

**1. NAMNET PÅ ÄMNET/BLANDNINGEN OCH BOLAGET/FÖRETAGET****1.1 Produktbeteckning****1.1.1 Handelsnamn**

NExBTL Renewable Diesel; Neste 100 % NExBTL -diesel; Neste Green 100 -diesel

**1.1.2 Produktkod**

(ID 13898)

**REACH-registreringsnummer**

01-2119450077-42-0000 / -0001 / -0002

**Ämnets namn**

Förnyelsebara kolväten (fraktion lik diesel)

**1.2 Relevanta identifierade användningar av ämnet eller blandningen och användningar som det avråds från****1.2.1 Rekommendation beträffande användning**

Användning som bränsle

Distribution av ämnet

Formulering och (om)paketering av ämnen och blandningar

Användning som intermediär

Se PROC/SU/ERC-koderna för identifierad användning i avsnitt 16.

**1.3 Närmare upplysningar om den som tillhandahåller säkerhetsdatablad****1.3.1 Leverantör**

Neste Renewable Fuels Oy

**Gatuadress**

Keilaranta 21

**Postnummer och postkontor**

Esbo

Finland

**Postnummer och postkontor**

PB 95 00095 NESTE OIL

Finland

**Telefon**

010 45811

**Telefax**

010 45 84442

**FO-nummer**

1092024-9

**Email**

KTTR@nesteoil.com (kemisäkerhet)

**1.4 Telefonnummer för nödsituationer****1.4.1 Telefonnummer, namn och adress**

+358-9-471 977, +358-9-4711 Giftinformationscentralen/HUCS

PB 340 (Stockholmsgatan 17), FIN-00029 HUS (Helsingfors, Finland)

**2. FARLIGA EGENSKAPER****2.1 Klassificering av ämnet eller blandningen****1272/2008 (CLP)**

Asp. Tox. 1, H304

EUH066

**67/548/EEC - 1999/45/EC**

Xn; R65-66

**2.2 Märkningsuppgifter****1272/2008 (CLP)**

GHS08

Signalord

**Fara****Faroangivelser**

H304

Kan vara dödligt vid förtäring om det kommer ner i luftvägarna.



EUH066

Upprepad kontakt kan ge torr hud eller hudsprickor.

**Skyddsangivelser**

P301+P310

VID FÖRTÄRING: Kontakta genast GIFTINFORMATIONSCENTRAL eller läkare.

P331

Framkalla INTE kräkning.

P501

Innehållet/behållaren lämnas enligt nationella föreskrifter och lokala myndigheters instruktioner.

**2.3 Andra faror**

Brännbar vätska. Oljedimma kan irritera ögonen och andningsorgan. Risk för förorening av mark och grundvatten.

**3. SAMMANSÄTTNING/INFORMATION OM BESTÅNDSDELAR**

**3.1 Ämnen**

**CAS nummer**

**Ämnets kemiska namn**

**Koncentration**

**Klassificering**

-

Förnyelsebara kolväten (fraktion lik diesel)

Cirka 100 %  
CLP: Asp. Tox. 1, H304  
DSD-DPD: Xn; R65, R66

**3.3 Annan information**

En blandning av diesel gjord på förnyelsebara råvaror och additiver. Innehåller iso- och n-paraffiniska kolväten från mitten av destillations-serien. Totala värdet av aromater max 1,0 Vikt-%.

Identitet utanför EU (CAS-nummer och komponents namn): Alkaner, C10-20, grenade och raka, CAS 928771-01-1. Registreringsnummer, se under sektion 1.1.2.

**4. ÅTGÄRDER VID FÖRSTA HJÄLPEN**

**4.1 Beskrivning av åtgärder vid första hjälpen**

**4.1.2 Inandning**

Inandning är osannolik på grund av ämnets låga ångtryck vid omgivningstemperatur. Om det har andats in, flytta personen till frisk luft. Kontakta läkare.

**4.1.3 Hudkontakt**

Tvätta omedelbart med tvål och mycket vatten. Ta av alla förorenade kläder och skor. Om hudirritation kvarstår, kontakta läkare.

**4.1.4 Stänk i ögon**

Skölj omedelbart med rikliga mängder vatten, även under ögonlocken. Om ögonirritation består, kontakta en specialist.

**4.1.5 Förtäring**

FRAMKALLA INTE KRÄKNING. I händelse av förtäring, utgå alltid ifrån att aspiration har skett. Kontakta läkare (risk för aspiration i lungorna särskilt vid illamående eller irritation).

**4.2 De viktigaste symptomen och effekterna, både akuta och fördröjda**

Aspiration i lungor kan förorsaka livsfarlig kemisk lunginflammation. Oljedimma kan irritera ögonen och andningsorgan. Långvarig eller upprepad kontakt uttorkar och irriterar huden.

**4.3 Angivande av omedelbar medicinsk behandling och särskild behandling som eventuellt krävs**

Aspiration i lungor kan förorsaka livsfarlig kemisk lunginflammation.

**5. BRANDBEKÄMPNINGSÅTGÄRDER**

- 5.1 Släckmedel**
- 5.1.1 Lämpliga släckmedel**  
Pulver och koldioxid. Sand. Tungskum och vattendimma för professionell brandpersonal.
- 5.1.2 Brandsläckningsmedel som av säkerhetsskäl inte får användas**  
Vattensprutning
- 5.2 Särskilda faror som ämnet eller blandningen kan medföra**  
Brännbar vätska. Explosionsrisk på grund av tryckhöjning om produktbehållare eller -tankar upphettas i branden. Kraftig upphettning eller brand kan bilda kolmonoxid och andra produkter av bristfällig förbränning.
- 5.3 Råd till brandbekämpningspersonal**  
Kyl produktbehållare och tankar nära elden med vattenstråle från ett tillräckligt säkerhetsavstånd.
- 5.4 Särskilda åtgärder**  
Särskild skyddsutrustning för brandbekämpningspersonal : Tryckluftandningsapparat och fullständig skyddsutrustning.

## 6. ÅTGÄRDER VID OAVSIKTLIGA UTSLÄPP

- 6.1 Personliga skyddsåtgärder, skyddsutrustning och åtgärder vid nödsituationer**  
Eliminera brandfaran genom att isolera området från antändningskällor. Evakuera folk till vindsidan från spillområdet. Använd tillräcklig skyddsutrustning vid alla åtgärder.
- 6.2 Miljöskyddsåtgärder**  
Begränsa utsläpp och undvik spridning av produkten i naturen. Samla upp utspild vätska innan den sprids ut i avlopp, mark och vattendrag. Meddela omedelbart lokala myndigheter om utsläpp. Risk för förorening av mark och grundvatten.
- 6.3 Metoder och material för inneslutning och sanering**  
Börja omedelbart samla upp vätska och kontaminerad jord. Små mängder kan sugas upp med absorberande material. Beakta produktens brand- och hälsofara.
- 6.4 Hänvisning till andra avsnitt**  
För personligt skydd se under avsnitt 8. Produktavfall hanteras enligt punkt 13.

## 7. HANTERING OCH LAGRING

- 7.1 Försiktighetsmått för säker hantering**  
Hantera produkten i slutna system eller se till för tillräcklig ventilation. Undvik hudkontakt och inandning av oljedimma. Använd personlig skyddsutrustning vid behov. Ät, drick eller rök ej under hanteringen. Tvätta händerna före raster och efter arbetstidens slut. Spill gör ytor hala Vid tank operationer bör specialinstruktioner följas (risk för syrebrist och kolväten).  
  
Får ej utsättas för brand, gnistor och heta ytor. Vidtag åtgärder för att förhindra uppbyggnad av elektrostatiske laddningar.
- 7.2 Förhållanden för säker lagring, inklusive eventuell oförenlighet**  
I en tank eller ett lager lämpligt för brännbara vätskor. Vidtag säkerhetsåtgärder för att förhindra produktens utsläpp i avlopp, mark eller vattendrag. Möjliga läckage bereder man sig på till exempel med uppsamlingsbassänger, lastnings- och avlastningsplatsernas beläggning och anläggning av avlopp. Minutpartier förvaras i välslutna, märkta behållare som inte genomsläpper produkten. Förvara i enlighet med lokala regler.  
  
Förvara i rätt märkta behållare. Rekommenderade material eller ytbeläggningar för behållare: kolstål, rostfritt stål. Vissa syntetiska material kan vara olämpliga för behållare eller beläggningar i behållare beroende på materialets specifikation och avsedda användning.

### 7.3 Specifik slutanvändning

Ingen känd.

## 8. BEGRÄNSNING AV EXPONERINGEN/PERSONLIGT SKYDD

### 8.1 Kontrollparametrar

#### 8.1.1 Tröskelvärden

Oljedimma 5 mg/m<sup>3</sup> (8 h)  
HTP 2011/FIN

#### 8.1.2 Annan information om gränsvärden

Metoden för att uppfölja expositionen: Oljedimma: NIOSH Method 5026, SFS-EN 689  
För kolväten kan man tillämpa deras enstaka gränsvärden.

#### 8.1.4 DNEL

Arbetstagare:  
Dermalt: 42 mg/kg bw /dag (Långvarig exponering, systemiska verkningar)  
Genom inhalation: 147 mg/m<sup>3</sup> (Långvarig exponering, systemiska verkningar)

Konsumenter:

Dermalt: 18 mg/kg bw /dag (Långvarig exponering, systemiska verkningar)  
Genom inhalation: 94 mg/m<sup>3</sup> (Långvarig exponering, systemiska verkningar)

#### 8.1.5 PNEC

Beräkning av uppskattad nolleffektkoncentration (PNEC) är inte vetenskapligt motiverad pga. begränsad löslighet i vatten.

### 8.2 Begränsning av exponeringen

#### 8.2.1 Lämpliga tekniska kontrollåtgärder

Hantera produkten i slutna system eller sörj för tillräcklig ventilation. Använd personlig skyddsutrustning vid behov. Hantera i enlighet med god yrkeshygien och säkerhetspraxis.

#### 8.2.2 Individuella skyddsåtgärder

##### 8.2.2.1 Andningsskydd

Oljedimma: andningsskydd (partikel- och gasfilter, typ A2/P2). Filterskydd kan användas max 2 timmar på en gång. Filterskydd bör inte användas i konditioner där syrehalt är låg (< 17 vol.-%). Vid höga koncentrationer måste man använda andningsskydd (tryckluft- eller friskluftandningsapparat). Filtret bör bytas tillräckligt ofta. Andningsskydd enligt standarder EN 140 och EN 141.

##### 8.2.2.2 Handskydd

Skyddshandskar (t.ex. av nitril, neopren, PVC). Genombrottstid >240, Skyddsklass 5. Skyddshandskar enligt standarder EN 420 och EN 374. Byt skyddshandskar regelbundet.

##### 8.2.2.3 Ögonskydd/ansiktsskydd

Tättslutande skyddsglasögon.

##### 8.2.2.4 Hudskydd

Skyddskläder (antistatisk), kemikalieskyddskläder som inte genomsläpper stänk vid behov.

#### 8.2.3 Begränsning av miljöexponeringen

Möjliga läckage bereder man sig på till exempel med uppsamlingsbassänger, lastnings- och avlastningsplatsernas beläggning och anläggning av avlopp.

## 9. FYSIKALISKA OCH KEMISKA EGENSKAPER

### 9.1 Information om grundläggande fysikaliska och kemiska egenskaper

#### 9.1.1 Utseende

Klar vätska med låg viskositet.

9.1.2	Lukt	Mild karakteristisk lukt.
9.1.3	Lukttröskel	inga tillgängliga data
9.1.4	pH-värde	inga tillgängliga data
9.1.5	Smältpunkt/fryspunkt	Smältpunkt / Flytpunkt (Melting/pour point) < -20°C @ 1013 hPa (BS4633, Metod EC A1)
9.1.6	Initial kokpunkt och kokpunktsintervall	180 - 320°C (EN ISO 3405)
9.1.7	Flampunkt	> 61 °C @ 1013 hPa ( EN ISO 2719, Metod EC A9)
9.1.8	Avdunstningshastighet	inga tillgängliga data
9.1.10	Explosiva egenskaper	
9.1.10.1	Nedre explosionsgräns	inga tillgängliga data
9.1.10.2	Övre explosionsgräns	inga tillgängliga data
9.1.11	Ångtryck	0,087 kPa @ 25°C (Metod EC A4)
9.1.12	Ångdensitet	inga tillgängliga data
9.1.13	Relativ densitet	0,77 - 0,79 (15/20 °C; vatten= 1, EN ISO 12185, Metod EC A3)
9.1.14	Löslighet	
9.1.14.1	Vattenlöslighet	Olöslig. (estimat: 0,075 mg/L @ 25 °C; (kalkylerad))
9.1.14.2	Fettlöslighet (lösningsmedel - olja, specificerad)	Löslig (Metanol, hexan)
9.1.15	Fördelningskoefficient: n-oktanol/vatten	Log Kow > 6,5 (Metod EC A8)
9.1.16	Självantändningstemperatur	204 °C (Metod EC A15)
9.1.17	Sönderfallstemperatur	inga tillgängliga data
9.1.18	Viskositet	Kinematisk viskositet 4.0 mm <sup>2</sup> /s @ 20°C; 2.6 mm <sup>2</sup> /s @ 40° C (OECD Guideline 114). Viskositet, dynamisk ≤ 5 mPas @ 20°C.
9.1.19	Explosiva egenskaper	Ej explosiv (Metod EC A14)
9.1.20	Oxiderande egenskaper	Ej oxiderande
9.2	Annan information	-

## 10. STABILITET OCH REAKTIVITET

- 10.1 Reaktivitet**  
Inga farliga reaktioner kända under normala användningsförhållanden.
- 10.2 Kemisk stabilitet**  
Stabil vid rekommenderade lagringsförhållanden.
- 10.3 Risken för farliga reaktioner**  
Ingen känd.
- 10.4 Förhållanden som ska undvikas**  
Får ej utsättas för brand, gnistor och heta ytor.
- 10.5 Oförenliga material**  
Oxidationsmedel
- 10.6 Farliga sönderdelningsprodukter**  
Inga farliga nedbrytningsprodukter är kända.

## 11. TOXIKOLOGISK INFORMATION

**11.1 Information om de toxikologiska effekterna****11.1.1 Akut toxicitet**

Mycket låg toxicitet:

LD50/oralt/råtta > 2000 mg/kg (Metod EC B1 tris)

LD50/dermalt/råtta = > 2000 mg/kg (Metod EC B3)

**11.1.2 Irritation och frätning**

Ej klassificerat. (Metod EC B4 och B5). Långvarig eller upprepad hudkontakt kan uttorka huden och framkalla hudinflammation. Oljedimma kan irritera ögonen och andningsorgan. Vid förtäring irriterar produkten matsmältningskanalen.

**11.1.3 Allergiframkallande egenskaper**

Inte allergiframkallande (Metod EC B6).

**11.1.4 Subakut, subkronisk och långvarig toxicitet**

In vitro tester visade inte mutagena effekter (Metod EC B10, B12, B13/14 och B17).

Ingen reproduktionstoxicitet (OECD 416).

**11.1.5 Specifik organotoxicitet – enstaka exponering**

Ingen känd effekt.

**11.1.6 Specifik organotoxicitet – upprepad exponering**

Ingen känd effekt. (OECD 408).

**11.1.7 Fara vid aspiration**

Kan vara dödligt vid förtäring om det kommer ner i luftvägarna. Aspiration av produkt i lungorna kan förorsaka livsfarlig kemisk lunginflammation.

**12. EKOLOGISK INFORMATION****12.1 Toxicitet****12.1.1 Akvatisk toxicitet**

Mycket låg toxicitet.

Akut akvatisk toxicitet:

fisk: LL50/96h > 1000 mg/L, WAF (OECD 203).

kräftdjur: EL50/48h > 100 mg/L, WAF (OECD 202).

alg: EL50/72h > 100 mg/L, WAF (OECD 201).

Kronisk akvatisk toxicitet:

kräftdjur: NOEC/21d > 1 mg/L, WAF; LOEC/21d = 3.2 mg/L, WAF (OECD 211).

sedimentorganismer: NOEC/10d = 373 mg/kg; LOEC/10d = 1165 mg/kg; LC50/10d = 1200 mg/kg

(OSPAR Protocols, Part A: Sediment Bioassay, 2005).

**12.1.2 Toxicitet för andra organismer**

Mikro-organismer (avloppsslam): EC50/30min > 1000 mg/L; EC50/3h > 1000 mg/L (OECD 209).

**12.2 Persistens och nedbrytbarhet****12.2.1 Biologisk nedbrytbarhet**

Lätt nedbrytbar (OECD 301B).

**12.2.2 Kemisk nedbrytning**

Hydrolyserar inte i vatten.

**12.3 Bioackumuleringsförmåga**

Möjlig ackumulerbar (log Kow > 6,5).

**12.4 Rörligheten i jord**

Produkten avdunstar långsamt från markens och vattnets yta. Den upplöses nuggt i vatten. Kolväten kan adsorberas i organiskt material i mark eller sediment. (log Koc > 5.6; Metod EC C19).

**12.5 Resultat av PBT- och vPvB-bedömningen**

Ämnet anses varken vara persistent, bioackumulerande eller giftigt (PBT). Ämnet anses varken vara mycket persistent eller mycket bioackumulerande (vPvB).

**12.6 Andra skadliga effekter**

Ingen känd.

**13. AVFALLSHANTERING****13.1 Avfallsbehandlingsmetoder**

Hanteras enligt nationella föreskrifter och lokala myndigheters instruktioner. Vid hantering av avfallet beakta dess faror och sörgj för nödiga säkerhetsåtgärder, märkningar och information.

**13.2 Avfall från överskott/oanvända produkter**

Tomma behållare kan innehålla brännbara produktrester. Tomma behållare skall lämnas till lokal återvinning eller sophantering.

**14. TRANSPORTINFORMATION****14.1 UN-nummer**

1202

**14.2 Officiell transportbenämning**

UN 1202 Dieselolja, 3, III

**14.3 Faroklass för transport**

3

**14.4 Förpackningsgrupp**

III

**14.5 Miljöfaror**

ADN Särskild klassificering: F (floater).

**14.6 Särskilda försiktighetsåtgärder**

-

**14.7 Bulktransport enligt bilaga II till MARPOL 73/78 och IBC-koden**

Transported by ship as bulk: Product name: Alkanes, C10-C26 linear and branched, (Flashpoint >60 deg.C) (NExBTL Renewable Diesel), Category Y, ST3.

**15. GÄLLANDE FÖRESKRIFTER****15.1 Föreskrifter/lagstiftning om ämnet eller blandningen när det gäller säkerhet, hälsa och miljö**

WGK = 1; Alkaner, C10-20, grenade och raka (Wassergefährdungsklasse, Tyskland)

Detta säkerhetsdatablad uppfyller kraven i Förordning (EG) Nr 1907/2006. Uppdaterad enligt förordning (EU) Nr. 453/2010 om ändring av förordning (EG) Nr. 1907/2006 (REACH).

**15.2 Kemikaliesäkerhetsbedömning**

En kemisk säkerhetsbedömning har genomförts för detta ämne.

**16. ANNAN INFORMATION****16.1 Tillägg, Borttag, Omarbetad**

Avsnitt 1, 2, 11, 15, 16

**16.2 Förklaring till förkortningarna i säkerhetsdatabladet**

CLP = Europaparlamentets och rådets förordning (EG) nr 1272/2008 om klassificering, märkning och förpackning av ämnen och blandningar

DSD = Rådets direktiv 67/548/EEG om tillnärmning av lagar och andra författningar om klassificering, förpackning och märkning av farliga ämnen

DPD = Europaparlamentets och rådets direktiv 1999/45/EG om tillnärmning av medlemsstaternas lagar och andra författningar om klassificering, förpackning och märkning av farliga preparat

DNEL = Derived No-Effect Level

PNEC = Predicted No-Effect Concentration

WAF = Water Accommodated Fraction

SU = Sector of Use

PROC = Process Category

PC = Product Category

ERC = Environmental Release Category

### 16.3 Hänvisningar till viktig litteratur och datakällor

Bestämmelser, databaser, litteratur, egna forskningarna. Kemikaliesäkerhetsrapport 2013.

### 16.5 En förteckning över relevanta R-fraser, faroangivelser, skyddsfraser och skyddsangivelser

R65 Farligt: kan ge lungskador vid förtäring.

R66 Upprepad kontakt kan ge torr hud eller hudsprickor.

H304 Kan vara dödligt vid förtäring om det kommer ner i luftvägarna.

### 16.7 Rekommenderade begränsningar

Identifierade användningar :

Distribution av ämnet (PROC 2, 3, 8a, 8b, 15; SU 8; ERC 1)

Formulering och (om)paketering av ämnen och blandningar

(PROC 2, 3, 8a, 8b, 15; SU 10; ERC 2) och (PROC 1, 3, 8a, 8b, 9, 15; SU 10; ERC 7)

Användning som bränsle :

Industriell användning (PROC 1, 2, 3, 8a, 8b, 15, 16; SU 3; ERC 7)

Yrkesmässig användning (PROC 1, 2, 8a, 8b, 16; SU 22; ERC 8B, 8E)

Konsumenter (PC 13; SU 21; ERC 8B, 8E)

Användning som intermediär (PROC 1, 2, 3, 4, 8a, 8b, 15; SU 8; ERC 6A)

SUG INTE DIESELOLJA VIA SLANG MED MUNNEN.

### 16.8 Övrig information

YTTERLIGARE INFORMATION TILLGÄNGLIG FRÅN:

Neste Oil Oyj, Förnybara Bränslen, tel. +358 10 45811

Neste Oil Oyj, Oljeproduktinformation, tel. +358-800 1 9696, e-mail: [products.oil@nesteoil.com](mailto:products.oil@nesteoil.com)



**NExBTL Renewable Diesel,  
Neste 100 % NExBTL -diesel,  
Neste Green 100 -diesel**

[ENG]

Date: 24.01.2014

Previous date: -

ID 13898

SECTION 1		EXPOSURE SCENARIO TITLE
<b>Title</b>	<b>Distribution of NExBTL renewable diesel - Industrial</b>	
<b>Use Descriptor</b>	<p>Sector(s) of Use</p> <p>Process Categories</p> <p>Product Categories</p> <p>Environmental Release Categories</p>	<p><b>SU 8:</b> Manufacture of bulk, large scale chemicals (including petroleum products)</p> <p><b>PROC 2:</b> Use in closed, continuous process with occasional controlled exposure</p> <p><b>PROC 3:</b> Use in closed batch process (synthesis or formulation)</p> <p><b>PROC 8a:</b> Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities</p> <p><b>PROC 8b:</b> Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities</p> <p><b>PROC 15:</b> Use as laboratory reagent</p> <p><b>PC:</b> NA</p> <p><b>ERC 1:</b> Manufacture of substances</p>
<b>Processes, Tasks and Activities Covered</b>	Loading (including marine vessel/barge, rail/road car and IBC loading) of substance, including its distribution and associated laboratory activities.	
SECTION 2		OPERATIONAL CONDITIONS AND RISK MANAGEMENT MEASURES
<b>Section 2.1</b>	<b>Control of worker exposure</b>	
<b>Product characteristics</b>	<p>Physical form of product</p> <p>Vapour Pressure</p> <p>Concentration of substance in product</p> <p>Amount used</p> <p>Frequency and duration of use</p> <p>Human factors not influenced by risk management</p> <p>Other operational conditions affecting worker exposure</p>	<p>Liquid, vapour pressure &lt; 0,5 kPa [OC3]. Kinematic viscosity &lt; 20,5 mm<sup>2</sup>/s @ 40 °C.</p> <p>87,1 Pa</p> <p>Covers percentage substance in the product up to 100% (unless stated differently) [G13].</p> <p>Not applicable</p> <p>Covers daily exposures up to 8 hours (unless stated differently) [G2].</p> <p>Not applicable.</p> <p>Assumes activities are at ambient temperature (unless stated differently) [G17].</p> <p>Assumes a good basic standard of occupational hygiene is implemented [G1].</p>

**NExBTL Renewable Diesel,  
Neste 100 % NExBTL -diesel,  
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<p><b>Risk Management Measures</b></p>	<p>General exposures (closed systems) [CS15] Material transfer in closed lines</p> <p>Process sampling [CS2]</p> <p>Laboratory activities [CS36]</p> <p>Bulk transfers [CS14] (closed systems) [CS107]</p> <p>Equipment cleaning and maintenance [CS39]</p> <p>Storage [CS67]</p>	<p>Outdoor [OC9].</p> <p>Wear suitable gloves tested to EN374 [PPE15]. Outdoor [OC9].</p> <p>Handle in a fume cupboard or under extract ventilation [E83]. Wear suitable gloves tested to EN374 [PPE15].</p> <p>Wear suitable gloves tested to EN374 [PPE15]. Use vapour recovery units when necessary [A7]. Outdoor [OC9].</p> <p>Drain down system prior to equipment break-in or maintenance [E65]. Wear suitable gloves tested to EN374 [PPE15]. All waste product is assumed to be collected and returned for re-processing or use as a fuel [ENVT8].</p> <p>Transfer via enclosed lines [E52]. Store substance within a closed system [E84]. Outdoor [OC9].</p>
<p><b>Section 2.2</b></p>	<p><b>Control of environmental exposure</b></p>	
	<p>Assessment method</p> <p>Product characteristics</p> <p>Amounts used</p> <p>Frequency and duration of use</p> <p>Environmental factors not influenced by risk management</p> <p>Other Operational Conditions of use affecting environmental exposure</p> <p>Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil</p> <p>Organisation measures to prevent/limit release from site</p> <p>Conditions and measures related to municipal sewage treatment plant</p>	<p>Petrorisk</p> <p>NExBTL renewable diesel is a readily biodegradable, slightly water soluble liquid of low volatility. Water solubility is 1.4E-3 mg/l at 25°C (Petrorisk); the vapour pressure is 5.1 Pa (Petrorisk); log Kow is 8.4. Not toxic to environment.</p> <p>Regional tonnage: 800 ktonnes per year</p> <p>Max site tonnage: 40 tonnes per year</p> <p>Emission days per year: 300</p> <p>Local freshwater dilution fraction: 10 Local marine dilution fraction: 100</p> <p>Release fraction to air from process: 1.0E-5 Release fraction to (waste)water from process: 1.0E-7 Release fraction to soil from process (regional): 1.0E-5</p> <p>TCR8: Treat air emissions to provide a typical removal efficiency of 90%. TCR13: Provide onsite wastewater removal efficiency of ≥ 92.5%.</p> <p>OMS2: Do not apply industrial sludge to natural soils. OMS3: Sludge should be incinerated, contained or reclaimed.</p> <p>Not applicable.</p>

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	<p>Conditions and measures related to external treatment of waste for disposal</p> <p>Conditions and measures related to external recovery of waste</p> <p>Other environmental control measures additional to above</p>	<p>ETW3: Dispose of waste in accordance with environmental legislation.</p> <p>ETW1: Dispose of waste in accordance with environmental legislation.</p> <p>ENV3: Bund storage facilities to prevent soil and water pollution in the event of spillage.</p>
<b>SECTION 3</b>	<b>EXPOSURE ESTIMATION</b>	
<b>Section 3.1</b>	<b>Health</b>	
	When the recommended risk management measures (RMMs) and operational conditions (OCs) are observed, exposures are not expected to exceed the predicted DNELs and the resulting risk characterisation ratios are expected to be less than 1 as indicated in Appendix A.2.	
<b>Section 3.2</b>	<b>Environment</b>	
	When the recommended risk management measures (RMMs) and operational conditions (OCs) are observed, exposures are not expected to exceed the predicted PNECs and the resulting risk characterisation ratios are expected to be less than 1.	
<b>SECTION 4</b>	<b>GUIDANCE TO CHECK COMPLIANCE WITH THE EXPOSURE SCENARIO</b>	
<b>Section 4.1</b>	<b>Health</b>	
	Confirm that RMMs and OCs are as described or of equivalent efficiency. See Appendix A.2 for details of efficiencies and OC.	
<b>Section 4.2</b>	<b>Environment</b>	
	Confirm that RMMs and OCs are as described or of equivalent efficiency. The required efficiency removal from water is 92.5% which would be typically found in waste-water treatment plant.	

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SECTION 1		EXPOSURE SCENARIO TITLE
Title	<b>Formulation of NExBTL renewable diesel: fuel blends - Industrial</b>	
Use Descriptor	Sector(s) of Use	<b>SU 10:</b> Formulation [mixing] of preparations and/or re-packaging (excluding alloys)
	Process Categories	<b>PROC 2:</b> Use in closed, continuous process with occasional controlled exposure <b>PROC 3:</b> Use in closed batch process (synthesis or formulation) <b>PROC 8a:</b> Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities <b>PROC 8b:</b> Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities <b>PROC 15:</b> Use as laboratory reagent
	Product Categories	<b>PC:</b> NA
	Environmental Release Categories	<b>ERC 2:</b> Formulation of preparations*
<b>Processes, Tasks and Activities Covered</b>	Formulation of the substance and its mixtures in closed batch or continuous operations, including storage, materials transfers, mixing, maintenance and associated laboratory activities.	
SECTION 2		OPERATIONAL CONDITIONS AND RISK MANAGEMENT MEASURES
Section 2.1	<b>Control of worker exposure</b>	
Product characteristics	Physical form of product	Liquid, vapour pressure < 0,5 kPa [OC3]. Kinematic viscosity < 20,5 mm <sup>2</sup> /s @ 40 °C.
	Vapour Pressure	87,1 Pa
	Concentration of substance in product	Covers percentage substance in the product up to 100% (unless stated differently) [G13].
	Amount used	Not applicable.
	Frequency and duration of use	Covers daily exposures up to 8 hours (unless stated differently) [G2].
	Human factors not influenced by risk management	Not applicable.
	Other operational conditions affecting worker exposure	Assumes activities are at ambient temperature (unless stated differently) [G17]. Assumes a good basic standard of occupational hygiene is implemented [G1].

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<p><b>Risk Management Measures</b></p>	<p>General exposures (closed systems) [CS15] with sampling</p> <p>Mixing operations (closed systems) [CS29]</p> <p>Process sampling [CS2]</p> <p>Bulk transfers [CS14] (closed systems) [CS107]</p> <p>Laboratory activities [CS36]</p> <p>Equipment cleaning and maintenance [CS39]</p> <p>Storage [CS67]</p>	<p>No specific measures identified [E118].</p> <p>Transfer via enclosed lines [E52]. Outdoor [OC9].</p> <p>Wear suitable gloves tested to EN374 [PPE15]. Outdoor [OC9].</p> <p>Wear suitable gloves tested to EN374 [PPE15].</p> <p>Handle in a fume cupboard or under extract ventilation [E83]. Wear suitable gloves tested to EN374 [PPE15].</p> <p>Drain down system prior to equipment break-in or maintenance [E65]. Wear suitable gloves tested to EN374 [PPE15]. All waste product is assumed to be collected and returned for re-processing or use as a fuel [ENVT8].</p> <p>Store substance within a closed system [E84]. Transfer via enclosed lines [E52].</p>
<p><b>Section 2.2</b></p>	<p><b>Control of environmental exposure</b></p>	
	<p>Assessment method</p> <p>Product characteristics</p> <p>Amounts used</p> <p>Frequency and duration of use</p> <p>Environmental factors not influenced by risk management</p> <p>Other Operational Conditions of use affecting environmental exposure</p> <p>Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil</p> <p>Organisation measures to prevent/limit release from site</p>	<p>Petrorisk</p> <p>NExBTL renewable diesel is a readily biodegradable, slightly water soluble liquid of low volatility. Water solubility is 1.4E-3 mg/l at 25°C (Petrorisk); the vapour pressure is 5.1 Pa (Petrorisk); log Kow is 8.4. Not toxic to environment.</p> <p>Regional tonnage: 672 ktonnes per year</p> <p>Max site tonnage: 30 ktonnes per year</p> <p>Fraction of main source: 0.1</p> <p>Emission days per year: 300</p> <p>Local freshwater dilution fraction: 10</p> <p>Local marine dilution fraction: 100</p> <p>Release fraction to air from process: 0.0025</p> <p>Release fraction to wastewater from process: 5.0E-6</p> <p>Release fraction to soil from process (regional): 1.0E-4</p> <p>TCR8: Treat air emissions to provide a typical removal efficiency of 0%. TCR13: Provide onsite wastewater removal efficiency of ≥ 92.5%.</p> <p>OMS2: Do not apply industrial sludge to natural soils.</p> <p>OMS3: Sludge should be incinerated, contained or reclaimed.</p>

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	Conditions and measures related to municipal sewage treatment plant	Not applicable.
	Conditions and measures related to external treatment of waste for disposal	ETW3: Dispose of waste in accordance with environmental legislation.
	Conditions and measures related to external recovery of waste	ETW1: Dispose of waste in accordance with environmental legislation
	Other environmental control measures additional to above	ENV3: Bund storage facilities to prevent soil and water pollution in the event of spillage.
<b>SECTION 3</b>	<b>EXPOSURE ESTIMATION</b>	
<b>Section 3.1</b>	<b>Health</b>	
	When the recommended risk management measures (RMMs) and operational conditions (OCs) are observed, exposures are not expected to exceed the predicted DNELs and the resulting risk characterisation ratios are expected to be less than 1 as indicated in Appendix A.3.	
<b>Section 3.2</b>	<b>Environment</b>	
	When the recommended risk management measures (RMMs) and operational conditions (OCs) are observed, exposures are not expected to exceed the predicted PNECs and the resulting risk characterisation ratios are expected to be less than 1.	
<b>SECTION 4</b>	<b>GUIDANCE TO CHECK COMPLIANCE WITH THE EXPOSURE SCENARIO</b>	
<b>Section 4.1</b>	<b>Health</b>	
	Confirm that RMMs and OCs are as described or of equivalent efficiency. See Appendix A.3 for details of efficiencies and OC.	
<b>Section 4.2</b>	<b>Environment</b>	
	Confirm that RMMs and OCs are as described or of equivalent efficiency. The required efficiency removal from water is 92.5% which would be typically found in waste-water treatment plant.	

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SECTION 1		EXPOSURE SCENARIO TITLE
<b>Title</b>		<b>(Re-)packing of NExBTL renewable diesel - Industrial</b>
<b>Use Descriptor</b>	Sector(s) of Use	<b>SU 10:</b> Formulation [mixing] of preparations and/or re-packaging (excluding alloys)
	Process Categories	<b>PROC 1:</b> Use in closed process, no likelihood of exposure <b>PROC 3:</b> Use in closed batch process (synthesis or formulation) <b>PROC 8a:</b> Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities <b>PROC 8b:</b> Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities <b>PROC 9:</b> Transfer of substance or preparation into small containers (dedicated filling line, including weighing) <b>PROC 15:</b> Use as laboratory reagent
	Product Categories	<b>PC:</b> NA
	Environmental Release Categories	<b>ERC 7:</b> Industrial use of substances in closed systems
<b>Processes, Tasks and Activities Covered</b>	Packing and re-packing of the substance in batch operations, including storage, materials transfers, large and small scale packing, maintenance and associated laboratory activities.	
SECTION 2		OPERATIONAL CONDITIONS AND RISK MANAGEMENT MEASURES
<b>Section 2.1</b>		<b>Control of worker exposure</b>
<b>Product characteristics</b>	Physical form of product	Liquid, vapour pressure < 0,5 kPa [OC3]. Kinematic viscosity < 20,5 mm <sup>2</sup> /s @ 40 °C.
	Vapour Pressure	87,1 Pa
	Concentration of substance in product	Covers percentage substance in the product up to 100% (unless stated differently) [G13].
	Amount used	Not applicable.
	Frequency and duration of use	Covers daily exposures up to 8 hours (unless stated differently) [G2].
	Human factors not influenced by risk management	Not applicable.
	Other operational conditions affecting worker exposure	Assumes activities are at ambient temperature (unless stated differently) [G17]. Assumes a good basic standard of occupational hygiene is implemented [G1].

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<b>Risk Management Measures</b>	Process sampling [CS2]	Wear suitable gloves tested to EN374 [PPE15].
	Laboratory activities [CS36]	Handle in a fume cupboard or under extract ventilation [E83]. Wear suitable gloves tested to EN374 [PPE15].
	Bulk transfers [CS14] (closed systems) [CS107] Closed line transfer of product to storage tanks	Ensure material transfers are under containment or extract ventilation [E66]. Wear suitable gloves tested to EN374 [PPE15].
	Drum/Batch transfers [CS8]	Wear suitable gloves tested to EN374 [PPE15].
	Drum and small package filling [CS6]	Fill containers/cans at dedicated fill points supplied with local extract ventilation [E51]. Wear suitable gloves tested to EN374 [PPE15].
	Equipment cleaning and maintenance [CS39]	Drain down system prior to equipment break-in or maintenance [E65]. Wear suitable gloves tested to EN374 [PPE15]. Retain drain downs in sealed storage pending disposal or for subsequent recycle [ENVT4].
	Storage [CS67]	Store substance within a closed system [E84]. Transfer via enclosed lines [E52]. Store finished products in closed containers (e.g., bulk tanks, drums, cans) [A5].
<b>Section 2.2</b>	<b>Control of environmental exposure</b>	
Assessment method	Petrorisk	
Product characteristics	NExBTL renewable diesel is a readily biodegradable, slightly water soluble liquid of low volatility. Water solubility is 1.4E-3 mg/l at 25°C (Petrorisk); the vapour pressure is 5.1 Pa (Petrorisk); log Kow is 8.4. Not toxic to environment.	
Amounts used	Regional tonnage: 40 ktonnes per year Max site tonnage: 4 ktonnes per year Fraction of main source: 0.1	
Frequency and duration of use	Emission days per year: 300	
Environmental factors not influenced by risk management	Local freshwater dilution fraction: 10 Local marine dilution fraction: 100	
Other Operational Conditions of use affecting environmental exposure	Release fraction to air from process: 2.5E-3 Release fraction to wastewater from process: 5.0E-6 Release fraction to soil from process (regional): 1.0E-4	
Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil	TCLR8: Treat air emissions to provide a typical removal efficiency of 0%. STP 4: Total efficiency of removal from wastewater after onsite and offsite (domestic treatment plant) RMMs is 92.5%.	
Organisation measures to prevent/limit release from site	OMS2: Do not apply industrial sludge to natural soils. OMS3: Sludge should be incinerated, contained or reclaimed.	



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	<p>Conditions and measures related to municipal sewage treatment plant</p> <p>Conditions and measures related to external treatment of waste for disposal</p> <p>Conditions and measures related to external recovery of waste</p> <p>Other environmental control measures additional to above</p>	<p>STP7: Assumed domestic sewage treatment plant effluent flow is 2000 m3/d.</p> <p>STP3: Estimated substance removal from wastewater via domestic sewage treatment is 92.5%.</p> <p>ETW3: Dispose of waste in accordance with environmental legislation.</p> <p>ETW1: Dispose of waste in accordance with environmental legislation</p> <p>ENV3: Bund storage facilities to prevent soil and water pollution in the event of spillage.</p>
<b>SECTION 3</b>	<b>EXPOSURE ESTIMATION</b>	
<b>Section 3.1</b>	<b>Health</b>	
	When the recommended risk management measures (RMMs) and operational conditions (OCs) are observed, exposures are not expected to exceed the predicted DNELs and the resulting risk characterisation ratios are expected to be less than 1 as indicated in Appendix A.5.	
<b>Section 3.2</b>	<b>Environment</b>	
	When the recommended risk management measures (RMMs) and operational conditions (OCs) are observed, exposures are not expected to exceed the predicted PNECs and the resulting risk characterisation ratios are expected to be less than 1.	
<b>SECTION 4</b>	<b>GUIDANCE TO CHECK COMPLIANCE WITH THE EXPOSURE SCENARIO</b>	
<b>Section 4.1</b>	<b>Health</b>	
	Confirm that RMMs and OCs are as described or of equivalent efficiency. See Appendix A.5 for details of efficiencies and OC.	
<b>Section 4.2</b>	<b>Environment</b>	
	Confirm that RMMs and OCs are as described or of equivalent efficiency. The required efficiency removal from water is 92.5% which would be typically found in waste-water treatment plant.	



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<b>Risk Management Measures</b>	General exposures (closed systems) [CS15]	No specific measures identified [E118].
	General exposures (closed systems) [CS15] Continuous process [CS54]	Ensure material transfers are under containment or extract ventilation [E66].
	General exposures (closed systems) [CS15] Continuous process [CS54] with sample collection [CS56]	Ensure material transfers are under containment or extract ventilation [E66].
	Filling / preparation of equipment from drums or containers.[CS45]	Use drum pumps or carefully pour from container [E64]. Wear suitable gloves tested to EN374 [PPE15].
	Refuelling vehicles	Pumped transfer. [E64]. Use vapour recovery units when necessary [A7]. Wear suitable gloves tested to EN374 [PPE15].
	Bulk transfers [CS14] (Closed systems) [CS107]	Wear suitable gloves tested to EN374 [PPE15].
	Process sampling [CS2]	Wear suitable gloves tested to EN374 [PPE15].
	Laboratory activities [CS36]	Handle in a fume cupboard or under extract ventilation [E83]. Wear suitable gloves tested to EN374 [PPE15].
	Equipment cleaning and maintenance [CS39]	Drain down and flush system prior to equipment break-in or maintenance [E55].Wear suitable gloves tested to EN374 [PPE15]. Retain drain downs in sealed storage pending disposal or for subsequent recycle [ENVT4].
	Vessel and container cleaning [CS103]	Wear suitable gloves tested to EN374 [PPE15]. Wear suitable coveralls to prevent exposure to the skin [PPE27]. Drain down system prior to equipment break-in or maintenance [E65]. Retain drain downs in sealed storage pending disposal or for subsequent recycle [ENVT4]. Provide enhanced general ventilation by mechanical means [E48]. If above technical/organisational control measures are not feasible, then adopt following PPE [PPE30]: Wear positive pressure air supplied respirator if required by safe entry procedures [PPE31].
Storage [CS67]	Store substance within a closed system [E84]. Transfer via enclosed lines [E52].	
<b>Section 2.2</b>	<b>Control of environmental exposure</b>	
Assessment method	Petrorisk	
Product characteristics	NExBTL renewable diesel is a readily biodegradable, slightly water soluble liquid of low volatility. Water solubility is 1.4E-3 mg/l at 25°C (Petrorisk); the vapour pressure is 5.1 Pa (Petrorisk); log Kow is 8.4. Not toxic to environment.	

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	<p>Amounts used</p> <p>Regional tonnage: 457 ktonnes per year Max site tonnage: 45.7 ktonnes per year Fraction of main source: 0.1</p> <p>Frequency and duration of use</p> <p>Emission days per year: 300</p> <p>Environmental factors not influenced by risk management</p> <p>Local freshwater dilution fraction: 10 Local marine dilution fraction: 100</p> <p>Other Operational Conditions of use affecting environmental exposure</p> <p>Release fraction to air from process: 2.5E-4 Release fraction to wastewater from process: 1.0E-5 Release fraction to soil from process (regional): 0</p> <p>Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil</p> <p>TCR8: Treat air emissions to provide a typical removal efficiency of 95%. TCR9: Treat onsite wastewater (prior to receiving water discharge) to provide the required removal efficiency of 92.5%.</p> <p>Organisation measures to prevent/limit release from site</p> <p>OMS2: Do not apply industrial sludge to natural soils. OMS3: Sludge should be incinerated, contained or reclaimed.</p> <p>Conditions and measures related to municipal sewage treatment plant</p> <p>STP7: Assumed domestic sewage treatment plant effluent flow is 2000 m3/d. STP3: Estimated substance removal from wastewater via domestic sewage treatment is 92.5%.</p> <p>Conditions and measures related to external treatment of waste for disposal</p> <p>ETW3: Dispose of waste in accordance with environmental legislation.</p> <p>Conditions and measures related to external recovery of waste</p> <p>ETW1: Dispose of waste in accordance with environmental legislation</p> <p>Other environmental control measures additional to above</p> <p>ENV3: Bund storage facilities to prevent soil and water pollution in the event of spillage.</p>
<b>SECTION 3</b>	<b>EXPOSURE ESTIMATION</b>
<b>Section 3.1</b>	<b>Health</b>
	When the recommended risk management measures (RMMs) and operational conditions (OCs) are observed, exposures are not expected to exceed the predicted DNELs and the resulting risk characterisation ratios are expected to be less than 1 as indicated in Appendix A.6.
<b>Section 3.2</b>	<b>Environment</b>
	When the recommended risk management measures (RMMs) and operational conditions (OCs) are observed, exposures are not expected to exceed the predicted PNECs and the resulting risk characterisation ratios are expected to be less than 1.

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<b>SECTION 4</b>	<b>GUIDANCE TO CHECK COMPLIANCE WITH THE EXPOSURE SCENARIO</b>
<b>Section 4.1</b>	<b>Health</b>
	Confirm that RMMs and OCs are as described or of equivalent efficiency. See Appendix A.6 for details of efficiencies and OC.
<b>Section 4.2</b>	<b>Environment</b>
	Confirm that RMMs and OCs are as described or of equivalent efficiency. The required efficiency removal from water is 92.5% which would be typically found in waste-water treatment plant.

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SECTION 1		EXPOSURE SCENARIO TITLE
<b>Title</b>		<b>Use as a fuel of NExBTL renewable diesel - Professional</b>
<b>Use Descriptor</b>	Sector(s) of Use Process Categories        Product Categories Environmental Release Categories	<p><b>SU 22:</b> Professional uses</p> <p><b>PROC 1:</b> Use in closed process, no likelihood of exposure</p> <p><b>PROC 2:</b> Use in closed, continuous process with occasional controlled exposure</p> <p><b>PROC 8a:</b> Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities</p> <p><b>PROC 8b:</b> Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities</p> <p><b>PROC 16:</b> Using material as fuel sources, limited exposure to unburned product to be expected</p> <p><b>PC:</b> NA</p> <p><b>ERC 8B:</b> Wide dispersive indoor use of reactive substances in open systems</p> <p><b>ERC 8E:</b> Wide dispersive outdoor use of reactive substances in open systems</p>
<b>Processes, Tasks and Activities Covered</b>	Covers the use as a fuel and includes activities associated with its transfer, use, storage, maintenance and handling of waste.	
SECTION 2		OPERATIONAL CONDITIONS AND RISK MANAGEMENT MEASURES
<b>Section 2.1</b>		<b>Control of worker exposure</b>
<b>Product characteristics</b>	Physical form of product Vapour Pressure Concentration of substance in product Amount used Frequency and duration of use Human factors not influenced by risk management Other operational conditions affecting worker exposure	<p>Liquid, vapour pressure &lt; 0,5 kPa [OC3]. Kinematic viscosity &lt; 20,5 mm<sup>2</sup>/s @ 40 °C.</p> <p>87,1 Pa</p> <p>Covers percentage substance in the product up to 100% (unless stated differently) [G13].</p> <p>Not applicable.</p> <p>Covers daily exposures up to 8 hours (unless stated differently) [G2].</p> <p>Not applicable.</p> <p>Assumes activities are at ambient temperature (unless stated differently) [G17].</p> <p>Assumes a good basic standard of occupational hygiene is implemented [G1].</p>

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<p><b>Risk Management Measures</b></p>	<p>Bulk transfers [CS14] heating oil and diesel deliveries [CS62]</p> <p>Filling / preparation of equipment from drums or containers [CS45]</p> <p>Refuelling vehicles, aircraft or marine</p> <p>General exposures (closed systems) [CS15]</p> <p>General exposures (open systems) [CS16] (closed systems) [CS107]</p> <p>Equipment cleaning and maintenance [CS39]</p> <p>Vessel / container cleaning [CS103]</p> <p>Storage [CS67]</p>	<p>Handle substance within a closed system [E47]. Wear suitable gloves tested to EN374 [PPE15].</p> <p>Use drum pumps or carefully pour from container [E64]. Wear suitable gloves tested to EN374 [PPE15].</p> <p>Use drum pumps or carefully pour from container [E64]. Wear suitable gloves tested to EN374 [PPE15]. Use vapour recovery units when necessary [A7].</p> <p>No specific measures identified [E118].</p> <p>No specific measures identified [E118].</p> <p>Drain down and flush system prior to equipment break-in or maintenance [E55].Wear suitable gloves tested to EN374 [PPE15]. Retain drain downs in sealed storage pending disposal or for subsequent recycle [ENVT4].</p> <p>Drain down system prior to equipment break-in or maintenance [E65]. Retain drain downs in sealed storage pending disposal or for subsequent recycle [ENVT4]. Provide enhanced general ventilation by mechanical means [E48]. If above technical/organisational control measures are not feasible, then adopt following PPE [PPE30]: Wear positive pressure air supplied respirator if required by safe entry procedures [PPE31]. Wear suitable gloves tested to EN374 [PPE15]. Wear suitable coveralls to prevent exposure to the skin [PPE27].</p> <p>Store substance within a closed system [E84].</p>
<p><b>Section 2.2</b></p>	<p><b>Control of environmental exposure</b></p>	
	<p>Assessment method</p> <p>Product characteristics</p> <p>Amounts used</p> <p>Frequency and duration of use</p> <p>Environmental factors not influenced by risk management</p>	<p>Petrorisk</p> <p>NExBTL renewable diesel is a readily biodegradable, slightly water soluble liquid of low volatility. Water solubility is 1.4E-3 mg/l at 25°C (Petrorisk); the vapour pressure is 5.1 Pa (Petrorisk); log Kow is 8.4. Not toxic to environment.</p> <p>Regional tonnage: 89 ktonnes per year</p> <p>Max site tonnage: 4.45 ktonnes per year</p> <p>Fraction of main source: 0.1</p> <p>Emission days per year: 365</p> <p>Local freshwater dilution fraction: 10</p> <p>Local marine dilution fraction: 100</p>

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	<p>Other Operational Conditions of use affecting environmental exposure</p> <p>Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil</p> <p>Organisation measures to prevent/limit release from site</p> <p>Conditions and measures related to municipal sewage treatment plant</p> <p>Conditions and measures related to external treatment of waste for disposal</p> <p>Conditions and measures related to external recovery of waste</p> <p>Other environmental control measures additional to above</p>	<p>Release fraction to air from process (regional): 1.0E-4 Release fraction to wastewater from process (regional): 1.0E-5 Release fraction to soil from process (regional): 1.0E-5</p> <p>Not applicable.</p> <p>Not applicable.</p> <p>STP7: Assumed domestic sewage treatment plant effluent flow is 2000 m3/d. STP3: Estimated substance removal from wastewater via domestic sewage treatment is 92.5%.</p> <p>ETW3: Dispose of waste in accordance with environmental legislation.</p> <p>ETW1: Dispose of waste in accordance with environmental legislation</p> <p>Not applicable.</p>
<b>SECTION 3</b>	<b>EXPOSURE ESTIMATION</b>	
<b>Section 3.1</b>	<b>Health</b>	
	When the recommended risk management measures (RMMs) and operational conditions (OCs) are observed, exposures are not expected to exceed the predicted DNELs and the resulting risk characterisation ratios are expected to be less than 1 as indicated in Appendix A.7.	
<b>Section 3.2</b>	<b>Environment</b>	
	When the recommended risk management measures (RMMs) and operational conditions (OCs) are observed, exposures are not expected to exceed the predicted PNECs and the resulting risk characterisation ratios are expected to be less than 1.	
<b>SECTION 4</b>	<b>GUIDANCE TO CHECK COMPLIANCE WITH THE EXPOSURE SCENARIO</b>	
<b>Section 4.1</b>	<b>Health</b>	
	Confirm that RMMs and OCs are as described or of equivalent efficiency. See Appendix A.7 for details of efficiencies and OC.	



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<b>Section 4.2</b>	<b>Environment</b>
	Confirm that RMMs and OCs are as described or of equivalent efficiency. The required efficiency removal from water is 92.5% which would be typically found in waste-water treatment plant.

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<b>SECTION 1</b>		<b>EXPOSURE SCENARIO TITLE</b>	
<b>Title</b>	<b>Use as a fuel of NExBTL renewable diesel - Consumer</b>		
<b>Use Descriptor</b>	Sector(s) of Use	<b>SU 21:</b> Consumer uses	
	Process Categories	<b>PROC:</b> NA	
	Product Categories	<b>PC 13:</b> Fuels	
	Environmental Release Categories	<b>ERC 8B:</b> Wide dispersive indoor use of reactive substances in open systems  <b>ERC 8E:</b> Wide dispersive outdoor use of reactive substances in open systems	
<b>Processes, Tasks and Activities Covered</b>	Covers the use as a fuel and includes activities associated with its transfer, use, storage, maintenance and handling of waste.		
<b>SECTION 2</b>		<b>OPERATIONAL CONDITIONS AND RISK MANAGEMENT MEASURES</b>	
<b>Section 2.1</b>	<b>Control of consumer exposure</b>		
	Physical form of product	Liquid, vapour pressure < 0,5 kPa [OC3]. Kinematic viscosity < 20,5 mm <sup>2</sup> /s @ 40 °C.	
	Concentration of substance in product	Unless otherwise stated, cover concentrations up to 100% [ConsOC1]	
	Frequency and duration of use/exposure	Covers exposure up to 2 hours per event (unless stated differently) [ConsOC14]	
	Other operational conditions affecting exposure	Unless otherwise stated assumes use at ambient temperatures [ConsOC15]; assumes use in a 20 m3 room [ConsOC11]; assumes use with typical ventilation [ConsOC8].	
<b>Section 2.1.1</b>	<b>Product categories</b>		
PC13:Fuels-- Liquid - subcategories added: Automotive Refuelling	OC	Unless otherwise stated, covers concentrations up to 100% [ConsOC1]; covers use up to 52 days/year[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; covers skin contact area up to 210,00 cm <sup>2</sup> [ConsOC5]; for each use event, covers use amounts up to 38600g [ConsOC2]; covers outdoor use [ConsOC12]; covers use in room size of 100m <sup>3</sup> [ConsOC11]; for each use event, covers exposure up to 0,05hr/event[ConsOC14];	
	RMM	No specific RMMs developed beyond those OCs stated	

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<p>PC13:Fuels-- Liquid - subcategories added: Garden Equipment - Use</p>	<p>OC</p>	<p>Unless otherwise stated, covers concentrations up to 100% [ConsOC1]; covers use up to 26 days/year[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; for each use event, covers use amounts up to 772g [ConsOC2]; covers outdoor use [ConsOC12]; covers use in room size of 100m3[ConsOC11]; for each use event, covers exposure up to 2,00hr/event[ConsOC14];</p>
	<p>RMM</p>	<p>No specific RMMs developed beyond those OCs stated</p>
<p>PC13:Fuels-- Liquid (subcategories added): Garden Equipment - Refueling</p>	<p>OC</p>	<p>Unless otherwise stated, covers concentrations up to 100% [ConsOC1]; covers use up to 26 days/year[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; covers skin contact area up to 420,00 cm2 [ConsOC5]; for each use event, covers use amounts up to 772g [ConsOC2]; Covers use in a one car garage (34m3) under typical ventilation [ConsOC10]; covers use in room size of 34m3[ConsOC11]; for each use event, covers exposure up to 0,03hr/event[ConsOC14];</p>
	<p>RMM</p>	<p>No specific RMMs developed beyond those OCs stated</p>
<p>PC13:Fuels-- Liquid - subcategories added: Lamp oil</p>	<p>OC</p>	<p>Unless otherwise stated, covers concentrations up to 100% [ConsOC1]; covers use up to 52 days/year[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; covers skin contact area up to 210,00 cm2 [ConsOC5]; for each use event, covers use amounts up to 100g [ConsOC2]; covers use in room size of 20m3[ConsOC11]; for each use event, covers exposure up to 0,01hr/event[ConsOC14];</p>
	<p>RMM</p>	<p>No specific RMMs developed beyond those OCs stated</p>
<p>PC13:Fuels-- Liquid - subcategories added: Home heating fuel</p>	<p>OC</p>	<p>Unless otherwise stated, covers concentrations up to 100% [ConsOC1]; covers use up to 365 days/year[ConsOC3]; covers use up to 1 time/on day of use[ConsOC4]; covers skin contact area up to 210,00 cm2 [ConsOC5]; for each use event, covers use amounts up to 1500g [ConsOC2]; covers use in room size of 20m3[ConsOC11]; for each use event, covers exposure up to 0,03hr/event[ConsOC14];</p>
	<p>RMM</p>	<p>No specific RMMs developed beyond those OCs stated</p>
<p><b>Section 2.2</b></p>	<p><b>Control of environmental exposure</b></p>	
	<p>Assessment method</p>	<p>Petrorisk</p>
	<p>Product characteristics</p>	<p>NExBTL renewable diesel is a readily biodegradable, slightly water soluble liquid of low volatility. Water solubility is 1.4E-3 mg/l at 25°C (Petrorisk); the vapour pressure is 5.1 Pa (Petrorisk); log Kow is 8.4. Not toxic to environment.</p>

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	<p>Amounts used</p> <p>Frequency and duration of use</p> <p>Environmental factors not influenced by risk management</p> <p>Other Operational Conditions of use affecting environmental exposure</p> <p>Conditions and measures related to municipal sewage treatment plant</p> <p>Conditions and measures related to external treatment of waste for disposal</p> <p>Conditions and measures related to external recovery of waste</p> <p>Other environmental control measures additional to above</p>	<p>Regional tonnage: 55.7 ktonnes per year</p> <p>Max site tonnage: 2.79 tonnes per year</p> <p>Fraction of main source: 0.1</p> <p>Emission days per year: 365</p> <p>Local freshwater dilution fraction: 10</p> <p>Local marine dilution fraction: 100</p> <p>Release fraction to air from process (regional): 1.0E-4</p> <p>Release fraction to wastewater from process (regional): 1.0E-5</p> <p>Release fraction to soil from process (regional): 1.0E-5</p> <p>STP7: Assumed domestic sewage treatment plant effluent flow is 2000 m3/d.</p> <p>STP3: Estimated substance removal from wastewater via domestic sewage treatment is 92.5%.</p> <p>ETW3: Dispose of waste in accordance with environmental legislation.</p> <p>ETW1: Dispose of waste in accordance with environmental legislation.</p> <p>Not applicable</p>
<b>SECTION 3</b>	<b>EXPOSURE ESTIMATION</b>	
<b>Section 3.1</b>	<b>Health</b>	
	<p>When the recommended risk management measures (RMMs) and operational conditions (OCs) are observed, exposures are not expected to exceed the predicted DNELs and the resulting risk characterisation ratios are expected to be less than 1 as indicated in Appendix A.8.</p>	
<b>Section 3.2</b>	<b>Environment</b>	
	<p>When the recommended risk management measures (RMMs) and operational conditions (OCs) are observed, exposures are not expected to exceed the predicted PNECs and the resulting risk characterisation ratios are expected to be less than 1.</p>	

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<b>SECTION 4</b>	<b>GUIDANCE TO CHECK COMPLIANCE WITH THE EXPOSURE SCENARIO</b>
<b>Section 4.1</b>	<b>Health</b>
	Confirm that RMMs and OCs are as described or of equivalent efficiency. See Appendix A.8 for details of efficiencies and OC.
<b>Section 4.2</b>	<b>Environment</b>
	Confirm that RMMs and OCs are as described or of equivalent efficiency. The required efficiency removal from water is 92.5% which would be typically found in waste-water treatment plant.

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SECTION 1		EXPOSURE SCENARIO TITLE
Title		<b>Use as Intermediate - Industrial</b>
Use Descriptor	Sector(s) of Use	<b>SU 8:</b> Manufacture of bulk, large scale chemicals (including petroleum products)
	Process Categories	<b>PROC 1:</b> Use in closed process, no likelihood of exposure <b>PROC 2:</b> Use in closed, continuous process with occasional controlled exposure <b>PROC 3:</b> Use in closed batch process (synthesis or formulation) <b>PROC 4:</b> Use in batch and other process (synthesis) where opportunity for exposure arises <b>PROC 8a:</b> Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities <b>PROC 8b:</b> Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities <b>PROC 15:</b> Use as laboratory reagent
	Product Categories	<b>PC:</b> NA
	Environmental Release Categories	<b>ERC 6A:</b> Industrial use resulting in manufacture of another substance (use of intermediates)
Processes, Tasks and Activities Covered	Use of substance as an intermediate (not related to Strictly Controlled Conditions). Includes recycling/recovery, material transfers, storage, sampling, associated laboratory activities, maintenance and loading (including marine vessel/barge, road/rail car and bulk container).	
SECTION 2		OPERATIONAL CONDITIONS AND RISK MANAGEMENT MEASURES
Section 2.1		<b>Control of worker exposure</b>
Product characteristics	Physical form of product	Liquid, vapour pressure < 0,5 kPa [OC3]. Kinematic viscosity < 20,5 mm <sup>2</sup> /s @ 40 °C.
	Vapour Pressure	87,1 Pa
	Concentration of substance in product	Covers percentage substance in the product up to 100% (unless stated differently) [G13].
	Amount used	Not applicable.
	Frequency and duration of use	Covers daily exposures up to 8 hours (unless stated differently) [G2].
	Human factors not influenced by risk management	Not applicable.
Other operational conditions affecting worker exposure	Assumes activities are at ambient temperature (unless stated differently) [G17]. Assumes a good basic standard of occupational hygiene is implemented [G1].	

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Contributing Scenarios	Risk Management Measures	
	General process exposures (closed systems) [CS15]	No specific measures identified [E118].
	General process exposures (closed systems) [CS15] with sample collection [CS56]	No specific measures identified [E118].
	General process exposures [CS15] (Closed batch process)	No specific measures identified [E118].
	General exposures open batch process[CS16]	Wear suitable gloves tested to EN374 [PPE15]. Transfer via enclosed lines [E52].
	Sample collection [CS2]	Wear suitable gloves tested to EN374 [PPE15].
	Laboratory activities [CS36]	Handle in a fume cupboard or under extract ventilation [E83]. Wear suitable gloves tested to EN374 [PPE15].
	Bulk transfers (closed systems) e.g bottom loading [CS501]	Wear suitable gloves tested to EN374 [PPE15].
	Bulk transfers (open systems) [CS503]	Wear suitable gloves tested to EN374 [PPE15].
	Clean down and Maintenance [CS39]	Drain down system prior to equipment break-in or maintenance [E65]. Wear suitable gloves tested to EN374 [PPE15].
	Bulk Storage [CS85]	Store substance within a closed system [E84]. Transfer via enclosed lines [E52]. Outdoor [OC9].
<b>SECTION 2.2</b>	<b>Control of environmental exposure</b>	
	Assessment method	Petrorisk
	Product characteristics	NExBTL renewable diesel is a readily biodegradable, slightly water soluble liquid of low volatility. Water solubility is 1.4E-3 mg/l at 25°C (Petrorisk); the vapour pressure is 5.1 Pa (Petrorisk); log Kow is 8.4. Not toxic to environment.
	Amounts used	Regional tonnage: 80 ktonnes per year Max site tonnage: 80 ktonnes per year
	Frequency and duration of use	Emission days per year: 300
	Environmental factors not influenced by risk management	Local freshwater dilution fraction: 10 Local marine dilution fraction: 100
	Other Operational Conditions of use affecting environmental exposure	Release fraction to air from process: 2.0E-5 Release fraction to (waste)water from process: 1.0E-5 Release fraction to soil from process (regional): 1.0E-3

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	<p>Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil</p> <p>Organisation measures to prevent/limit release from site</p> <p>Conditions and measures related to municipal sewage treatment plant</p> <p>Conditions and measures related to external treatment of waste for disposal</p> <p>Conditions and measures related to external recovery of waste</p> <p>Other environmental control measures additional to above</p>	<p>TCR8: Treat air emissions to provide a typical removal efficiency of 80%. TCR9: Treat onsite wastewater (prior to receiving water discharge) to provide the required removal efficiency of 92.5%.</p> <p>OMS2: Do not apply industrial sludge to natural soils. OMS3: Sludge should be incinerated, contained or reclaimed.</p> <p>STP7: Assumed domestic sewage treatment plant effluent flow is 2000 m3/d.</p> <p>STP3: Estimated substance removal from wastewater via domestic sewage treatment is 92.5%.</p> <p>ETW3: Dispose of waste in accordance with environmental legislation.</p> <p>ETW1: Dispose of waste in accordance with environmental legislation.</p> <p>ENV3: Bund storage facilities to prevent soil and water pollution in the event of spillage.</p>
<b>SECTION 3</b>	<b>EXPOSURE ESTIMATION</b>	
<b>Section 3.1</b>	<b>Health</b>	
	When the recommended risk management measures (RMMs) and operational conditions (OCs) are observed, exposures are not expected to exceed the predicted DNELs and the resulting risk characterisation ratios are expected to be less than 1 as indicated in Appendix A.10.	
<b>Section 3.2</b>	<b>Environment</b>	
	When the recommended risk management measures (RMMs) and operational conditions (OCs) are observed, exposures are not expected to exceed the predicted PNECs and the resulting risk characterisation ratios are expected to be less than 1.	
<b>SECTION 4</b>	<b>GUIDANCE TO CHECK COMPLIANCE WITH THE EXPOSURE SCENARIO</b>	
<b>Section 4.1</b>	<b>Health</b>	
	Confirm that RMMs and OCs are as described or of equivalent efficiency. See Appendix A.10 for details of efficiencies and OC.	
<b>Section 4.2</b>	<b>Environment</b>	
	Confirm that RMMs and OCs are as described or of equivalent efficiency. The required efficiency removal from water is 92.5% which would be typically found in waste-water treatment plant.	