

SAFETY DATA SHEET

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

NANO3D SYSTEMS LLC
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EMERGENCY NO. 1-800-424-9300 CHEMTREC

MATERIAL NAME: **RTM SOLUTION PART A FOR PLASTICS**

REVISED: April 2016

CHEMICAL FAMILY: Inorganic Acid Mixture

Product Number: ELN-EL9K-RTMAP-01

SECTION 2. HEALTH HAZARD INFORMATION

GHS Classifications

H272: Oxidizing liquids : Category 3
H290: Corrosive to metals: Category 1
H300: Acute toxicity oral : Category 1
H330: Acute toxicity inhalation : Category 2
H314: Skin corrosion / skin irritation : Category 1A
H318: Serious eye damage / Eye irritation : Category 1
H371: Special target organ systemic toxicity single exposure: Category 2
H373: Special target organ systemic toxicity repeated exposure : Category 2
H401: Acute aquatic environmental hazards : Category 2
H413: Chronic aquatic environmental hazards: Category 4

Pictograms or Hazard symbols



Warning: May intensify fire; oxidizer.



Warning: May be corrosive to metals



Danger: Fatal if swallowed. Toxic if inhaled.



Danger: Causes severe skin burns and eye damage. Causes serious eye damage.



May cause damage to bones, lungs, eyes, and mucous membranes.

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

Precautionary Statements

- P210 Keep away from heat, flames, and hot surfaces. No smoking.
- P220 Store away from combustible materials.
- P221 Take any precaution to avoid mixing with combustibles.
- P234 Keep only in original container.
- P260 Do not breathe fume/gas/mist/vapors.
- P264 Wash thoroughly after handling.
- P270 Do not eat, drink, or smoke when using this product.
- P271 Use only outdoors or in a well-ventilated area.
- P273 Avoid release into the environment.
- P280 Wear protective gloves, clothing, and eye and face protection.
- P284 In case of inadequate ventilation, wear respiratory protection.
- P301 + P310 If swallowed, immediately call a physician.
- P301 + P330 + P331 If swallowed, rinse mouth. Do not induce vomiting.
- P303 + P361 + P353 If on skin (or hair) take off immediately all contaminated clothing. Rinse skin with water.
- P304 + P340 If inhaled, remove person to fresh air and keep comfortable for breathing.
- P305 + P351 + P338 If in eyes, rinse cautiously with water for several minutes.
- P308 + P311 If exposed or concerned, call a physician.
- P310 Seek medical assistance if exposed.
- P314 Get medical advice/attention if you feel unwell.
- P330 Rinse mouth.
- P363 Wash contaminated clothing before reuse.
- P370 + P378 In case of fire use water spray or agent suitable to surrounding fire to extinguish.
- P390 Absorb spillage to prevent material damage.
- P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
- P405 Store locked up.
- P406 Store in corrosive resistant container.
- P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

SECTION 3.COMPOSITION/INFORMATION ON INGREDIENTS

Material	CAS#	Wt %	
Sulfuric Acid	7664-93-9	< 5	1 ppm ACGIH TLV
Chromic Acid	1333-82-0	< 5	0.5 mg/m ³

Water CAS# 7732-18-5 > 90
Total 100

SECTION 4. FIRST AID MEASURES

EFFECTS OF OVEREXPOSURE

FIRST AID:

Eye Contact: Both liquid and vapor are corrosive to naked eye; in case of contact flush eyes well for 15 minutes, lifting the lower and upper eyelids occasionally. May cause permanent eye damage or blindness. Seek medical attention.

Skin Contact: Obtain medical attention: Both liquid and vapor are corrosive to exposed skin. Flush skin well with water for 15 minutes, wash with soap and water. Remove affected clothing, get medical attention.

Inhalation: If inhaled, remove to fresh air. If not breathing give artificial respiration. Seek medical attention. Inhalation of vapors may cause coughing, choking, inflammation of the nose, throat, and upper respiratory tract. In severe cases, may pulmonary edema, circulatory failure, and death. Depletes calcium levels in the body if not promptly treated, resulting in death.

Ingestion: Will cause severe burns to the mouth and severe and permanent damage to the digestive tract. Causes gastrointestinal burns and perforation of the digestive tract. Get Medical Attention immediately. Do not induce vomiting; give large quantities of water.

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: Use water spray or suitable agent for surrounding fire. Do not use solid water streams. Acid reacts violently with water and can splatter acid onto personnel.

Special fire fighting procedures: Wear chemically retardant gear and NIOSH approved self-contained breathing apparatus. Thermal decomposition produces irritating and toxic fumes. Extreme heat or contact with metals can release flammable hydrogen gas, ammonia.

Toxic gases released: Sulfurous oxides, carbon dioxide, carbon monoxide.

SECTION 6. ACCIDENTAL RELEASE MEASURES

SPILLS, LEAKS: Ventilate area of leak or spill. Stop leak if possible to do so without risk. Clean-up personnel must wear protective clothing and NIOSH approved respirator. Dike and cover the contaminated areas with absorbent, non-combustible material such as earth, sand, or vermiculite. Neutralize with alkaline material such as soda ash or lime. Do not use combustibles. Do not flush to sewer.

SECTION 7. HANDLING AND STORAGE

Wash thoroughly after handling. Remove contaminated clothing and wash before re-use. Do not breathe mist or vapor. Do not expose eyes, skin, or clothing. Keep container closed tightly. Avoid contact with combustibles. Do not use with metal tools or items. 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. Residue in empty containers may still be hazardous.

SECTION 8. EXPOSURE CONTROL/PERSONAL PROTECTION

Respiratory protection: Wear NIOSH/MESA approved full or half face piece (with goggles) respiratory

IARC: Yes

OSHA: No

SECTION 12. ECOLOGICAL INFORMATION

250 ppm/fish/lethal/freshwater (time period not specified)

Serious acute effects to local ecology are anticipated. If material enters waterways, negative ecological effects may be spread. Contamination will be persistent, and bioaccumulation is possible.

SECTION 13. DISPOSAL CONSIDERATIONS

DISPOSAL: Dispose of in accordance with all federal state and local regulations. Send waste to an approved waste disposal facility. If permitted by regulations, neutralize with alkali.

SECTION 14. TRANSPORTATION INFORMATION

Class 8

PG II

UN3264

Shipping Name: Corrosive Liquid, Acidic, Inorganic, N.O.S. (Sulfuric Acid and Chromic Acid Mixture)

SECTION 15. REGULATORY

Symbol: C, Corrosive

R-Phrase: 35, causes severe burns

S-Phrases: 23-36/37/39-45 Do not breathe vapor. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing, gloves, and eye/face protection. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

SECTION 16. OTHER INFORMATION

NFPA Codes:

Health: 3

Flammability: 0

Reactivity: 1

WHMIS Codes:

Health: 4

Flammability: 0

Reactivity: 0

R35: Causes severe burns.

Ingredients are TSCA listed.