

## Safety Data Sheet (SDS)

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

Issue date 10/24/2015

Reviewed on 10/24/2015

### 1 Identification

- **Product Identifier**
- **Trade name: NuFlo Descale 1014-10**
- **Product Number: ofc-nf1014-10**
- **Relevant identified uses of the substance or mixture and uses advised against:**  
*inhibited non-fuming HCl based Oil Field DeScaler*
- **Product Description** Oil and gas pipeline and equipment descaler with corrosion inhibitor.
- **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](http://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:**



Acute Tox. 4 H312 Harmful in contact with skin.  
Skin Irrit. 2 H315 Causes skin irritation.  
Eye Irrit. 2A H319 Causes serious eye irritation.  
STOT SE 3 H335 May cause respiratory irritation.

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



- **Signal word:** Warning
- **Hazard-determining components of labeling:**  
*Hydrochloric acid*
- **Hazard statements:**  
*Harmful in contact with skin.  
Causes skin irritation.  
Causes serious eye irritation.  
May cause respiratory irritation.*
- **Precautionary statements:**  
*Avoid breathing dust/fume/gas/mist/vapors/spray.  
Use only outdoors or in a well-ventilated area.*

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Wear protective gloves.  
 Wear protective gloves / protective clothing.  
 Wear eye protection / face protection.  
 Wash thoroughly after handling.  
 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 person to fresh air and keep comfortable for breathing.  
 Call a POISON CENTER/doctor if you feel unwell.  
 If skin irritation occurs: Get medical advice/attention.  
 If eye irritation persists: Get medical advice/attention.  
 IF ON SKIN: Wash with plenty of water.  
 Take off contaminated clothing and wash it before reuse.  
 Store in a dry place. Store in a closed container.  
 Dispose of contents/container in accordance with local/regional/national/international regulations.

- **Unknown acute toxicity:**  
5 % of the mixture consists of component(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

### 3 Composition/Information on Ingredients

65997-01-5	Corrosion Inhibitor	2-12%
7732-18-5	Water, distilled water, deionized water	≥85%

- **Chemical characterization: Mixtures**
- **Description:** Mixture of substances listed below with non-hazardous additions.

• **Dangerous Components:**

CAS: 7647-01-0	Hydrochloric acid	5-10%
RTECS: MW 9620000	⚠ Skin Corr. 1B, H314; ⚠ Acute Tox. 4, H332; STOT SE 3, H335	

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### 4 First-Aid Measures

- **Description of first aid measures:**

- **General information:**

Immediately remove any clothing soiled by the product.

Symptoms of poisoning may occur after several hours; therefore medical observation is advised for at least 48 hours after the accident.

- **After inhalation:** In case of unconsciousness place patient stably in 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 at least 15 minutes under running water. If symptoms persist, consult a doctor.

- **After swallowing:** If swallowed and symptoms occur, consult a doctor.

- **Information for doctor:**

- **Most important symptoms and effects, both acute and delayed:**

Exposure to the mist and vapor may erode exposed teeth.

Causes corrosive action on the mucous membranes.

- **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:** No special measures required.

- **Methods and material for containment and cleaning up:**

Absorb with liquid-binding material (i.e. sand, diatomite, acid binders, universal binders, sawdust).

Dispose contaminated material as waste according to section 13.

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.

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### 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:** Store in the original container.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** No further relevant information available..
- **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:**
- | 7647-01-0 Hydrochloric acid |   |
|-----------------------------|---|
| PEL                         | Ceiling limit value: 7 mg/m <sup>3</sup> , 5 ppm    |
| REL                         | Ceiling limit value: 7 mg/m <sup>3</sup> , 5 ppm    |
| TLV                         | Ceiling limit value: 2.98 mg/m <sup>3</sup> , 2 ppm |

- **Additional information:** The lists that were valid during the creation of this SDS were used as basis.
- **Exposure controls:**
- **Personal protective equipment:**
- **General protective and hygienic measures:**  
 The usual precautionary measures for handling chemicals should be followed.  
 Keep away from foodstuffs, beverages and feed.  
 Immediately remove all soiled and contaminated clothing and wash before reuse.  
 Wash hands before breaks and at the end of work.  
 Avoid contact with the eyes and skin.
- **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.

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· **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:**



Tightly sealed goggles

### 9 Physical and Chemical Properties

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

<b>Form:</b>	Liquid
<b>Color:</b>	Yellow-brown
· <b>Odor:</b>	Chlorine-like
· <b>Odor threshold:</b>	Not determined.

· **pH-value @ 20 °C (68 °F):** < 1

· **Change in condition**

<b>Melting point/Melting range:</b>	Not determined.
<b>Boiling point/Boiling range:</b>	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:**

<b>Lower:</b>	0.0 Vol %
<b>Upper:</b>	0.0 Vol %

· **Vapor pressure @ 20 °C (68 °F):** 23 hPa (17 mm Hg)

· **Density @ 20 °C (68 °F):** 1.1 g/cm<sup>3</sup> (9.18 lbs/gal)

· **Relative density:** Not determined.

· **Vapor density:** Not determined.

· **Evaporation rate:** Not determined.

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- **Solubility in / Miscibility with:**
  - Water:** Not miscible or difficult to mix.
- **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:** 85.0 %
- **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:**

7647-01-0 Hydrochloric acid		
Oral	LD50	700 mg/kg (rat) 900 mg/kg (rabbit)
Dermal	LD50	5010 mg/kg (rabbit)
Inhalative	LC50/4 h	6.41 mg/l (rat) Exposure to the mist and vapor may erode exposed teeth. Causes corrosive action on the mucous membranes.

- **Primary irritant effect:**
- **On the skin:**  
Irritant to skin and mucous membranes.

7647-01-0 Hydrochloric acid		
Irritation of skin	Skin Irritation	(rabbit)

- **On the eye:**  
Strong caustic effect.  
Irritating effect.

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**7647-01-0 Hydrochloric acid**

Irritation of eyes | Eye Irritation (rabbit)

**Additional toxicological information:**

Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

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

Harmful  
Irritant

**Carcinogenic categories:**

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

7647-01-0 | Hydrochloric acid

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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:**

**7647-01-0 Hydrochloric acid**

EC50 | 3.6 mg/l (Bluegill/sunfish)  
>56 mg/l (daphnia)

**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:**

Rinse off of bigger amounts into drains or the aquatic environment may lead to decreased pH-values. A low pH-value harms aquatic organisms. In the dilution of the use-level the pH-value is considerably increased, so that after the use of the product the aqueous waste, emptied into drains, is only low water-dangerous.

**Results of PBT and vPvB assessment:**

**PBT:** Not applicable.

**vPvB:** Not applicable.

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

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- **Segregation groups:** Acids
- **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: 1 L  
On cargo aircraft only: 30 L

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- **ADR**
- **Excepted quantities (EQ):** Code: E2  
Maximum net quantity per inner packaging: 30 ml  
Maximum net quantity per outer packaging: 500 ml

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- **IMDG**
- **Limited quantities (LQ):** 1L
- **Excepted quantities (EQ):** Code: E2  
Maximum net quantity per inner packaging: 30 ml  
Maximum net quantity per outer packaging: 500 ml  
UN 1789 HYDROCHLORIC ACID MIXTURE, 8, II
- **UN "Model Regulation":**

### 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):**

7647-01-0	Hydrochloric acid
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- **Section 313 (Specific toxic chemical listings):**

7647-01-0	Hydrochloric acid
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- **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.
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- **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients are listed.
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- **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients are listed.
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- **Chemicals known to cause developmental toxicity:**

None of the ingredients are listed.
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- **Carcinogenic categories:**
- **EPA (Environmental Protection Agency):**

None of the ingredients are listed.
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· **TLV (Threshold Limit Value established by ACGIH):**

7647-01-0 Hydrochloric acid	A4
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· **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:**



GHS07

· **Signal word:** Warning

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

Hydrochloric acid

· **Hazard statements:**

Harmful in contact with skin.

Causes skin irritation.

Causes serious eye irritation.

May cause respiratory irritation.

· **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.

Wear eye protection / face protection.

Wash thoroughly after handling.

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 person to fresh air and keep comfortable for breathing.

Call a POISON CENTER/doctor if you feel unwell.

If skin irritation occurs: Get medical advice/attention.

If eye irritation persists: Get medical advice/attention.

IF ON SKIN: Wash with plenty of water.

Take off contaminated clothing and wash it before reuse.

Store in a dry place. Store in a closed container.

Dispose of contents/container in accordance with local/regional/national/international regulations.

· **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	≥85%
CAS: 7647-01-0	Hydrochloric acid	5-10%
RTECS: MW 9620000	⚠ Skin Corr. 1B, H314; ⚠ Acute Tox. 4, H332; STOT SE 3, H335	

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**Trade name: NuFlo Descale 1014-10**

CAS: 65997-01-5	Corrosion Inhibitor	2-12%
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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:** 10/24/2015 / 8

- **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 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

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Acute Tox. 4: Acute toxicity, Hazard Category 4

Skin Corr. 1B: Skin corrosion/irritation, Hazard Category 1B

Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2

Eye Irrit. 2A: Serious eye damage/eye irritation, Hazard Category 2A

STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3

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

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