

Material Safety Data Sheet
MAS Bilirubin Control/Calibrator**Section 1 - Chemical Product and Company Identification****MSDS Name:**

MAS Bilirubin Control/Calibrator

Catalog Numbers:

BC-S1, BC101, BC102, BC103

Synonyms:

None Known.

Company Identification:Microgenics Corporation
46360 Fremont Blvd
Fremont, CA 94538**Company Phone Number:**

(510) 979-5000

Emergency Phone Number:

(510) 979-5000

CHEMTREC Phone Number, US:

(800) 424-9300

CHEMTREC Phone Number, Europe:

(202) 483-7616

Section 2 - Composition, Information on Ingredients

| CAS# | Chemical Name: | Percent | EINECS/ ELINCS | Hazard Symbols | Risk Phrases |
|---------|-----------------|---------|-------------------|-------------------|--------------|
| 56-75-7 | Chloramphenicol | 0.002% | 200-287-4 | | |
| 54-64-8 | Thimerosal | 0.001% | 200-210-4 | | |

Section 3 - Hazards Identification**EMERGENCY OVERVIEW***Appearance: Clear amber liquid**Caution! This material is prepared from bovine source material. May be harmful if swallowed. May cause respiratory and digestive tract irritation. May cause eye and skin irritation. The toxicological properties of this material have not been fully investigated.**Target Organs: No data found***Potential Health Effects****Eye:**

May cause eye irritation.

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Skin:

May cause skin irritation.

Ingestion:

May cause irritation of the digestive tract. May be harmful if swallowed.

Inhalation:

May cause respiratory tract irritation.

Chronic:

No information found.

Section 4 - First Aid Measures

Eyes:

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical aid.

Skin:

In case of contact, flush skin with plenty of water. Remove contaminated clothing and shoes. Get medical aid if irritation develops and persists. Wash clothing before reuse.

Ingestion:

If swallowed, do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical aid.

Inhalation:

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

Notes to Physician:

Treat symptomatically and supportively.

Section 5 - Fire Fighting Measures

General Information:

As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

Extinguishing Media:

Substance is nonflammable; use agent most appropriate to extinguish surrounding fire.

Autoignition Temperature:

Not available

Explosion Limits:

Lower: Not available Upper: Not available

Flash Point:

Not available

NFPA Rating:

(estimated) Health: 1; Flammability: 0; Instability: 0

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Section 6 - Accidental Release Measures

General Information:

Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks:

Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Clean up spills immediately, observing precautions in the Protective Equipment section. Provide ventilation. Wash area with a 5% chlorine bleach solution or equivalent, then rinse with water.

Section 7 - Handling and Storage

Handling:

Wash thoroughly after handling. Use with adequate ventilation. Avoid contact with eyes, skin, and clothing. Keep container tightly closed. Avoid ingestion and inhalation. Material produced in compliance to USDA and/or CPMP/BWP/1230/98 (or amendment as applicable) (Guidance on Minimizing the Risk of Transmitting Animal Spongiform Encephalopathy Agents via Medicinal Products). This is a CPMP/BWP/1230/98 Category IV material: It does not contain, nor is it derived from Specified Risk Materials as defined in Commission decision 97/534/EC (or successive amendments).

Storage:

Store in a tightly closed container. Store at 2-8°C.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls:

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

Exposure Limits

| Chemical Name: | ACGIH | NIOSH | OSHA |
|---|---|---|----------------------------|
| Chloramphenicol Thimerosal | None listed 0.1 mg/m ³ TWA (as Hg) (listed under Mercury, aryl and inorganic compounds); Skin - potential significant contribution to overall exposure by the cutaneous route (listed under Mercury, aryl and inorganic compounds) | None listed 0.05 mg/m ³ TWA (vapor, except organoalkyls, as Hg) (listed under Mercury compounds) 10 mg/m ³ IDLH (as Hg, except organo(alkyl) compounds) (listed under Mercury compounds) 0.1 mg/m ³ Ceiling (as Hg, except organo(alkyl)) | None listed None listed |

OSHA Vacated PELs
Personal Protective Equipment
Eyes:

Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

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Skin:

Wear appropriate protective gloves to prevent skin exposure.

Clothing:

Wear appropriate protective clothing to prevent skin exposure.

Respirators:

A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant respirator use.

Section 9 - Physical and Chemical Properties

Physical State: Liquid

Color: Clear amber

Odor: Protein-like odor

pH: 7.33+/-0.05

Vapor Pressure: No information found

Vapor Density: No information found

Evaporation Rate: No information found

Viscosity: No information found

Boiling Point: No information found

Freezing/Melting Point: No information found

Decomposition Temperature: No information found

Solubility in water: Soluble.

Specific Gravity/Density: No information found

Molecular Formula: Solution

Molecular Weight: No information found

Section 10 - Stability and Reactivity

Chemical Stability:

Stable at room temperature in closed containers under normal storage and handling conditions.

Conditions to Avoid:

Excess heat

Incompatibilities with Other Materials

None reported

Hazardous Decomposition Products

None

Hazardous Polymerization

Has not been reported.

Section 11 - Toxicological Information

RTECS:

CAS# 56-75-7: AB6825000

CAS# 54-64-8: OV8400000

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LD50/LC50:

CAS# 56-75-7:

Oral, mouse: LD50 = 1500 mg/kg

Oral, rat: LD50 = 2500 mg/kg.

CAS# 54-64-8:

Draize test, rabbit, eye: 8 ug Mild

Oral, mouse: LD50 = 91 mg/kg

Oral, rat: LD50 = 75 mg/kg.

Carcinogenicity:

CAS# 56-75-7

ACGIH: Not listed

California: carcinogen, initial date 10/1/89

NTP: Suspect carcinogen

IARC: Group 2A carcinogen

CAS# 54-64-8: Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.

Epidemiology:

No information found

Teratogenicity:

No information found

Reproductive:

No information found

Mutagenicity:

No information found

Neurotoxicity:

No information found

Other:

The toxicological properties have not been fully investigated.

Section 12 - Ecological Information

No information found

Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Part 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

RCRA P Series Wastes

None of the components are on this list.

RCRA U Series Wastes

None of the components are on this list.

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Proper Shipping Name: Not Regulated
Hazard Class:
UN Number:
Packing Group:

No information found

Section 15 - Regulatory Information**European/International Regulations****European Labelling in Accordance with EC Directives:**

Hazard Symbols: None listed
Risk Phrases: None listed
Safety Phrases: S 24/25 Avoid contact with skin and eyes.

WGK (Water Danger/Protection)

Not available

United Kingdom Occupational Exposure Limits

Not available

United Kingdom Maximum Exposure Limits

Not available

Canadian DSL/NDSL

CAS# 56-75-7 is listed on Canada's DSL List.
CAS# 54-64-8 is listed on Canada's DSL List.

Canadian WHMIS Classifications

Not available
This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

Canadian Ingredient Disclosure List

CAS# 54-64-8 is listed on the Canadian Ingredient Disclosure List.

US Federal**TSCA**

CAS# 56-75-7 is listed on the TSCA Inventory.
CAS# 54-64-8 is listed on the TSCA Inventory.

Health and Safety Reporting List

None of the components are on this list.

Chemical Test Rules

None of the components are on this list.

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TSCA Section 12b

None of the components are on this list.

TSCA Significant New Use Rule (SNUR)

None of the components are on this list.

CERCLA Hazardous Substances and corresponding RQs

None of the components are on this list.

SARA Section 302 Extremely Hazardous Substances

None of the components are on this list.

SARA Hazard Categories

CAS# 56-75-7: delayed.

CAS# 54-64-8: immediate, delayed.

SARA Section 313

This chemical is not at a high enough concentration to be reportable under Section 313.

Clean Air Act - Hazardous Air Pollutants (HAPs)

CAS# 54-64-8 (listed as Mercury compounds) is listed as a hazardous air pollutant (HAP).

Clean Air Act - Class 1 Ozone Depletors

None of the components are on this list.

Clean Air Act - Class 2 Ozone Depletors

None of the components are on this list.

Clean Water Act - Hazardous Substances

None of the components are on this list.

Clean Water Act - Priority Pollutants

None of the components are on this list.

Clean Water Act - Toxic Pollutants

CAS# 54-64-8 (listed as Mercury compounds) is listed as a Toxic Pollutant under the CWA.

OSHA - Highly Hazardous

None of the components are on this list.

OSHA - Specifically Regulated Chemicals

None of the components are on this list.

US State**State Right to Know**

Chloramphenicol can be found on the following state Right-to-Know lists: California, New Jersey, Pennsylvania, Minnesota, Massachusetts.

Thimerosal can be found on the following state Right-to-Know lists: California, (listed as Mercury compounds), New Jersey, (listed as Mercury compounds), Pennsylvania, (listed as Mercury compounds), Pennsylvania, (listed as Mercury, aryl and inorganic compounds).

California Prop 65

WARNING: This product contains Chloramphenicol, a chemical known to the State of California to cause cancer.

WARNING: This product contains Thimerosal (listed as Mercury compounds), a chemical known to the state of California to cause developmental reproductive toxicity.

California No Significant Risk Level

None of the components are on this list.

None of the components are on this list.

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Section 16 - Other Information

Color information has been
MSDS Creation Date: September 24, 2003
Revision Date: March 16, 2007

This MSDS is intended for review and guidance in the receipt, storage, handling, use and disposal of product purchased from us, and for no other purpose. Use this product only as directed and in accordance with applicable instructions and warnings provided with the product. Please consult your institution's policies regarding use of this product. If you have obtained this MSDS other than in connection with the supply of this product from us, this MSDS should be consulted for general information only, and should not be relied upon for any purpose. As with the use of all hazardous materials, you should in all instances follow the guidance of the MSDS provided or available with the specific product purchased.