

Safety Data Sheet (SDS)

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

Issue date 06/11/2015

Reviewed on 06/11/2015

* 1 Identification

- **Product identifier**
- **Trade name: NuFlo 351T**
- **Product number:** ofc-kac351/187
- **Relevant identified uses of the substance or mixture and uses advised against**
Hydrocarbon solvent blend, Asfaltene & Paraffin disolver for Sludge Tank Cleanup
- **Product description** PC35 Washing and cleaning products (including solvent based products)
- **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**



GHS08 Health hazard

Asp. Tox. 1 H304 May be fatal if swallowed and enters airways.

Flam. Liq. 4 H227 Combustible liquid.

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



GHS08

- **Signal word** Danger
- **Hazard-determining components of labeling:**
Heavy naphtha distillates
Solvent naphtha (petroleum), medium aliph.
- **Hazard statements**
Combustible liquid.
May be fatal if swallowed and enters airways.
- **Precautionary statements**
Keep away from flames and hot surfaces. – No smoking.
Wear protective gloves / eye protection / face protection.
If swallowed: Immediately call a poison center/doctor.
Do NOT induce vomiting.
In case of fire: Use for extinction: CO₂, powder or water spray.
Store locked up.
Store in a well-ventilated place. Keep cool.
Dispose of contents/container in accordance with local/regional/national/international regulations.

(Contd. on page 2)

Safety Data Sheet (SDS)

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

Issue date 06/11/2015

Reviewed on 06/11/2015

Trade name: NuFlo 351T

- **Classification system:**
- **NFPA ratings (scale 0 - 4)**



- **HMIS-ratings (scale 0 - 4)**



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

3 Composition/information on ingredients

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

· **Dangerous Components:**

Heavy naphtha distillates ☠ Asp. Tox. 1, H304	25-50%
Solvent naphtha (petroleum), medium aliph. ☠ Flam. Liq. 3, H226; ☠ Asp. Tox. 1, H304	25-50%
Trade Secret asphaltene flow enhancer ⚠ Skin Irrit. 2, H315; Eye Irrit. 2A, H319	2-12%
Mixture of surfactants ⚠ Acute Tox. 4, H302; Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2A, H319	≤ 2.5%

4 First-aid measures

- **Description of first aid measures**
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Generally the product does not irritate the skin.
- **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:**
CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **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**
- **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.

(Contd. on page 3)

Safety Data Sheet (SDS)

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

Issue date 06/11/2015

Reviewed on 06/11/2015

Trade name: NuFlo 351T

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Not required.
- **Environmental precautions:** Dilute with plenty of 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:** Protect from heat.
- **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:** Protect from heat and direct sunlight.
- **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.
- **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.
Wash hands before breaks and at the end of work.
- **Breathing equipment:** Not required.
- **Protection of hands:**
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**

(Contd. on page 4)

Safety Data Sheet (SDS)

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

Issue date 06/11/2015

Reviewed on 06/11/2015

Trade name: NuFlo 351T

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:**

Form:	Liquid
Color:	Light brown
Odor:	Product specific
Odor threshold:	Not determined.

· **pH-value @ 20 °C (68 °F):** 7.7

· **Change in condition**

Melting point/Melting range:	Not determined.
Boiling point/Boiling range:	153 °C (307 °F)

· **Flash point:** 64 °C (147 °F)

· **Flammability (solid, gaseous):** Not applicable.

· **Ignition temperature:** 265 °C (509 °F)

· **Decomposition temperature:** Not determined.

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

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

· **Explosion limits:**

Lower:	0.6 Vol %
Upper:	6.5 Vol %

· **Vapor pressure @ 20 °C (68 °F):** 6.6 hPa (5 mm Hg)

· **Density @ 20 °C (68 °F):** 0.859 g/cm³ (7.168 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 @ 20 °C (68 °F):	1 mPas
---------------------------------	--------

Safety Data Sheet (SDS)

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

Issue date 06/11/2015

Reviewed on 06/11/2015

Trade name: NuFlo 351T

- Kinematic:** Not determined.
- **Solvent content:**
 - Organic solvents:** 44.3 %
 - VOC content:** 44.3 %
- **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:		
Heavy naphtha distillates		
Dermal	LD50	>2000 mg/kg (rabbit)
Solvent naphtha (petroleum), medium aliph.		
Oral	LD50	>6500 mg/kg (rat)
Dermal	LD50	>3000 mg/kg (rab)
Inhalative	LC50/4 h	>14 mg/l (rat)
	LC50/48 hrs	800 mg/l (daphnia)
Trade Secret asphaltene flow enhancer		
Oral	LD50 Oral	3920 ml/kg (rat)
Dermal	LD50	3000 mg/kg (rabbit) Sensitization Skin For this family of materials, sensitization studies done in guinea pigs have been negative. Did not cause allergic skin reactions when tested in humans.
Mixture of surfactants		
Oral	LD50	1400 mg/kg (rat)

- **Primary irritant effect:**
- **on the skin:** No irritating effect.
- **on the eye:** No irritating effect.
- **Additional toxicological information:**
The product shows the following dangers according to internally approved calculation methods for preparations:

- **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.

Safety Data Sheet (SDS)

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

Issue date 06/11/2015

Reviewed on 06/11/2015

Trade name: NuFlo 351T

· OSHA-Ca (Occupational Safety & Health Administration)
None of the ingredients are listed.

12 Ecological information

· Toxicity
· Aquatic toxicity:
Heavy naphtha distillates
EC50 41 mg/l (Fathead Minnow)
Trade Secret asphaltene flow enhancer
EC50 1.2 - 9.3 mg/l (Fathead Minnow)
Mixture of surfactants
EC50 5.5 mg/l (Fathead Minnow)

- **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:** Not known to be hazardous to water.
- **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:** Recycle or dispose with household trash.
- **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.
- **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** Not applicable.
- **UN "Model Regulation":** -

(Contd. on page 7)

Safety Data Sheet (SDS)

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

Issue date 06/11/2015

Reviewed on 06/11/2015

Trade name: NuFlo 351T

15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Sara**

<ul style="list-style-type: none"> · Section 355 (extremely hazardous substances):
None of the ingredients are listed.

<ul style="list-style-type: none"> · Section 313 (Specific toxic chemical listings):
None of the ingredients are listed.

<ul style="list-style-type: none"> · TSCA (Toxic Substances Control Act):
Heavy naphtha distillates
Solvent naphtha (petroleum), medium aliph.
Trade Secret asphaltene flow enhancer
Mixture of surfactants
Trade Secret Asphaltene Dispersant

- **California Proposition 65**

<ul style="list-style-type: none"> · Chemicals known to cause cancer:
None of the ingredients are listed.

<ul style="list-style-type: none"> · Chemicals known to cause reproductive toxicity for females:
None of the ingredients are listed.

<ul style="list-style-type: none"> · Chemicals known to cause reproductive toxicity for males:
None of the ingredients are listed.

<ul style="list-style-type: none"> · Chemicals known to cause developmental toxicity:
None of the ingredients are listed.

- **Carcinogenic categories**

<ul style="list-style-type: none"> · EPA (Environmental Protection Agency)
None of the ingredients are listed.

<ul style="list-style-type: none"> · TLV (Threshold Limit Value established by ACGIH)
None of the ingredients are listed.

<ul style="list-style-type: none"> · 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**



GHS08

- **Signal word** Danger

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

Heavy naphtha distillates
Solvent naphtha (petroleum), medium aliph.

Safety Data Sheet (SDS)

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

Issue date 06/11/2015

Reviewed on 06/11/2015

Trade name: NuFlo 351T

· **Hazard statements**

Combustible liquid.
May be fatal if swallowed and enters airways.

· **Precautionary statements**

Keep away from flames and hot surfaces. – No smoking.
Wear protective gloves / eye protection / face protection.
If swallowed: Immediately call a poison center/doctor.
Do NOT induce vomiting.
In case of fire: Use for extinction: CO2, powder or water spray.
Store locked up.
Store in a well-ventilated place. Keep cool.
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**

Heavy naphtha distillates ⚠ Asp. Tox. 1, H304	25-50%
Solvent naphtha (petroleum), medium aliph. ⚠ Flam. Liq. 3, H226; ⚠ Asp. Tox. 1, H304	25-50%
Trade Secret asphaltene flow enhancer ⚠ Skin Irrit. 2, H315; Eye Irrit. 2A, H319	2-12%
Non-Hazardous Coupling Agents	≤ 2.5%
Mixture of surfactants ⚠ Acute Tox. 4, H302; Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2A, H319	≤ 2.5%
Trade Secret Asphaltene Dispersant ⚠ Skin Corr. 1B, H314; ⚠ Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332; Flam. Liq. 4, H227	≤ 2.5%
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** 06/11/2015 / 1

· **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)
VOC: Volatile Organic Compounds (USA, EU)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
Flam. Liq. 3: Flammable liquids, Hazard Category 3

Safety Data Sheet (SDS)

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

Issue date 06/11/2015

Reviewed on 06/11/2015

Trade name: NuFlo 351T

Flam. Liq. 4: Flammable liquids, Hazard Category 4
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
Asp. Tox. 1: Aspiration hazard, Hazard Category 1

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

SDS created by MSDS Authoring Services www.msdsauthoring.com +1-877-204-9106