SAFETY DATA SHEET

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier
Product Name: Naphtha (petroleum), hydrotreated light
Product Description: V4016a- C7+hydrotreated light - Naphtha (petroleum), hydrotreated light
Trade name: C7+hydrotreated light
Product Code: C7+LHYDR
CAS No.: 64741-42-0
EC No.: 265-042-6

1.2 Relevant identified uses of the substance or mixture and uses advised against
Identified use(s): Fuel for engines.
Blend component.

1.3 Details of the supplier of the safety data sheet
Company Identification: Vitol SA
Boulevard du Pont d’Arve 28
P.O. Box 384
1211 Geneva 4
Switzerland
Telephone: +31 10 498 7200
Fax: +31 10 452 9545
E-Mail (competent person): xreach@vitol.com

1.4 Emergency telephone number
Emergency Phone No. (24 h): +44 (0) 1235 239 670 (24 hours, 7 days)

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture
According to Regulation (EC) No. 1272/2008 (CLP)
Flam. Liq. 1; H224
Asp. Tox. 1; H304
Skin Irrit. 2; H315
STOT SE 3; H336
Muta. 1B; H340
Carc. 1B; H350
Repr. 2; H361fd
Aquatic Chronic 2; H411

F+: R12
Carc. Cat. 2; R45
Muta. Cat. 2; R46
Repr. Cat. 3; R63 – R63
Xi: R38
Xn; R65
N; R51/53
R67
2.2.1 Label elements

Hazard pictogram(s):

Signal word(s): Danger

Hazard statement(s):
- H224: Extremely flammable liquid and vapour.
- H304: May be fatal if swallowed and enters airways.
- H315: Causes skin irritation.
- H336: May cause drowsiness or dizziness.
- H340: May cause genetic defects.
- H350: May cause cancer.
- H361fd: Suspected of damaging fertility. Suspected of damaging the unborn child.
- H411: Toxic to aquatic life with long lasting effects.

Precautionary statement(s):
- P201: Obtain special instructions before use.
- P210: Keep away from heat, sparks, open flame, hot surfaces - No smoking.
- P280: Wear protective gloves/protective clothing/eye protection/face protection.
- P301 + P310: IF SWALLOWED: Immediately call a POISON CENTRE or doctor/physician.
- P403 + P233: Store in a well-ventilated place. Keep container tightly closed.
- P501: Dispose of contents/container to: Disposal should be in accordance with local, state or national legislation.

2.2.2 Label elements

Hazard pictogram(s):

Hazard Symbol: Extremely flammable. Toxic. Dangerous for the environment.

Risk Phrases:
- R12: Extremely flammable.
- R38: Irritating to skin.
- R45: May cause cancer.
- R46: May cause heritable genetic damage.
- R51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- R62: Possible risk of impaired fertility.
- R63: Possible risk of harm to the unborn child.
- R65: Harmful: may cause lung damage if swallowed.
- R67: Vapours may cause drowsiness and dizziness.

Safety Phrases:
- S2: Keep out of the reach of children.
- S23: Do not breathe fumes/vapour.
- S24: Avoid contact with skin.
- S29: Do not empty into drains.
- S36/37: Wear suitable protective clothing and gloves.
- S45: In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
- S51: Use only in well-ventilated areas.
- S53: Avoid exposure - obtain special instructions before use.
S61: Avoid release to the environment. Refer to special instructions/Safety Data Sheets.
S62: If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.

2.3 Other hazards
Vapour may create explosive atmosphere. The vapour is heavier than air; beware of pits and confined spaces. May cause irritation to eyes and air passages.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances
EC Classification No. 1272/2008

<table>
<thead>
<tr>
<th>Hazardous ingredient(s)</th>
<th>%W/W</th>
<th>CAS No.</th>
<th>EC No.</th>
<th>Hazard symbol(s) and hazard statement(s)</th>
</tr>
</thead>
</table>
| Naphtha (petroleum), hydrotreated light | 100 | 64741-42-0 | 265-042-6 | Flam. Liq. 1; H224  
Asp. Tox. 1; H304  
Skin Irrit. 2; H315  
STOT SE 3; H336  
Muta. 1B; H340  
Carc. 1B; H350  
Repr. 2; H361fd  
Aquatic Chronic 2; H411 |

EC Classification No. 67/548/EC

<table>
<thead>
<tr>
<th>Hazardous ingredient(s)</th>
<th>%W/W</th>
<th>CAS No.</th>
<th>EC No.</th>
<th>Risk Phrases and Safety Phrases</th>
</tr>
</thead>
</table>
| Naphtha (petroleum), hydrotreated light | 100 | 64741-42-0 | 265-042-6 | F+; R12  
Carc. Cat. 2; R45  
Muta. Cat. 2; R46  
Repr. Cat. 3; R63 – R63  
Xi; R38  
Xn; R65  
N; R51/53  
R67 |

4. FIRST AID MEASURES

4.1 Description of first aid measures

Inhalation: Remove patient from exposure, keep warm and at rest. If symptoms persist, obtain medical attention.

Skin Contact: Remove contaminated clothing immediately and drench affected skin with plenty of water, then wash with soap and water. If symptoms persist, obtain medical attention. Contaminated clothing should be thoroughly cleaned.

Eye Contact: If substance has got into the eyes, immediately wash out with plenty of water for at least 15 minutes. If symptoms persist, obtain medical attention.

Ingestion: Obtain immediate medical attention. Do not induce vomiting. Provided the patient is conscious, wash out mouth with water and give 200-300 ml (half a pint) of water to drink.

4.2 Most important symptoms and effects, both acute and delayed
Aspiration hazard. Irritating to skin. May cause irritation to eyes and air passages. May cause drowsiness or dizziness.
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4.3 Indication of the immediate medical attention and special treatment needed

If breathing is laboured, oxygen should be administered by qualified personnel. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

5. FIRE-FIGHTING MEASURES

5.1 Extinguishing media

Suitable Extinguishing Media:
Foam, CO2 or dry powder.

Unsuitable Extinguishing Media:
For large fire use: Water.

5.2 Special hazards arising from the substance or mixture

Vapour may create explosive atmosphere. The vapour is heavier than air; beware of pits and confined spaces.

May give off toxic fumes in a fire. Carbon monoxide, Carbon dioxide and various hydrocarbons.

5.3 Advice for fire-fighters

A self contained breathing apparatus and suitable protective clothing should be worn in fire conditions. Keep fire exposed containers cool by spraying with water.

Flash Point (°C): < 0
Flammable Limits (Lower) (%v/v): 1
Flammable Limits (Upper) (%v/v): 10
Auto Ignition Temperature (°C): > 250

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Eliminate sources of ignition. Vapour may create explosive atmosphere. The vapour is heavier than air; beware of pits and confined spaces. Ensure adequate ventilation. Use non-sparking hand tools and explosion proof electrical equipment. Take precautionary measures against static discharges.

Avoid inhalation of vapours. Avoid contact with skin and eyes. Wear suitable protective clothing and gloves. (See Section: 8). Contaminated clothing should be thoroughly cleaned.

6.2 Environmental precautions

Do not allow to enter drains, sewers or watercourses. Spillages or uncontrolled discharges into watercourses must be alerted to the Environment Agency or other appropriate regulatory body.

6.3 Methods and material for containment and cleaning up

Adsorb spillages onto sand, earth or any suitable adsorbent material. Sweep up carefully with non-sparking tools. Transfer to a container for disposal. Wash spill area with soapy water. Contaminated adsorbent must be removed in sealed, plastic lined drums and disposed of via an authorised waste disposal contractor.

6.4 Reference to other sections

Personal Protection: See Section: 8.

Other advice

Caution - spillages may be slippery.
7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Eliminate sources of ignition. Vapour may create explosive atmosphere. The vapour is heavier than air; beware of pits and confined spaces. Provide adequate ventilation, including appropriate local extraction, to ensure that the occupational exposure limit is not exceeded. Use non-sparking hand tools and explosion proof electrical equipment. Take precautionary measures against static discharges.

Avoid inhalation of vapours. Avoid contact with skin and eyes. Wear suitable protective clothing and gloves. (See Section: 8).

Do not eat, drink or smoke at the work place. Wash hands and exposed skin after use. Contaminated clothing should be thoroughly cleaned.

7.2 Conditions for safe storage, including any incompatibilities

Keep away from heat and sources of ignition. Keep from direct sunlight. Keep away from frost. Keep only in the original container in a cool, well-ventilated place. Keep/store away from: Oxidising agents.

7.3 Specific end use(s)

Industrial use only.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

No Occupational Exposure Limit assigned.

8.2 Exposure controls

8.2.1 Appropriate engineering controls

Provide adequate ventilation, including appropriate local extraction, to ensure that the occupational exposure limit is not exceeded.

8.2.2 Personal Protection

Eye/face protection

Goggles giving complete protection to eyes. (EN 166)

Skin protection

Protective gloves. (EN 374)

Respiratory protection

In case of insufficient ventilation, wear suitable respiratory equipment. (BS EN 14387:2004+A1)

Other:

Apron or other light protective clothing, boots and plastic or rubber gloves.

8.2.3 Environmental Exposure Controls

Avoid release to the environment.
9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance: Liquid.
Colour: Pale yellow.
Odour: Hydrocarbon.
Boiling Point (°C): < 35
Flash Point (°C): <0
Flammable Limits (Lower) (%v/v): 1
Flammable Limits (Upper) (%v/v): 10
Vapour Pressure (mm Hg): 200 (@ 20° C)
Specific Gravity: 0.70-0.80
Solubility (Water): Negligible.
Partition Coefficient: (n-Octanol/water) 1.0-8.0
Auto Ignition Temperature (° C): >250
Viscosity: 1 mm²/s (@ 20° C)
Explosive Properties: Vapour may create explosive atmosphere.
Oxidising Properties: Not oxidising.
Vapour Density (Air=1): >2

9.2 Other information

Conductivity: 15-35

10. STABILITY AND REACTIVITY

10.1 Reactivity
Reacts with - Strong oxidising agents.

10.2 Chemical stability
Stable under normal conditions.

10.3 Possibility of hazardous reactions
No information available.

10.4 Conditions to avoid
Keep away from heat, sources of ignition and direct sunlight.

10.5 Incompatible materials
Oxidising agents.

10.6 Hazardous Decomposition Product(s)
May give off toxic fumes in a fire. Carbon monoxide, Carbon dioxide and various hydrocarbons.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity:
Ingestion: LD₅₀ (oral/rat): >5000 mg/kg (ARCO, 1986b)
Inhalation: LC₅₀ (inhalation/rat): >5.2 mg/l/4 h (ARCO, 1992)
Skin Contact: LD₅₀ (dermal/rabbit): >2000 mg/kg (ARCO, 1986a)
Eye Contact: No information available.

Skin corrosion/irritation: Irritating to skin.
Serious eye damage/irritation: May cause eye irritation.
Respiratory or skin sensitization: Negative.
Mutagenicity: May cause heritable genetic damage. Muta. 2 (Category 2).
Carcinogenicity: May cause cancer. Carc. 1B (Category 2).
Reproductive toxicity: Suspected of damaging fertility. Suspected of damaging the unborn child.
STOT-single exposure: Vapours may cause drowsiness and dizziness.
STOT-repeated exposure: Negative.
Aspiration hazard: Risk of aspiration. Aspiration of liquid may cause pulmonary oedema.
Other information: No information available.
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12. ECOLOGICAL INFORMATION

12.1 Toxicity
LC50: (Rainbow trout): 1-10 mg/l/96h
EC50 (Daphnia magna): 1-10 mg/l/48h
WGK: Not established.

12.2 Persistence and degradability
Inherently biodegradable.

12.3 Bioaccumulative potential
The product has potential for bioaccumulation. Log Kow ≥3.

12.4 Mobility in soil
The product has low mobility in soil.

12.5 Results of PBT and vPvB assessment
half-life: 1.2-2.7 days

12.6 Other adverse effects
No information available.

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods
Do not empty into drains; dispose of this material and its container in a safe way. To be disposed of as hazardous waste. Disposal should be in accordance with local, state or national legislation.

14. TRANSPORT INFORMATION

14.1 UN number
1268

14.2 Proper Shipping Name
PETROLEUM DISTILLATE, N.O.S.

14.3 Transport hazard class(es)
3

14.4 Packing Group
I

14.5 Environmental hazards
ADR/RID/ADN/IATA: Environmentally hazardous
IMDG: Marine Pollutant

14.6 Special precautions for user
Vapour may create explosive atmosphere. The vapour is heavier than air; beware of pits and confined spaces.

14.7 Transport in bulk according to Annex II of MARPOL/73/78 and the IBC Code
Not applicable.

15. REGULATORY INFORMATION

According to Regulation (EC) No. 1272/2008 (CLP)

Hazard pictogram(s):

Signal word(s):
Danger

Hazard statement(s):
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H411: Toxic to aquatic life with long lasting effects.

Precautionary statement(s):
P201: Obtain special instructions before use.
P210: Keep away from heat, sparks, open flame, hot surfaces - No smoking.
P280: Wear protective gloves/protective clothing/eye protection/face protection.
P301 + P310: IF SWALLOWED: Immediately call a POISON
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Hazard pictogram(s):

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Risk Phrases:
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- R62: Possible risk of impaired fertility.
- R63: Possible risk of harm to the unborn child.
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- S51: Use only in well-ventilated areas.
- S61: Avoid release to the environment. Refer to special instructions/Safety Data Sheets.
- S62: If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.

16. OTHER INFORMATION

Full text of Hazard statements and Risk phrases for pure substances listed in section 3.

Hazard Symbol:
- H224: Extremely flammable liquid and vapour.
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The following sections contain revisions or new statements: 1-16.

Abbreviations:
CAS = Chemical Abstracts Service;
CNS = Central Nervous System;
EINECS = European Inventory of Existing Commercial Chemical Substances;
EC50 = Effective Concentration 50%;
IARC = International Agency for Research on Cancer;
IC50 = Inhibitory Concentration 50%;
LC50 = Lethal Concentration 50%;
LD50 = Lethal Dose 50%;
LTEL = Long Term Exposure Limit;
STEL = Short Term Exposure Limit;
TWA = Time Weighted Average;

References:
Concawe product dossier "Hazard classification and labelling of petroleum substances in the European Economic Area 2010". Brussels; December 2010


ARCO (1986a) Acute dermal toxicity study in rabbits administered test article F-64-01 unleaded premium gasoline. UBTL Study No. 60553. Los Angeles CA: ARCO.

ARCO (1986b) Acute oral toxicity study in rats administered test article F-64-01 unleaded premium gasoline. UBTL Study No. 60598. Los Angeles CA: ARCO.

ARCO (1986c) Dermal sensitization study in guinea pigs administered test article F-64-01 unleaded premium gasoline. UBTL Study No. 60613. Los Angeles CA: ARCO

ARCO (1986d) Primary eye irritation study in rabbits administered test article F-64-01 unleaded Watson premium gasoline. UBTL Study No. 60583. Los Angeles CA: ARCO

ARCO (1986e) Twenty-eight (28) day dermal toxicity study in rats on test article F-64-01 unleaded Watson premium gasoline. UBTL Study No. 60761. Los Angeles CA: ARCO

ARCO (1992) Acute inhalation toxicity study (limit test) in rats administered test article F-101. UBTL Study No. 65798. Los Angeles CA: ARCO


EBSI (1995a) Alga, growth inhibition test. MRD-95-048 gasoline W94/813, blend. Study performed for CONCAWE.

EBSI Study No. 104867. East Millstone NJ: Exxon Biomedical Sciences Inc.
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EBSI (1995c) Fish, acute toxicity test - rainbow trout. MRD-95-045 gasoline W94/810, isomerate. Study performed for CONCAWE. EBSI Study No. 104558. East Millstone NJ: Exxon Biomedical Sciences Inc.


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