Chemical Safety Practices Recommendations
Resiniferatoxin (Reciniferatoxin, RTX)

Exposure Hazards(1)

Irritates Skin

Affects Nervous System

Response to Exposure

Oral	Dermal	Inhalation	Injection
Rinse mouth; do not induce vomiting. Report to OHS.	Wash skin with soap and water for 15 minutes. Rinse eyes for 15 minutes. Report to OHS if irritation develops.	Leave area; go to clean air. Report to OHS if difficulty breathing occurs.	Report to OHS.

Special Precautions	RTX in DMSO will rapidly penetrate gloves and skin. Discard garments as hazardous if contaminated with RTX.
Personal Protective Equipment	Gloves (Latex or Nitrile) Skin Protection (Suit, Scrubs or Lab Coat) Eye Protection (Safety-glasses or Goggles) Closed-toe shoes
Engineering Controls	RTX powder- Chemical Fume Hood (CFH). RTX solution- CFH or Class II Biosafety Cabinet (B2 if aerosolized) Use full face N100 respirator if engineering controls are not available.
Animal Handling	No special requirements.
Bedding Disposal	No special requirements.
Work Practices	Empty RTX containers and unused RTX must be disposed of as hazardous. Follow LASP SOPs for preparation, handling, dosing, and disposal of RTX.

1. <Resiniferatoxin MSDS Tocris.pdf> [Internet]. 2011 [cited 10/9/2014]. Available from: http://www.tocris.com/literature/1137_sds.pdf?1414155468.
2. Fattorusso E, Lanzotti V, Taglialatela-Scafati O, Tron Gian C, Appendino G. Bisnorsesquiterpenoids from Euphorbia resinifera Berg. and an Expeditious Procedure to Obtain Resiniferatoxin from Its Fresh Latex. Eur J Org Chem. 2002;2002(1):71-8.
3. Kissin I, Szallasi A. Therapeutic targeting of TRPV1 by resiniferatoxin, from preclinical studies to clinical trials. Current topics in medicinal chemistry. 2011;11(17):2159-70.

Resiniferatoxin is a natural extract of Resin Spurge (Euphorbia resinifera and Euphorbia Poisonii).(2) It is analogous to capsaicin, binding the the TRPV1 receptor, but with x1000 activity. It is used to induce inflammation or to desensitize pain neurons.(3) .

Questions or concerns: Please contact EHS, Ted Witte, theodore.witte@nih.gov or 301-846-5860

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