SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier
Product form: Substance
Trade name/designation: Naphtha (petroleum), isomerization
Chemical name: Naphtha (petroleum), isomerization
EC Index: 649-277-00-5
EC-No.: 265-073-5
CAS-No.: 64741-70-4
REACH registration No: 01-2119480399-24-0060
Product group: Trade product

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

1.2.1. Relevant identified uses
Use of the substance/mixture: Fuels
Further information: see exposure scenarios attached to this safety data sheet.

<table>
<thead>
<tr>
<th>Title</th>
<th>Use descriptors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use as an intermediate (ES Ref.: 02: Benz 0%-1%)</td>
<td>SU3, SU8, SU9, PROC1, PROC2, PROC3, PROC8a, PROC8b, PROC15, ERC6a, ESVOC SPERC 6.1a.v1</td>
</tr>
<tr>
<td>Distribution</td>
<td>SU3, PROC1, PROC2, PROC3, PROC8a, PROC8b, PROC15, ERC4, ERC5, ERC6a, ERC6b, ERC6c, ERC6d, ERC7, ESVOC SPERC 1.1b.v1</td>
</tr>
<tr>
<td>Distribution</td>
<td>PROC1, PROC2, PROC3, PROC8a, PROC8b, PROC15, ERC4, ERC5, ERC6a, ERC6b, ERC6c, ERC6d, ERC7, ESVOC SPERC 1.1b.v1</td>
</tr>
<tr>
<td>Distribution</td>
<td>SU3, PROC1, PROC2, PROC3, PROC8a, PROC8b, PROC15, ERC1, ERC2, ERC3, ERC4, ERC5, ERC6a, ERC6b, ERC6c, ERC6d, ERC7, ESVOC SPERC 1.1b.v1</td>
</tr>
<tr>
<td>Use as an intermediate (ES Ref.: 02: Benz 0%-1%)</td>
<td>SU8, SU9, PROC1, PROC2, PROC3, PROC8a, PROC8b, PROC15, ERC6a, ESVOC SPERC 6.1a.v1</td>
</tr>
<tr>
<td>Distribution</td>
<td>PROC1, PROC2, PROC3, PROC8a, PROC8b, PROC15, ERC4, ERC5, ERC6a, ERC6b, ERC6c, ERC6d, ERC7, ESVOC SPERC 1.1b.v1</td>
</tr>
<tr>
<td>Use as an intermediate (ES Ref.: 02: Benz 1%-5%)</td>
<td>SU8, SU9, PROC1, PROC2, PROC3, PROC8a, PROC8b, PROC15, ERC6a, ESVOC SPERC 6.1a.v1</td>
</tr>
<tr>
<td>Use as an intermediate (ES Ref.: 02: Benz 5%-20%)</td>
<td>SU8, SU9, PROC1, PROC2, PROC3, PROC8a, PROC8b, PROC15, ERC6a, ESVOC SPERC 6.1a.v1</td>
</tr>
<tr>
<td>Distribution</td>
<td>PROC1, PROC2, PROC3, PROC8a, PROC8b, PROC15, ERC4, ERC5, ERC6a, ERC6b, ERC6c, ERC6d, ERC7, ESVOC SPERC 1.1b.v1</td>
</tr>
<tr>
<td>Distribution</td>
<td>PROC1, PROC2, PROC3, PROC8a, PROC8b, PROC15, ERC4, ERC5, ERC6a, ERC6b, ERC6c, ERC6d, ERC7, ESVOC SPERC 1.1b.v1</td>
</tr>
<tr>
<td>Distribution</td>
<td>PROC1, PROC2, PROC3, PROC8a, PROC8b, PROC15, ERC4, ERC5, ERC6a, ERC6b, ERC6c, ERC6d, ERC7, ESVOC SPERC 1.1b.v1</td>
</tr>
<tr>
<td>Distribution</td>
<td>PROC1, PROC2, PROC3, PROC8a, PROC8b, PROC15, ERC4, ERC5, ERC6a, ERC6b, ERC6c, ERC6d, ERC7, ESVOC SPERC 1.1b.v1</td>
</tr>
<tr>
<td>Distribution</td>
<td>PROC1, PROC2, PROC3, PROC8a, PROC8b, PROC15, ERC4, ERC5, ERC6a, ERC6b, ERC6c, ERC6d, ERC7, ESVOC SPERC 1.1b.v1</td>
</tr>
<tr>
<td>Distribution</td>
<td>PROC1, PROC2, PROC3, PROC8a, PROC8b, PROC15, ERC4, ERC5, ERC6a, ERC6b, ERC6c, ERC6d, ERC7, ESVOC SPERC 1.1b.v1</td>
</tr>
<tr>
<td>Distribution</td>
<td>PROC1, PROC2, PROC3, PROC8a, PROC8b, PROC15, ERC4, ERC5, ERC6a, ERC6b, ERC6c, ERC6d, ERC7, ESVOC SPERC 1.1b.v1</td>
</tr>
<tr>
<td>Uses in coatings (ES Ref.: 05b: Benz 0%-1%)</td>
<td>PROC1, PROC2, PROC3, PROC8a, PROC8b, PROC15, ERC4, ESVOC SPERC 4.3a.v1</td>
</tr>
<tr>
<td>Use in cleaning agents (ES Ref.: 07b: Benz 0%-1%)</td>
<td>PROC1, PROC2, PROC3, PROC8a, PROC8b, ERC4, ESVOC SPERC 4.4a.v1</td>
</tr>
<tr>
<td>Use as a fuel (ES Ref.: 10b: Benz 0%-1%)</td>
<td>PROC1, PROC2, PROC3, PROC8a, PROC8b, PROC16, ERC7, ESVOC SPERC 7.12a.v1</td>
</tr>
<tr>
<td>Use in rubber production and processing (ES Ref.: 13b: Benz 0%-1%)</td>
<td>SU10, SU11, PROC1, PROC2, PROC3, PROC8a, PROC8b, PROC15, ERC4, ERC6, ESVOC SPERC 4.19.v1</td>
</tr>
<tr>
<td>Use as a fuel (ES Ref.: 11b: Benz 0%-1%)</td>
<td>PROC1, PROC2, PROC3, PROC8a, PROC8b, ERC9a, ERC9b, ESVOC SPERC 9.12b.v1</td>
</tr>
</tbody>
</table>
Title | Use descriptors
--- | ---
Use as a fuel (ES Ref.: 12b (Benz 0%-1%)) | PC13, ERC9a, ERC9b, ESVOC SPERC 9.12c.v1
Formulation & (re)packing of substances and mixtures (ES Ref.: 04 (Benz 20%-79%)) | SU3, SU10, PROC1, PROC2, PROC3, PROC8a, PROC8b, PROC15, ERC2, ESVOC SPERC 2.2.v1
Formulation & (re)packing of substances and mixtures (ES Ref.: 04b (Benz 0%-1%)) | PROC1, PROC2, PROC3, PROC8a, PROC8b, PROC15, ERC2, ESVOC SPERC 2.2.v1
Formulation & (re)packing of substances and mixtures (ES Ref.: 04c (Benz 1%-5%)) | PROC1, PROC2, PROC3, PROC8a, PROC8b, PROC15, ERC2, ESVOC SPERC 2.2.v1
Formulation & (re)packing of substances and mixtures (ES Ref.: 04d (Benz 5%-20%)) | PROC1, PROC2, PROC3, PROC8a, PROC8b, PROC15, ERC2, ESVOC SPERC 2.2.v1

Full text of use descriptors: see section 16

1.2.2. Uses advised against
No data available

1.3. Details of the supplier of the safety data sheet
Trafigura Ventures V.B.V.
Evert van de Beekstraat 1-82
The Base, Tower B - 5th Floor
1118 CL Schiphol - The Netherlands
T +31 20 504 1800
TrafiguraReach@trafigura.com

1.4. Emergency telephone number
Emergency number: +32 3 575 03 30
This telephone number is available 24 hours per day, 7 days per week.

<table>
<thead>
<tr>
<th>Country</th>
<th>Official advisory body</th>
<th>Address</th>
<th>Emergency number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ireland</td>
<td>National Poisons Information Centre Beumont Hospital</td>
<td>Beaumont Hospital Beaumont Road 9 Dublin</td>
<td>+353 1 809 21 66 (public, 8am - 10pm, 7/7) +353 01 809 2566 (Professionals, 24/7)</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>National Poisons Information Service (Newcastle Centre)</td>
<td>Claremont Place Newcastle upon Tyne NE1 4LP Newcastle</td>
<td>0844 892 0111 (UK only, 24/7, healthcare professionals only)</td>
</tr>
</tbody>
</table>

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture
Classification according to Regulation (EC) No. 1272/2008 [CLP]

Flam. Liq. 1 H224
Skin Irrit. 2 H315
Muta. 1B H340
Carc. 1B H350
Repr. 2 H361fd
2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP):
- GHS02
- GHS07
- GHS08
- GHS09

Signal word: Danger

Hazard statements (CLP):
- 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 statements (CLP):
- P201 - Obtain special instructions before use.
- P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- P273 - Avoid release to the environment.
- P280 - Wear protective gloves/protective clothing/eye protection/face protection.
- P301+P310+P331 - IF SWALLOWED: Immediately call a POISON CENTER/doctor/….. Do NOT induce vomiting.
- P403+P233 - Store in a well-ventilated place. Keep container tightly closed.

Extra phrases: Restricted to professional users

Listed in Annex VI: EC Index-No.: 649-277-00-5

2.3. Other hazards

Other hazards: PBT/vPvB data. This substance does not meet the PBT/vPvB criteria of REACH, annex XIII. This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.

SECTION 3: Composition/information on ingredients

3.1. Substances

Comments: UVCB

Substance name: Naphtha (petroleum), isomerization

CAS-No.: 64741-70-4

EC-No.: 265-073-5

EC Index: 649-277-00-5
Naphtha (petroleum), isomerization

<table>
<thead>
<tr>
<th>Substance name</th>
<th>Product identifier</th>
<th>%</th>
<th>Classification according to Regulation (EC) No. 1272/2008 [CLP]</th>
</tr>
</thead>
</table>
| Naphtha (petroleum), isomerization | (CAS-No.) 64741-70-4  
(EC-No.) 265-073-5  
(EC Index) 649-277-00-5 | 100 | Flam. Liq. 1, H224  
Skin Irrit. 2, H315  
Mut. 1B, H340  
Carc. 1B, H350  
Repr. 2, H361fd  
STOT SE 3, H336  
Asp. Tox. 1, H304  
Aquatic Chronic 2, H411 |

Full text of H-statements: see section 16

3.2. Mixtures
Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

Additional advice: First aider: Pay attention to self-protection. See also section 8. Never give anything by mouth to an unconscious person. Show this safety data sheet to the doctor in attendance. Treat symptomatically. In case of doubt or persistent symptoms, consult always a physician.

Inhalation: Keep at rest. Provide fresh air. Give oxygen or artificial respiration if necessary. Call a physician immediately.

Skin contact: Take off immediately all contaminated clothing. Wash with plenty of water. Wash contaminated clothing before reuse. In case of doubt or persistent symptoms, consult always a physician.

Eyes contact: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If eye irritation persists: Get medical advice/attention.

Ingestion: Do NOT induce vomiting. Rinse mouth immediately and drink plenty of water. Never give anything by mouth to an unconscious person. Get medical advice/attention.

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

Inhalation: Vapours may cause drowsiness and dizziness. The following symptoms may occur: Mental confusion. Cough. Headache. Irritating to respiratory system.

Skin contact: The following symptoms may occur: Irritating to skin. Erythema (redness). Repeated exposure may cause skin dryness or cracking.

Eyes contact: Contact with eyes may cause irritation.

Ingestion: Harmful: may cause lung damage if swallowed. Risk of pneumonia. The following symptoms may occur: Nausea, Vomiting, Diarrhoea.

Chronic symptoms: May cause genetic defects. May cause cancer. Suspected of damaging fertility or the unborn child.

4.3. Indication of any immediate medical attention and special treatment needed
If swallowed, do not induce vomiting - seek medical advice.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media: Water spray, Alcohol resistant foam, Carbon dioxide, Dry extinguishing powder.

Unsuitable extinguishing media: Strong water jet.
5.2. Special hazards arising from the substance or mixture

Specific hazards: Heating causes rise in pressure with risk of bursting. Vapours may form explosive mixture with air. Vapours are heavier than air and may travel considerable distance to an ignition source and flash back to source of vapours. Do not allow run-off from fire-fighting to enter drains or water courses.

Hazardous decomposition products in case of fire: Toxic fumes may be released. Carbon oxides (CO, CO2).

5.3. Advice for firefighters

Firefighting instructions: Evacuate personnel to a safe area. Special protective equipment for firefighters. In case of fire: Wear self-contained breathing apparatus. Use water spray or fog for cooling exposed containers. Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

For non-emergency personnel: Evacuate personnel to a safe area. Stay upwind/keep distance from source. Provide adequate ventilation. Use personal protective equipment as required. Concerning personal protective equipment to use, see section 8. Avoid contact with skin and eyes. Do not breathe vapour/aerosol. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Ensure equipment is adequately earthed. Use explosion-proof equipment. Use only non-sparking tools.

6.1.2. For emergency responders

For emergency responders: Ensure procedures and training for emergency decontamination and disposal are in place. Concerning personal protective equipment to use, see section 8.

6.2. Environmental precautions

Do not allow to enter into surface water or drains.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up: Stop leak if safe to do so. Dam up. Take up liquid spill into absorbent material, e.g.: sand, earth, vermiculite or powdered limestone. Collect in closed and suitable containers for disposal. Recover large spills by pumping (use an explosion proof or hand pump). Dispose of as special waste in compliance with local and national regulations. Site should have a spill plan to ensure that adequate safeguards are in place to minimize the impact of episodic releases.

6.4. Reference to other sections

Concerning personal protective equipment to use, see section 8. Concerning disposal elimination after cleaning, see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed: May release poisonous hydrogen sulfide.

Precautions for safe handling: Provide adequate information, instruction and training for operators. Provide adequate ventilation. Use personal protective equipment as required. Concerning personal protective equipment to use, see section 8. Avoid contact with skin, eyes and clothing. Do not breathe vapour/aerosol. Take precautionary measures against static discharges. Ensure equipment is adequately earthed. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Take any precaution to avoid mixing with combustibles. See also section 10. Ensure proper process control to avoid excess waste discharge (temperature, concentration, pH, time). Do not allow to enter into surface water or drains.
Hygiene measures: Keep good industrial hygiene. Take off contaminated clothing. Wash hands and face before breaks and immediately after handling of the product. When using do not eat, drink or smoke. Separate working clothes from town clothes. Keep away from food, drink and animal feedingstuffs.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures: Storage of flammable liquids. Keep container tightly closed in a cool, well-ventilated place. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not store near or with any of the incompatible materials listed in section 10.

Storage temperature: Ambient temperature

Packaging materials: Keep only in the original container. Suitable material: Stainless steel, Mild steel.

7.3. Specific end use(s)

see attached exposure scenario.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

<table>
<thead>
<tr>
<th>Naphtha (petroleum), isomerization (64741-70-4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>DNEL/DMEL (workers)</td>
</tr>
<tr>
<td>Acute - systemic effects, inhalation</td>
</tr>
<tr>
<td>(15min) 1300 mg/m³</td>
</tr>
<tr>
<td>Acute - local effects, inhalation</td>
</tr>
<tr>
<td>(15min) 1100 mg/m³</td>
</tr>
<tr>
<td>Long-term - local effects, inhalation</td>
</tr>
<tr>
<td>(8h) 840 mg/m³</td>
</tr>
<tr>
<td>DNEL/DMEL (general population)</td>
</tr>
<tr>
<td>Acute - systemic effects, inhalation</td>
</tr>
<tr>
<td>(15min) 1200 mg/m³</td>
</tr>
<tr>
<td>Acute - local effects, inhalation</td>
</tr>
<tr>
<td>(15min) 640 mg/m³</td>
</tr>
<tr>
<td>Long-term - local effects, inhalation</td>
</tr>
<tr>
<td>(24h) 180 mg/m³</td>
</tr>
<tr>
<td>PNEC (additional information)</td>
</tr>
</tbody>
</table>

Additional information: Substance of unknown or variable composition, complex reaction products or biological material (UVCB). No data available

8.2. Exposure controls

Engineering measure(s): Provide adequate ventilation. Use only in area provided with appropriate exhaust ventilation. Closed system. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Take precautionary measures against static discharge. Provide adequate precautions, such as electrical grounding and bonding, or inert atmospheres. Organisational measures to prevent /limit releases, dispersion and exposure. See also section 7.

Personal protective equipment: The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
Hand protection: The selection of specific gloves for a specific application and time of use in a working area, should also take into account other factors on the working space, such as (but not limited to): other chemicals that are possibly used, physical requirements (protection against cutting/drilling, skill, thermal protection), and the instructions/specification of the supplier of gloves. - rubber gloves. (EN 374): NBR (Nitrile rubber). Material thickness: >0.54mm. Breakthrough time: >360min. The data about break through time/strength of material are standard values! The exact break through time/strength of material has to be obtained from the producer of the protective glove.

Eye protection: Safety glasses with side shields

Body protection: Wear suitable coveralls to prevent exposure to the skin. Use chemically protective clothing


Thermal hazard protection: Not required for normal conditions of use. Use dedicated equipment.

### SECTION 9: Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Liquid</td>
</tr>
<tr>
<td>Appearance</td>
<td>liquid.</td>
</tr>
<tr>
<td>Colour</td>
<td>Yellow.</td>
</tr>
<tr>
<td>Odour</td>
<td>petroleum hydrocarbon odour.</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>Not determined</td>
</tr>
<tr>
<td>pH</td>
<td>Not determined</td>
</tr>
<tr>
<td>Relative evaporation rate (butylacetate=1)</td>
<td>No data available</td>
</tr>
<tr>
<td>Melting / freezing point</td>
<td>&lt; -60 °C</td>
</tr>
<tr>
<td>Freezing point</td>
<td>No data available</td>
</tr>
<tr>
<td>Initial boiling point and boiling range</td>
<td>&lt; 35 °C</td>
</tr>
<tr>
<td>Flash point</td>
<td>&lt; 0 °C</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>&gt; 220 °C</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not applicable, liquid</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>200 mmHg @ 20°C</td>
</tr>
<tr>
<td>Vapour density</td>
<td>&gt; 2</td>
</tr>
<tr>
<td>Relative density</td>
<td>0.62 - 0.88 g/cm³ @ 15°C</td>
</tr>
<tr>
<td>Solubility</td>
<td>Not miscible.</td>
</tr>
<tr>
<td>Partition coefficient n-octanol/water</td>
<td>1 - 8</td>
</tr>
<tr>
<td>Kinematic viscosity</td>
<td>1 mm²/s @ 20°C</td>
</tr>
<tr>
<td>Dynamic viscosity</td>
<td>No data available</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>Not explosive. Vapours may form explosive mixture with air.</td>
</tr>
<tr>
<td>Oxidising properties</td>
<td>The classification procedure needs not to be applied because there are no chemical groups present in the molecule which are associated with oxidising properties.</td>
</tr>
<tr>
<td>Explosive limits</td>
<td>1 - 10 vol %</td>
</tr>
</tbody>
</table>

#### 9.2. Other information

No data available
SECTION 10: Stability and reactivity

10.1. Reactivity
Extremely flammable. Reacts with oxidants. Reference to other sections: 10.5.

10.2. Chemical stability
The product is stable under storage at normal ambient temperatures.

10.3. Possibility of hazardous reactions
Vapours may form explosive mixture with air. May release: H2S. See also section 7. Handling and storage.

10.4. Conditions to avoid
Keep away from sources of heat (e.g. hot surfaces), sparks and open flames. Direct sunlight. See also section 7. Handling and storage.

10.5. Incompatible materials
oxidising substances. Strong acids and strong bases. See also section 7. Handling and storage.

10.6. Hazardous decomposition products

SECTION 11: Toxicological information

11.1. Information on toxicological effects
Acute toxicity: Not classified (Based on available data, the classification criteria are not met.)

<table>
<thead>
<tr>
<th>Naphtha (petroleum), isomerization (64741-70-4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50/oral/rat</td>
</tr>
<tr>
<td>LD50/dermal/rat</td>
</tr>
<tr>
<td>LC50/inhalation/4h/rat</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Naphtha (petroleum), isomerization (64741-70-4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50/oral/rat</td>
</tr>
<tr>
<td>LD50/dermal/rabbit</td>
</tr>
<tr>
<td>LC50/inhalation/4h/rat</td>
</tr>
</tbody>
</table>

Skin corrosion/irritation: Causes skin irritation.

pH: Not determined

Serious eye damage/irritation: Not classified (Based on available data, the classification criteria are not met.)

pH: Not determined

Respiratory or skin sensitisation: Not classified (Based on available data, the classification criteria are not met.)

Germ cell mutagenicity: May cause genetic defects.

Carcinogenicity: May cause cancer.

Reproductive toxicity: Suspected of damaging fertility. Suspected of damaging the unborn child.

STOT-single exposure: May cause drowsiness or dizziness.

<table>
<thead>
<tr>
<th>Naphtha (petroleum), isomerization (64741-70-4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LOAEL, male, acute, Inhalation, Rat, systemic</td>
</tr>
</tbody>
</table>

STOT-repeated exposure: Not classified (Based on available data, the classification criteria are not met.)

<table>
<thead>
<tr>
<th>Naphtha (petroleum), isomerization (64741-70-4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NOAEL, Dermal, systemic</td>
</tr>
<tr>
<td>NOAEC, Inhalation, systemic</td>
</tr>
<tr>
<td>NOAEC, Inhalation, systemic</td>
</tr>
<tr>
<td>NOAEC, Inhalation, local</td>
</tr>
</tbody>
</table>
Naphtha (petroleum), isomerization (64741-70-4)

NOAEC, Chronic, Inhalation, systemic 292 ppm

Aspiration hazard: May be fatal if swallowed and enters airways.

Naphtha (petroleum), isomerization (64741-70-4)

Kinematic viscosity 1 mm²/s @ 20°C

Other information: Symptoms related to the physical, chemical and toxicological characteristics. Reference to other sections: 4.2.

SECTION 12: Ecological information

12.1. Toxicity

Naphtha (petroleum), isomerization (64741-70-4)

LL50, fish, acute, Freshwater, Pimephales promelas (fathead minnow) 8.2 mg/l (96 hours, equivalent or similar to EPA 66013-75-009)
NOELR, fish, Chronic, Freshwater, Pimephales promelas (fathead minnow) 2.6 mg/l (14 days, OECD 204)
EL50, daphnia, acute, Freshwater, daphnia 4.5 mg/l (48 hours, OECD Test Guideline 202)
NOELR, daphnia, Chronic, Freshwater, daphnia 2.6 mg/l (21 days, OECD 211)
EL50, algae, Freshwater, Pseudokirchneriella subcapitata 3.1 mg/l (72 hours, OECD Test Guideline 201)
LL50, microorganisms, Freshwater, Tetrahymena pyrifomis 15.41 mg/l (72 hours, Quantitative structure-activity relationship (QSAR))

Naphtha (petroleum), isomerization (64741-70-4)

LC50 fish 1 10 mg/l (96h)
EC50 Daphnia 1 4.5 mg/l (48h)
LC50 fish 2 8.2 mg/l (96h)
ErC50 (algae) 3.1 mg/l (72h)

12.2. Persistence and degradability

Naphtha (petroleum), isomerization (64741-70-4)

Persistence and degradability: Readily biodegradable.

12.3. Bioaccumulative potential

Naphtha (petroleum), isomerization (64741-70-4)

Partition coefficient n-octanol/water 1 - 8

12.4. Mobility in soil

Naphtha (petroleum), isomerization (64741-70-4)

Ecology - soil: Low mobility (soil).

12.5. Results of PBT and vPvB assessment

No data available

12.6. Other adverse effects

No data available
SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product/Packaging disposal recommendations: Handle with care. Safe handling: see section 7. Handling and storage. Dispose of contaminated materials in accordance with current regulations. Refer to manufacturer/supplier for information on recovery/recycling. Collect and dispose of waste product at an authorised disposal facility.

Additional information: Do not puncture or incinerate. Do not burn, or use a cutting torch on the empty drum. Delivery to an approved waste disposal company.

Further ecological information: Do not allow to enter into surface water or drains.

European waste catalogue (2001/573/EC, 75/442/EEC, 91/689/EEC): Classified as hazardous waste according to European Union regulations. Waste codes should be assigned by the user, preferably in discussion with the waste disposal authorities.

The following Waste Codes are only suggestions: 130702 - petrol
130702 - petrol
150110 - packaging containing residues of or contaminated by dangerous substances

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

<table>
<thead>
<tr>
<th>ADR</th>
<th>IMDG</th>
<th>IATA</th>
<th>ADN</th>
<th>RID</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.1. UN number</td>
<td>1268</td>
<td>1268</td>
<td>1268</td>
<td>1268</td>
</tr>
<tr>
<td>14.2. UN proper shipping name</td>
<td>PETROLEUM DISTILLATES, N.O.S. (Naphtha (petroleum), heavy catalytic cracked)</td>
<td>PETROLEUM DISTILLATES, N.O.S. (Naphtha (petroleum), heavy catalytic cracked)</td>
<td>Petroleum distillates, n.o.s. (Naphtha (petroleum), heavy catalytic cracked)</td>
<td>PETROLEUM DISTILLATES, N.O.S. (Naphtha (petroleum), heavy catalytic cracked)</td>
</tr>
</tbody>
</table>

Transport document description

UN 1268 PETROLEUM DISTILLATES, N.O.S. (Naphtha (petroleum), heavy catalytic cracked), 3, I, (D/E) | UN 1268 PETROLEUM DISTILLATES, N.O.S. (Naphtha (petroleum), heavy catalytic cracked), 3, I | UN 1268 Petroleum distillates, n.o.s. (Naphtha (petroleum), heavy catalytic cracked), 3, I | UN 1268 PETROLEUM DISTILLATES, N.O.S. (Naphtha (petroleum), heavy catalytic cracked), 3, I | UN 1268 PETROLEUM DISTILLATES, N.O.S. (Naphtha (petroleum), heavy catalytic cracked), 3, I |

14.3. Transport hazard class(es)

| | 3 | 3 | 3 | 3 | 3 |

14.4. Packing group

| | I | I | I | I | I |

14.5. Environmental hazards

| Dangerous for the environment: No | Dangerous for the environment: No | Dangerous for the environment: No | Dangerous for the environment: No | Dangerous for the environment: No |

14.6. Special precautions for user

- Overland transport

Classification code (ADR): F1
Special provisions: 363, 664
Limited quantities (ADR): 500ml
Excepted quantities (ADR): E2
Packing instructions (ADR): P001
Mixed packing provisions (ADR): MP7, MP17
Portable tank and bulk container instructions (ADR): T11
Portable tank and bulk container special provisions (ADR): TP1, TP8
Tank code (ADR): L4BN
Vehicle for tank carriage: FL
Transport category (ADR): 1
Special provisions for carriage - Operation (ADR): S2, S20
Hazard identification number (Kemler No.): 33
Orange plates:

Tunnel restriction code: D/E
EAC code: 3YE

- Transport by sea

Special provisions (IMDG): 363
Limited quantities (IMDG): 500 ml
Excepted quantities (IMDG): E3
Packing instructions (IMDG): P001
Tank instructions (IMDG): T11
Tank special provisions (IMDG): TP1, TP8
EmS-No. (Fire): F-E
EmS-No. (Spillage): S-E
Stowage category (IMDG): E
Properties and observations (IMDG): Immiscible with water.

- Air transport

PCA Excepted quantities (IATA): E3
PCA Limited quantities (IATA): Forbidden
PCA limited quantity max net quantity (IATA): Forbidden
PCA packing instructions (IATA): 351
PCA max net quantity (IATA): 1L
CAO packing instructions (IATA): 361
CAO max net quantity (IATA): 30L
Special provisions (IATA): A3
ERG code (IATA): 3H

- Inland waterway transport

Classification code (ADN): F1
Special provisions (ADN): 363
Limited quantities (ADN) : 500 ml
Excepted quantities (ADN) : E3
Carriage permitted (ADN) : T
Equipment required (ADN) : PP, EX, A
Ventilation (ADN) : VE01
Number of blue cones/lights (ADN) : 1

- Rail transport
Classification code (RID) : F1
Special provisions (RID) : 363
Limited quantities (RID) : 500ml
Excepted quantities (RID) : E3
Packing instructions (RID) : P001
Mixed packing provisions (RID) : MP7, MP17
Portable tank and bulk container instructions (RID) : T11
Portable tank and bulk container special provisions (RID) : TP1, TP8
Tank codes for RID tanks (RID) : L4BN
Transport category (RID) : 1
Hazard identification number (RID) : 33

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

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

15.1.1. EU-Regulations
The following restrictions are applicable according to Annex XVII of the REACH Regulation (EC) No 1907/2006:

3. Liquid substances or mixtures which are regarded as dangerous in accordance with Directive 1999/45/EC or are fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008
Naphtha (petroleum), isomerization - Naphtha (petroleum), isomerization

3(a) Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 2.3, 2.4, 2.6 and 2.7, 2.8 types A and B, 2.9, 2.10, 2.12, 2.13 categories 1 and 2, 2.14 categories 1 and 2, 2.15 types A to F
Naphtha (petroleum), isomerization - Naphtha (petroleum), isomerization

3(b) Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 3.1 to 3.6, 3.7 adverse effects on sexual function and fertility or on development, 3.8 effects other than narcotic effects, 3.9 and 3.10
Naphtha (petroleum), isomerization - Naphtha (petroleum), isomerization

3(c) Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard class 4.1
Naphtha (petroleum), isomerization - Naphtha (petroleum), isomerization

28. Substances which appear in Part 3 of Annex VI to Regulation (EC) No 1272/2008 classified as Carcinogen category 1A or 1B (Table 3.1) or Carcinogen category 1 or 2 (Table 3.2) and listed as follows: Carcinogen category 1A (Table 3.1)/Carcinogen category 1 (Table 3.2) listed in Appendix 1 Carcinogen category 1B (Table 3.1)/Carcinogen category 2 (Table 3.2) listed in Appendix 2
Naphtha (petroleum), isomerization - Naphtha (petroleum), isomerization

29. Substances which appear in Part 3 of Annex VI to Regulation (EC) No 1272/2008 classified as Mutagen category 1A or 1B (Table 3.1) or Mutagen category 1 or 2 (Table 3.2) and listed as follows: Mutagen category 1A (Table 3.1)/Mutagen category 1 (Table 3.2) listed in Appendix 3 Mutagen category 1B (Table 3.1)/Mutagen category 2 (Table 3.2) listed in Appendix 4
Naphtha (petroleum), isomerization - Naphtha (petroleum), isomerization
40. Substances classified as flammable gases category 1 or 2, flammable liquids categories 1, 2 or 3, flammable solids category 1 or 2, substances and mixtures which, in contact with water, emit flammable gases, category 1, 2 or 3, pyrophoric liquids category 1 or pyrophoric solids category 1, regardless of whether they appear in Part 3 of Annex VI to Regulation (EC) No 1272/2008 or not.

Naphtha (petroleum), isomerization is not on the REACH Candidate List
Naphtha (petroleum), isomerization is not on the REACH Annex XIV List

15.1.2. National regulations

France

<table>
<thead>
<tr>
<th>No ICPE</th>
<th>Installations classées</th>
<th>Désignation de la rubrique</th>
<th>Code Régime</th>
<th>Rayon</th>
</tr>
</thead>
<tbody>
<tr>
<td>4510.text</td>
<td>Dangereux pour l’environnement aquatique de catégorie aiguë 1 ou chronique 1.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4510.1</td>
<td>La quantité totale susceptible d’être présente dans l’installation étant : 1. Supérieure ou égale à 100 t  Quantité seuil bas au sens de l’article R. 511-10 : 100 t.  Quantité seuil haut au sens de l’article R. 511-10 : 200 t.</td>
<td>A</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>4510.2</td>
<td>La quantité totale susceptible d’être présente dans l’installation étant : 2. Supérieure ou égale à 20 t mais inférieure à 100 t  Quantité seuil bas au sens de l’article R. 511-10 : 100 t.  Quantité seuil haut au sens de l’article R. 511-10 : 200 t.</td>
<td>DC</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Germany

Reference to AwSV : Water hazard class (WGK) 3, severe hazard to waters (Classification according to AwSV; ID No. 9162)
Risk classification according to VbF : A I - Liquids with a flashpoint below 21°C
12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV : Is not subject of the 12. BlmSchV (Hazardous Incident Ordinance)

TA Luft : Mutagenetic

Netherlands

Waterbezwaarlijkheid : 2 - Toxic to aquatic organisms A (2)
SZW-lijst van kankerverwekkende stoffen : Naphtha (petroleum), isomerization is listed
SZW-lijst van mutagene stoffen : Naphtha (petroleum), isomerization is listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding : The substance is not listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid : The substance is not listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling : The substance is not listed

Denmark

Class for fire hazard : Class I-1
Store unit : 1 liter
Recommendations Danish Regulation : The requirements from the Danish Working Environment Authorities regarding work with carcinogens must be followed during use and disposal
15.2. Chemical safety assessment

For this substance a chemical safety assessment has been carried out

SECTION 16: Other information

Indication of changes:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Modified</td>
</tr>
<tr>
<td>2</td>
<td>Modified</td>
</tr>
<tr>
<td>5</td>
<td>Modified</td>
</tr>
<tr>
<td>9</td>
<td>Modified</td>
</tr>
<tr>
<td>15</td>
<td>Modified</td>
</tr>
<tr>
<td>16</td>
<td>Modified</td>
</tr>
</tbody>
</table>

Abbreviations and acronyms:

- ADN = Accord Européen relatif au Transport International des Marchandises Dangereuses par voie de Navigation du Rhin
- ADR = Accord européen relatif au transport international des marchandises Dangereuses par Route
- CLP = Classification, Labelling and Packaging Regulation according to 1272/2008/EC
- IATA = International Air Transport Association
- IMDG = International Maritime Dangerous Goods Code
- LEL = Lower Explosive Limit/Lower Explosion Limit
- UEL = Upper Explosion Limit/Upper Explosive Limit
- REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals
- N = Dangerous for the environment
- TWA = time weighted average
- vPvB = very persistent and very bioaccumulating
- WGK = Wassergefährdungsklasse (Water Hazard Class under German Federal Water Management Act)
- T = Toxic
- TLV = Threshold limits
- STEL = Short term exposure limit
- DNEL = Derived No Effect Level
- CSR = Chemical Safety Report
- EC50 = Median Effective Concentration

Sources of key data used to compile the datasheet: European Chemicals Bureau CSR Low Boiling Point Naphthas Concawe.

Training advice: Manipulations are to be done only by qualified and authorised persons. Training staff on good practice.

Full text of H- and EUH-statements:

- Aquatic Chronic 2: Hazardous to the aquatic environment - chronic hazard category 2
- Asp. Tox. 1: Aspiration hazard, Category 1
- Carc. 1B: Carcinogenicity, Category 1B
- Flam. Liq. 1: Flammable liquids, Category 1
- Muta. 1B: Germ cell mutagenicity, hazard categories 1B
- Repr. 2: Reproductive toxicity, Hazard Category 2
- Skin Irrit. 2: Skin corrosion/irritation, Category 2
- STOT SE 3: Specific target organ toxicity — Single exposure, Category 3, Narcosis
- 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.

Restricted to professional users.
Classification according to Regulation (EC) No. 1272/2008 [CLP]
Labelling according to Regulation (EC) No. 1272/2008 [CLP]

DISCLAIMER OF LIABILITY The information in this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This SDS was prepared and is to be used only for this product. If the product is used as a component in another product, this SDS information may not be applicable.