

Safety Data Sheet (SDS)

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

Issue date 12/23/2015

Reviewed on 12/23/2015

* 1 Identification

- **Product Identifier**
- **Trade name: NuFlo Descale 727**
- **Product Number:** ofc-DS727
- **Relevant identified uses of the substance or mixture and uses advised against:** Descaling solution.
- **Product Description** Descaling solution and safe-acid replacement.
- **Application of the substance / the mixture:**
Descaling solution for Iron, Copper, Manganese, Calcium, Magnesium and Zinc metal complexes and scales.
- **Details of the Supplier of the Safety Data Sheet:**
- **Manufacturer/Supplier:**
NuGenTec Oilfield Chemicals
1155 Park Avenue, Emeryville, CA 94608
ofcadmin@nugentec.com www.nugentec.com/oilfield
888-996-8436 or 707-891-3012 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:**



GHS05 Corrosion

Eye Dam. 1 H318 Causes serious eye damage.



GHS07

Acute Tox. 4 H302 Harmful if swallowed.

Skin Irrit. 2 H315 Causes skin irritation.

- **Label elements:**

- **GHS label elements**

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

- **Hazard pictograms:**



GHS05 GHS07

- **Signal word:** Danger
- **Hazard-determining components of labeling:**
Proprietary
Sodium Hydroxide
- **Hazard statements:**
Harmful if swallowed.
Causes skin irritation.
Causes serious eye damage.
- **Precautionary statements:**
Wear protective gloves.
Wear eye protection / face protection.

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Wash thoroughly after handling.
 Do not eat, drink or smoke when using this product.
 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 Immediately call a POISON CENTER/doctor.
 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
 Specific treatment (see supplementary first aid instructions on this Safety Data Sheet).
 If skin irritation occurs: Get medical advice/attention.
 Rinse mouth.
 IF ON SKIN: Wash with plenty of water.
 Take off contaminated clothing and wash it before reuse.
 Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Classification system:**

· **NFPA ratings (scale 0 - 4)**



· **HMS-ratings (scale 0 - 4)**



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

* 3 Composition/Information on Ingredients

· **Non-hazardous components:**

2836-32-0	Sodium Glycolate	2-12%
7732-18-5	Water, distilled water, deionized water	40-60%

· **Chemical characterization: Mixtures**

· **Description:** Mixture: consisting of the following components.

· **Dangerous Components:**

CAS: 64-02-8 RTECS: AH 5075000	Proprietary	☞ Eye Dam. 1, H318; ☞ Acute Tox. 4, H302	25-50%
CAS: 1310-73-2	Sodium Hydroxide	☞ Skin Corr. 1A, H314	≤ 2.5%

* 4 First-Aid Measures

· **Description of first aid measures:**

· **General information:**

Symptoms of poisoning may occur after exposure to dust, fumes or particulates; seek medical attention if feeling unwell.

· **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 several minutes under running water. Then consult a doctor.

· **After swallowing:**

Rinse out mouth and then drink plenty of water.

Immediately call a doctor.

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- **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:**
CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Special hazards arising from the substance or mixture:**
If incinerated, product will release the following toxic fumes: Oxides of Carbon, Nitrogen (NO_x) and Sodium.
- **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:** Ensure adequate ventilation.
- **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 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.

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:**
Store away from strong acids, strong oxidizing agents, strong reducing agents, reactive metals (Zinc & Aluminum) and their alloys (Brass, etc.), Copper, Copper alloys and galvanized surfaces.
- **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.

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· **Control parameters:**

· **Components with occupational exposure limits:**

1310-73-2 Sodium Hydroxide

PEL	Long-term value: 2 mg/m ³
REL	Ceiling limit value: 2 mg/m ³
TLV	Ceiling limit value: 2 mg/m ³

· **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 skin.
 Avoid contact with the eyes and skin.

· **Breathing equipment:** Not required.

· **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:**



Tightly sealed goggles

* 9 Physical and Chemical Properties

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

· **General Information**

· **Appearance:**

Form: Liquid
Color: Light yellow

· **Odor:** Mild

· **Odor threshold:** Not determined.

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- **pH-value @ 20 °C (68 °F):** 11.9
- **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):** 1.31 g/cm³ (10.932 lbs/gal)
- **Relative density:** Not determined.
- **Vapor density:** Not determined.
- **Evaporation rate:** Not determined.
- **Solubility in / Miscibility with:**
 - Water:** Fully miscible.
- **Partition coefficient (n-octanol/water):** Not determined.
- **Viscosity:**
 - Dynamic:** Not determined.
 - Kinematic:** Not determined.
- **Solvent content:**
 - Organic solvents:** 0.0 %
 - Water:** 54.1 %
- **Solids content:** 43.4 %
- **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:**
Strong acids, strong oxidizing agents, strong reducing agents, reactive metals (Zinc & Aluminum) and their alloys (Brass, etc.), Copper, Copper alloys and galvanized surfaces.
- **Hazardous decomposition products:** Carbon Oxides, Nitrogen Oxides (NO_x), and Sodium Oxides.

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* 11 Toxicological Information

- **Information on toxicological effects:**

- **Acute toxicity:**

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

64-02-8 Proprietary

Oral	LD50	630-1260 mg/kg (rat)
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1310-73-2 Sodium Hydroxide

Oral	LD50	2000 mg/kg (rat)
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- **Primary irritant effect:**

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

- **On the eye:**

Strong irritant with the danger of severe eye injury.

Causes serious eye irritation.

- **Additional toxicological information:**

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):**

Substance is not listed.

Group 1 - Carcinogenic to humans

Group 2A - Probably carcinogenic to humans

Group 2B - Possibly carcinogenic to humans

Group 3 - Not classifiable as to its carcinogenicity to humans

Group 4 - Probably not carcinogenic to humans

None of the ingredients are listed.

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

None of the ingredients are listed.

None of the ingredients are listed.

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

None of the ingredients are listed.

None of the ingredients are listed.

* 12 Ecological Information

- **Toxicity:** The hazards for the aquatic environment are unknown.

- **Aquatic toxicity:**

1310-73-2 Sodium Hydroxide

EC50	40 mg/l	(daphnia)
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- **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:**

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

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

Rinse off of bigger amounts into drains or the aquatic environment may lead to increased pH-values. A high pH-value harms aquatic organisms. In the dilution of the use-level the pH-value is considerably reduced, 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.

* 13 Disposal Considerations

- **Waste treatment methods:**
- **Recommendation:**
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, ADR, ADN, IMDG, IATA** Non-Regulated Material
- **UN proper shipping name:**
- **DOT, ADR, ADN, IMDG, IATA** Non-Regulated Material
- **Transport hazard class(es):**
- **DOT, ADR, ADN, IMDG, IATA**
- **Class:** Non-Regulated Material
- **Packing group:**
- **DOT, ADR, IMDG, IATA** Non-Regulated Material
- **Environmental hazards:** Not applicable.
- **Special precautions for user:** Not applicable.
- **Stowage Category** A
- **Stowage Code** SW2 Clear of living quarters.
- **Segregation Code** SG35 Stow "separated from" acids.
- **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:** Not applicable.
- **UN "Model Regulation":** Non-Regulated Material

* 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):

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):
None of the ingredients are listed.

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

· 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:**



GHS05 GHS07

· **Signal word:** Danger

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

Proprietary
Sodium Hydroxide

· **Hazard statements:**

Harmful if swallowed.
Causes skin irritation.
Causes serious eye damage.

· **Precautionary statements:**

Wear protective gloves.
Wear eye protection / face protection.
Wash thoroughly after handling.
Do not eat, drink or smoke when using this product.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Immediately call a POISON CENTER/doctor.
IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
Specific treatment (see supplementary first aid instructions on this Safety Data Sheet).
If skin irritation occurs: Get medical advice/attention.
Rinse mouth.
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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	40-60%
CAS: 64-02-8	Proprietary	25-50%
RTECS: AH 5075000	⚠ Eye Dam. 1, H318; ⚠ Acute Tox. 4, H302	
CAS: 2836-32-0	Sodium Glycolate	2-12%
	Proprietary Surfactant	≤ 2.5%
CAS: 1310-73-2	Sodium Hydroxide	≤ 2.5%
	⚠ Skin Corr. 1A, H314	
CAS: 5064-31-3	Trisodium nitrilotriacetate	≤ 2.5%
	⚠ Carc. 2, H351; ⚠ Acute Tox. 4, H302; Eye Irrit. 2, H319	

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: 12/23/2015 / 6

· 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
- PBT: Persistent, Bioaccumulative and Toxic
- vPvB: very Persistent and very Bioaccumulative
- NIOSH: National Institute for Occupational Safety
- OSHA: Occupational Safety & Health
- TLV: Threshold Limit Value
- PEL: Permissible Exposure Limit
- REL: Recommended Exposure Limit
- Acute Tox. 4: Acute toxicity, Hazard Category 4
- Skin Corr. 1A: Skin corrosion/irritation, Hazard Category 1A
- Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2
- Eye Dam. 1: Serious eye damage/eye irritation, Hazard Category 1

· * Data compared to the previous version altered.

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