

Standard Operating Procedures for Work with TRIZOL

#1	<p><u>Scope of Work/Activity:</u> TRIZOL® Reagent (TRIZOL) is a pink, ready-to-use reagent, designed to isolate high quality total RNA (as well as DNA and proteins) from cell and tissue samples followed with a phase separation by chloroform. As TRIZOL contains phenol (toxic and corrosive) and guanidine isothiocyanate (an irritant), improper handling may lead a health hazard.</p>
#2	<p><u>Specific Safety and Environmental Hazards:</u> TRIZOL is a combustible liquid. It is toxic if ingested, inhaled, or absorbed through the skin. It may cause irritation to the respiratory tract, gastrointestinal tract, skin, and eyes. It causes burns by all exposure routes. It may cause cancer and birth defects. Symptoms of exposure include nausea, vomiting, diarrhea, coughing, abdominal pain, chest pain, dermatitis, hypotension, cyanosis, vertigo, drowsiness, dizziness, excessive tearing, corneal ulceration, burning sensation, tremors, convulsions, central nervous system depression, respiratory failure, and death. Prolonged exposure may cause lung edema and liver and kidney damage. Possible risk of irreversible effects.</p> <p>All tasks having potential for exposure are to be performed by trained staff and must have read the Material Safety Data Sheet.</p>
#3	<p><u>Engineering Controls:</u> To minimize exposure it is recommended to work with TRIZOL inside a chemical fume hood.</p>
#4	<p><u>Designated Area:</u> Conduct all work in Room __3337__</p>
#5	<p><u>Personal Protective Equipment (PPE):</u></p> <p>Always wear goggles, lab coat and chemical resistant gloves when working with TRIZOL. Regular glasses and sunglasses do not provide adequate eye protection. Before you begin working with TRIZOL, know the location and proper use of the nearest spill kit, safety shower and eyewash station.</p>
#6	<p><u>Emergency Procedures:</u> Contact 911 for severe chemical exposures.</p> <p>If inhaled Move person into fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Consult a physician.</p> <p>In case of skin contact Flush with plenty of water for at least 15 minutes while removing contaminated clothing. Consult a physician.</p> <p>In case of eye contact Flush eyes with plenty of water for at least 15 minutes lifting upper and lower eyelids and removing contact lenses. Consult a physician.</p> <p>If swallowed Do not induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.</p> <p>Complete online incident report form at http://safetyservices.ucdavis.edu/reports</p>
#7	<p><u>Waste disposal and unused stock disposal</u> Surplus TRIZOL, dry and liquid TRIZOL waste will be disposed of as hazardous chemical waste.</p>
#9	<p><u>Decontamination and spill clean-up procedures</u></p> <p>Employees in the area should be prepared to clean up minor spills. Wearing two layers of nitrile gloves, splash goggles, lab coat, use an inert absorbent material (kitty litter and paper towels) to clean up the spill. Contaminated PPE and clean-up materials must be double-bagged and placed in a sealed container for pick-up by EH&S.</p> <p>Large spills of TRIZOL (more than 500ml) must be referred to EH&S.</p>