

SAFETY DATA SHEET

Cat# BN00893, Ceruloplasmin Activity Colorimetric Assay Kit

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Ceruloplasmin Activity Colorimetric Assay Kit
PRODUCT CODES: Cat# BN00893
MANUFACTURER: Assay Genie (brand of Reagent Genie Ltd.)
ADDRESS: G1 The Steelworks, Foley Street, Dublin 1
EMERGENCY PHONE: +353 1 8879802

SECTION 2: HAZARDS IDENTIFICATION

Component	Description	Volume	Safety Information
Ceruloplasmin Assay Buffer	Proprietary Buffer	25 ml	No hazards
Ammonium Sulfate, saturated	Liquid (~4.1 M)	10 ml	See below
Ceruloplasmin Substrate	In DMSO (contains DMPPDA)	1 ml	See below
Oxidizer	Liquid (100 mM)	100 µl	No hazards
Stabilizer	Liquid (contains Hydrogen peroxide)	100 µl	See below

Ammonium sulfate:

Emergency Overview

OSHA Hazards: Harmful by ingestion

GHS Classification: Acute aquatic toxicity (Category 3)
Chronic aquatic toxicity (Category 3)

GHS Label elements, including precautionary statements

Pictogram: none

Signal word: none

Hazard statement(s): H412 Harmful to aquatic life with long lasting effects.

Precautionary statement(s): P273 Avoid release to the environment.
P501 Dispose of contents/ container to an approved waste disposal plant.

HMIS Classification

Health hazard: 1

Flammability: 0

Physical hazards: 0

NFPA Rating

Health hazard: 0

Fire: 0

Reactivity Hazard: 0

Potential Health Effects

Inhalation: May be harmful if inhaled. Causes respiratory tract irritation.

Skin: May be harmful if absorbed through skin. Causes skin irritation.

Eyes: Causes eye irritation.

Ingestion: Harmful if swallowed.

DMSO:

Emergency Overview

OSHA Hazards: Combustible liquid, Target organ effect

Target Organs: Eyes, Skin

GHS Classification: Flammable liquids (Category 4)

GHS Label elements, including precautionary statements

Pictogram: none

Signal word: Warning

Hazard statement(s): H227 Combustible liquid

Precautionary statement(s): none

HMIS Classification

Health hazard: 0

Chronic Health Hazard: *

Flammability: 2

Physical hazards: 0

NFPA Rating

Health hazard: 0

Fire: 2

Reactivity Hazard: 0

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Potential Health Effects

Inhalation: May be harmful if inhaled. May cause respiratory tract irritation.

Skin: May be harmful if absorbed through skin. May cause skin irritation.

Eyes: May cause eye irritation.

Ingestion: May be harmful if swallowed.

Aggravated Medical Condition: Avoid contact w/DMSO solutions containing toxic materials or materials with unknown toxicological properties. DMSO is readily absorbed through skin and may carry such materials into the body.

DMPPDA:

Emergency Overview

OSHA Hazards: Toxic by ingestion, Highly toxic by inhalation, Toxic by skin absorption, Irritant

GHS Classification: Acute toxicity Inhalation (Category 2)
Acute toxicity, Oral (Category 3)
Acute toxicity, Dermal (Category 3)
Skin irritation (Category 2)
Eye irritation (Category 2A)
Specific target organ toxicity – single exposure (Category 3)

GHS Label elements, including precautionary statements

Pictogram:



Signal word: warning
Hazard statement(s): Harmful if swallowed or in contact with skin.
Causes skin irritation.
Causes serious eye irritation.
Harmful if inhaled.
May cause respiratory irritation.

Precautionary statement(s): P261 Avoid breathing dust/fumes/gas/mist/vapors/spray.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P332+P313 If skin irritation occurs: Get medical advice/attention.
P337+P313 If eye irritation persists: Get medical advice/attention.

HMIS Classification

Health hazard: 4
Flammability: 0
Physical hazards: 0

NFPA Rating

Health Hazard: 4
Fire: 0
Reactivity Hazard: 0

Potential Health Effects

Inhalation: May be fatal if inhaled. Causes respiratory tract irritation.

Skin: Toxic if absorbed through skin. Causes skin irritation.

Eyes: Causes eye irritation.

Ingestion: Toxic if swallowed.

Potassium Ferricyanide

Emergency Overview

OSHA Hazards: Not a hazardous substance or mixture

Target Organs:

GHS Classification: Not a hazardous substance or mixture

GHS Label elements, including precautionary statements

Pictogram: none

Signal word: none

Hazard statement(s): none.

Precautionary statement(s): none

HMIS Classification

Health hazard: 1
Chronic health hazard: *
Flammability: 0
Physical hazards: 0

NFPA Rating

Health Hazard: 0
Fire: 0

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Reactivity Hazard: 0

Special Hazard: 0

Hydrogen peroxide:

Emergency Overview

OSHA Hazards: Oxidizer, Target organ effect, Harmful by ingestion, Corrosive

Target Organs: Eyes, Skin, Respiratory system

GHS Classification: Oxidizing liquids (Category 1)
Acute toxicity, Oral (Category 4)
Acute toxicity, Inhalation (Category 5)
Skin corrosion (Category 1A)
Serious eye damage (Category 1)
Acute aquatic toxicity (Category 3)

GHS Label elements, including precautionary statements

Pictogram:



Signal word: Danger
Hazard statement(s): Harmful if swallowed.
Causes skin irritation and serious eye irritation.
May be harmful if inhaled.
Harmful to aquatic life.

Precautionary statement(s): P220 Keep/store away from clothing/combustible materials.

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

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

P310 Immediately call a POISON CENTER or doctor/physician.

HMIS Classification

Health hazard: 3

Chronic health hazard: *

Flammability: 0

Physical hazards: 2

NFPA Rating

Health Hazard: 3

Fire: 0

Reactivity Hazard: 2

Special Hazard: OX

Potential Health Effects

Inhalation: May be harmful if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.

Skin: May be harmful if absorbed through skin. Causes skin burns.

Eyes: Causes eye burns.

Ingestion: Harmful if swallowed.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS Number	EC-No.	Molecular Weight	Chemical Formula
Ammonium sulfate	7783-20-2	231-984-1	132.14	(NH ₄) ₂ SO ₄
DMSO	67-68-5	200-664-3	78.13	C ₂ H ₆ OS
N,N-Dimethyl- <i>p</i> -phenylenediamine sulfate salt (DMPPDA)	536-47-0	208-636-2	234.27	C ₈ H ₁₂ N ₂ · H ₂ O ₄ S
Potassium Ferricyanide	13746-66-2	237-323-3	329.24	C ₆ FeK ₃ N ₆
Hydrogen peroxide	7722-84-1	231-765-0	34.01	H ₂ O ₂

SECTION 4: FIRST AID MEASURES

General advice: Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

If inhaled: If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact: Wash off with soap and plenty of water. Consult a physician.

In case of eye contact: Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed: DO NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

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SECTION 5: FIRE-FIGHTING MEASURES

DMSO:

Suitable extinguishing media: For small (incipient) fires, use media such as "alcohol" foam, dry chemical, or carbon dioxide. For large fires, apply water from as far as possible. Use very large quantities (flooding) of water applied as a mist or spray; solid streams of water may be ineffective. Cool all affected containers with flooding quantities of water.

Special protective equipment for firefighters: Wear self-contained breathing apparatus for firefighting if necessary.

Hazardous combustion products: Hazardous decomposition products formed under fire conditions – see section 10.

Further information: Use water spray to cool unopened containers.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions: Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

Environmental precautions: Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

Methods for cleaning up: Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

SECTION 7: HANDLING AND STORAGE

Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed.

Conditions for safe storage

Keep container tightly closed in a dry and well-ventilated place.

Recommended storage temperature: +4°C.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

DMSO:

Components	CAS-No.	Value	Control parameters	Basis
Dimethyl sulfoxide	67-68-5	TWA	250 ppm	USA. Workplace Environmental Exposure Levels (WEEL)

Hydrogen peroxide

Components	CAS-No.	Value	Control parameters	Basis
Hydrogen peroxide	7722-84-1	TWA	1 ppm	USA. ACGIH Threshold Values (TLV)
Remarks:	Eye, skin, & upper respiratory tract irritation. Confirmed animal carcinogen with unknown relevance to humans.			
		TWA	1 ppm 1.4 mg/m ³	USA. NIOSH Recommended Exposure Limits
		TWA	1 ppm 1.4 mg/m ³	USA. Occupational Exposure Limits (OSHA) – Table Z-1 – Limits for Air Contaminants
	The value in mg/m ³ is approximate.			
		TWA	1 ppm 1.4 mg/m ³	USA. OSHA – Table Z-1 Limits for Air Contaminants – 1910.1000

Components	CAS-No.	Value	Control parameters	Basis
Tripotassium hexacyanoferrate	13746-66-2	C	5 mg/m ³	USA. ACGIH Threshold Values (TLV)
Remarks:	Upper Respiratory Tract irritation, Headache, Nausea, Thyroid effects, Danger of cutaneous absorption varies			
		TWA	1 mg/m ³	USA. ACGIH Threshold Limit Values (TLV)
			Upper Respiratory Tract irritation, Skin irritation varies	
		C	4.7 ppm 5 mg/m ³	USA. NIOSH Recommended Exposure Limits
			10 minute ceiling value	
		TWA	1 mg/m ³	USA. NIOSH Recommended Exposure Limits

DMPPDA:

Contains no substances with occupational exposure limit values.

Personal protective equipment

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a

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full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Eye protection

Safety glasses with side-shields conforming to EN166. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin and body protection

Impervious clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Hygiene measures

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Property	Ammonium sulfate	DMSO	DMPPDA
Appearance:	Crystalline solid	Clear liquid	Light yellow crystalline solid
pH:	5-6 at 132 g/l	No data available	No data available
Water Solubility:	Completely soluble	Completely miscible	No data available
Other Solubility:	No data available	No data available	No data available
Boiling Point (°C):	No data available	189 °C (372 °F)	495 °C (923 °F)
Melting Point (°C):	>280 °C (>536 °F)	16-19 °C (61-66 °F)	200-205 °C (392-401 °F)
Flash Point (°C):	No data available	87 °C (189 °F)	No data available
Ignition Temperature (°C):	No data available	301 °C (574 °F)	No data available
Density:	1.77 g/cm ³	1.1 g/ml	0.860 g/cm ³

Property	Potassium Ferricyanide	Hydrogen peroxide
Appearance:	crystalline	Clear liquid
pH:	6.0-9	No data available
Water Solubility:	No data available	No data available
Other Solubility:	No data available	No data available
Boiling Point (°C):	No data available	No data available
Melting Point (°C):	No data available	No data available
Flash Point (°C):	No data available	No data available
Ignition Temperature (°C):	No data available	No data available
Density:	1.89 g/cm ³	1.11 g/cm ³

SECTION 10: STABILITY AND REACTIVITY

Property	Ammonium sulfate	DMSO	DMPPDA
Chemical stability:	Stable under recommended storage conditions		
Conditions to avoid:	No data available	Heat, flames, sparks	No data available
Materials to avoid:	Strong oxidizing agents, strong bases	Acid chlorides, phosphorus halides, strong acids, strong oxidizing agents, strong reducing agents	Acids, acid chlorides, acid anhydrides, chloroformates, strong oxidizing agents
Hazardous decomposition products:	Nitrogen oxides, sulfur oxides	Carbon oxides, sulfur oxides	Carbon oxides, nitrogen oxides, sulfur oxides

Property	Potassium Ferricyanide	Hydrogen peroxide
Chemical stability:	Stable under recommended storage conditions	
Conditions to avoid:	No data available	No data available
Materials to avoid:	Strong acids, Strong oxidizing agents, Ammonia, hydrochloric acid, Cyanides	Zinc, powdered metals, iron, copper, nickel, brass, iron, and iron salts
Hazardous decomposition products:	No data available	No data available

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SECTION 11: TOXICOLOGICAL INFORMATION

Ammonium sulfate:

Acute toxicity: no data available

Skin corrosion/irritation: Skin – rabbit – no skin irritation

Skin – human – mild skin irritation

Serious eye damage/eye irritation: Eyes – rabbit – no skin irritation

Skin – human – mild eye irritation

Respiratory or skin sensitization: no data available

Germ cell mutagenicity: no data available

Carcinogenicity:

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity: no data available

Teratogenicity: no data available

Specific target organ toxicity – single exposure (GHS): no data available

Specific target organ toxicity – repeated exposure (GHS): no data available

Potential Health Effects

Inhalation: May be harmful if inhaled. Causes respiratory tract irritation.

Skin: May be harmful if absorbed through skin. Causes skin irritation.

Eyes: Causes eye irritation.

Ingestion: Harmful if swallowed.

Signs and Symptoms of Exposure: To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Additional information: RTECS: BS4500000

DMSO:

Acute toxicity: LD50 Oral - rat - 14,500 mg/kg

LC50 Inhalation - rat - 4 h - 40250 ppm

LD50 Dermal - rabbit - > 5,000 mg/kg

Skin corrosion/irritation: no data available

Serious eye damage/eye irritation: no data available

Respiratory/skin sensitization: no data available

Germ cell mutagenicity: Genotoxicity in vitro - mouse – lymphocyte Cytogenetic analysis

Genotoxicity in vitro - mouse – lymphocyte Mutation in mammalian somatic cells.

Genotoxicity in vivo - rat – Intraperitoneal Cytogenetic analysis

Genotoxicity in vivo - mouse – Intraperitoneal DNA damage

Carcinogenicity: Carcinogenicity – rat – Oral Tumorigenic: Equivocal tumorigenic agent by RTECS criteria. Skin & Appendages: Other: Tumors.

Carcinogenicity – mouse – Oral Tumorigenic: Equivocal tumorigenic agent by RTECS criteria. Leukaemia Skin & Appendages: Other: Tumors.

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity: Reproductive toxicity – rat – Intraperitoneal Effects on Fertility: Abortion.

Reproductive toxicity – rat – Intraperitoneal Effects on Fertility: Post-implantation mortality (e.g., dead and/or resorbed implants per total number of implants).

Reproductive toxicity – rat – Subcutaneous Effects on Fertility: Post-implantation mortality (e.g., dead and/or resorbed implants per total number of implants). Effects on Fertility: Litter size (e.g., # fetuses per litter; measured before birth).

Reproductive toxicity – mouse – Oral Effects on Fertility: Pre-implantation mortality (e.g., reduction in number of implants per female; total number of implants per corpora lutea). Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus). Specific Developmental Abnormalities: Musculoskeletal system.

Teratogenicity: Developmental Toxicity – mouse – Intraperitoneal Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus). Specific Developmental Abnormalities: Musculoskeletal system.

Signs and Symptoms of Exposure: Exposure via ingestion may cause nausea, fatigue, headache.

Additional Information: RTECS: PV6210000

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DMPPDA:

Acute toxicity: no data available

Skin corrosion/irritation: no data available

Serious eye damage/eye irritation: no data available

Respiratory or skin sensitization: no data available

Germ cell mutagenicity: no data available

Carcinogenicity:

- IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
- ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
- NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
- OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity: no data available

Teratogenicity: no data available

Specific target organ toxicity – single exposure (GHS): Inhalation – may cause respiratory irritation.

Specific target organ toxicity – repeated exposure (GHS): no data available

Potential Health Effects

Inhalation: May be fatal if inhaled. Causes respiratory tract irritation.

Skin: Toxic if absorbed through skin. Causes skin irritation.

Eyes: Causes eye irritation.

Ingestion: Toxic if swallowed.

Signs and Symptoms of Exposure: Absorption into the body leads to the formation of methemoglobin which in sufficient concentration causes cyanosis. Onset may be delayed 2 to 4 hours or longer. To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Additional information: RTECS: not available

Potassium Ferricyanide:

Acute toxicity: LD50 Oral - Mouse - 2,970 mg/kg

Skin corrosion/irritation: no data available

Serious eye damage/eye irritation: no data available

Respiratory or skin sensitization: no data available

Germ cell mutagenicity: no data available

Carcinogenicity:

- IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
- ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
- NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
- OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity: no data available

Teratogenicity: no data available

Specific target organ toxicity – single exposure (GHS): no data available

Specific target organ toxicity – repeated exposure (GHS): no data available

Potential Health Effects: No data available. To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Additional information: RTECS: LJ8225000

Hydrogen peroxide:

Acute toxicity: no data available

Skin corrosion/irritation: no data available

Serious eye damage/eye irritation: no data available

Respiratory or skin sensitization: no data available

Germ cell mutagenicity: no data available

Carcinogenicity:

- IARC: 3 – Group 3: Not classifiable as to its carcinogenicity to humans (Hydrogen peroxide)
- ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
- NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
- OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

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Reproductive toxicity: no data available

Teratogenicity: no data available

Specific target organ toxicity – single exposure (GHS): no data available

Specific target organ toxicity – repeated exposure (GHS): no data available

Aspiration hazard: no data available

Potential Health Effects

Inhalation: May be harmful if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.

Skin: May be harmful if absorbed through skin. Causes skin burns.

Eyes: Causes eye burns.

Ingestion: Harmful if swallowed.

Signs and Symptoms of Exposure: To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Synergistic effects: no data available

Additional information: RTECS: not available

SECTION 12: ECOLOGICAL INFORMATION

Ammonium sulfate:

Persistence and degradability: no data available

Toxicity: Toxicity to fish: LC50 – Oncorhynchus mykiss (rainbow trout) – 36.7 mg/l – 96 h

Toxicity to daphnia and other aquatic invertebrates: LC50 – Daphnia magna (Water flea) – 433 mg/l – 50 h

Bioaccumulative potential: no data available

Mobility in soil: no data available

PBT and vPvB assessment: no data available

Other adverse effects: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Harmful to aquatic life.

DMSO:

Persistence and degradability: no data available

Toxicity: Toxicity to fish: LC50 – Pimephales promelas (fathead minnow) – 34,000 mg/l – 96 h

LC50 – Oncorhynchus mykiss (rainbow trout) – 35,000 mg/l – 96 h

Toxicity to daphnia and other aquatic invertebrates: EC50 – Daphnia pulex (Water flea) – 27,500 mg/l

Toxicity to algae: EC50 – Lepomis macrochirus (Bluegill) – >400,000 mg/l – 96 h

Bioaccumulative potential: no data available

Mobility in soil: no data available

PBT and vPvB assessment: no data available

Other adverse effects: no data available

DMSO:

Persistence and degradability: no data available

Toxicity: Toxicity to fish: LC50 - Oncorhynchus mykiss (rainbow trout) - 869 mg/l - 96 h

LC50 – Oncorhynchus mykiss (rainbow trout) – 35,000 mg/l – 96 h

Toxicity to daphnia and other aquatic invertebrates: EC50 - Daphnia magna (Water flea) - 549 mg/l - 48 h

Bioaccumulative potential: no data available

Mobility in soil: no data available

PBT and vPvB assessment: no data available

Other adverse effects: no data available

Hydrogen peroxide:

Persistence and degradability: no data available

Toxicity: no data available

Bioaccumulative potential: no data available

Mobility in soil: no data available

PBT and vPvB assessment: no data available

Other adverse effects: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Harmful to aquatic life.

SECTION 13: DISPOSAL CONSIDERATIONS

Product: Observe all federal, state, and local environmental regulations.

Contaminated packaging: Dispose of as unused product.

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SECTION 14: TRANSPORT INFORMATION

Ammonium sulfate:

DOT (US): Not dangerous goods.

IMDG: Not dangerous goods.

IATA: Not dangerous goods.

DMSO:

DOT (US): UN-Number: 1993 Class: CBL Packing group: III

Proper shipping name: Combustible liquid, n.o.s. (Dimethyl sulfoxide)

Marine pollutant: No

Poison Inhalation Hazard: No

IMDG: Not dangerous goods.

IATA: Not dangerous goods.

DMPPDA:

DOT (US): UN-Number: 2811 Class: 6.1 Packing group: II

Proper shipping name: Toxic solids, organic, n.o.s. (N,N-Dimethylbenzene-1,4-diammonium sulfate)

Marine pollutant: No

Poison Inhalation Hazard: No

IMDG: UN-Number: 2811 Class: 6.1 Packing group: II EMS-No: F-A, S-A

Proper shipping name: TOXIC SOLID, ORGANIC, N.O.S. (N,N-Dimethylbenzene-1,4-diammonium sulfate)

Marine pollutant: No

IATA: UN-Number: 2811 Class: 6.1 Packing group: II

Proper shipping name: Toxic solid, organic, n.o.s. (N,N-Dimethylbenzene-1,4-diammonium sulfate)

Potassium Ferricyanide:

DOT (US): UN number: 3077 Class: 9 Packing group: III

Proper shipping name: Environmentally hazardous substances, solid, n.o.s. (Tripotassium hexacyanoferrate)

Reportable Quantity (RQ): 10 lbs

Poison Inhalation Hazard: No

IMDG: Not dangerous goods.

IATA: Not dangerous goods

Hydrogen peroxide:

DOT (US): UN-Number: 2014, Class: 5.1 (8), Packing group: II; Proper shipping name: Hydrogen peroxide, aqueous solutions; Marine pollutant: No; Poison Inhalation Hazard: No

IMDG: UN-Number: 2014, Class: 5.1 (8), Packing group: II; EMS-No: F-H, S-Q; Proper shipping name: HYDROGEN PEROXIDE, AQUEOUS SOLUTION; Marine pollutant: No

IATA: UN-Number: 2014, Class: 5.1 (8), Packing group: II; Proper shipping name: Hydrogen peroxide, aqueous solution

SECTION 15: REGULATORY INFORMATION

OSHA Hazards: Ammonium sulfate: Harmful by ingestion

DMSO: Combustible liquid, Target organ effect

DMPPDA: Toxic by ingestion, Highly toxic by inhalation, Toxic by skin absorption, Irritant

Hydrogen peroxide: Oxidizer, Target organ effect, Harmful by ingestion, Corrosive

SARA 302 Components: The following components are subject to reporting levels established by SARA Title III, Section 302:

Hydrogen peroxide, CAS-No. 7722-84-1; Revision Date: 1993-04-24

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

Ammonium sulfate, CAS-No. 7783-20-2; Revision Date: 1993-04-24

SARA 311/312 Hazards: Ammonium sulfate, & DMPPDA: Acute Health Hazard

DMSO: Fire Hazard, Chronic Health Hazard

Hydrogen peroxide: Reactivity Hazard, Acute Health Hazard, Chronic Health Hazard

Massachusetts Right To Know Components: Ammonium sulfate, CAS-No. 7783-20-2; Revision Date: 1993-04-24

Hydrogen peroxide, CAS-No. 7722-84-1; Revision Date: 1993-04-24

Pennsylvania Right To Know Components: Ammonium sulfate, CAS-No. 7783-20-2; Revision Date: 1993-04-24

Dimethyl sulfoxide CAS-No. 67-68-5; Revision Date: 2007-03-01

N,N-Dimethylbenzene-1,4-diammonium sulfate, CAS-No. 536-47-0

Hydrogen peroxide, CAS-No. 7722-84-1; Revision Date: 1993-04-24

Tripotassium hexacyanoferrate: CAS-No. 13746-66-2 Revision Date 1989-08-11

New Jersey Right To Know Components: Ammonium sulfate, CAS-No. 7783-20-2; Revision Date: 1993-04-24

Dimethyl sulfoxide CAS-No. 67-68-5; Revision Date: 2007-03-01

N,N-Dimethylbenzene-1,4-diammonium sulfate, CAS-No. 536-47-0

Hydrogen peroxide, CAS-No. 7722-84-1; Revision Date: 1993-04-24

Tripotassium hexacyanoferrate: CAS-No. 13746-66-2 Revision Date 1989-08-11

SAFETY DATA SHEET

Cat# BN00893, Ceruloplasmin Activity Colorimetric Assay Kit

California Prop. 65 Components: This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.

EU regulations

Component	Risk Phrases	Safety Phrases
Ammonium sulfate	R22	S26
DMSO	R10, R36/37/38	S24/25, S36/37/39, S45
DMPPDA	R24/25, R26, R36/37/38	S26, S36/37/39, S45
Hydrogen peroxide	R22, R41	S26, S39
Potassium Ferricyanide:	R32	

SECTION 16: OTHER INFORMATION

DISCLAIMER:

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Assay Genie shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale.