

I U C L I D

D a t a s e t

| | |
|-------------------|--|
| Existing Chemical | Substance ID: 64742-82-1 |
| CAS No. | 64742-82-1 |
| EINECS Name | Naphtha (petroleum), hydrodesulfurized heavy |
| EINECS No. | 265-185-4 |
| Molecular Formula | <no data> |
| Substance Group | 3F |

Dataset created by: EUROPEAN COMMISSION - European Chemicals Bureau

This dossier is a compilation based on data reported by the European Chemicals Industry following 'Council Regulation (EEC) No. 793/93 on the Evaluation and Control of the Risks of Existing Substances'. All (non-confidential) information from the single datasets, submitted in the IUCLID/HEDSET format by individual companies, was integrated to create this document.

The data have not undergone any evaluation by the European Commission.

Creation date: 18-FEB-2000

Number of Pages: 33

Chapters: all

Edition: Year 2000 CD-ROM edition

Flags: non-confidential

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Name: ERG PETROLI SPA
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Name: Mobil Marketing und Raffinerie GmbH, Raffinerie Wörth
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Street: BP No. 2
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Name: Neste Oy
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Telex: -
Cedex: -

Name: Paraffinwerk Webau GmbH
Town: 06679 Webau
Country: Germany
Phone: 034441 6206
Telefax: 034441 6380

Name: PCK Raffinerie GmbH Schwedt
Street: Passower Chaussee
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Country: Germany
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Telefax: (03332)465271

Name: PETROLEOS DE PORTUGAL - PETROGAL, S.A.
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Town: 1200 LISBOA
Country: Portugal
Phone: 3474330
Telefax: 3102910
Telex: NO
Cedex: 2539

Name: S.A.R.P.O.M.
Street: via per Vigevano
Town: 28069 Trecate (Novara)
Country: Italy
Phone: 39.321.799.1
Telefax: 39.321.799.270
Telex: 200070

Name: Shell Chemicals UK Ltd
Street: Heronbridge House, Chester Buisness Park
Town: CH4 9QA Chester
Country: United Kingdom

Name: Shell Nederland Chemie B.V.
Street: P.O. Box 3030
Town: 3190 GH Hoogvliet-Rotterdam
Country: Netherlands
Phone: +31-10-2317005
Telefax: +31-10-2317125

Name: TOTAL RAFFINAGE DISTRIBUTION S.A.
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Town: 92907 Paris La Défense
Country: France
Phone: 41 35 00 00
Telefax: 41 35 86 12
Telex: 615700
Cedex: 97

Name: Total Solvants
Street: Rue de la Bienfaisance
Town: 75008 Paris
Country: France
Phone: 33-1-44211350
Telefax: 33-1-45625562

1.0.2 Location of Production Site

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1.0.3 Identity of Recipients

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1.1 General Substance Information

Substance type: organic
Physical status: liquid

Substance type: petroleum product
Physical status: liquid

Substance type:
Physical status:

1.1.1 Spectra

-

1.2 Synonyms

1: White spirit-high flash. 2: White spirit-low aromatic (Mineralsk terpentin)

Source: A/S Dansk Shell København V.

Acquaragia minerale

Source: ORLANDI VITTORIO SpA ROSA'' - VICENZA

COMBINAZIONE COMPLESSA DI IDROCARBURI OTTENUTA DA UN PROCESSO DI IDRODESOLFORAZIONE CATALITICA

Source: ERG PETROLI SPA SIRACUSA

Essence lourde

Source: Mobil Oil Francaise Notre-Dame-de-Gravencon

HYDROSOL ESSENCE F

Source: Total Solvants Paris

KERDANE SPECIAL

Source: Total Solvants Paris

LAWS

Source: Shell Chemicals UK Ltd Chester

LAWS, Low Aromatic White Spirit

Source: Shell Nederland Chemie B.V. Hoogvliet-Rotterdam

LI 200

Source: Neste Oy Espoo

Low Aromatic White Spirit

Source: Shell Chemicals UK Ltd Chester

Naphtha

Source: BP Oil Grangemouth Refinery Ltd. Grangemouth

Raffinat Reformer 4

Source: PCK Raffinerie GmbH Schwedt Schwedt/Oder

Raffinatbenzin Reformer

Source: Leuna Raffineriegesellschaft mbH Leuna

RAGIA MINERALE

Source: BRENNTAG SPA MILANO

Reformer-Einsatz, reformer-feed

Source: Mobil Marketing und Raffinerie GmbH, Raffinerie Wörth Wörth
am Rhein

SPIRDANE 20 S

Source: Total Solvants Paris

SPIRDANE HT

Source: Total Solvants Paris

SPIRDANE K 2

Source: Total Solvants Paris

SPIRDANE L 2

Source: Total Solvants Paris

Stoddard solvent

Source: Agip Petroli SpA ROMA

Testbenzin

Source: Paraffinwerk Webau GmbH Webau

TREATED NAPHTHA/WHITE SPIRIT

Source: Shell Nederland Chemie B.V. Hoogvliet-Rotterdam

Varsol 180/200

Source: Exxon Chemical Belgium Antwerpen

Varsol 30

Source: Exxon Chemical Belgium Antwerpen
S.A.R.P.O.M. Trecate (Novara)

VAR SOL 40

Source: BRENNTAG SPA MILANO

Varsol 40 - Varsol 40S

Source: Exxon Chemical Belgium Antwerpen

Varsol 60

Source: Exxon Chemical Belgium Antwerpen

Virgin nafta desolforata

Source: ISAB SpA Siracusa

White Spirit

Source: Shell Nederland Chemie B.V. Hoogvliet-Rotterdam

White spirit

Source: Agip Petroli SpA ROMA

white spirit

Source: E.Glogar GesmbH & Co KG Linz
Neste Oy Espoo

WHITE SPIRIT

Source: BP Chemicals Ltd. London

White Spirit 115

Source: Shell Chemicals UK Ltd Chester

White Spirit 98

Source: Shell Chemicals UK Ltd Chester

1.3 Impurities

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1.4 Additives

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1.5 Quantity

Quantity more than 1 000 000 tonnes

1.6.1 Labelling

Labelling: as in Directive 67/548/EEC

Symbols: T

Nota: other RM: H,P
other RM: S

Specific limits: yes

R-Phrases: (45) May cause cancer

(65) Harmful: may cause lung damage is swallowed

S-Phrases: (53) Avoid exposure - obtain special instructions before use
(45) In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible)

1.6.2 Classification

Classification: as in Directive 67/548/EEC

Class of danger: carcinogenic, category 2

R-Phrases: (45) May cause cancer

Classification: as in Directive 67/548/EEC

Class of danger: corrosive

R-Phrases: (65) Harmful: may cause lung damage is swallowed

1.7 Use Pattern

Type: type

Category: Non dispersive use

Type: type
Category: Use in closed system

Type: type
Category: Wide dispersive use

Type: industrial
Category: Basic industry: basic chemicals

Type: industrial
Category: Chemical industry: used in synthesis

Type: industrial
Category: Fuel industry

Type: industrial
Category: Metal extraction, refining and processing of metals

Type: industrial
Category: Paints, lacquers and varnishes industry

Type: industrial
Category: Personal and domestic use

Type: industrial
Category: Public domain

Type: industrial
Category: other: Tecnica analitica

Type: industrial
Category: other

Type: use
Category: Fuel

Type: use
Category: Fuel additives

Type: use
Category: Intermediates

Type: use
Category: Laboratory chemicals

Type: use
Category: Solvents

Type: use
Category: other

1.7.1 Technology Production/Use

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1.8 Occupational Exposure Limit Values

Type of limit: MAC (NL)
Limit value: 5 mg/m³
Remark: For mineral oil mist
Source: Shell Nederland Chemie B.V. Hoogvliet-Rotterdam

(1)

Type of limit: MAK (DE)
Limit value: 100 ml/m³
Short term expos.
Limit value: 400 ml/m³
Schedule: 15 minute(s)
Frequency: 4 times
Source: Angaben nach Luftgrenzwerten für Kohlenwasserstoff-Gemische nach TRGS 901, Stand April 1997.
Die Dauer der erhöhten Exposition darf in einer Schicht insgesamt eine Stunde nicht überschreiten.
In keinem 15-Minuten Zeitraum darf die 4fache Grenzwertkonzentration überschritten werden.
PCK Raffinerie GmbH Schwedt Schwedt/Oder

Type of limit: OES (UK)
Limit value: 100 ml/m³
Short term expos.
Limit value: 125 ml/m³
Source: BP Chemicals Ltd. London

Type of limit: OES (UK)
Limit value: 575 mg/m³
Short term expos.
Limit value: 720 mg/m³
Schedule: 10 minute(s)
Source: Shell Chemicals UK Ltd Chester

Type of limit: TLV (US)
Limit value: 5 mg/m³
Short term expos.
Limit value: 10 mg/m³
Schedule: 15 minute(s)
Remark: For mineral oil mist
Source: Shell Nederland Chemie B.V. Hoogvliet-Rotterdam

(2)

Type of limit: TLV (US)
Limit value: 300 ml/m3
Short term expos.
Limit value: 500 ml/m3
Schedule: 15 minute(s)
Frequency: 4 times
Source: PETROLEOS DE PORTUGAL - PETROGAL,S.A. LISBOA

Type of limit: TLV (US)
Limit value: 100 ml/m3
Remark: Questa sostanza contiene TOLUENE, per il quale si applica un limite di esposizione.

Source: TLV-TWA: 188 mg/m3
Agip Petroli SpA ROMA
Test substance: TOLUENE

Type of limit: TRK (DE)
Limit value: 2.5 ml/m3
Source: Leuna Raffineriegesellschaft mbH Leuna
Test substance: TRK für Benzol, Benzolgehalt < 1 Ma.-%

Type of limit: other
Limit value: 600 mg/m3
Source: A/S Dansk Shell København V.

Type of limit: other
Limit value: 770 mg/m3
Short term expos.
Limit value: 1020 mg/m3
Country: Finland
Remark: ref: HTP-arvot 1993. Työministeriö, Turvallisuustiedote 25
Source: Neste Oy Espoo

Type of limit: other: Exxon OEL
Limit value: 100 other: ppm
Source: Exxon Chemical Belgium Antwerpen
S.A.R.P.O.M. Trecate (Novara)

Type of limit: other: OEL acc. to TRGS 404 (Germany)
Limit value: 200 ml/m3
Source: Deutsche Shell Chemie GmbH Eschborn

Type of limit:
Limit value:
Remark: Very few values listed for hydrocarbons . Stoddard solvent CAS 8052-41-3 is listed in ACGIH as 100 ppm
Source: Total Solvants Paris

1.9 Source of Exposure

- Remark:** Outline of production process:
Distillates from crude oil, followed by hydrotreating to remove sulphur compounds.
- Source:** Shell Nederland Chemie B.V. Hoogvliet-Rotterdam
- Country:** United Kingdom
- Remark:** In the industrial situation the substance is contained in pipelines and appropriately designed storage vessels.
Number of manufacturing sites:

One - Stanlow

This product is no longer produced at Stanlow.
Outline of production process:

Distilled from crude oil followed by hydrotreating to remove sulphur compounds.
- Source:** Shell Chemicals UK Ltd Chester
- Remark:** Das Raffinat Reformer 4 ist ein entschwefeltes Schwerbenzin mit einem Aromatengehalt von ca. 13 Ma.-%, vorherrschend C8- und C9-Aromaten.
Das Schwerbenzin wird nach der katalytischen Hydroraffination in einem Strippverfahren von Schwefelwasserstoff befreit. Das Produkt wird mit Rückkühlwasser auf 30°C-40°C gekühlt und mit einer Zapfpistole in 200l Fässer abgefüllt. Verwender des Produktes sind Hersteller von Haushalts- und Autopflegemitteln, die diese Ware selbst abholen.
- Source:** PCK Raffinerie GmbH Schwedt Schwedt/Oder

1.10.1 Recommendations/Precautionary Measures

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1.10.2 Emergency Measures

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1.11 Packaging

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1.12 Possib. of Rendering Subst. Harmless

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1.13 Statements Concerning Waste

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1.14.1 Water Pollution

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1.14.2 Major Accident Hazards

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1.14.3 Air Pollution

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1.15 Additional Remarks

Remark: DISPOSAL OPTIONS
Recover or recycle if possible. Otherwise incineration.

TRANSPORT INFORMATION

1. For Low Aromatic White Spirit

UN Number: 1300
Class: 3
Packing Group: III
Proper Shipping Name: Turpentine substitute

Sea (IMO)
Class: 3.3
Packing Group: III
Symbol: Flammable liquid
Marine Pollutant (Y/N): Yes (Marine Pollution Mark required)
Proper Shipping Name: Turpentine substitute (Marine
Pollutant)

Rail/Road (RID/ADR)
Class: 3
Item: 31(c)
Symbol: Flammable liquid
Kemler Plate 33/1223
Proper Shipping Name: Petroleum distillate

Air (IATA/ICAO)
Class: 3
Packing Group: III
Symbol: Flammable liquid

2. For Shellsol H

Sea (IMO)
UN Number: 3082
Class: 9
Packing Group: III
Symbol: None
Marine Pollutant (Y/N): Yes (Marine Pollution Mark required)
Proper Shipping Name: Environmentally hazardous substance,
liquid n.o.s. (contains C9-C10 alkylbenzenes) Marine
Pollutant

Rail/Road (RID/ADR)
Class: 3
Item: 32(c)
Symbol: None
Kemler Plate: 30/1202
Proper Shipping Name: Hydrocarbon mixture
Source: Shell Nederland Chemie B.V. Hoogvliet-Rotterdam

Remark: Can include disposal options such as incineration, reuse as fuel or recover by distillation etc..

Source: Total Solvants Paris

Remark: ELIMINATION DECHETS: recyclés (huile récupérée)
TRANSPORT: pipe 33%
 camion 51%
 chaland 16%

REGLEMENTATIONS INTERNATIONALES :

voies terrestres: classe : 3
 énumération : 31°C)
 étiquette : 3
 code danger : 30
 code matière : 1223

voie maritime : classe : 3.3
 page : 3375
 étiquette : 3
 polluant marin

N° ONU 1300
Source: TOTAL RAFFINAGE DISTRIBUTION S.A. Paris La Défense

Remark: Prescrizioni di sicurezza per il trasporto:

ADR/RID: 3.3°
IATA : 3.3
IMDG : 3.3
UN : 1223
Source: Agip Petroli SpA ROMA

Remark: ADR/RID 3.1 1°-3° UN 1203
IATA 3.1
IMDG 3.1
Non scaricare il prodotto in fogna o in corsi d'acqua e non disperdere nell'ambiente.

Per lo smaltimento attenenersi alla normativa in tema di rifiuti.
Source: ERG PETROLI SPA SIRACUSA

Proper shipping name: Turpentine substitute
2. For Kristalloel 60:
IMO/IMDG: UN number: 3082
Marine pollutant: P
Proper shipping name: Environmentally
hazardous substance, liquid n.o.s.(contains
C9-C10 alkyl benzenes). Marine Pollutant.
IMDG page: 9028
ADR/RID: UN number: 1202
class/item: 3/32 c
Kemler no.: 30
label: none
Proper shipping name: Hadrocarbon solvent
mixture C10-C12.

Source: Deutsche Shell Chemie GmbH Eschborn

Remark: Das Faß wird mit einem Kleintransporter durch die Abnehmer
des Produktes transportiert. 1991 erfolgte eine Abnahme
überder Mengenschwelle von 10 t.

Source: PCK Raffinerie GmbH Schwedt Schwedt/Oder

1.16 Last Literature Search

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1.17 Reviews

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1.18 Listings e.g. Chemical Inventories

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2.1 Melting Point

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2.2 Boiling Point

Value: 155 - 217 degree C at 1013 hPa
Decomposition: no
Method: other: ASTM D2887
GLP: no data
Remark: Typical boiling range for solvents described as heavy desulphurized naphthas, CAS No. 64742-82-1.
Source: CONCAWE Bruxelles

(3) (4)

2.3 Density

Type: density
Value: .782 - .799 g/cm3 at 15 degree C
Method: other: ASTM D1298
GLP: no data
Remark: Typical density range for solvents described as heavy desulphurized naphthas, CAS No. 64742-82-1.
Source: CONCAWE Bruxelles

(3) (4)

2.3.1 Granulometry

-

2.4 Vapour Pressure

Value: 3 - 12 hPa at 37.8 degree C
Method: other (calculated): ASTM D323
GLP: no data
Remark: Estimated typical Reid vapour pressure range for solvents described as heavy desulphurized naphthas, CAS No. 64742-82-1.
Source: CONCAWE Bruxelles

(3) (4)

2.5 Partition Coefficient

log Pow: 2.1 - 6
Method: other (calculated)
Year:
Remark: The calculation was done by the CLOGP Version 3.5 program (Calculation of LOG Partition coefficient octanol/water).

The figures represent the spread of calculated and/or measured values for the C4 to C12 hydrocarbons found in petroleum substances in Group 3F.
Source: CONCAWE Bruxelles

(5)

2.6.1 Water Solubility

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2.6.2 Surface Tension

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2.7 Flash Point

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2.8 Auto Flammability

-

2.9 Flammability

-

2.10 Explosive Properties

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2.11 Oxidizing Properties

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2.12 Additional Remarks

Remark: Group 3F consists of 16 petroleum substances, all derived from refinery processes in which the final processing step is catalytic hydrogenation. The degree of hydrogenation varies considerably. For some streams, deep treatment effectively removes sulphur as hydrogen sulphide and converts all olefins to alkanes and all aromatics to cycloalkanes. On the other hand, use of light hydrotreatment or a hydrocracking process can result in refinery streams that still contain significant concentrations of aromatic hydrocarbons. The hydrocarbons in this Group range from C4 to C12, and in boiling range from -20 to 230 degree C. Certain substances are 'narrow cut' streams. Thus CAS No. 92062-15-2, hydrotreated light naphthenic solvent naphtha, consists mainly of C6 and C7 hydrocarbons, i.e. cyclohexane, cycloheptane and methyl cyclohexane, boiling in the range 73 to 85 degree C. The substances in this Group find significant use as solvents, as feedstocks for further processing, and as components of fuels, e.g. gasoline.

Source: CONCAWE Bruxelles

Remark: The technical information contained in Chapters 2 to 5 of this Data Set has been compiled by the Oil Companies' European Organization for Environmental and Health Protection, CONCAWE, based at Madouplein-1, B-1210 Brussel, Belgium, and this organization holds copies of the reference articles cited in this Data Set.

Source: CONCAWE Bruxelles

3.1.1 Photodegradation

Type: air
Light source: Sun light
Conc. of subst.: at 25 degree C
INDIRECT PHOTOLYSIS
Sensitizer: OH
Conc. of sens.: 1000000 molecule/cm3
Method: other (calculated): according to Atkinson, 1990.
Year: **GLP:** no data
Test substance: other TS
Remark: Atkinson gives data which enables half lives to be calculated for the degradation of hydrocarbons in contact with hydroxyl radicals in the troposphere, under the influence of sunlight. Values for typical hydrocarbon constituents of hydrotreated naphthas are as follows:

| Constituent | Half-life (days) |
|-------------|---------------------|
| benzene | 6.5 |
| n-butane | 3.2 |
| n-heptane | 1.1 |
| cyclohexane | 1.1 |
| n-decane | 0.69 |
| o-xylene | 0.59 |
| n-dodecane | 0.56 |
| p-xylene | 0.56 |
| m-xylene | 0.34 |

Source: CONCAWE Bruxelles
Test substance: C4 to C12 hydrocarbons found in hydrodesulphurized naphthas.
(6)

3.1.2 Stability in Water

Type:
Method:
Year: **GLP:**
Test substance:
Remark: Hydrocarbons present in hydrotreated naphthas are not susceptible to hydrolysis under environmental conditions.
Source: CONCAWE Bruxelles
(7)

3.1.3 Stability in Soil

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3.2 Monitoring Data (Environment)

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3.3.1 Transport between Environmental Compartments

-

3.3.2 Distribution

Media: air - biota - sediment(s) - soil - water
Method: Calculation according Mackay, Level I
Year:
Method: Distribution has been calculated according to Mackay Level I using the parameters defined in a paper by van der Zandt and van Leeuwen.

Remark: In general, alkanes and cycloalkanes will partition to air. Mono-aromatic hydrocarbons will mostly be present in air at equilibrium, with less than 1% in water and increasing percentages in soil, as the molecular weight rises.

On a collective basis, most of the components present in hydrotreated naphthas will partition into air, with 1% or less being in water at equilibrium.

Result: Results for typical hydrocarbons found in hydrotreated naphthas are shown in tabular form as follows:

| | air % | water % | soil % | sediment % | susp. matter % | biota % |
|----------------|----------|------------|-----------|---------------|----------------------|------------|
| n-butane | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| n-hexane | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| cyclohexane | 99.9 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 |
| n-octane | 99.9 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 |
| n-decane | 99.3 | 0.0 | 0.7 | 0.0 | 0.0 | 0.0 |
| ethylbenzene | 98.2 | 0.8 | 1.0 | 0.0 | 0.0 | 0.0 |
| n-butylbenzene | 90.9 | 0.4 | 8.5 | 0.2 | 0.0 | 0.0 |

Source: CONCAWE Bruxelles

(8) (9)

3.4 Mode of Degradation in Actual Use

Remark: The substances comprising Group 3F are mainly used as solvents or in blending gasoline. In the latter case, their ultimate fate is to be burnt in spark-ignition engines to produce mainly carbon dioxide and water vapour.

The substances are volatile and some loss to atmosphere will occur in storage, transfer and, in particular, where they are used as solvents. The resulting hydrocarbon vapours are photochemically degraded, particularly by reaction with hydroxyl radicals, as noted in Section 3.1.1. Subsequent further reactions with nitrogen oxides in the presence of sunlight can result in the formation of atmospheric ozone.

Source: CONCAWE Bruxelles

(10)

3.5 Biodegradation

-

3.6 BOD5, COD or BOD5/COD Ratio**Method:** other: no data**Year:****GLP:** no data**Method:** other: no data**Year:****GLP:** no data**Method:** A water soluble fraction (WSF) of heavy hydrodesulphurized naphtha, CAS No. 64742-82-1, was prepared, and tests were run on the aqueous layer.**Result:** The observed BOD5 was 70 mg/l, the COD was 130 mg/g of substance, and the BOD5/COD ratio was 0.54. However, the WSF is likely to have contained mainly dissolved aromatic hydrocarbons and hence the measured values may not be representative of those for the test substance as a whole.**Source:** CONCAWE Bruxelles

(4)

3.7 Bioaccumulation

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3.8 Additional Remarks

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AQUATIC ORGANISMS**4.1 Acute/Prolonged Toxicity to Fish**

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4.2 Acute Toxicity to Aquatic Invertebrates

Species: Crangon crangon (Crustacea)
Exposure period: 96 hour(s)
Unit: mg/l **Analytical monitoring:** no
LC50 : = 4.3
Method: other: outline details only are available (see Reference).
Year: **GLP:** no data
Test substance: other TS
Method: Closed system tests were run at various loading rates using a Portmann apparatus with recirculation of the test material. The test solutions were renewed every 24 hours.
Source: CONCAWE Bruxelles

(4)

Species: other: Chaetogammarus marinus
Exposure period: 96 hour(s)
Unit: mg/l **Analytical monitoring:** no
LC50 : = 2.6
Method: other: outline details only are available (see Reference).
Year: **GLP:** no data
Test substance: other TS
Method: Closed system tests were run at various loading rates using a regime of stirring for one hour and settling for one hour. The test solutions were renewed every 24 hours.
Source: CONCAWE Bruxelles

(4)

4.3 Toxicity to Aquatic Plants e.g. Algae

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4.4 Toxicity to Microorganisms e.g. Bacteria

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4.5 Chronic Toxicity to Aquatic Organisms**4.5.1 Chronic Toxicity to Fish**

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4.5.2 Chronic Toxicity to Aquatic Invertebrates

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TERRESTRIAL ORGANISMS**4.6.1 Toxicity to Soil Dwelling Organisms**

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4.6.2 Toxicity to Terrestrial Plants

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4.6.3 Toxicity to other Non-Mamm. Terrestrial Species

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4.7 Biological Effects Monitoring

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4.8 Biotransformation and Kinetics

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4.9 Additional Remarks

Remark: For the assessment of the ecotoxicity of poorly water soluble mixtures of hydrocarbons as found in petroleum products, it is now generally accepted that results should be expressed in terms of the "loading rate". The "loading rate" may be defined as the amount of the product which must be equilibrated with the aqueous test medium in order to produce a specified level of effect. Studies in which the results are expressed in terms of the measured concentrations of hydrocarbons in dilutions of "water soluble fractions (WSF)" do not allow the ecotoxicity of a product to be expressed in terms of the amount of that product required to produce a particular effect and, therefore, such results are not comparable to results obtained with other substances. This subject is further addressed in the following References.

Source: CONCAWE Bruxelles

(11) (12) (13)

5.1 Acute Toxicity

5.1.1 Acute Oral Toxicity

Type: LD50
Species: rat
Sex: male
Number of Animals:
Vehicle: other: Undiluted
Value: > 5000 mg/kg bw
Method: other: outline details only are available (see Reference).
Year: **GLP:** no data
Test substance: other TS
Method: A single group of male albino rats from the Charles River Laboratories was tested, each animal being given 5.0 g/kg of the test substance by intubation. Animals were observed for 14 days.
Result: No deaths resulted. Bodyweight gains were normal.
Source: CONCAWE Bruxelles
Test substance: Heavy hydrodesulphurized naphtha, CAS No. 64742-82-1.

(4)

5.1.2 Acute Inhalation Toxicity

Type: LC50
Species: rat
Sex: male/female
Number of Animals:
Vehicle: other: None
Exposure time: 6 hour(s)
Value: > 12 mg/l
Method: other: outline details only are available (see Reference).
Year: **GLP:** no data
Test substance: other TS
Method: 1) A group of 5 male and 5 female rats was exposed for 6 hours to a vapour concentration of 12.19 mg/l of the test substance. Atmospheric concentrations were measured. Animals were observed for 14 days.
2) Groups of mice and guinea pigs, each consisting of 5 males and 5 females, were exposed simultaneously with the rats.
Result: 1) No deaths resulted and there were no significant clinical signs. Bodyweight gains for the test animals were similar to those of an unexposed control group of 3 male and 2 female animals. At necropsy, no gross lesions were observed.
2) Both species gave similar reactions to the rats, i.e. they were essentially unaffected by the exposure.
Source: CONCAWE Bruxelles
Test substance: Heavy hydrodesulphurized naphtha, CAS No. 64742-82-1.

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5.1.3 Acute Dermal Toxicity

Type: LD50
Species: rabbit
Sex: male/female
Number of Animals: 6
Vehicle: other: Undiluted
Value: > 3160 mg/kg bw
Method: other: outline details only are available (see Reference).
Year: **GLP:** no data
Test substance: other TS
Method: Each animal in a group of 3 male and 3 female New Zealand White rabbits was treated on the skin with a single dose of 3.16 g/kg of test substance for 24 hours.
Result: No deaths resulted. Clinical signs were minimal. Bodyweight gains were normal.
Source: CONCAWE Bruxelles
Test substance: Heavy hydrodesulphurized naphtha, CAS No. 64742-82-1.

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5.1.4 Acute Toxicity, other Routes

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5.2 Corrosiveness and Irritation**5.2.1 Skin Irritation**

Species: rabbit
Concentration:

Exposure: Semiocclusive
Exposure Time: 4 hour(s)
Number of Animals: 6
PDII:
Result: moderately irritating
EC classificat.: not irritating
Method: Directive 84/449/EEC, B.4 "Acute toxicity (skin irritation)"
Year: 1984 **GLP:** no data
Test substance: other TS
Method: Each animal in a group of 3 male and 3 female New Zealand White rabbits was treated on the skin with 0.5 ml of test substance for 4 hours using a semi-occluded patch. Scoring was done according to the Draize scale at 24, 48 and 72 hours.

| | | | | |
|----------------|----------|------|------|------|
| Result: | | 24h | 48h | 72h |
| | erythema | 1.17 | 1.67 | 1.57 |

Source: CONCAWE Bruxelles
Test substance: Heavy hydrodesulphurized naphtha, CAS No. 64742-82-1.

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5.2.2 Eye Irritation

Species: rabbit
Concentration: undiluted
Dose: .1 ml
Exposure Time:
Comment:
Number of Animals: 6
Result: not irritating
EC classificat.: not irritating
Method: Draize Test
Year: **GLP:** no data
Test substance: other TS
Method: Each animal in a group of 6 albino rabbits was treated in one eye with 0.1 ml of test substance. Scores were made over 7 days according to the Draize scale.
Result: Although very slight irritancy was detected at 1 and 4 hours, all the scores at 24, 48, 72, 96 and 168 hours were zero, indicating that the test substance was not irritating.
Source: CONCAWE Bruxelles
Test substance: Heavy hydrodesulphurized naphtha, CAS No. 64742-82-1.

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5.3 Sensitization

Type:
Species:
Number of Animals:
Vehicle:
Result:
Classification:
Method:
Year: **GLP:**
Test substance:
Remark: Although no skin sensitization studies have been run on heavy hydrodesulphurized naphtha, CAS No. 64742-82-1, One manufacturer infers that it is not a sensitizer, based on the negative result obtained in conducting Buehler tests in guinea pigs for many similar naphtha fractions.
Source: CONCAWE Bruxelles

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5.4 Repeated Dose Toxicity

Species: rat **Sex:** male
Strain: other: Harlan Wistar
Route of admin.: inhalation
Exposure period: 14 weeks
Frequency of treatment: 6 hours per day, 5 days per week
Post. obs. period:
Doses: 3 Test groups: 0.049, 0.10 and 0.23 mg/l. Each group contained 25 animals.
Control Group: yes, concurrent no treatment
NOAEL: .23 mg/l
Method: other: procedure as detailed in paper by Carpenter et al. (see Reference).
Year: 1975 **GLP:** no data
Test substance: other TS
Method: Animals were exposed to the test substance vapour. Atmospheric concentrations were measured. At the highest dose, the air was saturated with the test substance vapour at the prevailing room temperature. Parameters studied included bodyweight, haematology, blood chemistry and histopathology.
Result: NO TREATMENT-RELATED EFFECTS were found.

Source: Hyaline droplet nephropathy was not noted in this study. CONCAWE Bruxelles
Test substance: 140 Flash Aliphatic Solvent (note: CAS No. not assigned in original reference). The 140 refers to the solvent's flash point in degree F.

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Species: rat **Sex:** male/female
Strain: no data
Route of admin.: dermal
Exposure period: 90 days
Frequency of treatment: 6 hours per day for 5 days per week
Post. obs. period: no data
Doses: 2 Test groups: 100 and 300 ppm. Negative control group: no treatment.
Control Group: yes, concurrent no treatment
NOAEL: 300 ppm
Method: other: outline details only are available (see Reference).
Year: **GLP:** yes
Test substance: other TS
Method: A comprehensive study was run, including detailed investigations of haematology and clinical chemistry parameters. Histopathology did not reveal significant changes in the kidney in this study. However, it is understood that in a subsequent in-house study on the same substance, the characteristic hyaline droplet nephropathy was observed. Such light hydrocarbon nephropathy is unique to male rats but is not regarded as significant in humans.
Result: ELEVATED KIDNEY WEIGHTS were found in MALE RATS. No other

significant effects were found.

Source: CONCAWE Bruxelles

Test substance: Heavy hydrodesulphurized naphtha, CAS No. 64742-82-1. (4)

Species: dog **Sex:** male

Strain: Beagle

Route of admin.: inhalation

Exposure period: 14 weeks

Frequency of treatment: 6 hours per day, 5 days per week

Post. obs. period:

Doses: 3 Test groups: 0.049, 0.10 and 0.23 mg/l. Each group contained 4 animals.

Control Group: yes, concurrent no treatment

NOAEL: .23 mg/l

Method: other: procedure as detailed in paper by Carpenter et al. (see Reference).

Year: 1975 **GLP:** no data

Test substance: other TS

Method: Animals were exposed to the test substance vapour. Atmospheric concentrations were measured. At the highest dose, the air was saturated with the test substance vapour at the prevailing room temperature. Parameters studied included bodyweight, haematology, blood chemistry and histopathology.

Result: NO TREATMENT-RELATED EFFECTS were found.

Source: CONCAWE Bruxelles

Test substance: 140 Flash Aliphatic Solvent (note: CAS No. not assigned in original reference). The 140 refers to the solvent's flash point in degree F. (14)

5.5 Genetic Toxicity 'in Vitro'

Type: Ames test

System of testing: Assay using Salmonella typhimurium strain TA98

Concentration: 4 concentrations in the range 0.0001 to 0.1 ul/plate

Metabolic activation: with and without

Result: negative

Method: other: procedure as detailed in paper by Gochet et al. (see Reference).

Year: 1984 **GLP:** no data

Test substance: other TS

Method: The test substance was dissolved in ethanol for the plate assays. The activation system used was Aroclor 1254-induced rat liver S9.

Source: CONCAWE Bruxelles

Test substance: White spirit (no CAS No. assigned). (15)

Type: Sister chromatid exchange assay
System of testing: Assay using human lymphocytes
Concentration: 3% to 10%
Metabolic activation: without
Result: negative
Method: other: procedure as detailed in paper by Gochet et al. (see Reference).
Year: 1984 **GLP:** no data
Test substance: other TS
Method: The test substance was dissolved in ethanol. Preliminary toxicity tests determined the concentration range to be tested. SCEs measured after incubation periods of 1 and 24 hours were not significantly different from the controls.
Source: CONCAWE Bruxelles
Test substance: White spirit (no CAS No. assigned).

(15)

5.6 Genetic Toxicity 'in Vivo'

Type: Micronucleus assay
Species: mouse **Sex:** male/female
Strain: Balb/c
Route of admin.: i.p.
Exposure period: 30 hours
Doses: 3 Test groups: 0.01, 0.05 and 0.1 ml of test substance. Positive control group: 200 ml/kg cyclophosphamide. Negative control group: no treatment. Each group contained 5 male and 5 female animals.
Result:
Method: other: procedure as detailed in paper by Schmid (see Reference).
Year: 1976 **GLP:** no data
Test substance: other TS
Method: Doses were chosen on the basis of preliminary studies which showed that the LD50 (i.p.) for the animals was 5 ml/kg of test substance and the LD100 (i.p.) was 6.7 ml/kg.
Result: Results were negative for the test substance. The incidence of micronucleated erythrocytes in mouse bone marrow cells did not differ from the negative controls at any dose.
Source: Cyclophosphamide produced the expected results.
CONCAWE Bruxelles
Test substance: White spirit (no CAS No. assigned).

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5.7 Carcinogenicity

Species:

Sex:

Strain:

Route of admin.:

Exposure period:

Frequency of
treatment:Post. obs.
period:

Doses:

Result:

Control Group:

Method:

Year:

GLP:

Test substance:

Remark:

No carcinogenicity studies have been done on substances from Group 3F. However, they are of a boiling range such that they do not contain significant concentrations of known carcinogens such as 4- to 6-membered fused-ring polycyclic aromatic hydrocarbons.

Source:

CONCAWE Bruxelles

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5.8 Toxicity to Reproduction

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5.9 Developmental Toxicity/Teratogenicity

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5.10 Other Relevant Information

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5.11 Experience with Human Exposure

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7.1 Risk Assessment

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