

## Safety Data Sheet (SDS)

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

Issue date 05/09/2018

Reviewed on 05/09/2018

### 1 Identification

· **Product Identifier**

· **Trade Name:** NuFlo 187

· **Product Number:** ofc-nf187

· **Relevant identified uses of the substance or mixture and uses advised against:**

Paraffin and Asphaltene Remover

· **Product Description:** Paraffin and Asphaltene Remover

· **Application of the substance / the mixture:** Paraffin and Asphaltene Remover

· **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](http://www.nugentec.com/oilfield)

888-996-8436 or 707-891-3012 for product information

· **Emergency telephone number:** PERS Emergency response: 1-801-629-0667

### 2 Hazard(s) Identification

· **Classification of the substance or mixture:**



GHS08 Health hazard

STOT SE 2 H371

May cause damage to organs.

STOT RE 1 H372

Causes damage to organs through prolonged or repeated exposure.

Asp. Tox. 1 H304

May be fatal if swallowed and enters airways.



GHS07

Skin Irrit. 2 H315

Causes skin irritation.

STOT SE 3 H335-H336

May cause respiratory irritation. May cause drowsiness or dizziness.

Flam. Liq. 4 H227

Combustible liquid.

Eye Irrit. 2B H320

Causes eye irritation.

· **Label elements:**

· **GHS label elements**

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

· **Hazard pictograms:**



GHS07 GHS08

· **Signal word:** Danger

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

Proprietary Naphtha Solvent 1

Proprietary Naphtha Solvent 2

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**Hazard statements:**

- H227 Combustible liquid.
- H315+H320 Causes skin and eye irritation.
- H371 May cause damage to organs.
- H335-H336 May cause respiratory irritation. May cause drowsiness or dizziness.
- H372 Causes damage to organs through prolonged or repeated exposure.
- H304 May be fatal if swallowed and enters airways.

**Precautionary statements:**

- P210 Keep away from flames and hot surfaces. – No smoking.
- P260 Do not breathe dust/fume/gas/mist/vapors/spray.
- P264 Wash thoroughly after handling.
- P270 Do not eat, drink or smoke when using this product.
- P280 Wear protective gloves/protective clothing/eye protection/face protection.
- P301+P310 If swallowed: Immediately call a poison center/doctor.
- P321 Specific treatment (see supplementary first aid instructions on this Safety Data Sheet).
- P331 Do NOT induce vomiting.
- P302+P352 If on skin: Wash with plenty of water.
- P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P308+P311 IF exposed or concerned: Call a poison center/doctor.
- P314 Get medical advice/attention if you feel unwell.
- P362+P364 Take off contaminated clothing and wash it before reuse.
- P332+P313 If skin irritation occurs: Get medical advice/attention.
- P337+P313 If eye irritation persists: Get medical advice/attention.
- P370+P378 In case of fire: Use for extinction: CO2, powder or water spray.
- P403+P235 Store in a well-ventilated place. Keep cool.
- P405 Store locked up.
- P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

**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)**

HEALTH	1	Health = 1
FIRE	2	Fire = 2
REACTIVITY	0	Physical Hazard = 0

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

### 3 Composition/Information on Ingredients

**Non-hazardous components:**

Proprietary Solvent 1	2-12%
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- **Chemical characterization: Mixtures**
- **Description:** Mixture of substances listed below with non-hazardous additions.

- **Dangerous Components:**

Proprietary Naphtha Solvent 1 ⚠ STOT SE 2, H371; STOT RE 1, H372; Asp. Tox. 1, H304; ⚠ STOT SE 3, H335-H336; Flam. Liq. 4, H227	40-60%
Proprietary Naphtha Solvent 2 ⚠ Asp. Tox. 1, H304; ⚠ Skin Irrit. 2, H315; STOT SE 3, H336	25-50%
Proprietary Flow Enhancer 1 ⚠ Acute Tox. 4, H302; Skin Irrit. 2, H315; Eye Irrit. 2A, H319; Aquatic Acute 2, H401; Aquatic Chronic 3, H412	≤ 2.5%
Proprietary Flow Enhancer 2 ⚠ Skin Irrit. 2, H315; Eye Irrit. 2A, H319; Aquatic Acute 2, H401	≤ 2.5%

- **Additional information:**

The exact percentages of the ingredients of this mixture are considered to be proprietary and are withheld in accordance with the provisions of paragraph (i) of §1910.1200 of 29 CFR 1910.1200 Trade Secrets.

### 4 First-Aid Measures

- **Description of first aid measures**
- **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.
- **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. 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 occurs, the head should be kept low so that the vomit does not enter the lungs (aspiration).  
Once the vomiting ceases, place the person in the recovery position with the legs slightly raised.  
If vomiting does occur, repeat fluid administration  
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.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet

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- **Special hazards arising from the substance or mixture:**  
Combustible liquid. Vapors can travel to a source of ignition and flash back.  
Explosive mixtures may occur at temperatures at or above flashpoint.
- **Advice for firefighters**
- **Special protective equipment for firefighters:**  
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:**  
Wear protective equipment. Keep unprotected persons away.  
Ensure adequate ventilation.  
Keep people at a distance and stay upwind.  
Keep away from ignition sources  
Avoid contact with skin, eyes and clothing.
- **Environmental precautions:**  
Inform respective authorities in case of seepage into water course or sewage system.  
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, universal binders), do NOT use 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 bases, strong oxidizing agents and strong reducing agents.
- **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:** 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:**

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:**

The following constituent is the only constituent of the product which has a PEL, TLV or other recommended exposure limit.

At this time, the other constituents have no known exposure limits.

<b>Proprietary Naphtha Solvent 2</b>
OSHA PEL Long-term value: 2900 mg/m <sup>3</sup>

· **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.

· **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.

· **Body protection:** Not required.

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### 9 Physical and Chemical Properties

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

· **General Information**

· **Appearance:**

**Form:** Liquid  
    **Color:** Colorless to light yellow

· **Odour:** Naphtha solvent-like

· **Odor threshold:** Not determined.

· **pH-value:** Not applicable.

· **Change in condition**

**Melting point/Melting range:** --  
    **Boiling point/Boiling range:** 150 °C (302 °F)

· **Flash point:** 64 °C (147.2 °F)

· **Flammability (solid, gaseous):** Combustible when exposed to open flames.

· **Ignition temperature:** 210 °C (410 °F)

· **Decomposition temperature:** Not determined.

· **Auto igniting:** Product is not self-igniting.

· **Danger of explosion:** Not determined.

· **Explosion limits:**

**Lower:** 0.5 Vol %  
    **Upper:** 6.5 Vol %

· **Vapor pressure @ 20 °C (68 °F):** 0.2 hPa (0.2 mm Hg)

· **Density @ 20 °C (68 °F):** 0.851 g/cm<sup>3</sup> (7.1016 lbs/gal)

· **Relative density:** Not determined.

· **Vapor density:** Not determined.

· **Evaporation rate @ 20 °C (68 °F):** <0.1 (nBuAc=1)

· **Solubility in / Miscibility with:**

**Water:** Miscible

· **Partition coefficient (n-octanol/water):** Not determined.

· **Viscosity:**

**Dynamic:** Not determined.  
    **Kinematic:** Not determined.

· **Solvent content:**

**Organic solvents:** 94.3 %  
    **VOC content:** 94.3 %

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

### 10 Stability and Reactivity

· **Reactivity:** No further relevant information available.

· **Chemical stability:** Stable under normal conditions.

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- **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 and strong reducing agents.
- **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:**

**Proprietary Naphtha Solvent 1**

Oral	LD50	>6000 mg/kg (Rat)
Dermal	LD50	>2000 mg/kg (Rat)

**Proprietary Naphtha Solvent 2**

Oral	LD50	>5000 mg/kg (Rat)
Dermal	LD50	>2000 mg/kg (Rabbit)

**Proprietary Flow Enhancer 1**

Oral	LD50	2000-5000 mg/kg (Rat)
Dermal	LD50	>2000 mg/kg (Rat)

**Proprietary Flow Enhancer 2**

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:** Irritating effect.
- **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):**

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.

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### 12 Ecological Information

· **Toxicity:**

· **Aquatic toxicity:**

**Proprietary Flow Enhancer 2**

EC50 1 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.

· **Ecotoxicological effects:**

· **Remark:** Toxic for 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.

Poisonous for fish and plankton in water bodies.

Toxic for aquatic organisms

· **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:**

Disposal must be made according to official regulations.

Dispose of as unused product.

### 14 Transport Information

· **UN-Number:**

· **DOT, ADR/ADN, ADN, IMDG, IATA** Non-Regulated Material

· **UN proper shipping name:**

Not Regulated for Transportation

· **DOT, ADR/ADN, ADN, IMDG, IATA**

Non-Regulated Material

· **Transport hazard class(es):**

· **DOT, ADR/ADN, ADN, IMDG, IATA**

· **Class:**

Non-Regulated Material

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- |   |                        |
|---|------------------------|
| <b>· Packing group:</b>   | Non-Regulated Material |
| <b>· DOT, ADR/ADN, 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>   | 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 or exempt from listing.

- **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.

- **New Jersey Right-to-Know List:**

None of the ingredients are listed.

- **New Jersey Special Hazardous Substance List:**

None of the ingredients are listed.

- **Pennsylvania Right-to-Know List:**

None of the ingredients are listed.

- **Pennsylvania Special Hazardous Substance List:**

None of the ingredients are listed.

- **Carcinogenic categories:**

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

None of the ingredients are listed.

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**· 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 GHS08

**· Signal word: Danger**

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

Proprietary Naphtha Solvent 1  
Proprietary Naphtha Solvent 2

**· Hazard statements:**

H227 Combustible liquid.  
H315+H320 Causes skin and eye irritation.  
H371 May cause damage to organs.  
H335-H336 May cause respiratory irritation. May cause drowsiness or dizziness.  
H372 Causes damage to organs through prolonged or repeated exposure.  
H304 May be fatal if swallowed and enters airways.

**· Precautionary statements:**

P210 Keep away from flames and hot surfaces. – No smoking.  
P260 Do not breathe dust/fume/gas/mist/vapors/spray.  
P264 Wash thoroughly after handling.  
P270 Do not eat, drink or smoke when using this product.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.  
P301+P310 If swallowed: Immediately call a poison center/doctor.  
P321 Specific treatment (see supplementary first aid instructions on this Safety Data Sheet).  
P331 Do NOT induce vomiting.  
P302+P352 If on skin: Wash with plenty of water.  
P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P308+P311 IF exposed or concerned: Call a poison center/doctor.  
P314 Get medical advice/attention if you feel unwell.  
P362+P364 Take off contaminated clothing and wash it before reuse.  
P332+P313 If skin irritation occurs: Get medical advice/attention.  
P337+P313 If eye irritation persists: Get medical advice/attention.  
P370+P378 In case of fire: Use for extinction: CO<sub>2</sub>, powder or water spray.  
P403+P235 Store in a well-ventilated place. Keep cool.  
P405 Store locked up.  
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

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· **National regulations:**

None of the 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:** 05/09/2018 / 2

· **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 and Health

OSHA: Occupational Safety & Health Administration

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

Flam. Liq. 4: Flammable liquids – Category 4

Acute Tox. 4: Acute toxicity – Category 4

Skin Irrit. 2: Skin corrosion/irritation – Category 2

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

Eye Irrit. 2B: Serious eye damage/eye irritation – Category 2B

STOT SE 2: Specific target organ toxicity (single exposure) – Category 2

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

STOT RE 1: Specific target organ toxicity (repeated exposure) – Category 1

Asp. Tox. 1: Aspiration hazard – Category 1

Aquatic Acute 2: Hazardous to the aquatic environment - acute aquatic hazard – Category 2

Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3

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

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