n-Hexane ROTISOLV®, Pestilyse® plus

article number: 7567
Version: 4.0 en
Replaces version of: 06.09.2018
Version: (3)

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

1.1 Product identifier

Identification of the substance: n-Hexane

Article number: 7567
Registration number (REACH): 01-2119480412-44-xxxx
Index No: 601-037-00-0
EC number: 203-777-6
CAS number: 110-54-3

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

Identified uses:
laboratory chemical
laboratory and analytical use

1.3 Details of the supplier of the safety data sheet

Carl Roth GmbH + Co KG
Schoemperlenstr. 3-5
D-76185 Karlsruhe
Germany

Telephone: +49 (0) 721 - 56 06 0
Telefax: +49 (0) 721 - 56 06 149
e-mail: sicherheit@carlroth.de
Website: www.carlroth.de

Competent person responsible for the safety data sheet: Department Health, Safety and Environment

e-mail (competent person): sicherheit@carlroth.de

1.4 Emergency telephone number

Emergency information service
Poison Centre Munich: +49/(0)89 19240

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 (CLP)

<table>
<thead>
<tr>
<th>Section</th>
<th>Hazard class</th>
<th>Hazard class and category</th>
<th>Hazard state-ment</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.6</td>
<td>flammable liquid</td>
<td>(Flam. Liq. 2)</td>
<td>H225</td>
</tr>
<tr>
<td>3.2</td>
<td>skin corrosion/irritation</td>
<td>(Skin Irrit. 2)</td>
<td>H315</td>
</tr>
<tr>
<td>3.7</td>
<td>reproductive toxicity</td>
<td>(Repr. 2)</td>
<td>H361f</td>
</tr>
<tr>
<td>3.8D</td>
<td>specific target organ toxicity - single exposure (narcotic effects, drowsiness)</td>
<td>(STOT SE 3)</td>
<td>H336</td>
</tr>
</tbody>
</table>
n-Hexane ROTISOLV® ≥96 %, Pestilyse® plus

Classification acc. to GHS

<table>
<thead>
<tr>
<th>Section</th>
<th>Hazard class</th>
<th>Hazard class and category</th>
<th>Hazard statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.9</td>
<td>specific target organ toxicity - repeated exposure</td>
<td>(STOT RE 2)</td>
<td>H373</td>
</tr>
<tr>
<td>3.10</td>
<td>aspiration hazard</td>
<td>(Asp. Tox. 1)</td>
<td>H304</td>
</tr>
<tr>
<td>4.1C</td>
<td>hazardous to the aquatic environment - chronic hazard</td>
<td>(Aquatic Chronic 2)</td>
<td>H411</td>
</tr>
</tbody>
</table>

The most important adverse physicochemical, human health and environmental effects
Narcotic effects.

2.2 Label elements
Labelling according to Regulation (EC) No 1272/2008 (CLP)

Signal word: Danger

Pictograms

GHS02, GHS07, GHS08, GHS09

Hazard statements

H225    Highly flammable liquid and vapour
H304    May be fatal if swallowed and enters airways
H315    Causes skin irritation
H336    May cause drowsiness or dizziness
H361f   Suspected of damaging fertility
H373    May cause damage to organs (nervous system) through prolonged or repeated exposure (if inhaled)
H411    Toxic to aquatic life with long lasting effects

Precautionary statements

Precautionary statements - prevention

P202    Do not handle until all safety precautions have been read and understood.
P280    Wear protective gloves/eye protection.

Precautionary statements - response

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P308+P313 IF exposed or concerned: Get medical advice/attention.

For professional users only

Labelling of packages where the contents do not exceed 125 ml
Signal word: Danger

Symbol(s)
Safety data sheet
according to Regulation (EC) No. 1907/2006 (REACH), amended by 2015/830/EU

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article number: 7567

H304 May be fatal if swallowed and enters airways.
H361f Suspected of damaging fertility.
P202 Do not handle until all safety precautions have been read and understood.
P280 Wear protective gloves/eye protection.
P308+P313 IF exposed or concerned: Get medical advice/attention.

2.3 Other hazards
There is no additional information.

SECTION 3: Composition/information on ingredients

3.1 Substances

<table>
<thead>
<tr>
<th>Name of substance</th>
<th>n-Hexane</th>
</tr>
</thead>
<tbody>
<tr>
<td>Index No</td>
<td>601-037-00-0</td>
</tr>
<tr>
<td>Registration number (REACH)</td>
<td>01-2119480412-44-xxxx</td>
</tr>
<tr>
<td>EC number</td>
<td>203-777-6</td>
</tr>
<tr>
<td>CAS number</td>
<td>110-54-3</td>
</tr>
<tr>
<td>Molecular formula</td>
<td>C₆H₁₄</td>
</tr>
<tr>
<td>Molar mass</td>
<td>86,18 g/mol</td>
</tr>
</tbody>
</table>

SECTION 4: First aid measures

4.1 Description of first aid measures

General notes
Take off contaminated clothing.

Following inhalation
Remove person to fresh air and keep comfortable for breathing. In all cases of doubt, or when symptoms persist, seek medical advice.

Following skin contact
Rinse skin with water/shower. In case of skin irritation, consult a physician.

Following eye contact
Rinse cautiously with water for several minutes. Consult an ophthalmologist.

Following ingestion
Rinse mouth. Do not induce vomiting. Aspiration hazard. Call a physician immediately.

4.2 Most important symptoms and effects, both acute and delayed
Irritation, Dizziness, Drowsiness, Nausea, Vomiting, Corneal opacity, Narcosis, Aspiration hazard

4.3 Indication of any immediate medical attention and special treatment needed
none
SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media
Co-ordinate fire-fighting measures to the fire surroundings
water spray, foam, dry extinguishing powder, carbon dioxide (CO2)

Unsuitable extinguishing media
water jet

5.2 Special hazards arising from the substance or mixture
Combustible. Vapours can form explosive mixtures with air.

Hazardous combustion products
In case of fire may be liberated: carbon monoxide (CO), carbon dioxide (CO2)

5.3 Advice for firefighters
Vapours are heavier than air. Fight fire with normal precautions from a reasonable distance. Wear
self-contained breathing apparatus. Do not allow firefighting water to enter drains or water courses.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel
Do not breathe vapour/spray. Avoid contact with skin and eyes. Use personal protective equipment as
required. Avoidance of ignition sources.

6.2 Environmental precautions
Keep away from drains, surface and ground water. Retain contaminated washing water and dispose
of it. Explosive properties.

6.3 Methods and material for containment and cleaning up
Advice on how to contain a spill
Covering of drains.

Advice on how to clean up a spill
Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents).

Other information relating to spills and releases
Place in appropriate containers for disposal. Ventilate affected area.

6.4 Reference to other sections
Hazardous combustion products: see section 5. Personal protective equipment: see section 8. Incom-
patible materials: see section 10. Disposal considerations: see section 13.
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**SECTION 7: Handling and storage**

### 7.1 Precautions for safe handling

Provide adequate ventilation as well as local exhaustion at critical locations. When not in use, keep containers tightly closed.

- **Measures to prevent fire as well as aerosol and dust generation**
  
  Keep away from sources of ignition - No smoking.

Take precautionary measures against static discharge. Due to danger of explosion, prevent leakage of vapours into cellars, flues and ditches.

**Advice on general occupational hygiene**

Wash hands before breaks and after work. When using do not smoke.

### 7.2 Conditions for safe storage, including any incompatibilities

Store in a well-ventilated place. Keep container tightly closed.

**Incompatible substances or mixtures**

Observe hints for combined storage.

**Consideration of other advice**

Ground/bond container and receiving equipment.

- **Ventilation requirements**
  
  Use local and general ventilation.

- **Specific designs for storage rooms or vessels**
  
  Recommended storage temperature: 15 – 25 °C.

### 7.3 Specific end use(s)

No information available.

**SECTION 8: Exposure controls/personal protection**

### 8.1 Control parameters

**National limit values**

**Occupational exposure limit values (Workplace Exposure Limits)**

<table>
<thead>
<tr>
<th>Country</th>
<th>Name of agent</th>
<th>CAS No</th>
<th>Notation</th>
<th>Identifier</th>
<th>TWA [ppm]</th>
<th>TWA [mg/m³]</th>
<th>STEL [ppm]</th>
<th>STEL [mg/m³]</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>EU</td>
<td>n-hexane</td>
<td>110-54-3</td>
<td>IOELV</td>
<td>20</td>
<td>72</td>
<td></td>
<td></td>
<td></td>
<td>2006/15/EC</td>
</tr>
<tr>
<td>MT</td>
<td>n-hexane</td>
<td>110-54-3</td>
<td>OELV</td>
<td>20</td>
<td>72</td>
<td></td>
<td></td>
<td></td>
<td>CAP. 424</td>
</tr>
</tbody>
</table>

**Notation**

- STEL: Short-term exposure limit: a limit value above which exposure should not occur and which is related to a 15-minute period (unless otherwise specified)
- TWA: Time-weighted average (long-term exposure limit): measured or calculated in relation to a reference period of 8 hours time-weighted average (unless otherwise specified)
Relevant DNELs/DMELs/PNECs and other threshold levels

<table>
<thead>
<tr>
<th>Endpoint</th>
<th>Threshold level</th>
<th>Protection goal, route of exposure</th>
<th>Used in</th>
<th>Exposure time</th>
</tr>
</thead>
<tbody>
<tr>
<td>DNEL</td>
<td>75 mg/m³</td>
<td>human, inhalatory</td>
<td>worker (industry)</td>
<td>chronic - systemic effects</td>
</tr>
<tr>
<td>DNEL</td>
<td>11 mg/kg bw/day</td>
<td>human, dermal</td>
<td>worker (industry)</td>
<td>chronic - systemic effects</td>
</tr>
</tbody>
</table>

8.2 Exposure controls

Individual protection measures (personal protective equipment)

Eye/face protection

Use safety goggle with side protection.

Skin protection

• hand protection

Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves. The times are approximate values from measurements at 22 °C and permanent contact. Increased temperatures due to heated substances, body heat etc. and a reduction of the effective layer thickness by stretching can lead to a considerable reduction of the breakthrough time. If in doubt, contact manufacturer. At an approx. 1.5 times larger / smaller layer thickness, the respective breakthrough time is doubled / halved. The data apply only to the pure substance. When transferred to substance mixtures, they may only be considered as a guide.

• type of material

NBR (Nitrile rubber)

• material thickness

≥0,4 mm

• breakthrough times of the glove material

>480 minutes (permeation: level 6)

• other protection measures

Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended.

Flame-retardant protective clothing.

Respiratory protection

Respiratory protection necessary at: Aerosol or mist formation. Type: A (against organic gases and vapours with a boiling point of > 65 °C , colour code: Brown).

Environmental exposure controls

Keep away from drains, surface and ground water.
### SECTION 9: Physical and chemical properties

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

**Appearance**
- **Physical state**: liquid (fluid)
- **Colour**: colourless
- **Odour**: like: Gasoline
- **Odour threshold**: No data available

**Other physical and chemical parameters**
- **pH (value)**: This information is not available.
- **Melting point/freezing point**: -95 °C at 1.013 hPa
- **Initial boiling point and boiling range**: 68 – 69 °C at 1.013 hPa
- **Flash point**: -22 °C at 1.013 hPa
- **Evaporation rate**: no data available
- **Flammability (solid, gas)**: not relevant (fluid)

**Explosive limits**
- **lower explosion limit (LEL)**: 1,1 vol%
- **upper explosion limit (UEL)**: 7,5 vol%
- **Explosion limits of dust clouds**: not relevant
- **Vapour pressure**: 160 hPa at 20 °C
- **Density**: 0,66 g/cm³ at 20 °C
- **Vapour density**: 2,79 (air = 1)
- **Bulk density**: Not applicable
- **Relative density**: Information on this property is not available.

**Solubility(ies)**
- **Water solubility**: <0,1 g/l at 20 °C

**Partition coefficient**
- **n-octanol/water (log KOW)**: 4 (pH value: 7, 20 °C) (ECHA)
- **Soil organic carbon/water (log KOC)**: 3,34 (ECHA)
- **Auto-ignition temperature**: 225 °C - ECHA
- **Decomposition temperature**: no data available

**Viscosity**
- **kinematic viscosity**: 0,5 mm²/s at 20 °C
- **dynamic viscosity**: 0,33 mPa s at 20 °C

**Explosive properties**
- Shall not be classified as explosive

**Oxidising properties**
- none
9.2 Other information
Temperature class (EU, acc. to ATEX) T3 (Maximum permissible surface temperature on the equipment: 200°C)

SECTION 10: Stability and reactivity

10.1 Reactivity
Risk of ignition. Vapours can form explosive mixtures with air.

10.2 Chemical stability
The material is stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

10.3 Possibility of hazardous reactions
Violent reaction with: Peroxides, Chlorine, Iodine, Strong oxidiser, Nitrogen oxides (NOx), => Explosive properties

10.4 Conditions to avoid
Keep away from heat.

10.5 Incompatible materials
plastic and rubber

10.6 Hazardous decomposition products
Hazardous combustion products: see section 5.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity
Shall not be classified as acutely toxic.

<table>
<thead>
<tr>
<th>Exposure route</th>
<th>Endpoint</th>
<th>Value</th>
<th>Species</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>inhalation: vapour</td>
<td>LC50</td>
<td>176 mg/l/4h</td>
<td>rat</td>
<td>RTECS</td>
</tr>
<tr>
<td>oral</td>
<td>LD50</td>
<td>25,000 mg/kg</td>
<td>rat</td>
<td>TOXNET</td>
</tr>
<tr>
<td>dermal</td>
<td>LD50</td>
<td>&gt;2,000 mg/kg</td>
<td>rabbit</td>
<td>ECHA</td>
</tr>
</tbody>
</table>

Skin corrosion/irritation
Causes skin irritation.

Serious eye damage/eye irritation
Shall not be classified as seriously damaging to the eye or eye irritant.

Respiratory or skin sensitisation
Shall not be classified as a respiratory or skin sensitiser.

Summary of evaluation of the CMR properties

Reproductive toxicity:
Suspected of damaging fertility
- Specific target organ toxicity - single exposure
  May cause drowsiness or dizziness.
- Specific target organ toxicity - repeated exposure
May cause damage to organs (nervous system) through prolonged or repeated exposure (if inhaled).

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

**Symptoms related to the physical, chemical and toxicological characteristics**
- **If swallowed**
  nausea, vomiting, aspiration hazard
- **If in eyes**
  Irritating to eyes, corneal opacity
- **If inhaled**
  Irritation to respiratory tract, fatigue, narcosis
- **If on skin**
  causes skin irritation

**Other information**
None

### SECTION 12: Ecological information

#### 12.1 Toxicity
Toxic to aquatic life with long lasting effects.

**Aquatic toxicity (acute)**

<table>
<thead>
<tr>
<th>Endpoint</th>
<th>Value</th>
<th>Species</th>
<th>Source</th>
<th>Exposure time</th>
</tr>
</thead>
<tbody>
<tr>
<td>LL50</td>
<td>12.51 mg/l</td>
<td>fish</td>
<td>ECHA</td>
<td>96 h</td>
</tr>
<tr>
<td>EL50</td>
<td>21.85 mg/l</td>
<td>aquatic invertebrates</td>
<td>ECHA</td>
<td>48 h</td>
</tr>
</tbody>
</table>

**Aquatic toxicity (chronic)**
May cause long-term adverse effects in the aquatic environment.

#### 12.2 Process of degradability
The substance is readily biodegradable.
Theoretical Oxygen Demand: 3,527 mg/mg
Theoretical Carbon Dioxide: 3,064 mg/mg

<table>
<thead>
<tr>
<th>Process</th>
<th>Degradation rate</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>oxygen depletion</td>
<td>83 %</td>
<td>10 d</td>
</tr>
</tbody>
</table>

#### 12.3 Bioaccumulative potential
The substance fulfils the very bioaccumulative criterion.

n-octanol/water (log KOW) 4 (pH value: 7, 20 °C)
BCF 501,2 (ECHA)

#### 12.4 Mobility in soil
The Organic Carbon normalised adsorption coefficient 3,34
12.5 Results of PBT and vPvB assessment
Data are not available.

12.6 Other adverse effects
Data are not available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

This material and its container must be disposed of as hazardous waste. Dispose of contents/container in accordance with local/regional/national/international regulations.

Sewage disposal-relevant information
Do not empty into drains. Avoid release to the environment. Refer to special instructions/safety data sheets.

Waste treatment of containers/packagings
It is a dangerous waste; only packagings which are approved (e.g. acc. to ADR) may be used.

13.2 Relevant provisions relating to waste
The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

13.3 Remarks
Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities. Please consider the relevant national or regional provisions.

SECTION 14: Transport information

14.1 UN number
1208

14.2 UN proper shipping name
HEXANES

Hazardous ingredients
n-Hexane

14.3 Transport hazard class(es)

Class 3 (flammable liquids)

14.4 Packing group
II (substance presenting medium danger)

14.5 Environmental hazards
hazardous to the aquatic environment

14.6 Special precautions for user
Provisions for dangerous goods (ADR) should be complied within the premises.

14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code
The cargo is not intended to be carried in bulk.

14.8 Information for each of the UN Model Regulations

• Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN)

UN number 1208
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<table>
<thead>
<tr>
<th>Proper shipping name</th>
<th>HEXANES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Particulars in the transport document</td>
<td>UN1208, HEXANES, 3, II, (D/E), environmentally hazardous</td>
</tr>
<tr>
<td>Class</td>
<td>3</td>
</tr>
<tr>
<td>Classification code</td>
<td>F1</td>
</tr>
<tr>
<td>Packing group</td>
<td>II</td>
</tr>
<tr>
<td>Danger label(s)</td>
<td>3 + &quot;fish and tree&quot;</td>
</tr>
</tbody>
</table>

- Environmental hazards: yes (hazardous to the aquatic environment)
- Excepted quantities (EQ): E2
- Limited quantities (LQ): 1 L
- Transport category (TC): 2
- Tunnel restriction code (TRC): D/E
- Hazard identification No: 33

• **International Maritime Dangerous Goods Code (IMDG)**

<table>
<thead>
<tr>
<th>UN number</th>
<th>1208</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proper shipping name</td>
<td>HEXANES</td>
</tr>
<tr>
<td>Particulars in the shipper’s declaration</td>
<td>UN1208, HEXANES, 3, II, -22°C c.c., MARINE POLLUTANT</td>
</tr>
<tr>
<td>Class</td>
<td>3</td>
</tr>
<tr>
<td>Marine pollutant</td>
<td>yes (P) (hazardous to the aquatic environment)</td>
</tr>
<tr>
<td>Packing group</td>
<td>II</td>
</tr>
<tr>
<td>Danger label(s)</td>
<td>3 + &quot;fish and tree&quot;</td>
</tr>
</tbody>
</table>

- Special provisions (SP): -
- Excepted quantities (EQ): E2
- Limited quantities (LQ): 1 L
- EmS: F-E, S-D
- Stowage category: E

• **International Civil Aviation Organization (ICAO-IATA/DGR)**

<table>
<thead>
<tr>
<th>UN number</th>
<th>1208</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proper shipping name</td>
<td>Hexanes</td>
</tr>
<tr>
<td>Particulars in the shipper’s declaration</td>
<td>UN1208, Hexanes, 3, II</td>
</tr>
<tr>
<td>Class</td>
<td>3</td>
</tr>
</tbody>
</table>

Safety data sheet according to Regulation (EC) No. 1907/2006 (REACH), amended by 2015/830/EU

Malta (en) Page 11 / 16
Environmental hazards: yes (hazardous to the aquatic environment)

Packing group: II

Danger label(s): 3

Excepted quantities (EQ): E2

Limited quantities (LQ): 1 L

SECTION 15: Regulatory information

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

Relevant provisions of the European Union (EU)

- **Regulation 649/2012/EU concerning the export and import of hazardous chemicals (PIC)**
  Not listed.

- **Regulation 1005/2009/EC on substances that deplete the ozone layer (ODS)**
  Not listed.

  Not listed.

- **Restrictions according to REACH, Annex XVII**

<table>
<thead>
<tr>
<th>Name of substance</th>
<th>CAS No</th>
<th>Wt%</th>
<th>Type of registration</th>
<th>Conditions of restriction</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>n-Hexane</td>
<td></td>
<td>100</td>
<td>1907/2006/EC annex XVII</td>
<td>R3</td>
<td>3</td>
</tr>
<tr>
<td>n-Hexane</td>
<td></td>
<td>100</td>
<td>1907/2006/EC annex XVII</td>
<td>R40</td>
<td>40</td>
</tr>
</tbody>
</table>

**Legend**

R3 1. Shall not be used in:
- ornamental articles intended to produce light or colour effects by means of different phases, for example in ornamental lamps and ashtrays,
- tricks and jokes,
- games for one or more participants, or any article intended to be used as such, even with ornamental aspects,
- can be used as fuel in decorative oil lamps for supply to the general public, and,
- present an aspiration hazard and are labelled with R65 or H304,
4. Decorative oil lamps for supply to the general public shall not be placed on the market unless they conform to the European Standard on Decorative oil lamps (EN 14059) adopted by the European Committee for Standardisation (CEN).
5. Without prejudice to the implementation of other Community provisions relating to the classification, packaging and labelling of dangerous substances and mixtures, suppliers shall ensure, before the placing on the market, that the following requirements are met:
(a) lamp oils, labelled with R65 or H304, intended for supply to the general public are visibly, legibly and indelibly marked as follows: 'Keep lamps filled with this liquid out of the reach of children'; and, by 1 December 2010, 'Just a sip of lamp oil - or even sucking the wick of lamps - may lead to life-threatening lung damage';
(b) grill lighter fluids, labelled with R65 or H304, intended for supply to the general public are legibly and indelibly marked by 1 December 2010 as follows: 'Just a sip of grill lighter may lead to life threatening lung damage';
(c) lamp oils and grill lighters, labelled with R65 or H304, intended for supply to the general public are packaged in black opaque containers not exceeding 1 litre by 1 December 2010.
6. No later than 1 June 2014, the Commission shall request the European Chemicals Agency to prepare a dossier, in accordance with Article 69 of the present Regulation with a view to ban, if appropriate, grill lighter fluids and fuel for decorative lamps, labelled R65 or H304, intended for supply to the general public.
7. Natural or legal persons placing on the market for the first time lamp oils and grill lighter fluids, labelled with R65 or H304, shall by 1 December 2011, and annually thereafter, provide data on alternatives to lamp oils and grill lighter fluids labelled R65 or H304 to the competent authority in the Member State concerned. Member States shall make those data available to the Commission.
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1. Shall not be used, as substance or as mixtures in aerosol dispensers where these aerosol dispensers are intended for supply to the general public for entertainment and decorative purposes such as the following:
   - metallic glitter intended mainly for decoration,
   - artificial snow and frost,
   - 'whooppee' cushions,
   - silly string aerosols,
   - imitation excrement,
   - horns for parties,
   - decorative flakes and foams,
   - artificial cobwebs,
   - stink bombs.

2. Without prejudice to the application of other Community provisions on the classification, packaging and labelling of substances, suppliers shall ensure before the placing on the market that the packaging of aerosol dispensers referred to above is marked visibly, legibly and indelibly with:
   ‘For professional users only.’

3. By way of derogation, paragraphs 1 and 2 shall not apply to the aerosol dispensers referred to Article 8 (1a) of Council Directive 75/324/EEC (2).

4. The aerosol dispensers referred to in paragraphs 1 and 2 shall not be placed on the market unless they conform to the requirements indicated.

• Restrictions according to REACH, Title VIII
  None.

• List of substances subject to authorisation (REACH, Annex XIV)/SVHC - candidate list
  not listed

• Seveso Directive

<table>
<thead>
<tr>
<th>2012/18/EU (Seveso III)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
</tr>
<tr>
<td>-----</td>
</tr>
<tr>
<td>E2</td>
</tr>
</tbody>
</table>

Notation
57) Hazardous to the Aquatic Environment in category Chronic 2

• Directive 75/324/EEC relating to aerosol dispensers

Filling batch

<table>
<thead>
<tr>
<th>VOC content</th>
<th>100 %</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>660 g/l</td>
</tr>
</tbody>
</table>

Directive on industrial emissions (VOCs, 2010/75/EU)

<table>
<thead>
<tr>
<th>VOC content</th>
<th>100 %</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>VOC content</th>
<th>660 g/l</th>
</tr>
</thead>
</table>

Directive 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS) - Annex II
not listed

Regulation 166/2006/EC concerning the establishment of a European Pollutant Release and Transfer Register (PRTR)
not listed

Directive 2000/60/EC establishing a framework for Community action in the field of water policy (WFD)
not listed
n-Hexane ROTISOLV® ≥96 %, Pestilyse® plus

article number: 7567

Regulation 98/2013/EU on the marketing and use of explosives precursors
not listed

Regulation 111/2005/EC laying down rules for the monitoring of trade between the Community and third countries in drug precursors
not listed

National inventories
Substance is listed in the following national inventories:

<table>
<thead>
<tr>
<th>Country</th>
<th>National inventories</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>AU</td>
<td>AICS</td>
<td>substance is listed</td>
</tr>
<tr>
<td>CA</td>
<td>DSL</td>
<td>substance is listed</td>
</tr>
<tr>
<td>CN</td>
<td>IECSC</td>
<td>substance is listed</td>
</tr>
<tr>
<td>EU</td>
<td>ECSI</td>
<td>substance is listed</td>
</tr>
<tr>
<td>EU</td>
<td>REACH Reg.</td>
<td>substance is listed</td>
</tr>
<tr>
<td>JP</td>
<td>CSCL-ENCS</td>
<td>substance is listed</td>
</tr>
<tr>
<td>KR</td>
<td>KECI</td>
<td>substance is listed</td>
</tr>
<tr>
<td>MX</td>
<td>INSQ</td>
<td>substance is listed</td>
</tr>
<tr>
<td>NZ</td>
<td>NZIoC</td>
<td>substance is listed</td>
</tr>
<tr>
<td>PH</td>
<td>PICCS</td>
<td>substance is listed</td>
</tr>
<tr>
<td>TR</td>
<td>CICR</td>
<td>substance is listed</td>
</tr>
<tr>
<td>TW</td>
<td>TCSI</td>
<td>substance is listed</td>
</tr>
<tr>
<td>US</td>
<td>TSCA</td>
<td>substance is listed</td>
</tr>
</tbody>
</table>

Legend
AICS   Australian Inventory of Chemical Substances
CICR   Chemical Inventory and Control Regulation
CSCL-ENCS List of Existing and New Chemical Substances (CSCL-ENCS)
DSL    Domestic Substances List (DSL)
ECSI   EC Substance Inventory (EINECS, ELINCS, NLP)
IECS   Inventory of Existing Chemical Substances Produced or Imported in China
INSQ   National Inventory of Chemical Substances
KECI   Korea Existing Chemicals Inventory
NZIoC  New Zealand Inventory of Chemicals
PICCS  Philippine Inventory of Chemicals and Chemical Substances
REACH Reg. REACH registered substances
TCSI   Taiwan Chemical Substance Inventory
TSCA   Toxic Substance Control Act

15.2 Chemical Safety Assessment
No Chemical Safety Assessment has been carried out for this substance.

SECTION 16: Other information

16.1 Indication of changes (revised safety data sheet)
### Abbreviations and acronyms

<table>
<thead>
<tr>
<th>Abbr.</th>
<th>Descriptions of used abbreviations</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADN</td>
<td>Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures (European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways)</td>
</tr>
<tr>
<td>ADR</td>
<td>Accord européen relatif au transport international des marchandises dangereuses par route (European Agreement concerning the International Carriage of Dangerous Goods by Road)</td>
</tr>
<tr>
<td>BCF</td>
<td>bioconcentration factor</td>
</tr>
<tr>
<td>CAP. 424</td>
<td>Occupational Health and Safety Authority Act (CAP. 424)</td>
</tr>
<tr>
<td>CAS</td>
<td>Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)</td>
</tr>
<tr>
<td>CLP</td>
<td>Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures</td>
</tr>
<tr>
<td>CMR</td>
<td>Carcinogenic, Mutagenic or toxic for Reproduction</td>
</tr>
<tr>
<td>DGR</td>
<td>Dangerous Goods Regulations (see IATA/DGR)</td>
</tr>
<tr>
<td>DMEL</td>
<td>Derived Minimal Effect Level</td>
</tr>
<tr>
<td>DNEL</td>
<td>Derived No-Effect Level</td>
</tr>
<tr>
<td>EINECS</td>
<td>European Inventory of Existing Commercial Chemical Substances</td>
</tr>
<tr>
<td>EL50</td>
<td>Effective Loading 50 %: the EL50 corresponds to the loading rate required to produce a response in 50% of the test organisms</td>
</tr>
<tr>
<td>ELINCS</td>
<td>European List of Notified Chemical Substances</td>
</tr>
<tr>
<td>EmS</td>
<td>Emergency Schedule</td>
</tr>
<tr>
<td>GHS</td>
<td>&quot;Globally Harmonized System of Classification and Labelling of Chemicals&quot; developed by the United Nations</td>
</tr>
<tr>
<td>IATA</td>
<td>International Air Transport Association</td>
</tr>
<tr>
<td>JATA/DGR</td>
<td>Dangerous Goods Regulations (DGR) for the air transport (IATA)</td>
</tr>
<tr>
<td>ICAO</td>
<td>International Civil Aviation Organization</td>
</tr>
<tr>
<td>IMDG</td>
<td>International Maritime Dangerous Goods Code</td>
</tr>
<tr>
<td>index No</td>
<td>the Index number is the identification code given to the substance in Part 3 of Annex VI to Regulation (EC) No 1272/2008</td>
</tr>
<tr>
<td>IOELV</td>
<td>indicative occupational exposure limit value</td>
</tr>
<tr>
<td>LC50</td>
<td>Lethal Concentration 50%: the LC50 corresponds to the concentration of a tested substance causing 50 % lethality during a specified time interval</td>
</tr>
<tr>
<td>LD50</td>
<td>Lethal Dose 50 %: the LD50 corresponds to the dose of a tested substance causing 50 % lethality during a specified time interval</td>
</tr>
<tr>
<td>LL50</td>
<td>Lethal Loading 50 %: the LL50 corresponds to the loading rate causing 50 % lethality</td>
</tr>
<tr>
<td>MARPOL</td>
<td>International Convention for the Prevention of Pollution from Ships (abbr. of &quot;Marine Pollutant&quot;)</td>
</tr>
</tbody>
</table>
Abbr. | Descriptions of used abbreviations
---|---
NLP | No-Longer Polymer
PBT | Persistent, Bioaccumulative and Toxic
PNEC | Predicted No-Effect Concentration
ppm | parts per million
REACH | Registration, Evaluation, Authorisation and Restriction of Chemicals
RID | Règlement concernant le transport International ferroviaire des marchandises Dangereuses (Regulations concerning the International carriage of Dangerous goods by Rail)
STEL | short-term exposure limit
SVHC | Substance of Very High Concern
TWA | time-weighted average
VOC | Volatile Organic Compounds
vPvB | very Persistent and very Bioaccumulative

**Key literature references and sources for data**
- Regulation (EC) No. 1272/2008 (CLP, EU GHS)
- Dangerous Goods Regulations (DGR) for the air transport (IATA)
- International Maritime Dangerous Goods Code (IMDG)

**List of relevant phrases (code and full text as stated in chapter 2 and 3)**

<table>
<thead>
<tr>
<th>Code</th>
<th>Text</th>
</tr>
</thead>
<tbody>
<tr>
<td>H225</td>
<td>highly flammable liquid and vapour</td>
</tr>
<tr>
<td>H304</td>
<td>may be fatal if swallowed and enters airways</td>
</tr>
<tr>
<td>H315</td>
<td>causes skin irritation</td>
</tr>
<tr>
<td>H336</td>
<td>may cause drowsiness or dizziness</td>
</tr>
<tr>
<td>H361f</td>
<td>suspected of damaging fertility</td>
</tr>
<tr>
<td>H373</td>
<td>may cause damage to organs (nervous system) through prolonged or repeated exposure (if inhaled)</td>
</tr>
<tr>
<td>H411</td>
<td>toxic to aquatic life with long lasting effects</td>
</tr>
</tbody>
</table>

**Disclaimer**

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.