

# Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) and GHS Rev 03.

Issue date 11/01/2015

Reviewed on 11/01/2015


## 1 Identification

- **Product Identifier**
- **Trade name: NuKoat PS78T**
- **Product Number: ngt-cpd111**
- **Relevant identified uses of the substance or mixture and uses advised against:**
- **Product Description**  
PC14 Metal surface treatment products, including galvanic and electroplating products
- **Details of the Supplier of the Safety Data Sheet:**
- **Manufacturer/Supplier:**  
NuGeneration Technologies, LLC (dba NuGenTec)  
1155 Park Avenue, Emeryville, CA 94608  
salesteam@nugentec.com www.nugentec.com  
1-888-996-8436 or 1-707-820-4080 for product information
- **Emergency telephone number:**  
PERS Emergency Response: Domestic and Canada - 1-800-633-8253, International 1-801-629-0667

## 2 Hazard(s) Identification

- **Classification of the substance or mixture:**  
The product does not need classification according to OSHA HazCom Standard 29 CFR paragraph (d) of §1910.1200(g) and GHS Rev 03.

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  - **Label elements:**
  - **GHS label elements:** Non-Regulated Material
  - **Hazard pictograms:** Non-Regulated Material
  - **Signal word:** Non-Regulated Material
  - **Hazard-determining components of labeling:**  
Hydrofluoric acid
  - **Hazard statements:** Non-Regulated Material
  - **Unknown acute toxicity:**  
1.1 % of the mixture consists of component(s) of unknown toxicity.
  - **Classification system:**
  - **NFPA ratings (scale 0 - 4)**
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Health = 2  
Fire = 0  
Reactivity = 0
- **HMIS-ratings (scale 0 - 4)**
- |            |   |                |
|------------|---|----------------|
| HEALTH     | 2 | Health = 2     |
| FIRE       | 0 | Fire = 0       |
| REACTIVITY | 0 | Reactivity = 0 |
- **Hazard(s) not otherwise classified (HNOC):** None known

## 3 Composition/Information on Ingredients

10361-03-2	sodium metaphosphate	15-35%
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(Contd. on page 2)

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9003-11-6	Non-ionic surfactant ⚠ Skin Irrit. 2, H315; Eye Irrit. 2A, H319	5-10%
7732-18-5	Water, distilled water, deionized water	70-90%

- **Chemical characterization: Mixtures**
- **Description:** Mixture: consisting of the following components.

- **Dangerous Components:**

10102-40-6	Sodium Molybdate Dihydrate	≤ 2,5%
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### 4 First-Aid Measures

- **Description of first aid measures:**
- **General information:** No special measures required.
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Generally the product does not irritate the skin.
- **After eye contact:** Rinse opened eye for several minutes under running water.
- **After swallowing:** If swallowed and symptoms occur, consult a doctor.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed:**  
No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed:**  
No further relevant information available.

### 5 Fire-Fighting Measures

- **Extinguishing media:**
- **Suitable extinguishing agents:**  
CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Special hazards arising from the substance or mixture:** No further relevant information available.
- **Advice for firefighters:**
- **Protective equipment:**  
As in any fire, wear self-contained breathing apparatus pressure-demand (NIOSH approved or equivalent) and full protective gear to prevent contact with skin and eyes.

### 6 Accidental Release Measures

- **Personal precautions, protective equipment and emergency procedures:** Not required.
- **Environmental precautions:**  
Dilute with plenty of water.  
Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (i.e. sand, diatomite, acid binders, universal binders, sawdust).  
Dispose of the collected material according to regulations.
- **Reference to other sections:**  
See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.

(Contd. on page 3)

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See Section 13 for disposal information.

### 7 Handling and Storage

- **Handling**
- **Precautions for safe handling:** No special measures required.
- **Information about protection against explosions and fires:** No special measures required.
- **Conditions for safe storage, including any incompatibilities:**
- **Storage**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** None.
- **Specific end use(s):** No further relevant information available.

### 8 Exposure Controls/Personal Protection

- **Additional information about design of technical systems:** No further data; see section 7.
- **Control parameters:**

- **Components with occupational exposure limits:**

**10102-40-6 Sodium Molybdate Dihydrate**

TWA Long-term value: 5

**7664-39-3 Hydrofluoric acid**

PEL Long-term value: 3 ppm  
as F

REL Long-term value: 2.5 mg/m<sup>3</sup>, 3 ppm  
Ceiling limit value: 5\* mg/m<sup>3</sup>, 6\* ppm  
\*15-min, as F

TLV Long-term value: 0.41 mg/m<sup>3</sup>, 0.5 ppm  
Ceiling limit value: 1.64 mg/m<sup>3</sup>, 2 ppm  
as F; Skin, BEI

- **Ingredients with biological limit values:**

**7664-39-3 Hydrofluoric acid**

BEI 3 mg/g creatinine  
urine  
prior to shift  
Fluorides (background, nonspecific)

10 mg/g creatinine  
urine  
end of shift  
Fluorides (background, nonspecific)

- **Additional information:** The lists that were valid during the creation of this SDS were used as basis.

(Contd. on page 4)

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- **Exposure controls:**
- **Personal protective equipment:**
- **General protective and hygienic measures:**  
The usual precautionary measures for handling chemicals should be followed.
- **Breathing equipment:** Not required.
- **Protection of hands:** Not required.
- **Material of gloves:** Not required.
- **Penetration time of glove material:** Not applicable.
- **Eye protection:**



Goggles recommended during refilling.

### 9 Physical and Chemical Properties

- **Information on basic physical and chemical properties**
- **General Information**
- **Appearance:**
  - Form:** Liquid
  - Color:** Light yellow
- **Odor:** Vinegar
- **Odor threshold:** Not determined.
- **pH-value @ 20 °C (68 °F):** 3.8
- **Change in condition**
  - Melting point/Melting range:** Not determined.
  - Boiling point/Boiling range:** 100 °C (212 °F)
- **Flash point:** None
- **Flammability (solid, gaseous):** Not applicable.
- **Ignition temperature:** Not determined
- **Decomposition temperature:** Not determined.
- **Auto igniting:** Product is not self-igniting.
- **Danger of explosion:** Product does not present an explosion hazard.
- **Explosion limits:**
  - Lower:** Not determined.
  - Upper:** Not determined.
- **Vapor pressure @ 20 °C (68 °F):** 23 hPa (17 mm Hg)
- **Density @ 20 °C (68 °F):** 1.14 g/cm<sup>3</sup> (9.513 lbs/gal)
- **Relative density:** Not determined.
- **Vapor density:** Not determined.
- **Evaporation rate:** Not determined.

(Contd. on page 5)

US

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- **Solubility in / Miscibility with:**
  - Water:** Fully miscible.
- **Partition coefficient (n-octanol/water):** Not determined.
- **Viscosity:**
  - Dynamic @ 20 °C (68 °F):** 1 mPas
  - Kinematic:** Not determined.
- **Solvent content:**
  - Organic solvents:** 0.0 %
  - Water:** 73.2 %
- **Solids content:** 1.3 %
- **Other information:** No further relevant information available.

### 10 Stability and Reactivity

- **Reactivity:** No further relevant information available.
- **Chemical stability:** Stable under normal conditions.
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions:** No dangerous reactions known.
- **Conditions to avoid:** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

### 11 Toxicological Information

- **Information on toxicological effects:**
- **Acute toxicity:**
- **LD/LC50 values that are relevant for classification:**

7664-39-3 Hydrofluoric acid		
Oral	LD50	1276 mg/kg (rat)
	LD50 Oral	80 ml/kg (Guinea Pig)
Inhalative	LC50/4 h	2240 mg/l (rat)

- **Primary irritant effect:**
- **On the skin:** No irritating effect.
- **On the eye:** No irritating effect.
- **Additional toxicological information:**

The product is not subject to classification according to internally approved calculation methods for preparations:  
When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

(Contd. on page 6)

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OSHA HazCom Standard 29 CFR 1910.1200(g) and GHS Rev 03.

Issue date 11/01/2015

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**Trade name: NuKoat PS78T**

· **Carcinogenic categories:**

· **IARC (International Agency for Research on Cancer):**

None of the ingredients are listed.

· **NTP (National Toxicology Program):**

None of the ingredients are listed.

· **OSHA-Ca (Occupational Safety & Health Administration):**

None of the ingredients are listed.

### 12 Ecological Information

· **Toxicity:**

· **Aquatic toxicity:**

**7664-39-3 Hydrofluoric acid**

EC50 270 mg/l (Fathead Minnow)

· **Persistence and degradability:** No further relevant information available.

· **Behavior in environmental systems:**

· **Bioaccumulative potential:** No further relevant information available.

· **Mobility in soil:** No further relevant information available.

· **Additional ecological information:**

· **General notes:**

Water hazard class 3 (Self-assessment): extremely hazardous for water

Do not allow product to reach ground water, water course or sewage system, even in small quantities.

Danger to drinking water if even extremely small quantities leak into the ground.

· **Results of PBT and vPvB assessment:**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

· **Other adverse effects:** No further relevant information available.

### 13 Disposal Considerations

· **Waste treatment methods:**

· **Recommendation:**

Smaller quantities can be disposed of with household waste.

Observe all federal, state and local environmental regulations when disposing of this material.

· **Uncleaned packagings:**

· **Recommendation:** Disposal must be made according to official regulations.

· **Recommended cleansing agent:** Water, if necessary with cleansing agents.

### 14 Transport Information

· **UN-Number:**

· **DOT, IMDG, IATA**

UN3287

(Contd. on page 7)

US

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OSHA HazCom Standard 29 CFR 1910.1200(g) and GHS Rev 03.

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Reviewed on 11/01/2015

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- **ADR** UN3287  
Not Regulated
- **UN proper shipping name:** Toxic liquid, inorganic, n.o.s. (Hydrogen fluoride)
- **DOT** UN3287 Toxic liquid, inorganic, n.o.s. (Hydrogen fluoride)
- **ADR** TOXIC LIQUID, INORGANIC, N.O.S. (HYDROGEN FLUORIDE)
- **IMDG, IATA** TOXIC LIQUID, INORGANIC, N.O.S. (HYDROGEN FLUORIDE)

- **Transport hazard class(es):**

- **DOT**



- **Class:** 6.1 Toxic substances
- **Label:** 6.1

- **ADR**



- **Class:** 6.1 (T4) Toxic substances
- **Label:** 6.1

- **IMDG, IATA**



- **Class:** 6.1 Toxic substances
- **Label:** 6.1
- **Packing group:** III
- **DOT, ADR, IMDG, IATA** III
- **Environmental hazards:** Not applicable.
- **Special precautions for user:** Warning: Toxic substances
- **Danger code (Kemler):** 60
- **EMS Number:** F-A,S-A
- **Segregation groups:** Acids, chlorates
- **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:** Not applicable.

- **Transport/Additional information:**

- **DOT**

- **Quantity limitations:** On passenger aircraft/rail: 60 L  
On cargo aircraft only: 220 L

(Contd. on page 8)

## Safety Data Sheet (SDS)

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Issue date 11/01/2015

Reviewed on 11/01/2015

**Trade name: NuKoat PS78T**

- **ADR**
- **Excepted quantities (EQ):** Code: E1  
Maximum net quantity per inner packaging: 30 ml  
Maximum net quantity per outer packaging: 1000 ml

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- **IMDG**
- **Limited quantities (LQ):** 5L
- **Excepted quantities (EQ):** Code: E1  
Maximum net quantity per inner packaging: 30 ml  
Maximum net quantity per outer packaging: 1000 ml
  
- **UN "Model Regulation":** UN 3287 TOXIC LIQUID, INORGANIC, N.O.S.  
(HYDROGEN FLUORIDE), 6.1, III

### 15 Regulatory Information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture:**
- **SARA (Superfund Amendments and Reauthorization):**

- **Section 355 (extremely hazardous substances):**

7664-39-3	Hydrofluoric acid
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- **Section 313 (Specific toxic chemical listings):**

7664-39-3	Hydrofluoric acid
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- **TSCA (Toxic Substances Control Act):**

10361-03-2	sodium metaphosphate
9003-11-6	Non-ionic surfactant
7664-39-3	Hydrofluoric acid
7775-09-9	Sodium Chlorate
7732-18-5	Water, distilled water, deionized water

- **California Proposition 65:**

- **Chemicals known to cause cancer:**

None of the ingredients are listed.

- **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients are listed.

- **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients are listed.

- **Chemicals known to cause developmental toxicity:**

None of the ingredients are listed.

- **Carcinogenic categories:**

- **EPA (Environmental Protection Agency):**

None of the ingredients are listed.

- **TLV (Threshold Limit Value established by ACGIH):**

None of the ingredients are listed.

(Contd. on page 9)



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**Trade name: NuKoat PS78T**
**• NIOSH-Ca (National Institute for Occupational Safety and Health):**

None of the ingredients are listed.

- **GHS label elements** Non-Regulated Material
- **Hazard pictograms:** Non-Regulated Material
- **Signal word:** Non-Regulated Material

**• Hazard-determining components of labeling:**

Hydrofluoric acid

- **Hazard statements:** Non-Regulated Material

**• National regulations:**

The product is subject to be classified according with the latest version of the regulations on hazardous substances.

**• State Right to Know:**

CAS: 7732-18-5	Water, distilled water, deionized water	70-90%
CAS: 10361-03-2	sodium metaphosphate	15-35%
CAS: 9003-11-6	Non-ionic surfactant ⚠ Skin Irrit. 2, H315; Eye Irrit. 2A, H319	5-10%
CAS: 10102-40-6	Sodium Molybdate Dihydrate	≤ 2,5%
CAS: 7664-39-3 RTECS: MW 7875000	Hydrofluoric acid ⚠ Acute Tox. 2, H300; Acute Tox. 1, H310; Acute Tox. 2, H330; ⚠ Skin Corr. 1A, H314	≤ 2,5%
CAS: 7775-09-9	Sodium Chlorate ⚠ Ox. Sol. 1, H271; ⚠ Aquatic Chronic 2, H411; ⚠ Acute Tox. 4, H302	≤ 2,5%

All ingredients are listed.

- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

### 16 Other Information

The information and recommendations in this safety data sheet are, to the best of our knowledge, accurate as of the date of issue. Nothing herein shall be deemed to create warranty, expressed or implied, and shall not establish a legally valid contractual relationship. It is the responsibility of the user to determine applicability of this information and the suitability of the material or product for any particular purpose.

- **Date of preparation / last revision:** 11/01/2015 / 1

**• Abbreviations and acronyms:**

ADR: The European Agreement concerning the International Carriage of Dangerous Goods by Road

ADN: The European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

(Contd. on page 10)

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**Trade name: NuKoat PS78T**

PBT: Persistent, Bioaccumulative and Toxic  
vPvB: very Persistent and very Bioaccumulative

**\* Data compared to the previous version altered.**

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