

# ISOSULFAN BLUE - isosulfan blue injection, solution

## Eugia US LLC

-----

### HIGHLIGHTS OF PRESCRIBING INFORMATION

These highlights do not include all the information needed to use ISOSULFAN BLUE INJECTION safely and effectively. See full prescribing information for ISOSULFAN BLUE INJECTION.

**ISOSULFAN BLUE injection, for subcutaneous use only**  
**Initial U.S. Approval: 1981**

### INDICATIONS AND USAGE

Isosulfan blue injection 1% upon subcutaneous administration, delineates the lymphatic vessels draining the region of injection. It is an adjunct to lymphography in: primary and secondary lymphedema of the extremities; chyluria, chylous ascites or chylothorax; lymph node involvement by primary or secondary neoplasm; lymph node response to therapeutic modalities (1.1).

### DOSAGE AND ADMINISTRATION

Isosulfan blue injection 1% is to be administered subcutaneously, one-half (1/2) mL into three (3) interdigital spaces of each extremity per study. A maximum dose of 3 mL (30 mg) isosulfan blue is, therefore, injected (2.1).

### DOSAGE FORMS AND STRENGTHS

1% aqueous solution (isosulfan blue) (3)

### CONTRAINDICATIONS

Hypersensitivity to triphenylmethane or related compounds (4).

### WARNINGS AND PRECAUTIONS

- Life-threatening anaphylactic reactions have occurred after isosulfan blue 1% administration. Monitor patients closely for at least 60 minutes after administration of isosulfan blue 1% (5.1).
- The admixture of isosulfan blue 1% with local anesthetics results in an immediate precipitation of 4 to 9% drug complex. Use a separate syringe for anesthetics (5.2).
- Isosulfan blue 1% interferes with measurements in peripheral blood pulse oximetry. Arterial blood gas analysis may be needed (5.3).

### ADVERSE REACTIONS

*Hypersensitivity Reactions:* Hypersensitivity reactions occurring approximately 2% of patients and include life-threatening anaphylactic reactions with respiratory distress, shock, angioedema, urticaria, pruritus. A death has been reported following I.V. administration of a similar compound (6).

**To report SUSPECTED ADVERSE REACTIONS, contact AuroMedics Pharma LLC at 1-866-850-2876 or FDA at 1-800-FDA-1088 or [www.fda.gov/medwatch](http://www.fda.gov/medwatch).**

### DRUG INTERACTIONS

No drug interactions have been identified for isosulfan blue 1% (7).

### USE IN SPECIFIC POPULATIONS

- Caution should be exercised when isosulfan blue 1% is administered to nursing mothers (8.3).
- Safety and effectiveness of isosulfan blue 1% in children has not been established (8.4).

**See 17 for PATIENT COUNSELING INFORMATION.**

**Revised: 11/2021**

---

## FULL PRESCRIBING INFORMATION: CONTENTS\*

### 1 INDICATIONS AND USAGE

1.1 Lymphatic Vessel Delineation

### 2 DOSAGE AND ADMINISTRATION

2.1 Subcutaneous administration

### **3 DOSAGE FORMS AND STRENGTHS**

### **4 CONTRAINDICATIONS**

### **5 WARNINGS AND PRECAUTIONS**

5.1 Hypersensitivity Reactions

5.2 Precipitation of Isosulfan Blue 1% by Lidocaine

5.3 Interference with Oxygen Saturation and Methemoglobin Measurements

### **6 ADVERSE REACTIONS**

6.1 Postmarketing Experience

### **7 DRUG INTERACTIONS**

### **8 USE IN SPECIFIC POPULATIONS**

8.3 Nursing Mothers

8.4 Pediatric Use

### **10 OVERDOSAGE**

### **11 DESCRIPTION**

### **12 CLINICAL PHARMACOLOGY**

12.2 Pharmacodynamics

12.3 Pharmacokinetics

### **13 NONCLINICAL TOXICOLOGY**

13.1 Carcinogenesis, Mutagenesis, Impairment of Fertility

13.2 Teratogenic Effects

### **16 HOW SUPPLIED/STORAGE AND HANDLING**

### **17 PATIENT COUNSELING INFORMATION**

\* Sections or subsections omitted from the full prescribing information are not listed.

---

## **FULL PRESCRIBING INFORMATION**

### **1 INDICATIONS AND USAGE**

#### **1.1 Lymphatic Vessel Delineation**

Isosulfan blue injection 1% upon subcutaneous administration, delineates lymphatic vessels draining the region of injection. It is an adjunct to lymphography in: primary and secondary lymphedema of the extremities; chyluria, chylous ascites or chylothorax; lymph node involvement by primary or secondary neoplasm; and lymph node response to therapeutic modalities.

### **2 DOSAGE AND ADMINISTRATION**

#### **2.1 Subcutaneous administration**

Isosulfan blue injection 1% is to be administered subcutaneously, one-half (1/2) mL into three (3) interdigital spaces of each extremity per study. A maximum dose of 3 mL (30 mg) isosulfan blue is, therefore, injected.

### **3 DOSAGE FORMS AND STRENGTHS**

1% aqueous solution (isosulfan blue)

### **4 CONTRAINDICATIONS**

Isosulfan blue injection 1% is contraindicated in those individuals with known hypersensitivity to triphenylmethane or related compounds.

### **5 WARNINGS AND PRECAUTIONS**

#### **5.1 Hypersensitivity Reactions**

Life-threatening anaphylactic reactions (respiratory distress, shock, angioedema) have occurred after isosulfan blue 1% administration. Reactions are more likely to occur in patients with a history of bronchial asthma, allergies, drug reactions or previous reactions to triphenylmethane dyes. Monitor patients closely for at least 60 minutes after administration of isosulfan blue 1%. Trained personnel should be available to administer emergency care including resuscitation.

#### **5.2 Precipitation of Isosulfan Blue 1% by Lidocaine**

The admixture of isosulfan blue 1% (with local anesthetics (i.e. lidocaine)) in the same syringe results in an immediate precipitation of 4 to 9% drug complex. Use a separate syringe to administer a local anesthetic.

#### **5.3 Interference with Oxygen Saturation and Methemoglobin Measurements**

Isosulfan blue 1% interferes with measurements of oxygen saturation in peripheral blood by pulse oximetry and can cause falsely low readings. The interference effect is maximal at 30 minutes and minimal generally by four hours after administration. Arterial blood gas analysis may be needed to verify decreased arterial partial pressure of oxygen.

Isosulfan blue 1% may also cause falsely elevated readings of methemoglobin by arterial blood gas analyzer. Therefore, co-oximetry may be needed to verify methemoglobin level.

### **6 ADVERSE REACTIONS**

#### **6.1 Postmarketing Experience**

Hypersensitivity Reactions: Case series report an overall incidence of hypersensitivity reactions in approximately 2% of patients. Life-threatening anaphylactic reactions have occurred. Manifestations include respiratory distress, shock, angioedema, urticaria, pruritus. A death has been reported following administration of a similar compound

employed to estimate the depth of a severe burn. Reactions are more likely to occur in patients with a personal or family history of bronchial asthma, significant allergies, drug reactions or previous reactions to triphenylmethane dyes [see *Warnings and Precautions (5)*].

Laboratory Tests: Isosulfan blue 1% interferes with measurements of oxygen saturation by pulse oximetry and of methemoglobin by gas analyzer [see *Warnings and Precautions (5)*].

Skin: transient or long-term (tattooing) blue coloration.

## **7 DRUG INTERACTIONS**

No drug interactions have been identified with isosulfan blue 1%.

## **8 USE IN SPECIFIC POPULATIONS**

### **8.3 Nursing Mothers**

It is not known whether this drug is excreted in human milk. Because many drugs are excreted in human milk, caution should be exercised when isosulfan blue 1% is administered to a nursing mother.

### **8.4 Pediatric Use**

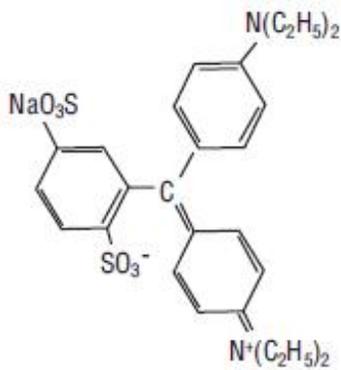
Safety and effectiveness of isosulfan blue 1% in children have not been established.

## **10 OVERDOSAGE**

Do not exceed indicated recommended dosage as overdose levels have not been identified for isosulfan blue 1%.

## **11 DESCRIPTION**

The chemical name of isosulfan blue is N-[4-[[4-(diethylamino)phenyl] (2,5-disulfophenyl) methylene]-2,5-cyclohexadien-1-ylidene]-N-ethylethanaminium hydroxide, inner salt, sodium salt. Isosulfan blue is a greenish blue color hygroscopic powder. Its structural formula is:



Isosulfan blue injection 1% is a sterile, non-pyrogenic, aqueous dark blue color solution for subcutaneous administration. Phosphate buffer in water for injection is added in sufficient quantity to yield a final pH of 6.8 to 7.4. Each mL of solution contains 10 mg isosulfan blue, 6.6 mg sodium monohydrogen phosphate and 2.7 mg potassium dihydrogen phosphate. The solution contains no preservative. Isosulfan blue injection 1% is a contrast agent for the delineation of lymphatic vessels.

## 12 CLINICAL PHARMACOLOGY

### 12.2 Pharmacodynamics

Following subcutaneous administration, isosulfan blue 1% binds to serum proteins and is picked up by the lymphatic vessels. Thus, the lymphatic vessels are delineated by the blue dye.

### 12.3 Pharmacokinetics

Up to 10% of the subcutaneously administered dose of isosulfan blue 1% is excreted unchanged in the urine in 24 hours in human.

## 13 NONCLINICAL TOXICOLOGY

### 13.1 Carcinogenesis, Mutagenesis, Impairment of Fertility

Long-term studies in animals have not been performed to evaluate the carcinogenic potential of isosulfan blue 1%. Reproduction studies in animals have not been conducted and, therefore, it is unknown if a problem concerning mutagenesis or impairment of fertility in either males or females exists.

### 13.2 Teratogenic Effects

Pregnancy Category C. Animal reproduction studies have not been conducted with isosulfan blue 1%. It is not known whether isosulfan blue 1% can cause fetal harm when administered to a pregnant woman or can affect reproduction capacity. Isosulfan blue 1% should be given to a pregnant woman only if clearly needed.

## **16 HOW SUPPLIED/STORAGE AND HANDLING**

Isosulfan blue injection 1% is a sterile, non-pyrogenic, aqueous dark blue color solution and is supplied as follows:

### **Isosulfan blue injection 1%**

**50 mg per 5 mL (10 mg / mL):**

5 mL Single-Dose Vials  
in a Carton of 6

NDC 55150-240-05

**Store at** 20° to 25°C (68° to 77°F) [see USP Controlled Room Temperature]. Avoid excessive heat.

Discard unused portion.

The vial stoppers are not made with natural rubber latex.

## **17 PATIENT COUNSELING INFORMATION**

Inform patients that urine color may be blue for 24 hours following administration of isosulfan blue injection 1%.

Distributed by:

**AuroMedics Pharma LLC**  
279 Princeton-Hightstown Rd.  
E. Windsor, NJ 08520

Manufactured by:

**Eugia Pharma Specialities Limited**  
Hyderabad - 500032  
India

**PACKAGE LABEL-PRINCIPAL DISPLAY PANEL - 1% [50 mg per 5 mL (10 mg / mL)] - Container Label**

**Rx only**                      **NDC 55150-240-05**  
**Isosulfan Blue**  
**Injection 1%**  
**50 mg per 5 mL**  
**(10 mg / mL)**  
**For Lymphography**  
**For Subcutaneous Use Only**  
**5 mL**                              **Single Dose Vial**

Rx only NDC 55150-240-05

AUROMEDICS

**Isosulfan Blue  
Injection 1%**

**50 mg per 5 mL  
(10 mg / mL)**

**For Lymphography  
For Subcutaneous Use Only  
5 mL Single Dose Vial**

Sterile, Non-Pyrogenic

**Each mL contains:** Isosulfan blue 10 mg.

**Usual Dosage:** See Package Insert.

**Store at 20° to 25°C (68° to 77°F).** Avoid excessive heat. Discard Unused Portion.

Mfd. in India for: **AuroMedics Pharma LLC**  
E. Windsor, NJ 08520

Code: TS/DRUGS/13/2010



P1416954



**PACKAGE LABEL-PRINCIPAL DISPLAY PANEL - 1% [50 mg per 5 mL (10 mg / mL)] - Container-Carton (6 Vials)**

**Rx only NDC 55150-240-05**

**Isosulfan Blue**

**Injection 1%**

**50 mg per 5 mL**

**(10 mg / mL)**

**For Lymphography**

**For Subcutaneous Use Only**

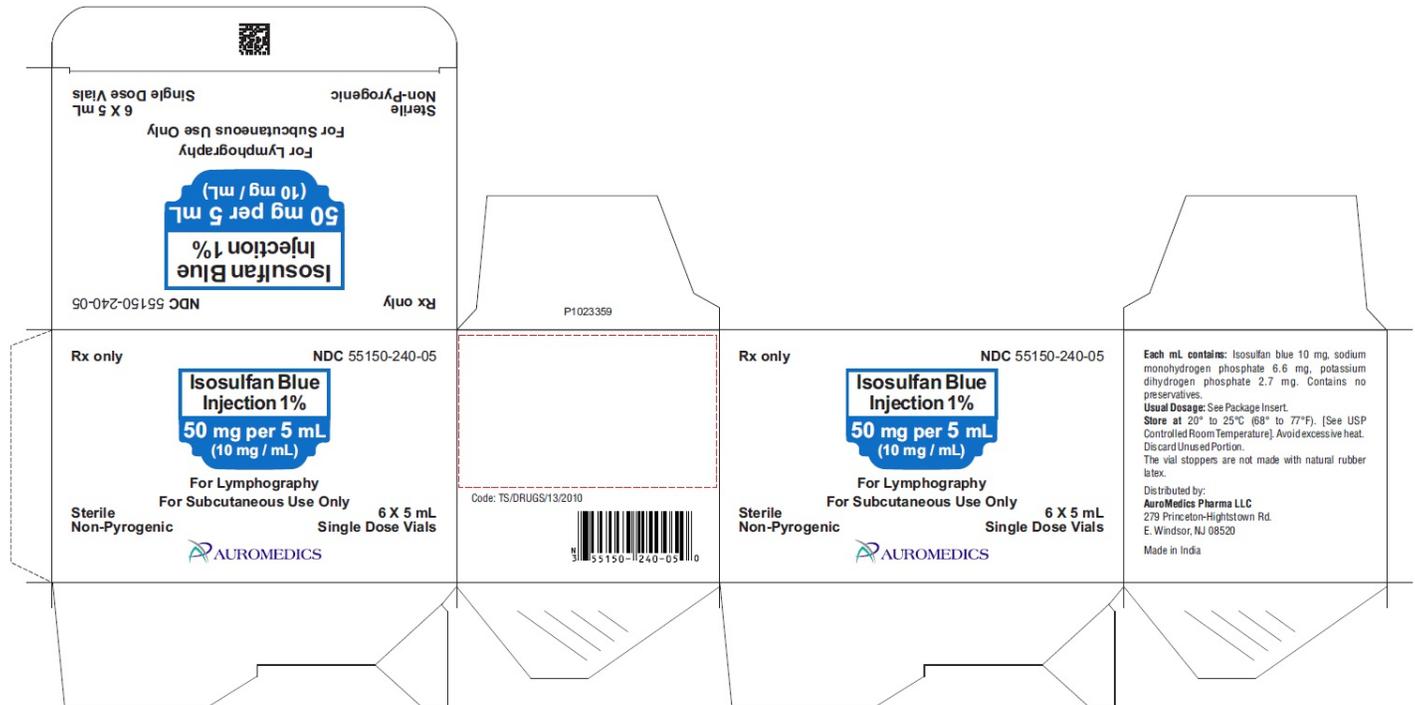
**Sterile**

**6 X 5 mL**

**Non-Pyrogenic**

**Single Dose Vials**

**AUROMEDICS**



**ISOSULFAN BLUE**

isosulfan blue injection, solution

Product Information				
<b>Product Type</b>	HUMAN PRESCRIPTION DRUG	<b>Item Code (Source)</b>	NDC:55150-240	
<b>Route of Administration</b>	SUBCUTANEOUS			
Active Ingredient/Active Moiety				
Ingredient Name		Basis of Strength	Strength	
ISOSULFAN BLUE (UNII: 39N9K8S2A4) (ISOSULFAN BLUE INNER SALT - UNII: NS6Q291771)		ISOSULFAN BLUE	50 mg in 5 mL	
Inactive Ingredients				
Ingredient Name			Strength	
SODIUM PHOSPHATE, DIBASIC, DIHYDRATE (UNII: 9425516E2T)				
POTASSIUM PHOSPHATE, MONOBASIC (UNII: 4J9FJ0HL51)				
WATER (UNII: 059QF0KO0R)				
Packaging				
#	Item Code	Package Description	Marketing Start Date	Marketing End Date
1	NDC:55150-240-05	6 in 1 CARTON	02/02/2016	
1		5 mL in 1 VIAL; Type 0: Not a Combination Product		
Marketing Information				
Marketing Category	Application Number or Monograph Citation	Marketing Start Date	Marketing End Date	
ANDA	ANDA206831	02/02/2016		

**Labeler** - Eugia US LLC (968961354)

### Establishment

Name	Address	ID/FEI	Business Operations
Eugia Pharma Specialities Limited		650498244	ANALYSIS(55150-240) , MANUFACTURE(55150-240) , PACK(55150-240)

Revised: 2/2024

Eugia US LLC