

Material Safety Data Sheet

Section 1 - Chemical Product and Company Identification

| | |
|-------------------------------|--|
| Trade name: | Nuclear RED (DRAQ5™) |
| Product details: | 1,5-bis{[2-(di-methylamino) ethyl]amino}-4, 8-dihydroxyanthracene-9,10-dione |
| formulation: | supplied at 5 mM in aqueous solution |
| Catalog Number: | 65-0880 |
| Manufacturer/Supplier: | eBioscience, Inc. 10255 Science Center Drive San Diego, Ca 92121 888-999-1371 |

Section 2 - Composition / Information on Ingredients

| | |
|------------------|--|
| Component | 1,5-bis{[2-(di-methylamino) ethyl]amino}-4, 8-dihydroxyanthracene-9,10-dione |
| % Content | >99% |

Section 3 - Hazards Identification

| |
|--|
| <p>most important hazard: Cytotoxic agent risk phrases: R39/23/24/25 Toxic: danger of very serious irreversible effects through inhalation and in contact with skin and if swallowed safety phrases: S36/37/39: Wear suitable protective clothing, gloves and eye/face protection</p> |
|--|

Section 4 - First Aid Measures

| |
|--|
| <p>Inhalation: Remove to fresh air. If breathing is difficult, give oxygen. get medical attention if symptoms persist Skin Contact: wash with soap & water; then flush with water until chemical is removed Eye Contact: Eye-flush promptly with plenty of water for at least 15 minutes Ingestion: If conscious, induce vomiting as directed by doctor, immediately get medical help</p> |
|--|

Section 5 - Fire Fighting Measures

No special measures required.

Section 6 - Accidental Release Measures

neutralizing agent: water plus dish soap
methods for cleaning: wear protective equipment. wipe or mop up and place in a container for disposal. flush residue away with water. non porous surface contamination may be removed using 70% methanol in water

Section 7 - Handling and Storage

handling: Laboratory coat, rubber gloves and safety goggles
storage: Store at +4°C. Do not freeze. Protect container from physical damage

Section 8 - Exposure Control / Personal Protection

personal protection equipment: Laboratory coat
eye protection: Safety goggles
hand protection: Rubber gloves
safety phrases: S36/37/39: Wear suitable protective clothing, gloves and eye/face protection

Section 9 - Physical and Chemical Properties

General Information
Physical State: Liquid
Color: dark blue solution
Odor: Odorless
Change in condition: Undetermined
Melting point/melting range: Undetermined
Boiling point/boiling range: Undetermined
Flash point: Not applicable
Auto igniting: Product is not self igniting
Danger of explosion: Product does not present an explosion hazard.
Solubility with water: Soluble

Section 10 - Stability and Reactivity

Stable solution
Incompatible with strong oxidizing agents & strong bases

Section 11 - Toxicological Information

This material is cytotoxic and may be carcinogenic

Inhalation-mildly irritating

Ingestion-may cause cardiovascular and birth defects

risk phrases: R39/23/24/25 Toxic: danger of very serious irreversible effects through inhalation and in contact with skin and if swallowed

Section 12 - Ecological Information

Ecological effects:

None

Section 13 - Disposal Considerations

Disposal should follow federal and local Regulatory Guidelines for CYTOTOXIC agents. Check with your Laboratory Manager if you are unsure of your local Regulatory Guidelines

Section 14 - Transport Information

Shipping: shipped as "DANGEROUS GOODS IN EXCEPTED QUANTITIES" in all respects compliant with applicable international and national government regulations and the IATA Dangerous Goods Regulations

Class number: CLASS 6

UN number: UN2810

Harmonized code: 3822.00.5090

We certify that the material identified above is chemically synthesized

We certify that the material does not contain any animal or cell culture derived products or additives such as albumin or serum

Section 15 - Regulatory Information

Section 15. Regulatory information

label required: YES (Toxic material)

common name: Nuclear RED (DRAQ5™)

signal word: warning!

Acute health hazard: moderate

Contact hazard: slight

Fire hazard: none

Reactivity hazard: none

Special hazard precautions: inhalation-mildly irritating. Ingestion-may cause cardiovascular and birth defects. Cytotoxic. Suspected mutagen.

Storage: store at +4°C. Do not freeze. Protect from physical damage

Section 16 - Other Information

Nuclear Red(DRAQ 5)and other eBioscience products are high-quality reagents and are intended for research purposes only. Nuclear Red(DRAQ 5) and other eBioscience products must be used by technically qualified individuals with competence in the handling of potentially hazardous materials. A Material Safety Data Sheet is provided with this product. Guidance notes are available for product applications. Nuclear Red(DRAQ 5) and other eBioscience products are covered by UK, US and foreign patents pending.

eBioscience does not warrant or guarantee that its products are merchantable or satisfactory for any particular purpose, nor free from any claim of foreign or domestic patent infringement by a third party, and there are no warranties, express or implied, to such effect.

The company's responsibility is limited to replacement of items ordered only. All information provided by eBioscience as product literature or through their technical assistance service is believed to be accurate, but it remains the responsibility of the investigator to confirm all technical aspects of the application of the product. Information provided by eBioscience is subject to change without notice. We reserve the right to discontinue or change specifications, preparations or prices at any time without incurring obligations.

eBioscience will not be liable for any incidental, consequential or contingent damages involving the use of their products.

Preparation Date: 10/14/2009