

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Date of issue: 04/17/2015 Version: 1.0

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

1.1. Product identifier

Product form : Mixture

Product name : Neocuproine Reagent, 0.1% in Methanol

Product code : LC17630

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

Use of the substance/mixture : For laboratory and manufacturing use only.

1.3. Details of the supplier of the safety data sheet

LabChem Inc

Jackson's Pointe Commerce Park Building 1000, 1010 Jackson's Pointe Court

Zelienople, PA 16063 - USA T 412-826-5230 - F 724-473-0647 info@labchem.com - www.labchem.com

1.4. Emergency telephone number

Emergency number : CHEMTREC: 1-800-424-9300 or 011-703-527-3887

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (GHS-US)

Flam. Liq. 2 H225
Acute Tox. 3 (Oral) H301
Acute Tox. 3 (Dermal) H311
Acute Tox. 3 (Inhalation) H331
STOT SE 1 H370

Full text of H-phrases: see section 16

2.2. Label elements

GHS-US labeling

Hazard pictograms (GHS-US)





GHS02

GHS06

GHS08

Signal word (GHS-US) :

Hazard statements (GHS-US) : H225 - Highly flammable liquid and vapor

H301+H311+H331 - Toxic if swallowed, in contact with skin or if inhaled

H370 - Causes damage to organs (central nervous system, kidneys, liver, optic nerve)

Precautionary statements (GHS-US) : P210 - Keep away from heat, sparks, open flames, hot surfaces. - No smoking

P233 - Keep container tightly closed

P240 - Ground/bond container and receiving equipment

P241 - Use explosion-proof electrical, ventilating, lighting equipment

P242 - Use only non-sparking tools

P243 - Take precautionary measures against static discharge

P260 - Do not breathe mist, vapors, spray

P264 - Wash exposed skin thoroughly after handling P270 - Do not eat, drink or smoke when using this product P271 - Use only outdoors or in a well-ventilated area

P280 - Wear protective gloves, protective clothing, eye protection, face protection P301+P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician P303+P361+P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated

clothing. Rinse skin with water/shower

P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing

P311 - Call a POISON CENTER/doctor P330 - If swallowed, rinse mouth

P363 - Wash contaminated clothing before reuse

P370+P378 - In case of fire: Use alcohol resistant foam, carbon dioxide (CO2), extinguishing

powder to extinguish

04/17/2015 EN (English US) Page 1

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

P403+P235 - Store in a well-ventilated place. Keep cool

P405 - Store locked up

P501 - Dispose of contents/container to comply with local, state and federal regulations

2.3. Other hazards

Other hazards not contributing to the classification

: None under normal conditions.

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Name	Product identifier	%	Classification (GHS-US)
Methanol	(CAS No) 67-56-1	99.9	Flam. Liq. 2, H225 Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Dermal), H311 Acute Tox. 3 (Inhalation), H331 STOT SE 1, H370
Neocuproine Hydrate	(CAS No) 654054-57-6	0.1	Skin Irrit. 2, H315 Eye Irrit. 2A, H319 STOT SE 3, H335

Full text of H-phrases: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general

: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible). Call a POISON CENTER or doctor/physician.

First-aid measures after inhalation

: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician.

First-aid measures after skin contact

: Rinse skin with water/shower. Remove/Take off immediately all contaminated clothing. Immediately call a poison center or doctor/physician. Wash contaminated clothing before reuse.

First-aid measures after eye contact

Remove contact lenses, if present and easy to do. Continue rinsing. Rinse cautiously with water for several minutes. Obtain medical attention if pain, blinking or redness persist.

First-aid measures after ingestion

: Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention. Immediately call a poison center or doctor/physician.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries

: Causes damage to organs (optic nerve).

Symptoms/injuries after inhalation

: Headache. Dizziness. Nausea.

Symptoms/injuries after skin contact

Repeated exposure to this material can result in absorption through skin causing significant

health hazard. Toxic in contact with skin.

Symptoms/injuries after eye contact

: Mild eye irritation.

Symptoms/injuries after ingestion

: Toxic if swallowed. Swallowing a small quantity of this material will result in serious health

hazard.

Chronic symptoms

: Visual disturbances. Decreased renal function. Enlargement/affection of the liver.

4.3. Indication of any immediate medical attention and special treatment needed

Hospitalize at once. Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray. Sand.

Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Fire hazard : Highly flammable liquid and vapor.

Explosion hazard : May form flammable/explosive vapor-air mixture.

5.3. Advice for firefighters

Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any

chemical fire. Prevent fire-fighting water from entering environment.

04/17/2015 EN (English US) 2/9

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Remove ignition sources. Use special care to avoid static electric charges. No naked lights. No

smokina.

6.1.1. For non-emergency personnel

Protective equipment : Safety glasses. Protective clothing. Gloves. Face-shield.

Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection. Avoid breathing mist, spray.

Emergency procedures : Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect

spillage. Store away from other materials.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed : Handle empty containers with care because residual vapors are flammable.

Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent format

smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor. No naked lights. No smoking. Use only non-sparking tools. Do not breathe mist,

vapors, spray.

Hygiene measures : Do not eat, drink or smoke when using this product. Wash exposed skin thoroughly after

handling.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Proper grounding procedures to avoid static electricity should be followed. Ground/bond

container and receiving equipment. Use explosion-proof electrical/ventilating/lighting/...

equipment.

Storage conditions : Keep only in the original container in a cool, well ventilated place away from : Heat sources.,

Ignition sources, incompatible materials. Keep in fireproof place. Keep container tightly closed.

Incompatible products : Strong oxidizers.

Incompatible materials : Sources of ignition. Direct sunlight. Heat sources.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Neocuproine Reagent, 0.1% in Methanol			
ACGIH	Not applicable		
OSHA	Not applicable		
Methanol (67-56-1)			
ACGIH	ACGIH TWA (ppm)	200 ppm	
OSHA	OSHA PEL (TWA) (mg/m³)	260 mg/m³	
OSHA	OSHA PEL (TWA) (ppm)	200 ppm	

Neocuproine Hydrate (654054-57-6)		
ACGIH	Not applicable	
OSHA	Not applicable	

04/17/2015 EN (English US) 3/9

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

8.2. Exposure controls

Appropriate engineering controls : Emergency eye wash fountains and safety showers should be available in the immediate

vicinity of any potential exposure. Ensure adequate ventilation. Material should be handled in a

laboratory hood whenever possible.

Personal protective equipment : Avoid all unnecessary exposure.

Hand protection : Wear protective gloves.

Eye protection : Chemical goggles or safety glasses.

Respiratory protection : Where exposure through inhalation may occur from use, respiratory protection equipment is

recommended.

Other information : Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid

Color : Colourless to light yellow

 Odor
 : Alcohol odour

 Odor threshold
 : 2000 - 8800 ppm

 2620 - 11528 mg/m³

pH : No data available

Melting point : -98 °C

Freezing point : No data available

Boiling point : 65 °C
Flash point : 9.7 °C
Relative evaporation rate (butyl acetate=1) : 4.1
Relative evaporation rate (ether=1) : 6.3

Flammability (solid, gas) : No data available Explosion limits : 5.5 - 36.5 vol % Explosive properties : No data available Oxidizing properties : No data available

Vapor pressure : 128 hPa Vapor pressure at 50 °C : 552 hPa

Relative density : No data available Relative vapor density at 20 °C : No data available

Specific gravity / density : 0.79 g/ml

Soluble in ethanol. Soluble in methanol. Soluble in water.

Water: Solubility in water of component(s) of the mixture :

Methanol: >= 100 g/100ml

Log Pow : No data available
Log Kow : No data available

Auto-ignition temperature : 455 °C

Decomposition temperature : No data available Viscosity : No data available Viscosity, kinematic : No data available Viscosity, dynamic : No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Highly flammable liquid and vapor. May form flammable/explosive vapor-air mixture.

04/17/2015 EN (English US) 4/9

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

10.3. Possibility of hazardous reactions

Not established.

10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures. Open flame.

10.5. Incompatible materials

Strong oxidizers.

10.6. Hazardous decomposition products

Carbon monoxide. Carbon dioxide. May release flammable gases.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Likely routes of exposure : Inhalation; Skin and eye contact

Acute toxicity : Oral: Toxic if swallowed. Dermal: Toxic in contact with skin. Inhalation: Toxic if inhaled.

Neocuproine Reagent, 0.1% in Methanol		
LD50 oral rat	> 5000 mg/kg	
LD50 dermal rabbit	15800 mg/kg	
LC50 inhalation rat (mg/l)	85 mg/l/4h	
LC50 inhalation rat (ppm)	64000 ppm/4h	
ATE US (oral)	100.100 mg/kg body weight	
ATE US (dermal)	300.300 mg/kg body weight	
ATE US (gases)	700.000 ppmV/4h	
ATE US (vapors)	3.000 mg/l/4h	
ATE US (dust, mist)	0.500 mg/l/4h	

Methanol (67-56-1)		
LD50 oral rat	> 5000 mg/kg (Rat; BASF test; Literature study; 1187-2769 mg/kg bodyweight; Rat; Weight of evidence)	
LD50 dermal rabbit	15800 mg/kg (Rabbit; Literature study)	
LC50 inhalation rat (mg/l)	85 mg/l/4h (Rat; Literature study)	
LC50 inhalation rat (ppm)	64000 ppm/4h (Rat; Literature study)	
ATE US (oral)	100.000 mg/kg body weight	
ATE US (dermal)	300.000 mg/kg body weight	
ATE US (gases)	700.000 ppmV/4h	
ATE US (vapors)	3.000 mg/l/4h	
ATE US (dust, mist)	0.500 mg/l/4h	

Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitization	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified

Reproductive toxicity : Not classified

Specific target organ toxicity (single exposure) : Causes damage to organs (central nervous system, kidneys, liver, optic nerve).

Specific target organ toxicity (repeated exposure)

: Not classified

Aspiration hazard : Not classified

Potential Adverse human health effects and symptoms

: Based on available data, the classification criteria are not met. Toxic if swallowed. Toxic in contact with skin.

Symptoms/injuries after inhalation

: Headache. Dizziness. Nausea.

Symptoms/injuries after skin contact : Repeated exposure to this material can result in absorption through skin causing significant

health hazard. Toxic in contact with skin.

Symptoms/injuries after eye contact : Mild eye irritation.

04/17/2015 EN (English US) 5/9

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Symptoms/injuries after ingestion : Toxic if swallowed. Swallowing a small quantity of this material will result in serious health

hazard.

Chronic symptoms : Visual disturbances. Decreased renal function. Enlargement/affection of the liver.

SECTION 12: Ecological information

12.1. Toxicity

Methanol (67-56-1)	
LC50 fish 1	15400 mg/l (96 h; Lepomis macrochirus; Lethal)
EC50 Daphnia 1	> 10000 mg/l (48 h; Daphnia magna; Lethal)
LC50 fish 2	10800 mg/l 96 h; Salmo gairdneri (Oncorhynchus mykiss)
EC50 Daphnia 2	24500 mg/l (48 h; Daphnia magna; Locomotor effect)
Threshold limit other aquatic organisms 1	6600 mg/l (16 h; Pseudomonas putida)
Threshold limit algae 1	530 mg/l (192 h; Microcystis aeruginosa)
Threshold limit algae 2	8000 mg/l (168 h; Scenedesmus quadricauda)

12.2. Persistence and degradability

Neocuproine Reagent, 0.1% in Methanol		
Persistence and degradability	Not established.	
Methanol (67-56-1)		
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil. Highly mobile in soil.	
Biochemical oxygen demand (BOD)	0.6 - 1.12 g O₂/g substance	
Chemical oxygen demand (COD)	1.42 g O₂/g substance	
ThOD	1.5 g O₂/g substance	
BOD (% of ThOD)	0.8 % ThOD	
Neocuproine Hydrate (654054-57-6)		
Persistence and degradability	Not established.	

12.3. Bioaccumulative potential

Neocuproine Reagent, 0.1% in Methanol		
Bioaccumulative potential	Not established.	
Methanol (67-56-1)		
BCF fish 1	< 10 (72 h; Leuciscus idus)	
BCF fish 2	1 (72 h; Cyprinus carpio; Blood)	
Log Pow	-0.77 (Experimental value; Other)	
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).	
Neocuproine Hydrate (654054-57-6)		
Bioaccumulative potential	Not established.	

12.4. Mobility in soil

Methanol (67-56-1)	
Surface tension	0.023 N/m (20 °C)

12.5. Other adverse effects

Effect on the global warming : No known ecological damage caused by this product.

Other information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations. Dispose of

contents/container to comply with local, state and federal regulations.

Additional information : Handle empty containers with care because residual vapors are flammable.

Ecology - waste materials : Avoid release to the environment. Hazardous waste due to toxicity.

04/17/2015 EN (English US) 6/9

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

Transport document description : UN1993 Flammable liquids, n.o.s. (Methanol), 3, II

UN-No.(DOT) : UN1993

Proper Shipping Name (DOT) : Flammable liquids, n.o.s.

Transport hazard class(es) (DOT) : 3 - Class 3 - Flammable and combustible liquid 49 CFR 173.120

Hazard labels (DOT) : 3 - Flammable liquid

Packing group (DOT) : II - Medium Danger

DOT Packaging Non Bulk (49 CFR 173.xxx) 202 DOT Packaging Bulk (49 CFR 173.xxx) : 242

DOT Symbols

: G - Identifies PSN requiring a technical name DOT Special Provisions (49 CFR 172.102)

: IB2 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized.

T7 - 4 178.274(d)(2) Normal..... 178.275(d)(3)

TP1 - The maximum degree of filling must not exceed the degree of filling determined by the following: Degree of filling = 97 / 1 + a (tr - tf) Where: tr is the maximum mean bulk temperature during transport, and tf is the temperature in degrees celsius of the liquid during filling.

TP8 - A portable tank having a minimum test pressure of 1.5 bar (150 kPa) may be used when

the flash point of the hazardous material transported is greater than 0 C (32 F).

TP28 - A portable tank having a minimum test pressure of 2.65 bar (265 kPa) may be used provided the calculated test pressure is 2.65 bar or less based on the MAWP of the hazardous material, as defined in 178.275 of this subchapter, where the test pressure is 1.5 times the

MAWP.

DOT Packaging Exceptions (49 CFR 173.xxx) DOT Quantity Limitations Passenger aircraft/rail : 5 L

(49 CFR 173.27)

DOT Quantity Limitations Cargo aircraft only (49 : 60 L

CFR 175.75)

DOT Vessel Stowage Location

: B - (i) The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel carrying a number of passengers limited to not more than the larger of 25

passengers, or one passenger per each 3 m of overall vessel length; and (ii) "On deck only" on passenger vessels in which the number of passengers specified in paragraph (k)(2)(i) of this

section is exceeded.

Additional information

: No supplementary information available. Other information

ADR

No additional information available

Transport by sea

No additional information available

Air transport

No additional information available

SECTION 15: Regulatory information

15.1. US Federal regulations

Neocuproine Reagent, 0.1% in Methanol	
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard Fire hazard Delayed (chronic) health hazard

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory except for:

04/17/2015 EN (English US) 7/9

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Neocuproine Reagent, 0.1% in Methanol		
Neocuproine Hydrate	CAS No 654054-57-6	0.1

Chemical(s) subject to the reporting requirements of Section 313 or Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372.

Methanol	CAS No 67-56-1	99.9		
Methanol (67-56-1)	hanol (67-56-1)			
Listed on United States SARA Section 313	on United States SARA Section 313			
RQ (Reportable quantity, section 304 of EPA's List of Lists)	5000 lb			
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard Fire hazard			

15.2. International regulations

CANADA

Methanol (67-56-1)		
Listed on the Canadian DSL (Domestic Substa	d on the Canadian DSL (Domestic Substances List)	
WHMIS Classification	Class B Division 2 - Flammable Liquid Class D Division 2 Subdivision A - Very toxic material causing other toxic effects Class D Division 2 Subdivision B - Toxic material causing other toxic effects	
Neocuproine Hydrate (654054-57-6)		
Listed on the Canadian DSL (Domestic Substances List)		

EU-Regulations

No additional information available

Classification according to Regulation (EC) No. 1272/2008 [CLP]

No additional information available

Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]

Not classified

National regulations

Methanol (67-56-1)	
Listed on the Canadian IDL (Ingredient Disclosure List)	

15.3. US State regulations

California Proposition 65 - This product contains, or may contain, trace quantities of a substance(s) known to the state of California to cause cancer and/or reproductive toxicity

Methanol (67-56-1)				
U.S California - Proposition 65 - Carcinogens List	U.S California - Proposition 65 - Developmental Toxicity	U.S California - Proposition 65 - Reproductive Toxicity - Female	U.S California - Proposition 65 - Reproductive Toxicity - Male	No significance risk level (NSRL)
No	Yes	No	No	23000 µg/day

SECTION 16: Other information

Other information : None.

04/17/2015 EN (English US) 8/9

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Full text of H-phrases: see section 16:

Acute Tox. 3 (Dermal)	Acute toxicity (dermal) Category 3
Acute Tox. 3 (Inhalation)	Acute toxicity (inhalation) Category 3
Acute Tox. 3 (Oral)	Acute toxicity (oral) Category 3
Eye Irrit. 2A	Serious eye damage/eye irritation Category 2A
Flam. Liq. 2	Flammable liquids Category 2
Skin Irrit. 2	Skin corrosion/irritation Category 2
STOT SE 1	Specific target organ toxicity (single exposure) Category 1
STOT SE 3	Specific target organ toxicity (single exposure) Category 3
H225	Highly flammable liquid and vapor
H301	Toxic if swallowed
H311	Toxic in contact with skin
H315	Causes skin irritation
H319	Causes serious eye irritation
H331	Toxic if inhaled
H335	May cause respiratory irritation
H370	Causes damage to organs

NFPA health hazard

 2 - Intense or continued exposure could cause temporary incapacitation or possible residual injury unless prompt medical attention is given.

NFPA fire hazard

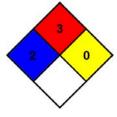
: 3 - Liquids and solids that can be ignited under almost all

ambient conditions.

NFPA reactivity

: 0 - Normally stable, even under fire exposure conditions,

and are not reactive with water.



HMIS III Rating

Health : 2 Moderate Hazard - Temporary or minor injury may occur

* - Chronic (long-term) health effects may result from repeated overexposure

Flammability

 3 Serious Hazard - Materials capable of ignition under almost all normal temperature conditions. Includes flammable liquids with flash points below 73 F and boiling points above 100 F. as well as liquids with flash points between 73 F and 100 F. (Classes IB & IC)

Physical : (

: 0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives.

Personal Protection

: H

H - Splash goggles, Gloves, Synthetic apron, Vapor respirator

SDS US (GHS HazCom 2012)

Information in this SDS is from available published sources and is believed to be accurate. No warranty, express or implied, is made and LabChem Inc assumes no liability resulting from the use of this SDS. The user must determine suitability of this information for his application.

04/17/2015 EN (English US) 9/9