

# SAFETY DATA SHEET

## SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

MANUFACTURER: TRANSENE COMPANY, INC.  
ADDRESS: DANVERS INDUSTRIAL PARK  
10 ELECTRONICS AVENUE DANVERS, MA 01923  
TEL: (978) 777-7860 FAX: (978)-739-5640  
WWW.TRANSENE.COM  
EMERGENCY NO. 1-800-424-9300 CHEMTREC

MATERIAL NAME: **Electroless Nickel Plating Ammonia Type (ENPAT)**

REVISED: May 2019

CHEMICAL FAMILY: Nickel Salt Solution

Product Number: 110-0002000

## SECTION 2. HEALTH HAZARD INFORMATION

### Hazard Statements

H302 Acute toxicity Oral : Category 4

H316 Skin corrosion / Skin irritation : Category 3

H320 Serious eye damage / Eye irritation : Category 2B

H373 Special target organ systemic toxicity repeated exposure : Category 2

H401 Acute aquatic environmental hazards : Category 2

H413 Chronic aquatic environmental hazards: Category 4

H350 Carcinogenicity: Category 1

### Pictograms or Hazard symbols



Signal Word: Danger

Harmful if swallowed. May cause an allergic skin reaction.

Causes mild skin irritation. Causes eye irritation.

Toxic to aquatic life. May cause long lasting harmful effects to aquatic life.

May cause cancer if swallowed. Chronic exposure may cause mutagenicity or reproductive hazards.

### Precautionary Statements

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P260 Do not breathe fume/gas/mist/vapors.

P264 Wash thoroughly after handling.

P270 Do not eat, drink, or smoke when using this product.

P273 Avoid release into the environment.

P280 Wear protective gloves, clothing, and eye and face protection.

P301 + P312 If swallowed, call a physician if you feel unwell.

P305 + P351 + P338 If in eyes, rinse cautiously with water for several minutes.

P308 + P311 If exposed or concerned, call a physician.  
 P314 Get medical advice/attention if you feel unwell.  
 P330 Rinse mouth.  
 P332 + P313 If skin irritation occurs, get medical advice/attention.  
 P337 + P313 If eye irritation persists, get medical advice/attention.  
 P405 Store locked up.  
 P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

**SECTION 3.COMPOSITION/INFORMATION ON INGREDIENTS**

Material	CAS#	Wt %	Toxicity
Ammonium Citrate	3012-65-5	5-10	N/E
Ammonium Chloride	12125-02-9	5-10	10 mg/m <sup>3</sup>
Nickel Chloride Hexahydrate	7718-54-9	1-5	0.1 mg/m <sup>3</sup> as Ni
Sodium Hypophosphite	10039-56-2	1-5	N/E
Ethylenediaminetetraacetic Acid	64-02-8	< 1	
Ammonium Hydroxide	1336-21-6	5-10	50 ppm
Water	7732-18-5	60-80	
Total		100	

**SECTION 4. FIRST AID MEASURES**

EFFECTS OF OVEREXPOSURE

FIRST AID:

**Eye Contact:** Irritant to the naked eye. Flush eyes with water for at least 15 minutes. Seek medical attention.

**Skin Contact:** Irritant to exposed skin. Flush skin with water for 15 minutes. Remove affected clothing. If symptoms persist, seek medical attention.

**Inhalation:** If mist or fumes are inhaled, remove to fresh air. If not breathing give artificial respiration. Seek medical attention. Effects may be delayed. May cause chemical burns to the respiratory tract. Mist/spray is carcinogenic.

**Ingestion:** Toxic in large quantities. Wash out mouth with water. Seek medical attention immediately.

**SECTION 5. FIRE FIGHTING MEASURES**

Flash Point and Method	Autoignition Temp.	Flammability Limits In	<u>LOWER</u>	<u>UPPER</u>	
non-flammable	NA	Air	NA		NA

**Extinguishing media:** Water spray, fog, carbon dioxide, or dry chemical.

**Special fire fighting procedures:** Wear chemically retardant gear and NIOSH approved self-contained breathing apparatus. Thermal decomposition produces irritating and toxic fumes.

**SECTION 6. ACCIDENTAL RELEASE MEASURES**

**SPILLS, LEAKS:** Ventilate area of leak or spill. Clean up personnel should wear protective clothing and NIOSH approved respirator. Dike and cover the contaminated areas with absorbent, non-combustible material such as earth, sand, or vermiculite.

**SECTION 7. HANDLING AND STORAGE**

Wash thoroughly after handling. Remove contaminated clothing and wash before re-use. Do not breathe dust, mist, or vapor. Do not expose eyes, skin, or clothing. Keep container closed tightly. Use with adequate ventilation or respiratory protection. Do not store near combustibles or in direct sunlight. Store in a cool, dry, well-ventilated area away from incompatible substances. Separate from metals, alkali, and organics.

## **SECTION 8. EXPOSURE CONTROL/PERSONAL PROTECTION**

**Respiratory protection:** Wear NIOSH/MESA approved full or half face piece (with goggles) respiratory protective equipment to avoid exposure to mist or spray. A respiratory protection program complying with requirements of 29CFR 1910.134 is recommended.

**Ventilation:** Where adequate ventilation is not available, use NIOSH approved vapor respirator with dust, fume and mist filters. Local ventilation through fume hoods or laminar flow stations is also preferred. Keep fumes away from strong bases.

**Protective gloves:** Skin contact should be minimized through use of impermeable gloves.

Other protective equipment: Steel tipped shoes/eye wash station/chemical safety chemical retardant clothing.

Eye protection: Safety goggles / face shield as needed.

## **SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

<b>Form :</b>	Liquid
<b>Appearance :</b>	Blue
<b>Odor :</b>	Ammonia
<b>pH :</b>	> 9
<b>Melting point:</b>	Not available
<b>Boiling point/Boiling range :</b>	100 °C (water)
<b>Flash point :</b>	Non-flammable.
<b>Ignition point :</b>	Will not ignite.
<b>Danger of explosion:</b>	Product is not explosive
<b>Decomposition temperature:</b>	Not available
<b>Vapor density (Air = 1) :</b>	Not available
<b>Volatiles, %:</b>	> 75
<b>Vapor pressure at 15° C, mm Hg:</b>	Not available
<b>Specific gravity :</b>	1.16 g/cc
<b>Solubility in / Miscibility:</b>	Completely miscible in water
<b>Evap. Rate (Water = 1):</b>	1

## **SECTION 10. STABILITY AND REACTIVITY**

Stability                          Stable     X     Conditions to avoid: Excess heat , light, confined spaces  
Unstable

Incompatible with:

Strong oxidizing agents such as chlorates or nitrates.

Hazardous decomposition products: Ammonia, hydrochloric acid.

Hazardous                          May occur                          Conditions to avoid: Excess heat, damp.  
polymerization:                          Will not occur     X

## **SECTION 11. TOXICOLOGICAL INFORMATION**

**Nickel Chloride:**

Oral rat LD50: 186 mg/kg

Chronic exposure: human mutagenicity, reproductive hazard.

This product contains a component that has been reported to be carcinogenic based on its IARC, OSHA, ACGIH, NTP, or EPA classification. IARC carcinogen list: group 1.

**SECTION 12. ECOLOGICAL INFORMATION**

When released into the soil, this material may leach into groundwater. When released into the air, this material may be removed from the atmosphere to a moderate extent by wet deposition. When released into the air, this material may be removed from the atmosphere to a moderate extent by dry deposition.

Environmental Toxicity:

LC<sub>50</sub> fish 100 mg/l/96 hour

**SECTION 13. DISPOSAL CONSIDERATIONS**

DISPOSAL: Dispose of in accordance with all federal state and local regulations. Send waste to an approved waste disposal facility.

**SECTION 14. TRANSPORTATION INFORMATION**

Non-hazardous/not regulated.

**SECTION 15. REGULATORY**

Symbol: Carc Cat 2, N, Repr Cat 2

R-Phrase:

R21/22: Harmful in contact with skin and if swallowed.

R43: May cause sensitization by skin contact.

R51: Toxic to aquatic organisms.

The following component of this product is regulated as toxic a chemical under section 313 or Title III SARA, and 40CFR 372:

Nickel Compound N495

**SECTION 16. OTHER INFORMATION**

NFPA Codes:

Health: 2

Flammability: 0

Reactivity: 0

R8: Contact with combustible material may cause fire.

R35: Causes severe burns.

S29: Do not empty into drains.

S46: If swallowed, seek medical advice immediately and show this container or label.

S61: Avoid release to the environment.

All ingredients of this product are listed on the US TSCA inventory under their parent

anhydrous compounds.