

ISOSULFAN BLUE- isosulfan blue injection, solution
Mylan Institutional LLC

HIGHLIGHTS OF PRESCRIBING INFORMATION

These highlights do not include all the information needed to use ISOSULFAN BLUE INJECTION 1% safely and effectively. See full prescribing information for ISOSULFAN BLUE INJECTION 1%.

ISOSULFAN BLUE injection 1% 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)

----- **CONTRAINDICATIONS** -----

Hypersensitivity to triphenylmethane or related compounds (4).

----- **WARNINGS AND PRECAUTIONS** -----

- Life threatening anaphylactic reactions have occurred after isosulfan blue injection 1% administration. Monitor patients closely for at least 60 minutes after administration of isosulfan blue injection 1% (5.1).
- The admixture of isosulfan blue injection 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 injection 1% interferes with measurements in peripheral blood pulse oximetry. Arterial blood gas analysis may be needed (5.3).

----- **ADVERSE REACTIONS** -----

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

To report SUSPECTED ADVERSE REACTIONS, contact Mylan Pharmaceuticals Inc. at 1-877-446-3679 (1-877-4-INFO-RX) or FDA at 1-800-FDA-1088 or www.fda.gov/medwatch.

----- **DRUG INTERACTIONS** -----

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

----- **USE IN SPECIFIC POPULATIONS** -----

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

See 17 for PATIENT COUNSELING INFORMATION.

Revised: 7/2017

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 Injection 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 injection 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 injection 1%. Trained personnel should be available to administer emergency care including resuscitation.

5.2 Precipitation of Isosulfan Blue Injection 1% by Lidocaine

The admixture of isosulfan blue injection 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 injection 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 4 hours after administration. Arterial blood gas analysis may be needed to verify decreased arterial partial pressure of oxygen.

Isosulfan blue injection 1% may also cause falsely elevated readings of methemoglobin by arterial blood gas analyzer. Therefore, cooximetry 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 injection 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 injection 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 injection 1% is administered to a nursing mother.

8.4 Pediatric Use

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

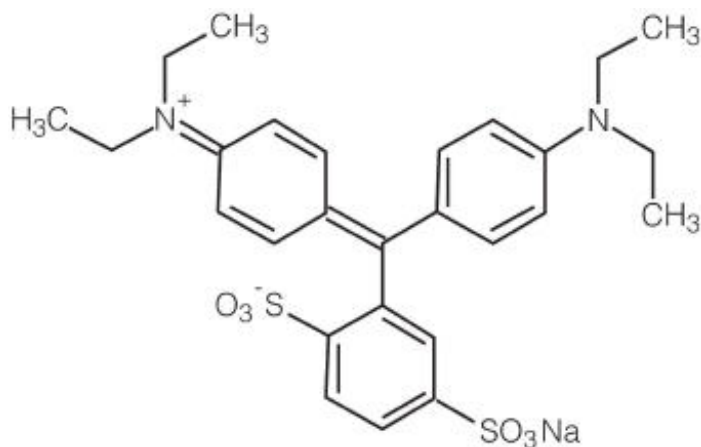
10 OVERDOSAGE

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

11 DESCRIPTION

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

ISOSULFAN BLUE



Isosulfan blue injection 1% is a sterile aqueous solution for subcutaneous administration. Phosphate buffer in sterile, pyrogen free water 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 injection 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 injection 1% is excreted unchanged in the urine in 24 hours in humans.

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 injection 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 injection 1%. It is not known whether isosulfan blue injection 1% can cause fetal harm when administered to a pregnant woman or can affect reproduction capacity. Isosulfan blue injection 1% should be given to a pregnant woman only if clearly needed.

16 HOW SUPPLIED/STORAGE AND HANDLING

Isosulfan Blue Injection 1% is supplied as a 5 mL single-dose vial, 1% aqueous solution in a phosphate buffer prepared by appropriate manufacturing to be sterile and pyrogen-free.

NDC 67457-220-05

carton containing 6 x 5 mL single-dose vials

Storage: Vials should be stored at 20° to 25°C (68° to 77°F). [See USP Controlled Room Temperature.] Avoid excessive heat.

17 PATIENT COUNSELING INFORMATION

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

Manufactured for:

Mylan Institutional LLC
Rockford, IL 61103 U.S.A.

Manufactured by:

Mylan Institutional
Galway, Ireland

0874L101

Revised: 7/2017

MI:ISOSIJ:R4

PRINCIPAL DISPLAY PANEL - 50 mg/5 mL

NDC 67457-220-05

Isosulfan Blue Injection 1%

50 mg/5 mL (10 mg/mL)

For Lymphography

For Subcutaneous Use Only

Rx only 6 x 5 mL Single-Dose Vials

Sterile. Non-Pyrogenic. Single-Dose Container.

Contains no preservatives.

Not for Multiple-Use.

Discard Unused Portion.

Each mL contains:

Isosulfan Blue 10 mg

Sodium monohydrogen phosphate. 6.6 mg

Potassium dihydrogen phosphate 2.7 mg

Consult Accompanying Prescribing Information Before Administering Drug.

Store at 20° to 25°C (68° to 77°F). [See USP Controlled Room Temperature.]

Avoid excessive heat.

Manufactured for:
Mylan Institutional LLC
 Rockford, IL 61103 U.S.A.

Manufactured by:
 Mylan Institutional
 Galway, Ireland

MI:220:6C:R4

Mylan.com



ISOSULFAN BLUE

isosulfan blue injection, solution

Product Information

Product Type	HUMAN PRESCRIPTION DRUG	Item Code (Source)	NDC:67457-220
Route of Administration	SUBCUTANEOUS		

Active Ingredient/Active Moiety

Ingredient Name	Basis of Strength	Strength
ISOSULFAN BLUE (UNII: 39N9K8S2A4) (ISOSULFAN BLUE INNER SALT -	ISOSULFAN BLUE	10 mg in 1 mL

UNII: NS6Q291771) BOSULIFAN BLOC 10 mg in 1 mL

Inactive Ingredients

Ingredient Name	Strength
WATER (UNII: 059QF0KO0R)	
SODIUM PHOSPHATE, MONOBASIC, MONOHYDRATE (UNII: 593YOG76RN)	6.6 mg in 1 mL
POTASSIUM PHOSPHATE, MONOBASIC (UNII: 4J9FJ0HL51)	2.7 mg in 1 mL

Packaging

#	Item Code	Package Description	Marketing Start Date	Marketing End Date
1	NDC:67457-220-05	6 in 1 CARTON	03/14/2013	
1	NDC:67457-220-00	5 mL in 1 VIAL, GLASS; Type 0: Not a Combination Product		

Marketing Information

Marketing Category	Application Number or Monograph Citation	Marketing Start Date	Marketing End Date
ANDA	ANDA090874	03/14/2013	

Labeler - Mylan Institutional LLC (790384502)

Revised: 7/2017

Mylan Institutional LLC