

MATERIAL SAFETY DATA SHEET

This information must be made available to all personnel using this product.

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PRODUCT NAME Closed Circuit Treatment  
FORMULA MultiGuard 41

HAZARD CLASSIFICATION  
IRRITANT; TOXIC

NFPA: Health-2/ Flammability-0/ Reactivity-0/ Other-none

SECTION 1 HAZARDOUS INGREDIENTS

Ingredient	CAS#	TLV
sodium molybdate	7631-95-0	OSHA: 5 mg/m <sup>3</sup> PEL (as soluble Mo) ACGIH: 5mg/m <sup>3</sup> 8Hr.TWA (as soluble Mo)
sodium nitrite	7632-00-0	OSHA & ACGIH: None Established

This product does not contain 1% or greater of hazardous ingredients listed in Subpart D of SARA Title III, Section 313, nor does it contain 0.1% or greater of any ingredients listed as carcinogens by NTP, IARC, or OSHA.

SECTION 2 PHYSICAL DATA

Appearance and Odor	Clear, light, straw colored liquid.	
Specific Gravity	1.143	Boiling Point (F.) >212
Percent Volatile	80	Vapor Pressure (mm Hg) not known
Evaporation Rate	that of water	Vapor Density (air=1) not known
pH	7.5	Solubility in Water complete

SECTION 3 HEALTH HAZARD DATA

Effects of Overexposure  
irritation, and with prolonged contact, dermatitis. Will not penetrate intact skin. Sodium nitrite can be absorbed into the body and lead to nonspecific discomfort, such as nausea, headache, or weakness; reduction of the blood's oxygen carrying capacity with cyanosis (bluish discoloration), weakness, or shortness of breath by formation of methemoglobin; anemia; or low blood pressure with dizziness. INHALATION: Inhalation of mist may irritate respiratory tract. INGESTION: Can cause nausea, vomiting, and diarrhea. Ingestion of large amounts of sodium nitrite can result in acute toxic effects and may be fatal. (Details of ingestion effects of large doses of sodium nitrite: conversion of hemoglobin to methemoglobin, producing cyanosis; marked fall in blood pressure, leading to collapse, coma, and possibly death. Individuals with preexisting diseases of the cardiovascular system and bone marrow may have increased susceptibility to the toxicity of excessive exposures.) EFFECTS OF CHRONIC OVEREXPOSURE: Large amounts of molybdate absorbed into blood stream from ingestion or through damaged skin may result in erythema, macular rash, nausea, diarrhea, dizziness, depression. Dry skin, loss of hair and cracked lips, may also occur. Gout may be aggravated by exposure to this material.

Emergency and First Aid Procedures  
EYES: Immediately flush eyes with large amounts of water for at least 15 minutes, holding lids open to ensure flushing of the entire eye surface. Get emergency medical attention. SKIN: Remove contaminated clothing. Wash contaminated skin with soap and water. INHALATION OF MIST OR VAPOR: Remove to fresh air. Get medical attention. INGESTION: Have conscious patient drink several glasses of water, then induce vomiting by having patient tickle back of throat with finger. Get immediate medical attention. NEVER INDUCE VOMITING OR GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON.

#### SECTION 4 FIRE & EXPLOSION HAZARD DATA

Flash Point None Flammable Limits Not flammable.  
Extinguishing Media Whatever is appropriate for surrounding fire.  
Special Fire Fighting Procedures Firefighters should always wear protective clothing and positive pressure self-contained breathing apparatus when fighting fires near chemicals.  
Unusual Fire & Explosion Hazards Sodium nitrite is an oxidizing agent - it can supply oxygen to stimulate or accelerate the combustion of organic or other combustible materials if product is allowed to evaporate to dryness. Thermal decomposition (as may be experienced in a fire) may produce toxic and hazardous nitrogen oxides.

#### SECTION 5 REACTIVITY DATA

Stability Stable.  
Conditions to Avoid None known.  
Incompatibility (Materials to Avoid) Combustible materials. Sodium nitrite can react with acids, ammonium compounds, amines, activated carbon, reducing agents - particularly cyanides, thiocyanates and thiosulfates, certain combustibles and organics. DO NOT MIX WITH SECONDARY AMINES. SUSPECTED CANCER-CAUSING NITROSAMINES COULD BE FORMED.  
Hazardous Decomposition Products Thermal decomposition (as may be experienced in a fire) may produce toxic and hazardous nitrogen oxides. Nitrite compounds may react with secondary amines to form suspected cancer-causing nitrosamines.  
Hazardous Polymerization Will not occur.

#### SECTION 6 SPECIAL PROTECTION

Respiratory Protection Not needed under normal conditions of use.  
Ventilation General mechanical.  
Eye Protection Chemical splash goggles.  
Protective Gloves Rubber gauntlet-type.  
Other Protective Equipment Emergency eye wash station, safety shower, long-sleeved shirt, long pants, and rubber apron and boots.

#### SECTION 7 SPILL OR LEAK

Steps to be Taken in Case Material is Released or Spilled Attempt to keep out of sewer and out of public waters. Clean up spills immediately with inert absorbent material and place into an approved container for disposal. Then flush spill area with large amounts of water. Wear adequate protective clothing and equipment.  
Reportable Quantity 3,000 lbs  
Waste Disposal Method Dispose of waste in accordance with all federal, state, and local regulations regarding health and pollution.

#### SECTION 8 SPECIAL PRECAUTIONS

Precautions to be Taken in Handling and Storing Do not get in eyes, on skin, or on clothing. Do not breathe mists. Use with adequate ventilation and use protective equipment (see Section 6). Wash thoroughly after handling. A water source and shower should be installed in storage and work areas. Wash contaminated clothing before reuse. Store in a cool area away from incompatible materials (see Section 5). Keep drum tightly closed when not in use. Protect container from physical damage. Changes in temperature create air pressure inside drums. Use proper caution in unscrewing plug and inserting faucet. Unscrew plug slowly, allowing air to escape before completely removing plug. Do not mix with any other concentrated chemicals. Do not wear contact lenses when working with chemicals. Always practice good housekeeping when handling and storing any chemicals.