MATERIAL SAFETY DATA SHEET

Recapture Metals, Inc.
High Parity Gallium
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42% Gallium Nitrate Solution
Revision Date: November 23, 2005
Emergency Phone CHEMTREC (800) 424-9300

SECTION 1 - IDENTIFICATION

Substance: 42% Gallium Nitrate Solution
Trade Names/Synonyms: 42% Gallium Nitrate Mineral Water, Gallium (III) Nitrate; Nitric Acid, Gallium (III) Salt; Gallium (III) Nitrate (1:3); Nitric Acid, Gallium (3+) Salt; OHS10300
Chemical Family: Metal Salt CAS#: 13494-90-1
Molecular Formula: Ga(NO3)3 NFFA Rating (scale 0-4):
Molecular Weight: 255.75 Health = 1, Fire = 0, Reactivity = 0

SECTION 2 - INGREDIENTS

Chemical: Gallium Nitrate CAS# 13494-90-1 % w/v 42
Water 58
(11.5% w/v equivalent Gallium concentration)

PEL Not established TLV Not established

SECTION 3 - PHYSICAL DATA

Description: Colorless solution Specific Gravity (H2O = 1): 1.3
Boiling Point: 110 °C, decomposes Evaporation Rate (butyl acetate = 1): No data
Melting Point: No data Vapor Density (air = 1): No data
% Volatiles (by wt.): 58 Vapor Pressure: No data
Solubility in Water: Very soluble pH: 1

SECTION 4 - FIRE AND EXPLOSION HAZARD DATA

Flash Point: N/A Flammable Limits in Air, % by volume: Lower No data; Upper No data
Auto Ignition Temperature: None known
Extinguishing Media: Highly concentrated (>60%) or solid gallium nitrate is a strong oxidizer whose heat of reaction with reducing agents or combustibles may cause ignition. Use water, carbon dioxide, dry chemical extinguishing agents, dry sand, or ground dolomite.
Special Fire Fighting Procedures: No special fire fighting procedures needed. Use normal procedures, which include wearing NIOSH/MSHA approved self-contained breathing apparatus, flame and chemical resistant clothing: huts, boots, and gloves. If without risk, remove material from fire area. Cool container with water from maximum distance.

SECTION 5 - HEALTH DATA

OSHA (PEL): None ACGIH (TLV): None

A. ANIMAL TOXICITY Half of the mice ingesting 4360 mg/kg died, with symptoms of paralysis, somnolence, and changes in their food intake.

B. EFFECTS OF EXPOSURE

ACUTE EFFECTS - Ingestion: Large amounts of concentrated nitrates taken by mouth may have serious or even fatal results. The symptoms are dizziness, abdominal cramps, vomiting, a metallic taste, itching, bone marrow depression leading to anemia, bloody diarrhea, blood damage with subsequent renal damage, weakness, convulsions, and collapse. May damage the mouth and gastrointestinal tract.
Skin and Mouth Contact: Gallium nitrate solution is readily absorbed through the skin. May cause skin irritation (itching and/or stinging), drying, and skin exfoliation, and will cause painful mouth irritation.
Eye Contact: Will cause painful irritation of the cornea and the conjunctivae.
Inhalation: Fumes from solid gallium nitrate will cause irritation of mucus membranes and respiratory passages.
Medical Conditions Aggravated by the Chemical: None known