



TECHNIC, INC.

MATERIAL SAFETY DATA SHEET

SECTION I PRODUCT IDENTIFICATION

TRADE NAME (as labeled): NICKEL SULFAMATE RTU (Techni Nickel "S") Mechanical Agitation
CHEMICAL NAMES, COMMON NAMES: Nickel Sulfamate, Nickel Bromide
MANUFACTURER'S NAME & ADDRESS: PRODUCT CODE NO. 030175

TECHNIC, INC.

1 SPECTACLE STREET

CRANSTON, RI 02910

EMERGENCY PHONE: (401) 781-6100

DATE PREPARED: March 24, 2004

24 hour Emergency: Chem Trec 1-800-424-9300

SECTION II HAZARDOUS INGREDIENTS

<u>CHEMICAL NAMES</u>	<u>CAS NUMBER</u>	<u>PERCENT</u>	<u>EXPOSURE LIMITS</u>
Nickel Sulfamate Ni(NH ₂ • SO ₃) ₂	13770-89-3	25.6%	TWA = 0.10mg Ni ⁺² /M ³ ACGIH
Nickel Bromide NiBr ₂	13642-88-9	0.90%	TWA = 0.10mg Ni ⁺² /M ³ ACGIH

This material is regulated as a toxic chemical under Section 313 of Title III/SARA, and 40 CFR, Part 372.
This material contains ingredients known to the State of California to cause cancer.
For purposes of the New Jersey Right to Know Law, the contents are partially unknown.
All ingredients are listed with the TSCA inventory.

SECTION III PHYSICAL PROPERTIES

VAPOR DENSITY (AIR=1):

N.A.

SPECIFIC GRAVITY:

1.26

VAPOR PRESSURE (mm Hg):

N.A.

MELTING POINT (degrees F):

N.A.

EVAPORATION RATE (BUTYL ACETATE=1):

N.A.

BOILING POINT (degrees F):

N.D.

SOLUBILITY IN WATER:

Complete

pH:

3.80 - 4.50

APPEARANCE AND ODOR:

Dark green solution; slight saline odor.

SECTION IV FIRE AND EXPLOSION

FLASH POINT (°F) (METHOD USED):

Not combustible

AUTOIGNITION TEMPERATURE, F:

N.A.

FLAMMABLE LIMITS IN AIR, VOLUME %:

LOWER LIMIT

N.A.

UPPER LIMIT

N.A.

FIRE EXTINGUISHING MATERIALS: Use media appropriate for the surrounding fire.

 WATER SPRAY

 CARBON DIOXIDE

 OTHER:

 FOAM

 DRY CHEMICAL

Special Firefighting Procedures: Wear a NIOSH/MSHA approved, self-contained breathing apparatus and full protective gear if fully involved in a fire.

UNUSUAL FIRE AND EXPLOSION HAZARDS: May emit toxic fumes under fire conditions.

SECTION V HEALTH HAZARD INFORMATION

SYMPTOMS OF OVER-EXPOSURE FOR EACH POTENTIAL ROUTE OF EXPOSURE.

- INHALATION: Upper respiratory tract irritation. Hypersensitive individuals may develop asthma bronchitis. All nickel compounds are considered to be carcinogenic by inhalation.
- CONTACT WITH SKIN OR EYES: Irritation, allergic sensitization in some individuals in the presence of heat and humidity. ("Nickel Itch")
- ABSORBED THROUGH SKIN: No.
- SWALLOWED: Nausea, gastrointestinal problems, unconsciousness.

HEALTH EFFECTS OR RISKS FROM EXPOSURE. EXPLAIN IN LAY TERMS. ATTACH EXTRA PAGE IF MORE SPACE IS NEEDED.

- ACUTE:
 - Local: Poison by intraperitoneal route. Irritant, Allergen, Ingestion, Inhalation – Slight. Causes readily reversible changes which will disappear after exposure.
 - Systemic: Ingestion, Inhalation – Slight. Causes readily reversible changes which will disappear after exposure.
- CHRONIC:
 - Local: Irritant, Allergen – Slight to moderate. May involve both irreversible and reversible changes; not severe enough to cause death or permanent injury.
 - Systemic: Inhalation - Moderate. May involve both irreversible and reversible changes; not severe enough to cause death or permanent injury.

FIRST AID: EMERGENCY PROCEDURES

- EYE CONTACT: Flush with water for 15 minute or longer. Call physician. Lift lids occasionally to ensure proper flushing of the eye surface.
- SKIN CONTACT: Wash thoroughly with soap and water. Call physician, if irritation develops or persists.
- INHALED: Remove to fresh air. If breathing difficulties develop, call physician.
- SWALLOWED: If conscious, induce vomiting maintain respiration, call physician.

SUSPECTED CANCER AGENT? NO YES ACGIH, IARC, NTP

SECTION VI REACTIVITY DATA

Stability: X Stable Unstable

CONDITIONS TO AVOID: Excessive heat.

INCOMPATIBILITY (MATERIALS TO AVOID): Cyanides.

HAZARDOUS DECOMPOSITION PRODUCTS (INCLUDING COMBUSTION PRODUCTS): Nickel residues, sulfur oxides, nitrogen oxides.

HAZARDOUS POLYMERIZATION: _____ MAY OCCUR X WILL NOT OCCUR**SECTION VII _____ SPILL, LEAK, AND DISPOSAL PROCEDURES _____****STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:**

Contain spill by dam or absorption on clay or sawdust. Collect and dispose of at a proper waste disposal facility or reclaim nickel.

See Section VIII for employee protection,

WASTE DISPOSAL: SHOULD BE IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL ENVIRONMENTAL CONTROL REGULATIONS.

SECTION VIII _____ SPECIAL HANDLING INFORMATION _____

VENTILATION: General exhaust.

RESPIRATORY PROTECTION: NIOSH/MSHA approved respirator in a major spill.

EYE PROTECTION: Chemical goggles.

GLOVES: Rubber gloves.

OTHER CLOTHING AND EQUIPMENT: Rubber apron.

WORK PRACTICES, HYGIENIC PRACTICES: Wash thoroughly after handling.

OTHER HANDLING AND STORAGE REQUIREMENTS: Keep container closed and away from cyanides. Store in a cool, dry place. Temperature 55-85°F

H	
Health	2
F	
Flammability	0
R	
Reactivity	1
Personal Protection	C