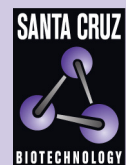


Tris(bathophenanthrolinedisulfonate)ruthenium(II) sodium salt solution: sc-216024

MATERIAL SAFETY DATA SHEET



The Power to Question

SECTION 1 - PRODUCT AND COMPANY INFORMATION

Product Name: Tris(bathophenanthrolinedisulfonate)ruthenium(II) sodium salt solution

Catalog Number: sc-216024

Supplier: Santa Cruz Biotechnology, Inc.
2145 Delaware Ave.
Santa Cruz, California 95060
800.457.3801 or 831.457.3800

Emergency: ChemWatch
Within the US & Canada: 877-715-9305
Outside the US & Canada: +800 2436 2255
(1-800-CHEMCALL) or call +613 9573 3112

SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENT

<i>Substance Name</i>	<i>CAS#</i>	<i>SARA 313</i>
Tris(bathophenanthrolinedisulfonate) ruthenium(II) sodium salt solution	301206-84-8	No

Synonyms: Ruthenium(II)-tris-(bathophenanthrolin-disulfonat) sodium salt solution

Formula: $3C_{24}H_{14}N_2O_6S_2 \cdot 4Na \cdot Ru$

Molecular Weight: 1664.55

SECTION 3 - HAZARDS IDENTIFICATION

HMIS RATING

HEALTH: 0

FLAMMABILITY: 0

REACTIVITY: 0

NFPA RATING

HEALTH: 0

FLAMMABILITY: 0

REACTIVITY: 0

For additional information on toxicity, please refer to Section 11.

SECTION 4 - FIRST AID MEASURES

ORAL EXPOSURE

If swallowed, wash out mouth with water provided person is conscious.
Call a physician.

INHALATION EXPOSURE

If inhaled, remove to fresh air. If breathing becomes difficult, call a physician.

DERMAL EXPOSURE

In case of contact, immediately wash skin with soap and copious amounts of water.

EYE EXPOSURE

In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers.
Call a physician.

SECTION 5 - FIRE FIGHTING MEASURES

FLASH POINT

N/A

AUTOIGNITION TEMP

N/A

FLAMMABILITY

N/A

EXTINGUISHING MEDIA

Suitable: Water spray. Carbon dioxide, dry chemical powder, or appropriate foam.

FIREFIGHTING

Protective Equipment: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.
Specific Hazard(s): Emits toxic fumes under fire conditions.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

METHODS FOR CLEANING UP

Absorb on sand or vermiculite and place in closed containers for disposal.
Ventilate area and wash spill site after material pickup is complete.

SECTION 7 - HANDLING AND STORAGE

HANDLING

User Exposure: Avoid inhalation. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure.

STORAGE

Suitable: Keep tightly closed. Store at 2-8° C.

SECTION 8 - EXPOSURE CONTROLS / PPE

ENGINEERING CONTROLS

Safety shower and eye bath. Mechanical exhaust required.

PERSONAL PROTECTIVE EQUIPMENT

Respiratory: Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Respiratory protection is not required. Where protection is desired, use multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges.

Hand: Protective gloves.

Eye: Chemical safety goggles.

GENERAL HYGIENE MEASURES

Wash thoroughly after handling.

SECTION 9 - PHYSICAL/CHEMICAL PROPERTIES

Appearance Physical State: Liquid

pH	.....	N/A
BP/BP Range	.....	N/A
MP/MP Range	.....	N/A
Freezing Point	.....	N/A
Vapor Pressure	.....	N/A
Vapor Density	.....	N/A
Saturated Vapor Conc.	.....	N/A
Bulk Density	.....	N/A
Odor Threshold	.....	N/A
Volatile%	.....	N/A
VOC Content	.....	N/A
Water Content	.....	N/A
Solvent Content	.....	N/A
Evaporation Rate	.....	N/A
Viscosity	.....	N/A
Surface Tension	.....	N/A
Partition Coefficient	.....	N/A
Decomposition Temp.	.....	N/A
Flash Point	.....	N/A
Explosion Limits	.....	N/A
Flammability	.....	N/A
Autoignition Temp	.....	N/A
Refractive Index	.....	N/A

continued...

Optical RotationN/A
Miscellaneous DataN/A
SolubilityN/A
N/A = not available

SECTION 10 - STABILITY AND REACTIVITY

STABILITY

Stable: Stable.

Materials to Avoid: Strong oxidizing agents.

HAZARDOUS DECOMPOSITION PRODUCTS

Hazardous Decomposition Products: Carbon monoxide, Carbon dioxide.

HAZARDOUS POLYMERIZATION

Hazardous Polymerization: Will not occur

SECTION 11 - TOXICOLOGICAL INFORMATION

ROUTE OF EXPOSURE

Skin Contact: May cause skin irritation.

Skin Absorption: May be harmful if absorbed through the skin.

Eye Contact: May cause eye irritation.

Inhalation: Material may be irritating to mucous membranes and upper respiratory tract. May be harmful if inhaled.

Ingestion: May be harmful if swallowed.

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

No data available.

SECTION 13 - DISPOSAL CONSIDERATIONS

APPROPRIATE METHOD OF DISPOSAL OF SUBSTANCE OR PREPARATION

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. Observe all federal, state, and local environmental regulations.

SECTION 14 - TRANSPORT INFORMATION

DOT

Proper Shipping Name: None

Non-Hazardous for Transport: This substance is considered to be non-hazardous for transport.

IATA

Non-Hazardous for Air Transport: Non-hazardous for air transport.

SECTION 15 - REGULATORY INFORMATION

UNITED STATES REGULATORY INFORMATION

SARA LISTED: No

CANADA REGULATORY INFORMATION

WHMIS Classification: This product has been classified in accordance with the hazard criteria of the CPR, and the MSDS contains all the information required by the CPR.

DSL: No

NDSL: No

SECTION 16 - OTHER INFORMATION

The above information is believed to be correct but does not purport to be complete and should be used only as a guide. The burden of safe use of this material rests entirely with the user.

9/16/2011