



HOUGHTON®

# SAFETY DATA SHEET

Revision Date 10-31-2017

Version 7

## SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

### 1.1. Product identifier

**Product Code(s)** 73005681-M  
**Product Code(s) (DE):** - 56810000  
**Product Name** FENELLA VD 401 N  
**Product Registration number**  
Denmark -  
Norway -  
Sweden -  
**EC #**  
**Pure substance/mixture** Contains Hydrocarbons, C11-C12, isoalkanes, <2% aromatics, Hydrocarbons, C11-C13, isoalkanes, <2% aromatics, Hydrocarbons, C11-14, isoalkanes, cyclics, <2% aromatics

### 1.2. Relevant identified uses of the substance or mixture and uses advised against

**Recommended Use** Metal forming lubricant  
**Uses advised against** Any other purpose.

### 1.3. Details of the supplier of the safety data sheet

#### Manufacturer, Importer, Supplier

**Houghton plc**  
Beacon Road  
Trafford Park  
Manchester  
M17 1AF  
**Tel: +44 (0)161 874 5000**  
productstewardship@houghtonintl.com

**Houghton S.A.S.**  
604 Bd Albert Camus,  
BP 60041  
69652 Villefranche sur saone  
France  
**Tel: (0) 4 74 65 65 00**  
Fax: (0) 4 74 60 08 44

**Houghton Iberica S.A.**  
Pol. Ind. Can Salvatella-TorreMateu  
08210 Barbera del Valles  
Barcelona  
SPAIN  
**Tel: +(34 93) 718 85 00**  
Fax: +(34 93) 718 93 00  
msds.es@houghtonintl.com

**Houghton Deutschland GmbH**  
Giselherstr. 57. D-44319.  
Dortmund  
Deutschland  
**Tel: +49 (0) 231/9277-0**  
Fax: +49 (0)231/9277-120  
MSDS@houghtonintl.com

**Ragione Sociale: Houghton Italia S.p.A.**  
Indirizzo: Via Postiglione, 30  
10024 Moncalieri (TO)  
ITALY  
**Telefono: (+39) 011 6475811**  
Fax: (+39) 0116472778.  
ITTN-MSDS@houghtonintl.com

**Houghton Benelux B.V.**  
Hoogoorddreef 15  
Unit 3  
1101BA Amsterdam  
Holland  
**Telefoon: 00800 1624 5840**  
Fax: +00 33 474 60 08 44  
customerservice.nl@houghtonintl.com

**Houghton Sverige AB**  
La Cours Gata 4  
252 31 Helsingborg  
Sverige  
**Tel: +46 42 29 55 10**  
E-mail: info.se@houghtonintl.com

**Houghton Polska SP z.o.o**  
UlKapelanka 17  
30-347 Krakow  
Poland  
**+48 122665240**  
info@houghton.com.pl

**Houghton Ukraine Ltd**  
Ukraine, Kiev 04213  
13, Prirechnaya St.  
**Phone: +38 (044) 360-10-24**  
Fax: +38 (044) 426-27-76

**Houghton Danmark A/S**  
 Energievej 3  
 DK-4180 Sorø  
 Danmark  
**Tel: +45 45 85 23 00**  
 E-mail: houghton@houghton.dk

**Houghton Romania**  
 2A, Jiului Street  
 4th Floor / Room 2  
 013219 Bucharest  
**Phone: +40 21 667 06 15**  
 Fax: +40 21 667 09 70

**Houghton Kimya San. A.Ş**  
 Kosuyolu Mah  
 Asma Dall Sok  
 No: 1434718 Kadıköy  
 İstanbul  
 Türkiye  
**Phone Number: +90 216 325 15 15 0**

**Houghton CZ s.r.o.**  
 Bartošova 3  
 602 00 Brno  
 Czech Republic  
**Phone: +420 542 213 332**  
 office@houghton.cz

#### 1.4. Emergency telephone number

**Carechem 24 International: +44 1235 239670**

<b>Austria</b>		Notfall-Telefonnummer +43 (0) 1 406 4343
<b>Belgium</b>		Telefoonnummer voor +32 (0)70 245 245
<b>Bulgaria</b>		Телефон за спешни случаи +359 2 9154 409
<b>Croatia</b>		Telefon za izvanredna stanja +385 1 2348 342
<b>Czech Republic</b>	Carechem 24 International: +420 228 882 830	Telefonní číslo pro naléhavé situace +420 224 919 293
<b>Denmark</b>	Carechem 24 International: +45 8988 2286	Ring til Giftlinjen på +45 82 12 12 12
<b>Estonia</b>		Mürgistusteabekeskuse +372 626 93 90
<b>Finland</b>	Carechem 24 International: +358 9 7479 0199	Hätäpuhelinnumero +358 09 471 977
<b>France</b>	Carechem 24 International: +33 1 72 11 00 03	Numéro d'appel d'urgence +33 (0)1 45 42 5959
<b>Germany</b>	Carechem 24 International: +49 69 222 25285	
<b>Greece</b>	Carechem 24 International: +30 21 1198 3182	
<b>Hungary</b>		Díjmentesen hívható zöld szám +36 80 20 11 99
<b>Italy</b>	Carechem 24 International: +39 02 3604 2884	Numeri telefonici dei principali CAV: FI 055 7947819, MI 02 66101029, PV 038 224444, RM 06 3054343, NA 081 7472870
<b>Ireland</b>		Emergency telephone number +353 01 809 2166
<b>Latvia</b>		Valsts Toksikoloģijas centra Saindēšanās un zāļu informācijas centrs +371 6704 2473
<b>Lithuania</b>		Neatidėliotina informacija apsinuodijus +370 5 236 20 52
<b>Netherlands</b>	Carechem 24 International: +31 10 713 8195	National Poisons Information Center (NL): +31 30 274 88 88 (NB: this service is only available to health professionals)
<b>Norway</b>	Carechem 24 International: +47 2103 4452	Giftinformasjon +47 22 59 13 00
<b>Poland</b>	Carechem 24 International: +48 22 307 3690	112
<b>Portugal</b>	Carechem 24 International: +351 30880 4750	Número de telefone de emergência +351 808 250 143
<b>Romania</b>		

		Număr de telefon care poate fi apelat în caz de urgență +021 318 36 06 (08:00-15:00)
<b>Slovakia</b>		Národné toxikologické informačné centrum +421 2 5477 4166
<b>South Africa</b>	Carechem 24 International: +27 21 300 2732	
<b>Spain</b>	Carechem 24 International: +34 91 114 2520	Instituto Nacional de Toxicología y Ciencias Forenses +34 91 562 0420
<b>Sweden</b>	Carechem 24 International: +46 8 566 42573	112 – Ask for poisons information
<b>Switzerland</b>		145; +41 44 251 51 51 (www.toxi.ch)
<b>Turkey</b>	Carechem 24 International: +90 212 375 5231	

## SECTION 2: HAZARDS IDENTIFICATION

### 2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

Aspiration toxicity	Category 1 - (H304)
---------------------	---------------------

### 2.2. Label Elements

Contains Hydrocarbons, C11-C12, isoalkanes, <2% aromatics, Hydrocarbons, C11-C13, isoalkanes, <2% aromatics, Hydrocarbons, C11-14, isoalkanes, cyclics, <2% aromatics



**Signal word**  
DANGER

#### Hazard statements

H304 - May be fatal if swallowed and enters airways  
EUH066 - Repeated exposure may cause skin dryness or cracking

#### Precautionary Statements - EU (§28, 1272/2008)

P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician  
P331 - Do NOT induce vomiting

### 2.3. Other hazards

No information available

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1. Substances / 3.2. Mixtures

This product is a mixture. Health hazard information is based on its ingredients

Chemical name	EC-No	CAS No	Weight-%	Classification according to	REACH Registration
---------------	-------	--------	----------	-----------------------------	--------------------

				Regulation (EC) No. 1272/2008 [CLP]	Number
Hydrocarbons, C11-C12, isoalkanes, <2% aromatics	918-167-1	NOT AVAILABLE	50% - 100%	Asp. Tox. 1 (H304) (EUH066)	01-2119472146-39-xxx x
Hydrocarbons, C11-C13, isoalkanes, <2% aromatics	920-901-0	NOT AVAILABLE	10% - 25%	Asp. Tox. 1 (H304) (EUH066)	01-2119456810-40-xxx x
Hydrocarbons, C11-14, isoalkanes, cyclics, <2% aromatics	927-285-2	NOT AVAILABLE	10% - 25%	Asp. Tox. 1 (H304) (EUH066)	01-2119480162-45-xxx x
2-Hexyldecan-1-ol	219-370-1	2425-77-6	2.5% - 10%	**	01-2119487981-22-xxx x

Product containing mineral oil with less than 3% DMSO extract as measured by IP 346.

\*\* Substances for which there are Community workplace exposure limits

**Full text of H- and EUH-phrases: see section 16**

## SECTION 4: FIRST AID MEASURES

### 4.1. Description of first-aid measures

<b>General advice</b>	Immediate medical attention is required. Do not get in eyes, on skin, or on clothing.
<b>Inhalation</b>	Potential for aspiration if swallowed. Get medical attention immediately if symptoms occur.
<b>Skin contact</b>	Wash off immediately with soap and plenty of water. Remove and wash contaminated clothing before re-use.
<b>Eye contact</b>	Rinse thoroughly with plenty of water, also under the eyelids. Keep eye wide open while rinsing.
<b>Ingestion</b>	Clean mouth with water and afterwards drink plenty of water. Aspiration hazard if swallowed - can enter lungs and cause damage. Do not induce vomiting without medical advice. If symptoms persist, call a physician.
<b>Protection of First-aiders</b>	Use personal protective equipment. Avoid contact with skin, eyes and clothing.

### 4.2. Most important symptoms and effects, both acute and delayed

**Main Symptoms** May be fatal if swallowed and enters airways

### 4.3. Indication of immediate medical attention and special treatment needed

**Notes to physician** Treat symptomatically.

## SECTION 5: FIRE FIGHTING MEASURES

### 5.1. Extinguishing media

#### **Suitable Extinguishing Media**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment: Use CO<sub>2</sub>, dry chemical, or foam, Water spray or fog, Cool containers / tanks with water spray

#### **Extinguishing media which shall not be used for safety reasons**

Do not use a solid water stream as it may scatter and spread fire

### 5.2. Special hazards arising from the substance or mixture

#### **Special Hazard**

In the event of fire and/or explosion do not breathe fumes. Carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke).

Thermal decomposition can lead to release of irritating gases and vapors. Combustible material. Risk of ignition.

**Hazardous decomposition products**

Incomplete combustion and thermolysis produces potentially toxic gases such as carbon monoxide and carbon dioxide

**5.3. Advice for firefighters****Special protective equipment for fire-fighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear

**SECTION 6: ACCIDENTAL RELEASE MEASURES****6.1. Personal precautions, protective equipment and emergency procedures**

Remove all sources of ignition. Ensure adequate ventilation. Use personal protective equipment. Avoid contact with skin, eyes and clothing.

**Advice for non-emergency personnel**

Material can create slippery conditions. Eliminate all ignition sources if safe to do so.

**Advice for emergency responders** For personal protection see section 8.

**6.2. Environmental precautions**

Prevent further leakage or spillage if safe to do so. Do not flush into surface water or sanitary sewer system.

**6.3. Methods and materials for containment and cleaning up**

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Dike to collect large liquid spills.

**6.4. Reference to other sections**

See Section 8/12/13 for additional information

**SECTION 7: HANDLING AND STORAGE****7.1. Precautions for safe handling**

Keep away from open flames, hot surfaces and sources of ignition. Handle in accordance with good industrial hygiene and safety practice. Ensure adequate ventilation. Do not eat, drink or smoke when using this product. Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Do not ingest. Remove all sources of ignition.

**7.2. Conditions for safe storage, including any incompatibilities****Technical measures/Storage conditions**

Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from open flames, hot surfaces and sources of ignition. Keep out of the reach of children. Keep at temperatures between 5 and 40 °C.

**Recommended Shelf Life**

Shelf life 24 months.

**Incompatible materials**

Strong oxidizing agents, Strong acids, Strong bases

**7.3. Specific end uses****Specific use(s)**

Metal forming lubricant

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1. Control parameters

#### Exposure limits

*Legend*

(s) - Skin; TWA - Time-Weighted Average; STEL - Short Term Exposure Limit; Ceiling - Ceiling Value; TLV® - Threshold Limit Value; PEL (Permissible Exposure Limit)

Chemical name	European Union	United Kingdom	France	Spain
Hydrocarbons, C11-C12, isoalkanes, <2% aromatics				VLA-EC: 10 mg/m <sup>3</sup> VLA-ED: 5 mg/m <sup>3</sup>
Hydrocarbons, C11-C13, isoalkanes, <2% aromatics				VLA-EC: 10 mg/m <sup>3</sup> VLA-ED: 5 mg/m <sup>3</sup>
Hydrocarbons, C11-14, isoalkanes, cyclics, <2% aromatics				VLA-EC: 10 mg/m <sup>3</sup> VLA-ED: 5 mg/m <sup>3</sup>

*Spain Límites de Exposición Profesional Para Agentes Químicos en España (Ley 31/1995).*

Chemical name	Germany	Italy	Portugal	Netherlands
Hydrocarbons, C11-C12, isoalkanes, <2% aromatics		TWA: 5 mg/m <sup>3</sup>	TWA: 5 mg/m <sup>3</sup> STEL: 10 mg/m <sup>3</sup>	
Hydrocarbons, C11-C13, isoalkanes, <2% aromatics		TWA: 5 mg/m <sup>3</sup>	TWA: 5 mg/m <sup>3</sup> STEL: 10 mg/m <sup>3</sup>	
Hydrocarbons, C11-14, isoalkanes, cyclics, <2% aromatics		TWA: 5 mg/m <sup>3</sup>	TWA: 5 mg/m <sup>3</sup> STEL: 10 mg/m <sup>3</sup>	
2-Hexyldecan-1-ol	AGW TWA: 20 ppm AGW TWA: 200 mg/m <sup>3</sup> Überschreitungsfaktor 1			

*Germany TRGS 900 - Arbeitsplatzgrenzwerte, Technische Regeln für Gefahrstoffe (TRGS).*

*Italy Istituto Superiore per la Prevenzione e la Sicurezza del Lavoro (ISPESL), Allegato XXXVIII e Allegato XLIII - Valori Limite di Esposizione Professionale.*

*Portugal Valores-limite e índices biológicos de exposição profissional a agentes químicos. Quadro 1 - Valores Limite de Exposição (Norma Portuguesa NP 1796:2014).*

Chemical name	Austria	Switzerland	Poland	Ireland
Hydrocarbons, C11-C12, isoalkanes, <2% aromatics				STEL: 10 mg/m <sup>3</sup> TWA: 5 mg/m <sup>3</sup> (Mist)
Hydrocarbons, C11-C13, isoalkanes, <2% aromatics				STEL: 10 mg/m <sup>3</sup> TWA: 5 mg/m <sup>3</sup> (Mist)
Hydrocarbons, C11-14, isoalkanes, cyclics, <2% aromatics				STEL: 10 mg/m <sup>3</sup> TWA: 5 mg/m <sup>3</sup> (Mist)

*Ireland 2016 Code of Practice for the Safety, Health and Welfare at Work (Chemical Agents) Regulations 2001.*

Chemical name	Finland	Denmark	Norway	Sweden
Hydrocarbons, C11-C12, isoalkanes, <2% aromatics	TWA: 5mg/m <sup>3</sup> (Öljysumu)		TWA: 1 mg/m <sup>3</sup> (Oljetåke)	TWA: 1 mg/m <sup>3</sup> (Olietåge)
Hydrocarbons, C11-C13, isoalkanes, <2% aromatics	TWA: 5mg/m <sup>3</sup> (Öljysumu)		TWA: 1 mg/m <sup>3</sup> (Oljetåke)	TWA: 1 mg/m <sup>3</sup> (Olietåge)
Hydrocarbons, C11-14, isoalkanes, cyclics, <2% aromatics	TWA: 5mg/m <sup>3</sup> (Öljysumu)		TWA: 1 mg/m <sup>3</sup> (Oljetåke)	TWA: 1 mg/m <sup>3</sup> (Olietåge)

*Finland Förordningen om koncentrationer som befunnits skadliga, 268/2014 - HTP-arvot 2014.*

*Norway Forskrift om tiltaksverdier og grenseverdier for fysiske og kjemiske faktorer i arbeidsmiljøet samt smitterisikogrupper for biologiske faktorer (Forskrift om tiltaks- og grenseverdier), FOR-2011-12-06-1358, FOR-2016-06-21-760, FOR-2016-12-22-1860.*

*Sweden Arbetsmiljöverkets föreskrifter om hygieniska gränsvärden och allmänna råd om tillämpningen av föreskrifterna.*

Chemical name	Czech Republic	Hungary	Bulgaria	Romania
Hydrocarbons, C11-C12,	TWA: 5 mg/m <sup>3</sup>		TWA: 5 mg/m <sup>3</sup>	TWA: 5 mg/m <sup>3</sup>

isoalkanes, <2% aromatics	Ceiling: 10 mg/m <sup>3</sup>			STEL: 10 mg/m <sup>3</sup>
Hydrocarbons, C11-C13, isoalkanes, <2% aromatics	TWA: 5 mg/m <sup>3</sup> Ceiling: 10 mg/m <sup>3</sup>		TWA: 5 mg/m <sup>3</sup>	TWA: 5 mg/m <sup>3</sup> STEL: 10 mg/m <sup>3</sup>
Hydrocarbons, C11-14, isoalkanes, cyclics, <2% aromatics	TWA: 5 mg/m <sup>3</sup> Ceiling: 10 mg/m <sup>3</sup>		TWA: 5 mg/m <sup>3</sup>	TWA: 5 mg/m <sup>3</sup> STEL: 10 mg/m <sup>3</sup>

*Czech Republic Narizeni vlady 93/2012, kterym se meni narizeni vlady c.361/2007 Sb., kterym se stanoví podmínky ochrany zdravi pri práci, ve zněni narizeni vlady c.68/2010 Sb.*

*Bulgaria НАРЕДБА #13 от 30.12.2003 г. за защита на работещите от рискове, свързани с експозиция на химични агенти при работа.*

*Romania Valori Limit Obligatorii Nationale de expunere profesională ale agenților chimic - Anex Nr.1 Publicat în Monitorul Oficial, Partea I nr. 845.*

Chemical name	Greece	Cyprus	Turkey	Malta
Hydrocarbons, C11-C12, isoalkanes, <2% aromatics	TWA: 5 mg/m <sup>3</sup>			
Hydrocarbons, C11-C13, isoalkanes, <2% aromatics	TWA: 5 mg/m <sup>3</sup>			
Hydrocarbons, C11-14, isoalkanes, cyclics, <2% aromatics	TWA: 5 mg/m <sup>3</sup>			

*Greece Οριακές Τιμές Επαγγελματικής Έκθεσης - Προστασία της υγείας και της ασφάλειας των εργαζομένων που εκτίθενται σε ορισμένους καρκινογόνους και μεταλλαξιογόνους παράγοντες 127/2000.*

Chemical name	Belgium	Luxembourg	Iceland	Croatia
Hydrocarbons, C11-C12, isoalkanes, <2% aromatics	TWA: 5 mg/m <sup>3</sup> STEL: 10 mg/m <sup>3</sup>			
Hydrocarbons, C11-C13, isoalkanes, <2% aromatics	TWA: 5 mg/m <sup>3</sup> STEL: 10 mg/m <sup>3</sup>			
Hydrocarbons, C11-14, isoalkanes, cyclics, <2% aromatics	TWA: 5 mg/m <sup>3</sup> STEL: 10 mg/m <sup>3</sup>			

*Belgium Arrêté royal relatif à la protection de la santé et de la sécurité des travailleurs contre les risques liés à des agents chimiques sur le lieu de travail.*

Chemical name	Russia	Estonia	Latvia	Lithuania
Hydrocarbons, C11-C12, isoalkanes, <2% aromatics			TWA: 5 mg/m <sup>3</sup>	TWA: 1 mg/m <sup>3</sup> STEL: 3 mg/m <sup>3</sup>
Hydrocarbons, C11-C13, isoalkanes, <2% aromatics			TWA: 5 mg/m <sup>3</sup>	TWA: 1 mg/m <sup>3</sup> STEL: 3 mg/m <sup>3</sup>
Hydrocarbons, C11-14, isoalkanes, cyclics, <2% aromatics			TWA: 5 mg/m <sup>3</sup>	TWA: 1 mg/m <sup>3</sup> STEL: 3 mg/m <sup>3</sup>

*Latvia Ministru Kabineta noteikumi Nr. 325 - Darba aizsardzības prasības, saskaroties ar ķīmiskajām vielām darba vietās.*

*Lithuania Del Lietuvos higienos normos HN 23:2011 "Cheminiu medžiagu profesinio poveikio ribiniai dydžiai. Matavimo ir poveikio vertinimo bendrieji reikalavimai".*

Chemical name	Belarus	Ukraine	Slovakia	Slovenia
Hydrocarbons, C11-C12, isoalkanes, <2% aromatics			TWA: 5mg/m <sup>3</sup>	
Hydrocarbons, C11-C13, isoalkanes, <2% aromatics			TWA: 5mg/m <sup>3</sup>	
Hydrocarbons, C11-14, isoalkanes, cyclics, <2% aromatics			TWA: 5mg/m <sup>3</sup>	

*Slovakia Nariadenie Vlády Slovenskej republiky z 16. januára 2002 o ochrane zdravia pri práci s karcinogénnymi a mutagénnymi faktormi.*

Chemical name	RCP OEL	Manufacturer
Distillates (petroleum), hydrotreated middle 64742-46-7	RCP: TWA 1200 mg/m <sup>3</sup> 143ppm	

Distillates (petroleum), hydrotreated light 64742-47-8	RCP: TWA 1200 mg/m <sup>3</sup> 182ppm	
Naphtha (petroleum), hydrotreated heavy 64742-48-9	RCP: TWA 1000 mg/m <sup>3</sup>	
C12-C14 isoalkanes 68551-19-9	RCP: TWA 1200 mg/m <sup>3</sup>	
Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, <2% aromatics NOT AVAILABLE	RCP C9-C15 aliphatics: 600mg/m <sup>3</sup>	
Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, <2% aromatics NOT AVAILABLE	TWA: 600 mg/m <sup>3</sup>	
Hydrocarbons, C13-C16, n-alkanes, isoalkanes, cyclics, <0.03% aromatics NOT AVAILABLE	RCP C9-C15 aliphatics: 600mg/m <sup>3</sup>	
Hydrocarbons, C12-C15, n-alkanes, isoalkanes, cyclics, <2% aromatics NOT AVAILABLE	TWA: 150ppm TWA: 1200 mg/m <sup>3</sup>	
Hydrocarbons, C11-C13, isoalkanes, <2% aromatics NOT AVAILABLE	TWA: 171 ppm TWA: 1200 mg/m <sup>3</sup>	
Hydrocarbons, C11-C12, isoalkanes, <2% aromatics NOT AVAILABLE	RCP C9-C15 aliphatics: 600mg/m <sup>3</sup>	
Hydrocarbons, C11-C14, isoalkanes, cyclics, <2% aromatics NOT AVAILABLE	TWA: 165 ppm TWA: 1200 mg/m <sup>3</sup>	
Hydrocarbons, C12-C16, isoalkanes, cyclics, <2% aromatics NOT AVAILABLE	RCP: TWA 1200 mg/m <sup>3</sup> 182ppm	
Hydrocarbons, C15-C20, n-alkanes, isoalkanes, cyclics, <0.03% aromatics NOT AVAILABLE	RCP: TWA 600 mg/m <sup>3</sup>	
Hydrocarbons, C14-C18, n-alkanes, isoalkanes, cyclics, <2% aromatics NOT AVAILABLE	RCP: TWA 600 mg/m <sup>3</sup>	
Hydrocarbons, C13-C18, n-alkanes, isoalkanes, cyclics, < 2% aromatics NOT AVAILABLE	RCP: TWA 600 mg/m <sup>3</sup>	CEFIC-HSPA: 1200 mg/m <sup>3</sup>

**Derived No Effect Level (DNEL)****Workers Systemic toxicity**

Chemical name	Long term - Oral exposure	Long term - Dermal exposure	Long term - Inhalation exposure	Short term - Oral Exposure	Short term - Dermal exposure	Short term - Inhalation exposure
2-Hexyldecan-1-ol		35 mg/kg	247 mg/m <sup>3</sup>			

**Workers Local effects**

Not determined

**Consumers Systemic toxicity**

Chemical name	Long term - Oral exposure	Long term - Dermal exposure	Long term - Inhalation exposure	Short term - Oral Exposure	Short term - Dermal exposure	Short term - Inhalation exposure
2-Hexyldecan-1-ol	21 mg/kg	21 mg/kg	73 mg/m <sup>3</sup>			

**Consumers Local effects**

Not determined

**Predicted No Effect Concentration (PNEC)**

Not determined



**8.2. Exposure controls****Engineering Measures**

Ensure adequate ventilation, especially in confined areas.

**Personal protective equipment**

Engineering controls should be considered as the first line of protection against adverse exposure to harmful substances. Administrative controls and PPE should be used in the absence of engineering controls or as supplemental controls where engineering controls are insufficient in reducing specific exposures to an acceptable level.

**Eye Protection**

Safety glasses with side-shields.

**Hand Protection**

The following glove type may be suitable for handling this product. Protective gloves complying with EN 374.

Nitrile rubber                                      Glove thickness => 0.38 mm Break through time => 480 min

Butyl rubber                                         Glove thickness => 0.64 mm Break through time => 480 min

Glove material suitability will vary depending on specific use conditions. Consideration should be given to variables such as operational characteristics, anticipated contact time, task requirements and other factors relevant to the selection of PPE. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion. Any specific glove information provided is based on published literature and glove manufacturer data. Barrier creams may help to protect the exposed areas of skin. Barrier creams should not be applied after exposure has occurred. Gloves should be replaced regularly and if there is any sign of damage to the glove material.

**Skin and body protection**

Long sleeved clothing.

**Respiratory protection**

No special protective equipment required. In case of mist, spray or aerosol exposure wear suitable personal respiratory protection and protective suit.

*This information is based on the state in which the specific product is delivered and on the intended use specified within this SDS. This information is provided based on literature reference, manufacturer specifications and recommendations and/or derived by analogy with similar substances. The level of protection and types of exposure controls will vary depending on potential exposure conditions.*

**Hygiene measures**

Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Regular cleaning of equipment, work area and clothing is recommended. Do not eat, drink or smoke when using this product. Handle in accordance with good industrial hygiene and safety practice.

**Environmental Exposure Controls**

No special environmental precautions required.

**Thermal hazards**

None under normal use conditions

**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES****9.1. Information on basic physical and chemical properties**

<b>Physical state</b>	liquid	<b>Appearance</b>	clear , colorless
<b>Odor</b>	Mild	<b>Odor threshold</b>	No information available
<u>Property</u>	<u>Values</u>	<u>Remarks</u>	
<b>pH</b>	Not applicable		
<b>Melting point / freezing point</b>	Not Determined		
<b>Boiling point / boiling range</b>	Not Determined		
<b>Flash point</b>	66 °C / 151 °F		
<b>Evaporation rate</b>	Not Determined		
<b>Flammability (solid, gas)</b>	Not Determined		

**Flammability Limit in Air**

<b>Upper flammability limit:</b>	Not Determined
<b>Lower flammability limit:</b>	Not Determined

<b>Vapor pressure</b>	Not Determined	
<b>Vapor density</b>	Not Determined	
<b>Relative density</b>	760	kg/m <sup>3</sup> @20°C
<b>Solubility(ies)</b>	Insoluble in water	
<b>Partition coefficient</b>	Not Determined	
<b>Autoignition temperature</b>	Not Determined	
<b>Decomposition temperature</b>	Not Determined	
<b>Kinematic viscosity</b>	~ 2 cSt @ 20 °C	
<b>Explosive properties</b>	Not applicable	
<b>Oxidizing Properties</b>	Not applicable	

**9.2. Other information**

<b>Viscosity, kinematic (100°C)</b>	Not Determined	
<b>Pour Point</b>	Not Determined	
<b>VOC Content (ASTM E-1868-10)</b>	Not Determined	
<b>VOC content</b>	~ 90 %	2010/75/EC

**SECTION 10: STABILITY AND REACTIVITY****10.1. Reactivity**

None under normal use conditions

**10.2. Chemical stability**

Stable under normal conditions

**10.3. Possibility of hazardous reactions**

None under normal use conditions

**10.4. Conditions to avoid**

Keep away from open flames, hot surfaces and sources of ignition, Heat (temperatures above flash point), sparks, ignition points, flames, static electricity

**10.5. Incompatible materials**

Strong oxidizing agents, Strong acids, Strong bases

**10.6. Hazardous decomposition products**

Incomplete combustion and thermolysis produces potentially toxic gases such as carbon monoxide and carbon dioxide.

**SECTION 11: TOXICOLOGICAL INFORMATION****11.1. Information on toxicological effects****Product Information - Principle Routes of Exposure**

<b>Inhalation</b>	Risk of serious damage to the lungs (by aspiration)
<b>Eye contact</b>	None known
<b>Skin contact</b>	None known

**Ingestion** Risk of product entering the lungs on vomiting after ingestion

### Acute toxicity - Product Information

Product does not present an acute toxicity hazard based on known or supplied information.

### Acute toxicity - Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Hydrocarbons, C11-C12, isoalkanes, <2% aromatics	> 5000 mg/kg ( Rat )	> 5000 mg/kg ( Rabbit )	
Hydrocarbons, C11-C13, isoalkanes, <2% aromatics	> 5000 mg/kg ( Rat )	> 5000 mg/kg ( Rabbit )	
Hydrocarbons, C11-14, isoalkanes, cyclics, <2% aromatics	> 5000 mg/kg ( Rat )	> 5000 mg/kg ( Rabbit )	
2-Hexyldecan-1-ol	42000 mg/kg ( Rat )		

**Skin corrosion/irritation** Based on available data, the classification criteria are not met.

**Serious eye damage/eye irritation** Based on available data, the classification criteria are not met.

#### Sensitization

##### Respiratory Sensitization

Based on available data, the classification criteria are not met.

##### Skin sensitization

Based on available data, the classification criteria are not met.

#### Germ cell mutagenicity

Based on available data, the classification criteria are not met.

#### Carcinogenicity

Based on available data, the classification criteria are not met.

#### Reproductive toxicity

Based on available data, the classification criteria are not met.

#### Specific target organ systemic toxicity (single exposure)

Based on available data, the classification criteria are not met

#### Specific target organ systemic toxicity (repeated exposure)

Based on available data, the classification criteria are not met

#### Aspiration hazard

May be fatal if swallowed and enters airways.

## SECTION 12: ECOLOGICAL INFORMATION

### 12.1. Toxicity

No special environmental measures are necessary

Chemical name	Algae/aquatic plants	Fish	Crustacea
Hydrocarbons, C11-C12, isoalkanes, <2% aromatics	>1000: 72 h Pseudokirchneriella subcapitata mg/L EC50	>1000: 96 h Oncorhynchus mykiss mg/L LC50	>1000: 48 h Daphnia magna mg/L EC50
Hydrocarbons, C11-C13, isoalkanes, <2% aromatics	>1000: 72 h Pseudokirchneriella subcapitata mg/L EC50	>1000: 96 h Oncorhynchus mykiss mg/L LC50	>1000: 48 h Daphnia magna mg/L EC50
Hydrocarbons, C11-14, isoalkanes, cyclics, <2% aromatics	>1000: 72 h Pseudokirchneriella subcapitata mg/L EC50	>1000: 96 h Oncorhynchus mykiss mg/L LC50	>1000: 48 h Daphnia magna mg/L EC50
2-Hexyldecan-1-ol		100: 96 h Leuciscus Idus mg/L LC50 static	

### 12.2. Persistence and degradability

The product is not readily biodegradable, but it can be degraded by micro-organisms, it is regarded as being inherently biodegradable.

### 12.3. Bioaccumulative potential

Chemical name	Partition coefficient
2-Hexyldecan-1-ol	7.9

### 12.4. Mobility

No information available

### 12.5. Results of PBT and vPvB assessment

This preparation contains no substance considered to be persistent, bioaccumulating nor toxic (PBT). This preparation contains no substance considered to be very persistent nor very bioaccumulating (vPvB).

### 12.6. Other adverse effects

None known

## SECTION 13: DISPOSAL CONSIDERATIONS

### 13.1. Waste treatment methods

#### **Waste from Residues / Unused Products**

Dispose of as hazardous waste in compliance with local and national regulations

#### **Contaminated packaging**

Empty containers should be taken to an approved waste handling site for recycling or disposal. Observe all label precautions until container is cleaned, reconditioned or destroyed.

#### **Other Data**

According to the European Waste Catalog, Waste Codes are not product specific, but application specific. Waste codes should be assigned by the user based on the application for which the product was used.

## SECTION 14: TRANSPORT INFORMATION

### 14.1. UN-Number

Not regulated

### 14.2. UN proper shipping name

Not regulated

### 14.3. Transport hazard class

Not regulated

### 14.4. Packing Group

Not regulated

### 14.5. Environmental Hazards

None

**14.6. Special precautions for users**

None

**14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

Not applicable

**IMDG** Not regulated**ADR** Not regulated**IATA** Not regulated**ADN** Not regulated**SECTION 15: REGULATORY INFORMATION****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****EU legislation**

The Classification, Labeling and Packaging of Substances and Mixtures (CLP) Regulation (EC 1272/2008)  
Registration, Evaluation, Authorization, and Restriction of Chemicals (REACH) Regulation (EC 1907/2006)  
Safety Data Sheet according to Regulation EC 1907/2006 (REACH) with its amendment regulation EC 2015/830  
European Agreement concerning the International Carriage of Dangerous Goods by Road/ Regulations concerning the International Carriage of Dangerous Goods by Rail  
International Civil Aviation Organization / International Air Transport Association Dangerous Goods Regulation

**Restrictions on use**

This product does not contain substances subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII).

**National regulations****Germany****WGK Classification**

Low hazard to water/Class 1

**United Kingdom**

Statutory Instruments: Control of Substances Hazardous to Health Regulations 2002. Chemicals (Hazard Information and Packaging) Regulations 2009.  
Acts of Parliament: The Health and Safety at Work etc. Act 1974. Environment Protection Act 1990.  
Regulation on classification, labeling, of hazardous chemicals (2002 changing 2005). Appendix VI to Regulation on classification, labeling etc. of hazardous chemicals (2002 changing 2010), list of hazardous substances (as amended). Guidelines for submission and declaration of hazardous waste (2009). Transport of dangerous goods: ADR, RID, IMDG and IATA. Administrative norms for pollution of the atmosphere, 2009.  
Workplace exposure limits (EH40)

**International Regulations****Ozone-depleting substances (ODS)**

Not applicable

**Persistent Organic Pollutants**

Not applicable

### Chemicals Subject to Prior Informed Consent (PIC)

Not applicable

### International Inventories

Inventory information may be utilizing alternative CAS#s or exemptions beyond those stated within this document. For further information, please contact: ProductStewardship@houghtonintl.com.

<b>TSCA</b>	Complies
<b>DSL</b>	Complies
<b>AICS</b>	Complies
<b>PICCS</b>	Does not Comply
<b>KECL</b>	Complies
<b>IECSC</b>	Complies
<b>ENCS</b>	Does not Comply
<b>TCSI</b>	Complies
<b>NZIoC</b>	Does not Comply

### Legend:

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory  
**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List  
**AICS** - Australian Inventory of Chemical Substances  
**PICCS** - Philippines Inventory of Chemicals and Chemical Substances  
**KECL** - Korean Existing and Evaluated Chemical Substances  
**IECSC** - China Inventory of Existing Chemical Substances  
**ENCS** - Japan Existing and New Chemical Substances  
**TCSI** - Taiwan National Existing Chemical Inventory  
**NZIoC** - New Zealand Inventory of Chemicals

### Other Information

Chemical name	CAS No	EC-No	REACH Registration Number
Distillates (petroleum), hydrotreated middle	64742-46-7	934-956-3	01-2119827000-58-xxxx
Hydrocarbons, C13-C23, n-alkanes, isoalkanes, cyclics, < 0.03% aromatics	64742-46-7	932-078-5	01-2119552497-29-xxxx
Distillates (petroleum), hydrotreated light	64742-47-8	265-149-8	
Naphtha (petroleum), hydrotreated heavy	64742-48-9	265-150-3	01-2119457273-39-xxxx
Distillates (petroleum), hydrotreated light naphthenic	64742-53-6	265-156-6	01-2119480375-34-xxxx
Distillates (petroleum), hydrotreated light paraffinic	64742-55-8	265-158-7	01-2119487077-29-xxxx
Distillates (petroleum), solvent-dewaxed light paraffinic	64742-56-9	265-159-2	01-2119480132-48-xxxx
C12-C14 isoalkanes	68551-19-9	271-369-5	
White mineral oil (petroleum)	8042-47-5	232-455-8	01-2119487078-27-xxxx
C18-C50 branched, cyclic and linear hydrocarbons – Distillates	848301-69-9	482-220-0	01-0000020163-82-xxxx
Alkanes, C14-16	90622-46-1	292-448-0	
Alkanes, C12-26-branched and linear	90622-53-0	292-454-3	
Alkanes, C11-15-iso-	90622-58-5	292-460-6	
Alkanes, C16-20-iso-	90622-59-6	292-461-1	
Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, <2% aromatics	NOT AVAILABLE	926-141-6	01-2119456620-43-xxxx
Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, <2% aromatics	NOT AVAILABLE	918-481-9	01-2119457273-39-xxxx
Hydrocarbons, C13-C16, n-alkanes, isoalkanes, cyclics, <0.03% aromatics	NOT AVAILABLE	934-954-2	01-2119826592-36-xxxx
Hydrocarbons, C12-C15, n-alkanes, isoalkanes, cyclics, <2% aromatics	NOT AVAILABLE	920-107-4	01-2119453414-43-xxxx
Hydrocarbons, C11-C14, n-alkanes, <2% aromatics	NOT AVAILABLE	924-803-9	01-2119485647-22-xxxx
Hydrocarbons, C11-C13, isoalkanes, <2% aromatics	NOT AVAILABLE	920-901-0	01-2119456810-40-xxxx
Hydrocarbons, C14-C18, n-alkanes, cyclics, aromatics	NOT AVAILABLE	920-360-0	01-2119448343-41-xxxx

(2-30%)			
Hydrocarbons, C11-C12, isoalkanes, <2% aromatics	NOT AVAILABLE	918-167-1	01-2119472146-39-xxxx
Hydrocarbons, C11-C14, isoalkanes, cyclics, <2% aromatics	NOT AVAILABLE	927-285-2	01-2119480162-45-xxxx
Hydrocarbons, C12-C16, isoalkanes, cyclics, <2% aromatics	NOT AVAILABLE	927-676-8	01-2119456377-30-xxxx
Hydrocarbons, C13-C16, isoalkanes, cyclics, <2% aromatics	NOT AVAILABLE	918-973-3	01-2119458871-30-xxxx
Hydrocarbons, C15-C20, n-alkanes, isoalkanes, cyclics, <0.03% aromatics	NOT AVAILABLE	934-956-3	01-2119827000-58-xxxx
Hydrocarbons, C14-C18, n-alkanes, isoalkanes, cyclics, <2% aromatics	NOT AVAILABLE	927-632-8	01-2119457736-27-xxxx
Hydrocarbons, C13-C18, n-alkanes, isoalkanes, cyclics, <2% aromatics	NOT AVAILABLE	921-050-8	01-2119485032-45-xxxx

## 15.2. Chemical Safety Assessment

A chemical safety assessment according to regulation (EC) No. 1907/2006 is not required

## SECTION 16: OTHER INFORMATION

### Key or legend to abbreviations and acronyms used in the safety data sheet

Repr.-Reproduction toxicity  
 Asp. Tox. - Aspiration Toxicity  
 Acute Tox. - Acute Toxicity  
 Aquatic Acute - Acute Aquatic Toxicity  
 Aquatic Chronic - Chronic Aquatic Toxicity  
 Eye Dam. - Eye Damage  
 Eye Irrit. - Eye Irritation  
 Skin Corr. - Skin Corrosion  
 Skin Irrit. - Skin Irritation  
 Skin Sens. - Skin Sensitizer  
 Resp. Sens. - Respiratory Sensitizer  
 STOT SE - Specific target organ systemic toxicity (Single exposure)  
 STOT RE - Specific target organ systemic toxicity (repeated exposure)  
 VOC - Volatile organic compounds

**Full text of H-Statements which may be referred to under Sections 2 and 3**

<ul style="list-style-type: none"> <li>• H224 - Extremely flammable liquid and vapor</li> <li>• H225 - Highly flammable liquid and vapor</li> <li>• H226 - Flammable liquid and vapor</li> <li>• H270 - May cause or intensify fire; oxidizer</li> <li>• H271 - May cause fire or explosion; strong oxidizer</li> <li>• H272 - May intensify fire; oxidizer</li> <li>• H290 - May be corrosive to metals</li> <li>• H300 - Fatal if swallowed</li> <li>• H301 - Toxic if swallowed</li> <li>• H302 - Harmful if swallowed</li> <li>• H304 - May be fatal if swallowed and enters airways</li> <li>• H310 - Fatal in contact with skin</li> <li>• H311 - Toxic in contact with skin</li> <li>• H312 - Harmful in contact with skin</li> <li>• H314 - Causes severe skin burns and eye damage</li> <li>• H315 - Causes skin irritation</li> <li>• H317 - May cause an allergic skin reaction</li> <li>• H318 - Causes serious eye damage</li> <li>• H319 - Causes serious eye irritation</li> <li>• H330 - Fatal if inhaled</li> <li>• H331 - Toxic if inhaled</li> <li>• H332 - Harmful if inhaled</li> <li>• H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled</li> <li>• H335 - May cause respiratory irritation</li> <li>• H336 - May cause drowsiness or dizziness</li> <li>• H340 - May cause genetic defects</li> </ul>	<ul style="list-style-type: none"> <li>• H341 - Suspected of causing genetic defects</li> <li>• H350 - May cause cancer</li> <li>• H351 - Suspected of causing cancer</li> <li>• H360 - May damage fertility or the unborn child</li> <li>• H361 - Suspected of damaging fertility or the unborn child</li> <li>• H362 - May cause harm to breast-fed children</li> <li>• H370 - Causes damage to organs</li> <li>• H371 - May cause damage to organs</li> <li>• H372 - Causes damage to organs through prolonged or repeated exposure</li> <li>• H373 - May cause damage to organs through prolonged or repeated exposure</li> <li>• H400 - Very toxic to aquatic life</li> <li>• H410 - Very toxic to aquatic life with long lasting effects</li> <li>• H411 - Toxic to aquatic life with long lasting effects</li> <li>• H412 - Harmful to aquatic life with long lasting effects</li> <li>• H413 - May cause long lasting harmful effects to aquatic life</li> <li>• H360Df - May damage the unborn child. Suspected of damaging fertility</li> <li>• H360D - May damage the unborn child</li> <li>• H360FD - May damage fertility. May damage the unborn child</li> <li>• H360F - May damage fertility</li> <li>• H361d - Suspected of damaging the unborn child</li> <li>• H361fd - Suspected of damaging fertility. Suspected of damaging the unborn child</li> <li>• H361f - Suspected of damaging fertility</li> <li>• EUH066 - Repeated exposure may cause skin dryness or cracking</li> <li>• EUH210 - Safety data sheet available on request</li> <li>• EUH208 - May produce an allergic reaction</li> </ul>
---	--

#### Classification for mixtures and used evaluation method according to regulation (EC) 1207/2008 [CLP]

<b>Physical hazards</b>	On basis of test data
<b>Health Hazards</b>	Calculation Method
<b>Environmental Hazards</b>	Calculation Method

**Revision Date** 10-31-2017

**Revision Note** Not applicable.

#### Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.