



Product Number:	Product Name:
CSK-0102	AO/PI Yeast Viability Kit

Composition:

CS2-0105	Yeast Live/Dead Staining Solution
CS0-0102	Yeast Dilution Buffer

If you have any further questions about this Material Safety Data Sheet, please contact us.

Nexcelom Bioscience | 360 Merrimack Street, Bldg 9 | Lawrence, MA 01843
T: 978.327.5340 | F: 978.327.5341 | E: info@nexcelom.com | www.nexcelom.com

8001608 Rev. D

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Section 1: Chemical Product and Company Identification

Product Number: CS2-0105
Product Name: Yeast Live/Dead Staining Solution
Supplier: Nexcelom Bioscience, LLC.
360 Merrimack St.
Lawrence, MA 01843

Section 2: Hazard Identification

- a. Emergency Overview
 - i. OSHA Hazards
 - ii. Irritant, Mutagen
- b. HMIS Classification
 - i. Health hazard: 2
 - ii. Chronic Health Hazard: *
 - iii. Flammability: 0
 - iv. Physical hazards: 1
- c. NFPA Rating
 - i. Health hazard: 2
 - ii. Fire: 0
 - iii. Reactivity Hazard: 1
- d. Potential Health Effects
 - i. Inhalation May be harmful if inhaled. May cause respiratory tract irritation.
 - ii. Skin May be harmful if absorbed through skin. May cause skin irritation.
 - iii. Eyes May cause eye irritation.
 - iv. Ingestion May be harmful if swallowed.
- e. Precautionary statement(s)
 - i. Avoid breathing dust/fume/gas/mist/vapors/spray.
 - ii. Wash skin thoroughly after handling.
 - iii. Use only outdoors or in a well-ventilated area.
 - iv. Wear protective gloves/eye protection/face protection.
 - v. IF ON SKIN: Wash with plenty of soap and water.
 - vi. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
 - vii. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 - viii. Call a POISON CENTER or doctor/physician if you feel unwell.
 - ix. Specific treatment (see supplemental first aid instructions on this label).
 - x. If skin irritation occurs: Get medical advice/attention.
 - xi. If eye irritation persists: Get medical advice/attention.
 - xii. Take off contaminated clothing and wash before reuse.
 - xiii. Store in a well-ventilated place. Keep container tightly closed.
 - xiv. Store locked up.
 - xv. Dispose of contents/container to an approved waste disposal plant.

Section 3: Composition/Information on Ingredients

Formula: C₁₇H₁₉N₃ + C₂₇H₃₄I₂N₄

CAS-No.	EC-No.	Index-No.	Concentration
N,N,N',N'-Tetramethylacridin-3,6-yl diamine hydrochloride			
65-61-2	200-614-0		>= 0.1 - <= 30 %
3,8-Diamino-5-[3-(diethylmethylammonio)propyl]-6-phenylphenanthridinium diiodide			
25535-16-4	247-081-0		>= 0.1 - <= 30 %
Water			
7732-18-5	231-791-2		>= 70 - <= 99.9 %

Section 4: First Aid Measures

General Advice:	Consult a physician. Show this safety data sheet to the doctor in attendance.
If Inhaled:	Move out of dangerous area. 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:	Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

Section 5: Fire Fighting Measures

Flammable Properties:	Flash point – no data available
Suitable Extinguishing Media:	Ignition temperature – no data available
Special Protective Equipment for Fire-Fighters:	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. Wear self-contained breathing apparatus for fire-fighting if necessary.

Section 6: Accidental Release Measures

Personal Precautions:	Use personal protective equipment. Avoid dust formation. Avoid breathing dust.
Environmental Precautions:	Ensure adequate ventilation.
Methods and Materials for Containment and Cleaning Up:	Do not let product enter drains. Pick up and arrange disposal without creating dust. 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. Normal measures for preventative fire protections.
Conditions for Safe Storage:	Protect against light. Keep container tightly closed in a dry and well-ventilated place. Store at 2-8°C. Light Sensitive. Hygroscopic.

Section 8: Exposure Controls and Personal Protection

Contains no substances with occupational exposure limit values.

Respiratory Protection:	Where risk assessment shows air-purifying respirators are appropriate use a dust mask type N95 (US) or type P1 (EN 143) respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).
Hand Protection:	Handle with gloves.
Eye Protection:	Safety glasses with side-shields conforming to EN166.
Skin and Body Protection:	Choose body protection according to the amount and concentration of the dangerous substance at the work place.
Hygiene Measures:	Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of the workday.

Section 9: Physical and Chemical Properties

Appearance	
Form:	Liquid
Color:	Light Orange
Safety Data	
pH:	No data available
Melting Point:	No data available
Boiling Point:	No data available
Flash Point:	No data available
Ignition Temperature:	No data available
Lower Explosion Limit:	No data available
Upper Explosion Limit:	No data available
Water Solubility:	No data available

Section 10: Stability and Reactivity

Storage Stability:	Stable under recommended storage conditions.
Conditions to Avoid:	No data available
Materials to Avoid:	Strong oxidizing agents
Hazardous Decomposition Products:	Hazardous decomposition products formed under fire conditions. – Carbon oxides, nitrogen oxides (NOx), Hydrogen chloride gas

Section 11: Toxicological Information

Acute Toxicity:	LD50 Subcutaneous – mouse – 16 mg/kg
Skin	No data available
Corrosion/Irritation:	
Serious Eye	No data available
Damage/Irritation:	
Respiratory or Skin	No data available
Sensitization:	
Germ Cell	Laboratory results have shown mutagenic effects.
Mutagenicity:	
Chronic Exposure:	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 probable, possible, or confirmed human carcinogen by ACGIH. NTP: 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 NTP. OSHA: 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 OSHA.
Reproductive	No data available
Toxicity:	
Specific Target	Inhalation – may cause respiratory irritation
Organ Toxicity –	
Single Exposure:	

Potential Health Effects

Inhalation:	May be harmful if inhaled. Causes respiratory tract irritation.
Ingestion:	May be harmful if swallowed.
Skin:	May be harmful if absorbed through skin. Causes skin irritation.
Eyes:	Causes eye irritation.
Signs and	To the best of our knowledge, the chemical, physical, and toxicological
Symptoms of	properties have not been thoroughly investigated.
Exposure:	

Section 12: Ecological Information

Toxicity:	No data available
Persistence and	No data available
Degradability:	
Mobility in Soil:	No data available
PBT and vPvB	No data available
Assessment:	
Other Adverse	No data available
Affects:	

Section 13: Disposable Considerations

Product:	Observe all federal, state, and local environmental regulations. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.
Contaminated Packaging:	Dispose of as unused product.

Section 14: Transport Information

DOT (US):	Not dangerous goods
IMDG:	Not dangerous goods
IATA:	Not dangerous goods

Section 15: Regulatory Information

OSHA Hazards:	Irritant, Mutagen
DSL Status:	This product contains the following components that are not on the Canadian DSL nor NDSL lists: 3, 8-Diamino-5-[3-diethylmethylammonio)propyl]-6-phenylphenanthridium diiodide CAS-No. 25535-16-4 This product contains the following components that are on the Canadian DSL nor NDSL lists: N, N, N', N'-Tetramethylacridin-3, 6-yl diamine hydrochloride CAS-No. 65-61-2
SARA 302 Components:	SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.
SARA 313 Components:	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 311/312 Hazards:	Acute Health Hazard, Chronic Health Hazard
Massachusetts Right to Know Components:	No Components Listed
Pennsylvania Right to Know Components:	3, 8-Diamino-5-[3-diethylmethylammonio)propyl]-6-phenylphenanthridium diiodide CAS-No. 25535-16-4 Water CAS-No. 7732-18-5
New Jersey Right to Know Components:	3, 8-Diamino-5-[3-diethylmethylammonio)propyl]-6-phenylphenanthridium diiodide CAS-No. 25535-16-4 Water CAS-No. 7732-18-5 N, N, N', N'-Tetramethylacridin-3, 6-yl diamine hydrochloride CAS-No. 65-61-2
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.

Section 16: Other Information

Copyright 2015 Nexcelom Bioscience License to make unlimited paper copies for internal use only. 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. Nexcelom Bioscience, shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packaging slip for additional terms and conditions of sale.

Date Revised: 30 Nov 2015

END OF MSDS

Section 1: Chemical Product and Company Identification

Product Number: CS0-0102
Product Name: Yeast Dilution Buffer
Supplier: Nexcelom Bioscience, LLC.
360 Merrimack St.
Lawrence, MA 01843

Section 2: Hazard Identification

- a. Emergency Overview
 - xvi. OSHA Hazards
 - xvii. Irritant, Mutagen
- b. HMIS Classification
 - xviii. Health hazard: 2
 - xix. Chronic Health Hazard: *
 - xx. Flammability: 0
 - xxi. Physical hazards: 0
- c. NFPA Rating
 - xxii. Health hazard: 2
 - xxiii. Fire: 0
 - xxiv. Reactivity Hazard: 0
- d. Potential Health Effects
 - xxv. Inhalation May be harmful if inhaled. May cause respiratory tract irritation.
 - xxvi. Skin May be harmful if absorbed through skin. May cause skin irritation.
 - xxvii. Eyes May cause eye irritation.
 - xxviii. Ingestion May be harmful if swallowed.
- e. Precautionary statement(s)
 - xxix. Avoid breathing dust/fume/gas/mist/vapors/spray.
 - xxx. Wash skin thoroughly after handling.
 - xxxi. Use only outdoors or in a well-ventilated area.
 - xxxii. Wear protective gloves/eye protection/face protection.
 - xxxiii. IF ON SKIN: Wash with plenty of soap and water.
 - xxxiv. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
 - xxxv. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 - xxxvi. Call a POISON CENTER or doctor/physician if you feel unwell.
 - xxxvii. Specific treatment (see supplemental first aid instructions on this label).
 - xxxviii. If skin irritation occurs: Get medical advice/attention.
 - xxxix. If eye irritation persists: Get medical advice/attention.
 - xl. Take off contaminated clothing and wash before reuse.
 - xli. Store in a well-ventilated place. Keep container tightly closed.
 - xlii. Store locked up.
 - xliii. Dispose of contents/container to an approved waste disposal plant.

Section 3: Composition/Information on Ingredients

Formula: C₄H₁₁NO₃

CAS-No.	EC-No.	Index-No.	Concentration
Tris (hydroxymethyl) aminomethane			
77-86-1	201-064-4		>= 5 - <= 40 %
Water			
7732-18-5	231-791-2		>= 60 - <= 95 %

Section 4: First Aid Measures

General Advice:	Consult a physician. Show this safety data sheet to the doctor in attendance.
If Inhaled:	Move out of dangerous area. 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:	Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

Section 5: Fire Fighting Measures

Flammable Properties:	Flash point – no data available
Suitable Extinguishing Media:	Ignition temperature – no data available
Special Protective Equipment for Fire-Fighters:	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. Wear self-contained breathing apparatus for fire-fighting if necessary.

Section 6: Accidental Release Measures

Personal Precautions:	Use personal protective equipment. Avoid dust formation. Avoid breathing dust.
Environmental Precautions:	Ensure adequate ventilation.
Methods and Materials for Containment and Cleaning Up:	Do not let product enter drains. Pick up and arrange disposal without creating dust. 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. Normal measures for preventative fire protections.
Conditions for Safe Storage:	Protect against light. Keep container tightly closed in a dry and well-ventilated place. Store at 2-8°C. Light Sensitive. Hygroscopic.

Section 8: Exposure Controls and Personal Protection

Contains no substances with occupational exposure limit values.

Respiratory Protection:	Where risk assessment shows air-purifying respirators are appropriate use a dust mask type N95 (US) or type P1 (EN 143) respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).
Hand Protection:	Handle with gloves.
Eye Protection:	Safety glasses with side-shields conforming to EN166.
Skin and Body Protection:	Choose body protection according to the amount and concentration of the dangerous substance at the work place.
Hygiene Measures:	Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of the workday.

Section 9: Physical and Chemical Properties

Appearance	
Form:	Liquid
Color:	Clear
Safety Data	
pH:	No data available
Melting Point:	167 - 172 °C (333 - 342 °F)
Boiling Point:	219 - 220 °C (426 - 428 °F) at 13 hPa (10 mmHg)
Flash Point:	No data available
Ignition Temperature:	No data available
Lower Explosion Limit:	No data available
Upper Explosion Limit:	No data available
Water Solubility:	No data available

Section 10: Stability and Reactivity

Storage Stability:	Stable under recommended storage conditions.
Conditions to Avoid:	No data available
Materials to Avoid:	Strong oxidizing agents
Hazardous Decomposition Products:	Hazardous decomposition products formed under fire conditions. – Carbon oxides, nitrogen oxides (NOx), Hydrogen chloride gas

Section 11: Toxicological Information

Acute Toxicity:	LD50 Oral – rat – 5900 mg/kg
Skin	No data available
Corrosion/Irritation:	
Serious Eye	No data available
Damage/Irritation:	
Respiratory or Skin	No data available
Sensitization:	
Germ Cell	No data available
Mutagenicity:	
Chronic Exposure:	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 probable, possible, or confirmed human carcinogen by ACGIH. NTP: 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 NTP. OSHA: 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 OSHA.
Reproductive Toxicity:	No data available
Specific Target Organ Toxicity – Single Exposure:	Inhalation – may cause respiratory irritation
Specific Target Organ Toxicity – repeated Exposure:	No data available
Aspiration Hazard	No data available

Potential Health Effects

Inhalation:	May be harmful if inhaled. Causes respiratory tract irritation.
Ingestion:	May be harmful if swallowed.
Skin:	May be harmful if absorbed through skin. Causes skin irritation.
Eyes:	Causes eye irritation.
Signs and Symptoms of Exposure:	To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Section 12: Ecological Information

Toxicity:	No data available
Persistence and Degradability:	No data available
Bioaccumulative potential	No data available
Mobility in Soil:	No data available
PBT and vPvB Assessment:	No data available

Other Adverse Affects: No data available

Section 13: Disposable Considerations

Product: Observe all federal, state, and local environmental regulations. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated Packaging: Dispose of as unused product.

Section 14: Transport Information

DOT (US): Not dangerous goods
IMDG: Not dangerous goods
IATA: Not dangerous goods

Section 15: Regulatory Information

OSHA Hazards: Irritant

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

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

SARA 313 Components: 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 311/312 Hazards: Acute Health Hazard, Chronic Health Hazard

Massachusetts Right to Know Components: No Components Listed

Pennsylvania Right to Know Components: Tris (hydroxymethyl) aminomethane
CAS-No. 77-86-1

Water Components: CAS-No. 7732-18-5

New Jersey Right to Know Components: 3 Tris (hydroxymethyl) aminomethane
CAS-No. 77-86-1

Water Components: CAS-No. 7732-18-5

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.

Section 16: Other Information

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Date Revised: 30 Nov 2015

END OF MSDS