

Safety Data Sheet (SDS)

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

Issue date 08/01/2016

Reviewed on 08/01/2016

1 Identification

- **Product Identifier**
- **Trade name:** AquaKlean EF105LF
- **Product Number:** ng-EF105LF
- **Relevant identified uses of the substance or mixture and uses advised against:**
Use only as directed by manufacturer.
- **Product Description**
Non-Silicated, low foaming, multi-metal tank cleaner with flash rust/corrosion inhibitor.
- **Application of the substance / the mixture:** Industry-specific application.
- **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:**



Skin Irrit. 2 H315 Causes skin irritation.
Eye Irrit. 2A H319 Causes serious eye 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 statements:**
H315 Causes skin irritation.
H319 Causes serious eye irritation.
- **Precautionary statements:**
P280 Wear protective gloves.
P280 Wear eye protection / face protection.
P264 Wash thoroughly after handling.
P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P321 Specific treatment (see supplementary first aid instructions on this Safety Data Sheet).
P332+P313 If skin irritation occurs: Get medical advice/attention.

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P337+P313 *If eye irritation persists: Get medical advice/attention.*
 P302+P352 *IF ON SKIN: Wash with plenty of water.*
 P362+P364 *Take off contaminated clothing and wash it before reuse.*

• **Unknown acute toxicity:**

3.5 % of the mixture consists of component(s) of unknown toxicity.

• **Classification system:**

• **NFPA ratings (scale 0 - 4)**



Health = 1
 Fire = 0
 Reactivity = 0

• **HMIS-ratings (scale 0 - 4)**



HEALTH 1 Health = 1
 FIRE 0 Fire = 0
 REACTIVITY 0 Reactivity = 0

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

3 Composition/Information on Ingredients

• **Non-hazardous components:**

7732-18-5	Water, distilled water, deionized water	Proprietary%
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• **Chemical characterization: Mixtures**

• **Description:** Mixture: consisting of non-regulated material.

• **Dangerous Components:**

	Proprietary Solvent ⚠ Eye Irrit. 2, H319; Flam. Liq. 4, H227	6.0%
7632-00-0	Sodium Nitrite ⚠ Ox. Sol. 3, H272; ⚠ Acute Tox. 3, H301; ⚠ Aquatic Acute 1, H400	Proprietary%
	Proprietary Salt ⚠ Skin Irrit. 2, H315; Eye Irrit. 2A, H319; STOT SE 3, H335	2.0%
	Proprietary Inhibitor ⚠ Acute Tox. 4, H302	2.0%
1310-73-2	Sodium Hydroxide ⚠ Skin Corr. 1A, H314	Proprietary%
6381-92-6	EDTA, Disodium, Dihydrate ⚠ Skin Irrit. 2, H315; STOT SE 3, H335; Eye Irrit. 2B, H320	Proprietary%

4 First-Aid Measures

• **Description of first aid measures:**

• **General information:** No special measures required.

• **After inhalation:**

Supply fresh air. If required, provide artificial respiration. Consult doctor if symptoms persist.
 In case of unconsciousness place patient stably in side position for transportation.

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- **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:**
Rinse out mouth and then drink plenty of water.
Do not induce vomiting without medical advice.
If vomiting does occur, repeat fluid administration
- **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, Phosphorus, Sodium and Nitrogen (NOx).
- **Advice for firefighters:**
- **Protective equipment:**
Mouth respiratory protective device.
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:** 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.

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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 bases, strong oxidizing agents, strong reducing agents and amines.
- **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:** Keep receptacle tightly sealed.
- **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:**
All ventilation should be designed in accordance with OSHA standard (29 CFR 1910.94). Use mechanical (general) ventilation for storage areas. Use appropriate ventilation as required to keep Exposure Limits in Air below TLV & PEL limits.

- **Components with occupational exposure limits:**

Proprietary Solvent

TLV	Long-term value: 67.5* mg/m ³ , 10* ppm *Inhalable fraction and vapor
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Proprietary Inhibitor

WEEL	Long-term value: 10 mg/m ³
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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 eyes and skin.
- **Breathing equipment:** Use suitable respiratory protective device in case of insufficient ventilation.
- **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

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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

· **Body protection:**



Protective work clothing

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.

· **pH-value @ 20 °C (68 °F):** 11.5

· **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:** 225 °C (437 °F)

· **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.

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Upper:	Not determined.
· Vapor pressure @ 20 °C (68 °F):	23 hPa (17 mm Hg)
· Density @ 20 °C (68 °F):	1.05 g/cm ³ (8.762 lbs/gal)
· Relative density:	Not determined.
· Vapor density:	Not determined.
· Evaporation rate:	Not determined.
· Solubility in / Miscibility with: Water:	Not miscible or difficult to mix.
· Partition coefficient (n-octanol/water):	Not determined.
· Viscosity: Dynamic:	Not determined.
Kinematic:	Not determined.
· Solvent content: Organic solvents:	8.0 %
Water:	Proprietary %
VOC content:	8.0 %
Solids content:	9.8 %
· 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 bases, strong oxidizing agents, strong reducing agents and amines.
- **Hazardous decomposition products:** Oxides of Carbon, Phosphorus, Sodium and Nitrogen (NO_x).

11 Toxicological Information

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

Proprietary Solvent		
Oral	LD50	5660 mg/kg (rat)
Dermal	LD50	4000 mg/kg (rabbit)
7632-00-0 Sodium Nitrite		
Oral	LD50	175 mg/kg (mouse)
		157.9 mg/kg (rat)

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Inhalative	LC50/96 hours	0.94-1.92 mg/l (Trout)
Proprietary Inhibitor		
Oral	LD50	12565 mg/kg (rat)
Dermal	LD50	11890 mg/kg (rabbit)
1310-73-2 Sodium Hydroxide		
Oral	LD50	2000 mg/kg (rat)

• **Primary irritant effect:**

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

• **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):**

- 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.

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

None of the ingredients are listed.

12 Ecological Information

• **Toxicity:**

• **Aquatic toxicity:**

7632-00-0 Sodium Nitrite

EC50 12.5 mg/l (Water flea)

1310-73-2 Sodium Hydroxide

EC50 40 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:**

Do not allow undiluted product or product that has not been neutralized to reach ground water, water course or sewage system.

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

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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:**

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

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

· **Uncleaned packagings**

· **Recommendation:**

Dispose of as unused product.

Disposal must be made according to official regulations.

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.

· **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:** Not applicable.

· **UN "Model Regulation":** Non-Regulated Material

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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):**

Proprietary Solvent

7632-00-0 Sodium Nitrite

- **TSCA (Toxic Substances Control Act):**

Proprietary Solvent

7632-00-0 Sodium Nitrite

Proprietary Inhibitor

1310-73-2 Sodium Hydroxide

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.

- **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 statements:**

H315 Causes skin irritation.

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Trade name: AquaKlean EF105LF*H319 Causes serious eye irritation.***Precautionary statements:***P280 Wear protective gloves.**P280 Wear eye protection / face protection.**P264 Wash thoroughly after handling.**P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.**P321 Specific treatment (see supplementary first aid instructions on this Safety Data Sheet).**P332+P313 If skin irritation occurs: Get medical advice/attention.**P337+P313 If eye irritation persists: Get medical advice/attention.**P302+P352 IF ON SKIN: Wash with plenty of water.**P362+P364 Take off contaminated clothing and wash it before reuse.***National regulations:***The product is subject to be classified according with the latest version of the regulations on hazardous substances.***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: 08/01/2016 / -**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)**HMS: Hazardous Materials Identification System (USA)**VOC: Volatile Organic Compounds (USA, EU)**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**Flam. Liq. 4: Flammable liquids – Category 4**Ox. Sol. 3: Oxidizing solids – Category 3**Acute Tox. 3: Acute toxicity – Category 3**Acute Tox. 4: Acute toxicity – Category 4**Skin Corr. 1A: Skin corrosion/irritation – Category 1A**Skin Irrit. 2: Skin corrosion/irritation – Category 2**Eye Irrit. 2: Serious eye damage/eye irritation – Category 2*

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Trade name: AquaKlean EF105LF*Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A**Eye Irrit. 2B: Serious eye damage/eye irritation – Category 2B**STOT SE 3: Specific target organ toxicity (single exposure) – Category 3**Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1**** Data compared to the previous version altered.**SDS created by MSDS Authoring Services www.msdsauthoring.com +1-877-204-9106

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