

# Safety Data Sheet (SDS)

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

Issue date 04/30/2015

Reviewed on 04/30/2015

## 1 Identification

- **Product identifier**
- **Trade name: Nukoat 47**
- **Product number: ngt-nk47**
- **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  
888-996-8436 or 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**



GHS06 Skull and crossbones

Acute Tox. 3      H301 Toxic if swallowed.  
Acute Tox. 3      H311 Toxic in contact with skin.



GHS07

Acute Tox. 4      H332 Harmful if inhaled.  
Skin Irrit. 2      H315 Causes skin irritation.  
Skin Sens. 1A    H317 May cause an allergic skin reaction.  
Eye Irrit. 2B     H320 Causes eye irritation.  
Aquatic Acute 3   H402 Harmful to aquatic life.  
Aquatic Chronic 3 H412 Harmful to aquatic life with long lasting effects.

- **Label elements**
- **GHS label elements**  
The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms**



GHS06 GHS07

- **Signal word** Danger
- **Hazard-determining components of labeling:**  
sodium chlorate

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sodium 3-nitrobenzenesulphonate  
sodium fluoride  
potassium tetrafluoroborate

• **Hazard statements**

Toxic if swallowed or in contact with skin.  
Harmful if inhaled.  
Causes skin and eye irritation.  
May cause an allergic skin reaction.  
Harmful to aquatic life.  
Harmful to aquatic life with long lasting effects.

• **Precautionary statements**

Avoid breathing dust/fume/gas/mist/vapors/spray  
Use only outdoors or in a well-ventilated area.  
Wear protective gloves.  
Wear protective gloves / protective clothing.  
Avoid release to the environment.  
Wash thoroughly after handling.  
Do not eat, drink or smoke when using this product.  
Contaminated work clothing must not be allowed out of the workplace.  
If swallowed: Immediately call a poison center/doctor.  
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
Specific treatment (see supplementary first aid instructions on this Safety Data Sheet).  
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
Call a poison center/doctor if you feel unwell.  
If skin irritation or rash occurs: Get medical advice/attention.  
If eye irritation persists: Get medical advice/attention.  
Rinse mouth.  
If on skin: Wash with plenty of water.  
Take off immediately all contaminated clothing and wash it before reuse.  
Store locked up.  
Dispose of contents/container in accordance with local/regional/national/international regulations.

• **Unknown acute toxicity:**

5 percent of the mixture consists of ingredient(s) of unknown toxicity.

• **Classification system:** NFPA/HMIS Definitions: 0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme

• **NFPA ratings (scale 0 - 4)**



• **HMIS-ratings (scale 0 - 4)**



• **Hazard(s) not otherwise classified (HNOC):** None known

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### 3 Composition/information on ingredients

CAS: 10361-03-2	sodium metaphosphate	15-35%
CAS: 527-07-1	Sodium Gluconate	2-12%
CAS: 7732-18-5 RTECS: ZC 0110000	water, distilled, conductivity or of similar purity	60-90%

- **Chemical characterization: Mixtures**

- **Description:** Mixture of substances listed below with nonhazardous additions.

- **Dangerous Components:**

7775-09-9	sodium chlorate ⚠ Ox. Sol. 1, H271; ⚠ Aquatic Chronic 2, H411; ⚠ Acute Tox. 4, H302	5-10%
532-02-5	sodium naphthalene-2-sulphonate ⚠ Skin Irrit. 2, H315; Eye Irrit. 2A, H319	2-12%
127-68-4	sodium 3-nitrobenzenesulphonate ⚠ Eye Irrit. 2A, H319; Skin Sens. 1, H317	2-12%
7681-49-4	sodium fluoride ⚠ Acute Tox. 3, H301; ⚠ Skin Irrit. 2, H315; Eye Irrit. 2A, H319	≤ 2.5%

### 4 First-aid measures

- **Description of first aid measures**

- **After inhalation:**

Supply fresh air and to be sure call for a doctor.

In case of unconsciousness, place patient securely on side position for transportation.

- **After skin contact:**

Immediately wash with water and soap and rinse thoroughly.

If skin irritation occurs, consult a doctor.

- **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.

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**Trade name: Nukoat 47****· 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:**

Inform respective authorities in case of seepage into water course or sewage system.

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 (ie. sand, diatomite, acid binders, universal binders, sawdust).

Ensure adequate ventilation.

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.

See Section 13 for disposal information.

### 7 Handling and storage

**· Handling:****· Precautions for safe handling**

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

**· 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:**

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

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

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- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**  
*The usual precautionary measures for handling chemicals should be followed. Immediately remove all soiled and contaminated clothing and wash before reuse. Wash hands before breaks and at the end of work.*
- **Breathing equipment:**  
*In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure, use respiratory protective device that is independent of circulating air.*
- **Protection of hands:**



Protective gloves

*The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.*

*Select glove material based on penetration times, rates of diffusion and degradation.*

- **Material of gloves**  
*The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material cannot be calculated in advance and has therefore to be checked prior to the application.*
- **Penetration time of glove material**  
*The exact break-through time has to be determined and observed by the manufacturer of the protective gloves.*
- **Eye protection:**



Goggles recommended during refilling.

### 9 Physical and chemical properties

- **Information on basic physical and chemical properties**
- **General Information**
- **Appearance:**

<b>Form:</b>	Liquid
<b>Color:</b>	Light yellow
- **Odor:** Mild
- **Odor threshold:** Not determined.

<b>pH-value @ 20 °C (68 °F):</b>	5
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- **Change in condition**

<b>Melting point/Melting range:</b>	--
<b>Boiling point/Boiling range:</b>	100 °C (212 °F)

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· <b>Flash point:</b>	Not applicable.
· <b>Flammability (solid, gaseous):</b>	Not applicable.
· <b>Ignition temperature:</b>	
<b>Decomposition temperature:</b>	Not determined.
· <b>Auto igniting:</b>	Product is not self-igniting.
· <b>Danger of explosion:</b>	Product does not present an explosion hazard.
· <b>Explosion limits:</b>	
<b>Lower:</b>	0.0 Vol %
<b>Upper:</b>	0.0 Vol %
· <b>Vapor pressure @ 20 °C (68 °F):</b>	23 hPa (17 mm Hg)
· <b>Density @ 20 °C (68 °F):</b>	1.1 g/cm <sup>3</sup> (9.18 lbs/gal)
· <b>Relative density</b>	Not determined.
· <b>Vapor density</b>	Not determined.
· <b>Evaporation rate</b>	Not determined.
· <b>Solubility in / Miscibility with Water:</b>	Fully miscible.
· <b>Partition coefficient (n-octanol/water):</b>	Not determined.
· <b>Viscosity:</b>	
<b>Dynamic:</b>	Not determined.
<b>Kinematic @ 20 °C (68 °F):</b>	1 mm <sup>2</sup> /s
· <b>Solvent content:</b>	
<b>Organic solvents:</b>	0.0 %
<b>Water:</b>	65.9 %
<b>Solids content:</b>	12.9 %
· <b>Other information</b>	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.

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### 11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**

- **LD/LC50 values that are relevant for classification:**

**7775-09-9 sodium chlorate**

Oral	LD50	1200 mg/kg (rat)
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**7681-49-4 sodium fluoride**

Oral	LD50	52 mg/kg (rat)
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- **Primary irritant effect:**
- **on the skin:** No irritating effect.
- **on the eye:** Causes serious eye irritation.
- **Sensitization:** Sensitization possible through skin contact.

- **Additional toxicological information:**

The product shows the following dangers according to internally approved calculation methods for preparations:

Irritant

- **Carcinogenic categories**

- **IARC (International Agency for Research on Cancer)**

7681-49-4	sodium fluoride	3
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14075-53-7	potassium tetrafluoroborate	3
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- **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:**

Avoid release into the environment. Runoff from fire control or dilution water may cause pollution.

- **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.

- **Ecotoxicological effects:**

- **Remark:** Harmful to fish

- **Additional ecological information:**

- **General notes:**

Do not allow product to reach ground water, water course or sewage system.

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

Harmful to aquatic organisms

- **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.

- **vPvB:** Not applicable.

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- **Other adverse effects** No further relevant information available.

### 13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**  
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

### 14 Transport information

- |  |                                  |
|--|----------------------------------|
| · <b>UN-Number</b>   | N/A                              |
| · <b>DOT, ADR, ADN, IMDG, IATA</b>   | Non-Regulated Material           |
| · <b>UN proper shipping name</b>   | Not Regulated for Transportation |
| · <b>DOT, ADR, ADN, IMDG, IATA</b>   | Non-Regulated Material           |
| · <b>Transport hazard class(es)</b>  |                                  |
| · <b>DOT, ADR, ADN, IMDG, IATA</b>   |                                  |
| · <b>Class</b>   | Non-Regulated Material           |
| · <b>Packing group</b>   | N/A                              |
| · <b>DOT, ADR, IMDG, IATA</b>  | Non-Regulated Material           |
| · <b>Environmental hazards:</b>  | Not applicable.                  |
| · <b>Special precautions for user</b>  | Not applicable.                  |
| · <b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b> | Not applicable.                  |
| · <b>UN "Model Regulation":</b>  | -                                |

### 15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Sara**
- **Section 355 (extremely hazardous substances):**  
None of the ingredients are listed.
- **Section 313 (Specific toxic chemical listings):**  
None of the ingredients are listed.
- **TSCA (Toxic Substances Control Act):**  
All ingredients are listed.

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· **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)**

14075-53-7	potassium tetrafluoroborate	I (oral)
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· **TLV (Threshold Limit Value established by ACGIH)**

7681-49-4	sodium fluoride	A4
14075-53-7	potassium tetrafluoroborate	A4

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients are listed.

· **GHS label elements**

The product is classified and labeled according to the Globally Harmonized System (GHS).

· **Hazard pictograms**



GHS06 GHS07

· **Signal word** Danger

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

sodium chlorate  
sodium 3-nitrobenzenesulphonate  
sodium fluoride  
potassium tetrafluoroborate

· **Hazard statements**

Toxic if swallowed or in contact with skin.  
Harmful if inhaled.  
Causes skin and eye irritation.  
May cause an allergic skin reaction.  
Harmful to aquatic life.  
Harmful to aquatic life with long lasting effects.

· **Precautionary statements**

Avoid breathing dust/fume/gas/mist/vapors/spray  
Use only outdoors or in a well-ventilated area.  
Wear protective gloves.  
Wear protective gloves / protective clothing.  
Avoid release to the environment.

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**Trade name: Nukoat 47**

Wash thoroughly after handling.  
 Do not eat, drink or smoke when using this product.  
 Contaminated work clothing must not be allowed out of the workplace.  
 If swallowed: Immediately call a poison center/doctor.  
 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 Specific treatment (see supplementary first aid instructions on this Safety Data Sheet).  
 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
 Call a poison center/doctor if you feel unwell.  
 If skin irritation or rash occurs: Get medical advice/attention.  
 If eye irritation persists: Get medical advice/attention.  
 Rinse mouth.  
 If on skin: Wash with plenty of water.  
 Take off immediately all contaminated clothing and wash it before reuse.  
 Store locked up.  
 Dispose of contents/container in accordance with local/regional/national/international regulations.

• **National regulations:**

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

• **State Right to Know**

CAS: 7732-18-5 RTECS: ZC 0110000	water, distilled, conductivity or of similar purity	60-90%
CAS: 10361-03-2	sodium metaphosphate	15-35%
CAS: 7775-09-9	sodium chlorate ⚠ Ox. Sol. 1, H271; ⚠ Aquatic Chronic 2, H411; ⚠ Acute Tox. 4, H302	5-10%
CAS: 532-02-5	sodium naphthalene-2-sulphonate ⚠ Skin Irrit. 2, H315; Eye Irrit. 2A, H319	2-12%
CAS: 127-68-4	sodium 3-nitrobenzenesulphonate ⚠ Eye Irrit. 2A, H319; Skin Sens. 1, H317	2-12%
CAS: 527-07-1	Sodium Gluconate	2-12%

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** 04/30/2015 / 5

• **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

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*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*  
*Ox. Sol. 1: Oxidising Solids, Hazard Category 1*  
*Acute Tox. 3: Acute toxicity, Hazard Category 3*  
*Acute Tox. 4: Acute toxicity, Hazard Category 4*  
*Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2*  
*Eye Irrit. 2A: Serious eye damage/eye irritation, Hazard Category 2A*  
*Eye Irrit. 2B: Serious eye damage/eye irritation, Hazard Category 2B*  
*Skin Sens. 1: Sensitisation - Skin, Hazard Category 1*  
*Skin Sens. 1A: Sensitisation - Skin, Hazard Category 1A*  
*Aquatic Acute 3: Hazardous to the aquatic environment - AcuteHazard, Category 3*  
*Aquatic Chronic 2: Hazardous to the aquatic environment - Chronic Hazard, Category 2*  
*Aquatic Chronic 3: Hazardous to the aquatic environment - Chronic Hazard, Category 3*

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

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