

Product number 114417 Version1.0

Product name Cyanide Test Method: colorimetric with color card and comparator block with long

test tubes 0.002 - 0.004 - 0.007 - 0.010 - 0.013 - 0.016 - 0.020 - 0.025 - 0.030

mg/I CN⁻ MColortest™

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Hazardous decomposition products

in the event of fire: See section 5.

SECTION 11. Toxicological information

Information on toxicological effects

Likely route of exposure

Eye contact, Skin contact, Ingestion

Acute oral toxicity

Acute toxicity estimate: 2,373 mg/kg

Calculation method

absorption

Acute inhalation toxicity

Symptoms: Possible damages:, Irritation symptoms in the respiratory tract.

Eye irritation

Mixture causes serious eye damage.

Specific target organ systemic toxicity - single exposure

The substance or mixture is not classified as specific target organ toxicant, single exposure.

Specific target organ systemic toxicity - repeated exposure

The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Aspiration hazard

Regarding the available data the classification criteria are not fulfilled.

Carcinogenicity

IARC No ingredient of this product present at levels greater than or

equal to 0.1% is identified as probable, possible or confirmed

human carcinogen by IARC.

OSHA No ingredient of this product present at levels greater than or

equal to 0.1% is identified as a carcinogen or potential

carcinogen by OSHA.

NTP No ingredient of this product present at levels greater than or

equal to 0.1% is identified as a known or anticipated carcinogen

by NTP.

ACGIH No ingredient of this product present at levels greater than or

equal to 0.1% is identified as a carcinogen or potential

carcinogen by ACGIH.

according to the (US) Hazard Communication Standard (29 CFR 1910.1200)

Product number 114417 Version1.0

Product name Cyanide Test Method: colorimetric with color card and comparator block with long

test tubes 0.002 - 0.004 - 0.007 - 0.010 - 0.013 - 0.016 - 0.020 - 0.025 - 0.030

mg/I CN⁻ MColortest™

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Further information

Other dangerous properties can not be excluded.

Handle in accordance with good industrial hygiene and safety practice.

Ingredients

1,3-Dimethylbarbituric acid

Acute oral toxicity

LD50 rat: 1,780 mg/kg (External MSDS)

Skin irritation

rabbit

Result: No irritation (External MSDS)

Eye irritation

rabbit

Result: Eye irritation (External MSDS)

SECTION 12. Ecological information

Ecotoxicity

No information available.

Persistence and degradability

No information available.

Bioaccumulative potential

No information available.

Mobility in soil

No information available.

Other adverse effects

Additional ecological information

Discharge into the environment must be avoided.

Ingredients

1,3-Dimethylbarbituric acid

No information available.

according to the (US) Hazard Communication Standard (29 CFR 1910.1200)

Product number 114417 Version1.0

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test tubes 0.002 - 0.004 - 0.007 - 0.010 - 0.013 - 0.016 - 0.020 - 0.025 - 0.030

mg/I CN⁻ MColortest™

CN-2

SECTION 13. Disposal considerations

The information presented only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. Disposal should be in accordance with applicable regional, national and local laws and regulations.

SECTION 14. Transport information

Land transport (DOT)

UN number UN3316

Proper shipping name CHEMICAL KIT

Class 9
Packing group III
Environmentally hazardous ---

Air transport (IATA)

UN number UN 3316

Proper shipping name CHEMICAL KIT

Class 9
Packing group III
Environmentally hazardous -Special precautions for user no

Sea transport (IMDG)

UN number UN 3316

Proper shipping name CHEMICAL KIT

Class 9
Packing group III
Environmentally hazardous -Special precautions for user yes
EmS F-A S-P

THIS TRANSPORT DATA APPLIES TO THE ENTIRE PACK!

SECTION 15. Regulatory information

United States of America

OSHA Hazards

Harmful if swallowed. Corrosive to eyes

according to the (US) Hazard Communication Standard (29 CFR 1910.1200)

Product number 114417 Version1.0

Product name Cyanide Test Method: colorimetric with color card and comparator block with long

test tubes 0.002 - 0.004 - 0.007 - 0.010 - 0.013 - 0.016 - 0.020 - 0.025 - 0.030

mg/I CN⁻ MColortest™

CN-2

This information is based on 29 CFR 1910.1200 criteria prior to adoption of the GHS, and may deviate from the GHS information on the label and in section 2.

SARA 311/312 Hazards

Acute Health Hazard

SARA 313

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 302

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

Clean Water Act

This product does not contain any Hazardous Substances listed under the U.S. CleanWater Act, Section 311,

Table 116.4A.

This product does not contain any Hazardous Chemicals listed under the U.S. CleanWater Act, Section 311,

Table 117.3.

DEA List I

Not listed

DEA List II

Not listed

US State Regulations

Massachusetts Right To Know

Remarks

No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know

Ingredients

1,3-Dimethylbarbituric acid

Ethylenedinitrilotetraacetic acid disodium salt

New Jersey Right To Know

Ingredients

1,3-Dimethylbarbituric acid

Ethylenedinitrilotetraacetic acid disodium salt

California Prop 65 Components

This product does not contain any chemicals known to the State of California to cause cancer, birth, or any other reproductive defects.

according to the (US) Hazard Communication Standard (29 CFR 1910.1200)

Product number 114417 Version1.0

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test tubes 0.002 - 0.004 - 0.007 - 0.010 - 0.013 - 0.016 - 0.020 - 0.025 - 0.030

mg/I CN⁻ MColortest™

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Notification status

TSCA: All components of the product are listed in the TSCA-inventory.

DSL: This product contains one or several components listed in the

Canadian NDSL. Ingredients

1,3-Dimethylbarbituric acid

SECTION 16. Other information

Training advice

Provide adequate information, instruction and training for operators.

Full text of H-Statements referred to under sections 2 and 3.

H318 Causes serious eye damage.

Key or legend to abbreviations and acronyms used in the safety data sheet

Used abbreviations and acronyms can be looked up at www.wikipedia.org.

Date of issue: 10/09/2013

The information contained herein is based on the present state of our knowledge. It characterizes the product with regard to appropriate safety precautions. It does not represent a warranty of any product properties and we assume no liability for any loss or injury which may result from the use of this information. Users should conduct their own investigations to determine the suitability of the information.

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according to the (US) Hazard Communication Standard (29 CFR 1910.1200)

Date of issue: 10/09/2013 Version1.0

SECTION 1.Identification

Product identifier

Catalog No. 114417

Product name Cyanide Test Method: colorimetric with color card and comparator

block with long test tubes 0.002 - 0.004 - 0.007 - 0.010 - 0.013 - 0.016

- 0.020 - 0.025 - 0.030 mg/l CN⁻ MColortest™

CN-3

Relevant identified uses of the substance or mixture and uses advised against

Identified uses Reagent for analysis

Details of the supplier of the safety data sheet

Company EMD Millipore Corporation | 290 Concord Road, Billerica, MA 01821,

United States of America | SDS Phone Support: +1-978-715-1335 | General Inquiries: +1-978-715-4321 | Monday to Friday, 9:00 AM to

4:00 PM Eastern Time (GMT-5)

Emergency telephone 800-424-9300 CHEMTREC (USA)

+1-703-527-3887 CHEMTREC (International)

24 Hours/day; 7 Days/week

SECTION 2. Hazards identification

GHS Classification

Flammable liquid, Category 3, H226

For the full text of the H-Statements mentioned in this Section, see Section 16.

GHS-Labeling

Hazard pictograms



Signal Word Warning

Hazard Statements

H226 Flammable liquid and vapor.

Precautionary Statements
P210 Keep away from heat.

according to the (US) Hazard Communication Standard (29 CFR 1910.1200)

Product number 114417 Version1.0

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test tubes 0.002 - 0.004 - 0.007 - 0.010 - 0.013 - 0.016 - 0.020 - 0.025 - 0.030

mg/I CN⁻ MColortest™

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OSHA Hazards

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Other hazards

None known.

SECTION 3. Composition/information on ingredients

Chemical nature Mixture of solvents.

Hazardous ingredients

Chemical Name (Concentration)

CAS-No.

glycerine (>= 70 % - < 90 %)

56-81-5

Pyridine (>= 10 % - < 30 %)

110-86-1

SECTION 4. First aid measures

Description of first-aid measures

Inhalation

After inhalation: fresh air.

Skin contact

After skin contact: wash off with plenty of water. Remove contaminated clothing.

Eye contact

After eye contact: rinse out with plenty of water.

Ingestion

After swallowing: make victim drink water (two glasses at most). Consult doctor if feeling unwell.

Most important symptoms and effects, both acute and delayed

irritant effects, narcosis, Nausea, Vomiting, cardiovascular disorders, collapse, Headache, insomnia, restlessness

Indication of any immediate medical attention and special treatment needed

No information available.

SECTION 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media

Water, Carbon dioxide (CO2), Foam, Dry powder

according to the (US) Hazard Communication Standard (29 CFR 1910.1200)

Product number 114417 Version1.0

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Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given.

Special hazards arising from the substance or mixture

Combustible.

Vapors are heavier than air and may spread along floors.

Forms explosive mixtures with air at elevated temperatures.

Development of hazardous combustion gases or vapors possible in the event of fire.

Pay attention to flashback.

Fire may cause evolution of:

nitrogen oxides

Advice for firefighters

Special protective equipment for fire-fighters

In the event of fire, wear self-contained breathing apparatus.

Further information

Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

SECTION 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Avoid substance contact. Do not breathe vapors, aerosols. Ensure adequate ventilation. Keep away from heat and sources of ignition. Evacuate the danger area, observe emergency procedures, consult an expert.

Advice for emergency responders: Protective equipment see section 8.

Environmental precautions

Do not empty into drains. Risk of explosion.

Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills.

Observe possible material restrictions (see sections 7 and 10).

Take up with liquid-absorbent material (e.g. Chemizorb®). Dispose of properly. Clean up affected area.

SECTION 7. Handling and storage

Precautions for safe handling

Observe label precautions.

Advice on protection against fire and explosion

Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharge.

Conditions for safe storage, including any incompatibilities

according to the (US) Hazard Communication Standard (29 CFR 1910.1200)

Product number 114417 Version1.0

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Keep container tightly closed in a dry and well-ventilated place. Keep away from heat and sources of ignition.

Store at +15°C to +25°C (+59°F to +77°F).

The data applies to the entire pack.

SECTION 8. Exposure controls/personal protection

Exposure limit(s)

Ingredients

Threshold Basis Value Remarks

limits

glycerine (56-81-5)

ACGIH Time Weighted Average 10 mg/m³ Form of exposure: Mist.

(TWA): OSHA_TRANS PEL: 15 mg/m³ Form of exposure: Total dust.

> PEL: 5 mg/m³ Form of exposure: Respirable fraction.

Z1A Time Weighted Average Form of exposure: Total dust. 10 mg/m³

(TWA): Time Weighted Average 5 mg/m³ Form of exposure: Respirable fraction.

(TWA):

Pyridine (110-86-1)

Time Weighted Average **ACGIH** 1 ppm

(TWA):

NIOSH/GUIDE Recommended 5 ppm

exposure limit (REL): 15 mg/m³

OSHA_TRANS PEL: 5 ppm

15 mg/m³

Z1A Time Weighted Average 5 ppm

(TWA): 15 mg/m³

Engineering measures

Individual protection measures

Protective clothing should be selected specifically for the workplace, depending on concentration and quantity of the hazardous substances handled. The chemical resistance of the protective equipment should be inquired at the respective supplier.

Hygiene measures

Immediately change contaminated clothing. Apply skin- protective barrier cream. Wash hands and face after working with substance.

Eye/face protection

Safety glasses

according to the (US) Hazard Communication Standard (29 CFR 1910.1200)

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Hand protection

Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

Other protective equipment:

Flame retardant antistatic protective clothing

Respiratory protection

required when vapors/aerosols are generated.

Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

SECTION 9. Physical and chemical properties

Physical state liquid

Color colorless

Odor pyridine-like

Odor Threshold No information available.

pH No information available.

Melting point No information available.

Boiling point No information available.

Flash point ca. 97 °F (36 °C)

Evaporation rate No information available.

Flammability (solid, gas) No information available.

Lower explosion limit No information available.

Upper explosion limit No information available.

Vapor pressure No information available.

Relative vapor density No information available.

Relative density 1.17 g/cm³

at 68 °F (20 °C)

according to the (US) Hazard Communication Standard (29 CFR 1910.1200)

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mg/I CN⁻ MColortest™

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Water solubility at 68 °F (20 °C)

soluble

Partition coefficient: n-

Autoignition temperature

Decomposition temperature

octanol/water

No information available.

·

No information available.

No information available.

Viscosity, dynamic No information available.

SECTION 10. Stability and reactivity

Reactivity

Vapor/air-mixtures are explosive at intense warming.

Chemical stability

The product is chemically stable under standard ambient conditions (room temperature).

Possibility of hazardous reactions

Risk of explosion with:

halogens, Strong oxidizing agents, peroxi compounds, Nitric acid, with, conc. sulfuric acid, hydrogen peroxide, perchlorates, Nitriles

Risk of ignition or formation of inflammable gases or vapors with:

potassium permanganate, halogen oxides, hydrides, chromium(VI) oxide

Exothermic reaction with:

Oxides of phosphorus

Conditions to avoid

Heating.

Incompatible materials

no information available

Hazardous decomposition products

in the event of fire: See section 5.

SECTION 11. Toxicological information

Information on toxicological effects

Likely route of exposure
Eye contact, Skin contact
Target Organs
Eyes

according to the (US) Hazard Communication Standard (29 CFR 1910.1200)

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Skin

Respiratory system

Kidneys

Central nervous system

Liver

gastrointestinal tract

Acute oral toxicity

Acute toxicity estimate: 3,182 mg/kg

Calculation method

Symptoms: Vomiting, gastric pain, Diarrhea

Acute inhalation toxicity

Acute toxicity estimate: 39.29 mg/l

Calculation method

Acute dermal toxicity

Acute toxicity estimate: 4,004 mg/kg

Calculation method

Specific target organ systemic toxicity - single exposure

The substance or mixture is not classified as specific target organ toxicant, single exposure.

Specific target organ systemic toxicity - repeated exposure

The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Aspiration hazard

Regarding the available data the classification criteria are not fulfilled.

Carcinogenicity

IARC No ingredient of this product present at levels greater than or

equal to 0.1% is identified as probable, possible or confirmed

human carcinogen by IARC.

OSHA No ingredient of this product present at levels greater than or

equal to 0.1% is identified as a carcinogen or potential

carcinogen by OSHA.

NTP No ingredient of this product present at levels greater than or

equal to 0.1% is identified as a known or anticipated carcinogen

by NTP.

ACGIH Confirmed animal carcinogen with unknown relevance to

according to the (US) Hazard Communication Standard (29 CFR 1910.1200)

Product number 114417 Version1.0

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test tubes 0.002 - 0.004 - 0.007 - 0.010 - 0.013 - 0.016 - 0.020 - 0.025 - 0.030

mg/I CN⁻ MColortest™

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humans.

Pyridine 110-86-1

Further information

Systemic effects:

If swallowed

Headache, restlessness, insomnia, cardiovascular disorders, Circulatory collapse

In high doses:

narcosis

Chronic uptake results in damage of:

Liver, Kidney

Good warning effect due to low odor threshold.

However, when the product is handled appropriately, hazardous effects are unlikely to occur.

Handle in accordance with good industrial hygiene and safety practice.

Ingredients

glycerine

Acute oral toxicity

LD50 rat: 12,600 mg/kg (IUCLID)

Symptoms: Vomiting, gastric pain, Diarrhea

Acute dermal toxicity

LD50 rabbit: > 18,700 mg/kg (IUCLID)

Skin irritation

rabbit

Result: No irritation

(IUCLID)

Eye irritation

rabbit

Result: No eye irritation

OECD Test Guideline 405

Sensitization

Patch test: human

Result: negative

(IUCLID)

Germ cell mutagenicity

Genotoxicity in vitro

Ames test

Result: negative

(IUCLID)

Pyridine

Acute oral toxicity

LD50 rat: 891 mg/kg (RTECS)

Acute inhalation toxicity

LC50 rat: 17.75 mg/l; 4 h

US-EPA

according to the (US) Hazard Communication Standard (29 CFR 1910.1200)

Product number 114417 Version1.0

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Acute dermal toxicity

LD50 rabbit: 1,121 mg/kg (RTECS)

Skin irritation

rabbit

Result: slight irritation

(RTECS)

Eye irritation

rabbit

Result: Severe irritations

(Lit.)

Sensitization

Sensitization test: guinea pig

Result: negative

(Lit.)

Germ cell mutagenicity

Genotoxicity in vivo

Mutagenicity (mammal cell test): micronucleus.

Result: negative

(National Toxicology Program)

Mutagenicity (mammal cell test): chromosome aberration.

Result: negative

(National Toxicology Program)

Genotoxicity in vitro

Ames test

Result: negative

(Lit.)

Teratogenicity

Did not show teratogenic effects in animal experiments. (External MSDS)

SECTION 12. Ecological information

Ecotoxicity

No information available.

Persistence and degradability

No information available.

Bioaccumulative potential

No information available.

Mobility in soil

No information available.

Other adverse effects

Ingredients

glycerine

Toxicity to fish

LC50 Carassius auratus (goldfish): > 5,000 mg/l; 24 h (Lit.)

Toxicity to daphnia and other aquatic invertebrates

EC5 E.sulcatum: 3,200 mg/l; 72 h (Lit.)

according to the (US) Hazard Communication Standard (29 CFR 1910.1200)

Product number 114417 Version1.0

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EC50 Daphnia magna (Water flea): > 10,000 mg/l; 24 h (IUCLID)

Toxicity to algae

IC5 Scenedesmus quadricauda (Green algae): > 10,000 mg/l; 7 d (Lit.)

Toxicity to bacteria

EC5 Pseudomonas putida: > 10,000 mg/l; 16 h (Lit.)

Biodegradability

63 %; 14 d

OECD Test Guideline 301C Readily biodegradable.

Biochemical Oxygen Demand (BOD)

870 mg/g (5 d) (External MSDS)

Chemical Oxygen Demand (COD)

1,160 mg/g

(External MSDS)

Theoretical oxygen demand (ThOD)

1,217 mg/g

(Lit.)

Ratio BOD/ThBOD

BOD5 71 %

(Lit.)

Ratio COD/ThBOD

95 %

(Lit.)

Pyridine

Toxicity to fish

LC50 Oncorhynchus mykiss (rainbow trout): 4.6 mg/l; 96 h (ECOTOX Database)

Toxicity to daphnia and other aquatic invertebrates

EC5 E.sulcatum: 3.5 mg/l; 72 h (Lit.) (maximum permissible toxic concentration)

EC50 Daphnia magna (Water flea): 240 mg/l; 24 h (ECOTOX Database)

Toxicity to algae

IC5 Scenedesmus quadricauda (Green algae): 120 mg/l; 7 d (Lit.) (maximum permissible toxic concentration)

Toxicity to bacteria

EC5 Pseudomonas putida: 340 mg/l; 16 h (Lit.) (maximum permissible toxic concentration)

according to the (US) Hazard Communication Standard (29 CFR 1910.1200)

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test tubes 0.002 - 0.004 - 0.007 - 0.010 - 0.013 - 0.016 - 0.020 - 0.025 - 0.030

mg/I CN⁻ MColortest™

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SECTION 13. Disposal considerations

The information presented only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. Disposal should be in accordance with applicable regional, national and local laws and regulations.

SECTION 14. Transport information

Land transport (DOT)

UN number UN3316

Proper shipping name CHEMICAL KIT

Class 9
Packing group III
Environmentally hazardous ---

Air transport (IATA)

UN number UN 3316

Proper shipping name CHEMICAL KIT

Class 9
Packing group III
Environmentally hazardous -Special precautions for user no

Sea transport (IMDG)

UN number UN 3316

Proper shipping name CHEMICAL KIT

Class 9
Packing group III
Environmentally hazardous -Special precautions for user yes
EmS F-A S-P

THIS TRANSPORT DATA APPLIES TO THE ENTIRE PACK!

SECTION 15. Regulatory information

United States of America

OSHA Hazards

Flammable Liquid Target organ effects Harmful if swallowed.

according to the (US) Hazard Communication Standard (29 CFR 1910.1200)

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mg/I CN⁻ MColortest™

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Harmful by skin absorption.

This information is based on 29 CFR 1910.1200 criteria prior to adoption of the GHS, and may deviate from the GHS information on the label and in section 2.

SARA 311/312 Hazards

Fire Hazard

Acute Health Hazard Chronic Health Hazard

SARA 313

The following components are subject to reporting levels established by SARA Title III, Section 313:

Ingredients

Pyridine 110-86-1

SARA 302

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

Clean Water Act

This product does not contain any Hazardous Substances listed under the U.S. CleanWater Act, Section 311,

Table 116.4A.

This product does not contain any Hazardous Chemicals listed under the U.S. CleanWater Act, Section 311,

Table 117.3.

DEA List I

Not listed

DEA List II

Not listed

US State Regulations

Massachusetts Right To Know

Ingredients

alvcerine

Pyridine

Pennsylvania Right To Know

Ingredients

glycerine

Pyridine

New Jersey Right To Know

Ingredients

glycerine

Pyridine

California Prop 65 Components

This product does not contain any chemicals known to the State of California to cause cancer,

according to the (US) Hazard Communication Standard (29 CFR 1910.1200)

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birth, or any other reproductive defects.

Notification status

TSCA: All components of the product are listed in the TSCA-inventory.

DSL: All components of this product are on the Canadian DSL.

SECTION 16. Other information

Training advice

Provide adequate information, instruction and training for operators.

Full text of H-Statements referred to under sections 2 and 3.

H226 Flammable liquid and vapor.

Key or legend to abbreviations and acronyms used in the safety data sheet

Used abbreviations and acronyms can be looked up at www.wikipedia.org.

Date of issue: 10/09/2013

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