

# SAFETY DATA SHEET

## SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

NANO3D SYSTEMS LLC  
ADDRESS: 1110 NE Circle Blvd.,  
ATAMI/Bldg. 11, Corvallis, OR 97330  
<https://nano3dsystems.com>  
EMERGENCY NO. 1-800-424-9300 CHEMTREC

MATERIAL NAME: **RTM Solution Part D**  
REVISED: December 2016  
CHEMICAL FAMILY: Nickel Salt Solution  
Product Number: ELN-EL9K-RTMD-01

## SECTION 2. HEALTH HAZARD INFORMATION

### GHS Classifications

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



Warning: Harmful if swallowed. May cause an allergic skin reaction.

Warning: Causes mild skin irritation. Causes eye irritation.  
Toxic to aquatic life. May cause long lasting harmful effects to aquatic life.



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

### Precautionary Statement Prevention

Use only in a well-ventilated area. Do not eat, drink or smoke w  
When using this product. Do not breathe fume/gas/mist/vapors/spray.  
Wear protective gloves/protective clothing /eye protection/face protection.  
Wash hands thoroughly after handling.  
Avoid release to the environment

### SECTION 3.COMPOSITION/INFORMATION ON INGREDIENTS

Material		Wt %	Toxicity
Citric Acid Monohydrate	CAS# 77-92-9	< 1	N/E
Ammonium Hydroxide	CAS# 1336-21-6	1-5	50 mg/m <sup>3</sup>
Hydrochloric Acid	CAS# 7647-01-0	1-5	10 mg/m <sup>3</sup>
Nickel Sulfate	CAS# 7786-81-4	1-5	0.1 mg/m <sup>3</sup> (as Ni)
Sodium Hypophosphite	CAS# 10039-56-2	< 1	N/E
Water	CAS# 7732-18-5	> 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 Air	<u>LOWER</u>	<u>UPPER</u>
non-flammable	NA		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



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**

DOT Shipping Name: Non-restricted.

### **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: 1  
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.