

## Hydrocarbons, C6, n-alkanes, iso-alkanes, cyclics, n-hexane rich

Version number: GHS 1.2

Revision: 18.04.2016

### SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

#### 1.1 Product identifier

|   |   |
|---|---|
| Identification of the substance               | <b>Hydrocarbons, C6, n-alkanes, iso-alkanes, cyclics, n-hexane rich</b>   |
| Registration number (REACH)                   | 01-2119474209-33-0003   |
| EC number                                     | 925-292-5   |
| Index No                                      | -   |
| CAS number                                    | 64742-49-0  |
| Additional relevant and available information | Hexane technical<br>Hexan Pharma<br>Hexane, Polymerization<br>Hexane PE<br>Hexane Extraction<br>Hexane, Polymerization<br>Hexan 50/55 DPO<br>n-Hexane/MCP |

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

|                          |   |
|--------------------------|---|
| Relevant identified uses | Lubricants<br>Blowing agents<br>Use in Agrochemicals<br>Use in laboratories<br>Polymer processing<br>Mining chemicals<br>manufacture of substances<br>Use as an intermediate<br><br>Distribution of substance<br>Formulation & (re)packing of substances and mixtures<br>Uses in Coatings<br>Use in Cleaning Agents |
|--------------------------|---|

#### 1.3 Details of the supplier of the safety data sheet

DHC Solvent Chemie GmbH  
Timmerhellstraße 28  
D-45478 Mülheim an der Ruhr  
Germany

Telephone: +49 (208) 9940-0  
Telefax: +49 (208) 9940-150

Competent person responsible for the safety data sheet  
e-mail (competent person)

Yvonne Knappe  
productsafety@dhc-solvent.de

#### 1.4 Emergency telephone number

Emergency information service

DHC Solvent Chemie GmbH  
+49 (208) 9940-112

This number is only for medical emergencies.  
Giftnotrufzentrale Berlin  
+49 (0)30 19 240.

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### SECTION 2: HAZARDS IDENTIFICATION

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

| Hazard class  | Category | Hazard class and category | Hazard statement |
|---|----------|---------------------------|------------------|
| flammable liquid  | Cat. 2   | (Flam. Liq. 2)            | H225             |
| skin corrosion/irritation   | Cat. 2   | (Skin Irrit. 2)           | H315             |
| reproductive toxicity   | Cat. 2   | (Repr. 2)                 | H361             |
| specific target organ toxicity - single exposure (narcotic effects, drowsiness) | Cat. 3   | (STOT SE 3)               | H336             |
| specific target organ toxicity - repeated exposure                              | Cat. 2   | (STOT RE 2)               | H373             |
| aspiration hazard   | Cat. 1   | (Asp. Tox. 1)             | H304             |
| hazardous to the aquatic environment - chronic hazard                           | Cat. 2   | (Aquatic Chronic 2)       | H411             |

#### Remarks

For full text of H-phrases: see SECTION 16.  
 Substance with a community indicative occupational exposure limit value.  
 The classification as a carcinogen or mutagen is not required. The substance contains less than 0,1 % w/w benzene (EINECS No 200-753-7).

#### The most important adverse physicochemical, human health and environmental effects

May be fatal if swallowed and enters airways.  
 The product is combustible and can be ignited by potential ignition sources.

#### 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.  
 H361                      Suspected of damaging fertility or the unborn child.  
 H373                      May cause damage to organs through prolonged or repeated exposure (if inhaled).  
 H411                      Toxic to aquatic life with long lasting effects.

#### Precautionary statements

##### Precautionary statements - prevention

P210                      Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
 P260                      Do not breathe mist/vapours/spray.  
 P281                      Use personal protective equipment as required.

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### Precautionary statements - response

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor/physician.  
P331 Do NOT induce vomiting.  
P370+P378 In case of fire: Use sand, carbon dioxide or powder extinguisher to extinguish.

### Precautionary statements - storage

P403+P233 Store in a well-ventilated place. Keep container tightly closed.  
P403+P235 Store in a well-ventilated place. Keep cool.

### 2.3 Other hazards

According to the results of its assessment, this substance is not a PBT or a vPvB.  
Vapour heavier than air, may form an explosive mixture in air: it may be ignited at some distance away from the spill resulting in flashbacks. Flowing product can create electrostatic charge, resulting sparks may ignite or cause an explosion.

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1 Substances

Name of substance Hydrocarbons, C6, n-alkanes, iso-alkanes, cyclics, n-hexane rich  
Registration number (REACH) 01-2119474209-33-0003  
EC number 925-292-5  
CAS number 64742-49-0  
Index No -  
Purity 100 %

### Hazardous ingredients

| Name of substance | Identifier                                   | Wt%     | Classification acc. to GHS   |
|-------------------|--|---------|--|
| n-hexane          | CAS No<br>110-54-3<br><br>EC No<br>203-777-6 | 45 - 60 | Flam. Liq. 2 / H225<br>Skin Irrit. 2 / H315<br>Repr. 2 / H361f<br>STOT SE 3 / H336<br>STOT RE 2 / H373<br>Asp. Tox. 1 / H304<br>Aquatic Chronic 2 / H411 |

For full text of abbreviations: see SECTION 16.

## SECTION 4: FIRST AID MEASURES

### 4.1 Description of first aid measures

#### General notes

Do not leave affected person unattended. Remove victim out of the danger area. Keep affected person warm, still and covered. Take off immediately all contaminated clothing. In all cases of doubt, or when symptoms persist, seek medical advice. In case of unconsciousness place person in the recovery position. Never give anything by mouth.

#### Following inhalation

If breathing is irregular or stopped, immediately seek medical assistance and start first aid actions. Provide fresh air.

#### Following skin contact

Wash with plenty of soap and water.

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### Following eye contact

Irrigate copiously with clean, fresh water, holding the eyelids apart. Remove contact lenses, if present and easy to do. Continue rinsing. In all cases of doubt, or when symptoms persist, seek medical advice.

### Following ingestion

Do NOT induce vomiting. Rinse mouth with water (only if the person is conscious).

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

Choking and suffocation risks. Narcotic effects. Deficits in perception and coordination, reaction time, or sleepiness.

### 4.3 Indication of any immediate medical attention and special treatment needed

none

## SECTION 5: FIREFIGHTING MEASURES

### 5.1 Extinguishing media

#### Suitable extinguishing media

carbon dioxide (CO<sub>2</sub>), BC-powder, foam, alcohol resistant foam, water mist

#### Unsuitable extinguishing media

water jet

### 5.2 Special hazards arising from the substance or mixture

Solvent vapours are heavier than air and may spread along floors. In case of insufficient ventilation and/or in use, may form flammable/explosive vapour-air mixture. May produce toxic fumes of carbon monoxide if burning.

#### Hazardous combustion products

carbon monoxide (CO), carbon dioxide (CO<sub>2</sub>)

### 5.3 Advice for firefighters

Wear breathing apparatus if exposed to vapours/dust/spray/gases. Co-ordinate firefighting measures to the fire surroundings. Do not allow firefighting water to enter drains or water courses. Collect contaminated firefighting water separately. Fight fire with normal precautions from a reasonable distance. Keep containers cool with water spray.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

### 6.1 Personal precautions, protective equipment and emergency procedures

#### For non-emergency personnel

Remove persons to safety. Avoid inhaling sprayed product. Wearing of suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. Remove/take off immediately all contaminated clothing and wash it before reuse.

#### For emergency responders

Wear breathing apparatus if exposed to vapours/dust/spray/gases.

### 6.2 Environmental precautions

Keep away from drains, surface and ground water. Retain contaminated washing water and dispose it.

### 6.3 Methods and material for containment and cleaning up

#### Advices on how to contain a spill

Covering of drains.

#### Advices on how to clean up a spill

Wipe up with absorbent material (e.g. cloth, fleece). Collect spillage (sawdust, kieselgur (diatomite), sand, universal binder).

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### Appropriate containment techniques

Use of adsorbent materials. - covering of drains

### 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. Incompatible materials: see section 10. Disposal considerations: see section 13.

## SECTION 7: HANDLING AND STORAGE

### 7.1 Precautions for safe handling

#### Recommendations

#### • Measures to prevent fire as well as aerosol and dust generation

Use only in well-ventilated areas. Use local and general ventilation. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Use only non-sparking tools.

#### • Warning

Vapours are heavier than air, spread along floors and form explosive mixtures with air.

#### Advice on general occupational hygiene

Wash hands after use. Do not to eat, drink and smoke in work areas. Remove contaminated clothing and protective equipment before entering eating areas. Never keep food or drink in the vicinity of chemicals. Never place chemicals in containers that are normally used for food or drink. Keep away from food, drink and animal feedingstuffs.

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

#### Managing of associated risks

#### • Explosive atmospheres

Keep container tightly closed and in a well-ventilated place. Use local and general ventilation. Keep cool. Protect from sunlight.

#### • Flammability hazards

Keep away from sources of ignition - No smoking. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Take precautionary measures against static discharge. Protect from sunlight.

#### Incompatible substances or mixtures

Observe hints for combined storage.

#### Consideration of other advice

#### • Ventilation requirements

Use local and general ventilation. Ground/bond container and receiving equipment.

#### • Packaging compatibilities

Only packagings which are approved (e.g. acc. to ADR) may be used.

Suitable materials and coatings for container/equipment: Carbon Steel, Stainless Steel, Polyester, Polytetrafluoroethylene (PTFE), Polyvinyl Alcohol (PVA)

Unsuitable Materials and Coatings for container/equipment: Butyl Rubber, Natural Rubber, Ethylene-propylene-diene monomer (EPDM), Polystyrene, Polyethylene, Polyacrylonitrile.

### 7.3 Specific end use(s)

See attached exposure scenarios

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### SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

#### 8.1 Control parameters

##### National limit values

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

No information available.

| Country | Name of agent  | CAS No     | Identifier | TWA [ppm] | TWA [mg/m <sup>3</sup> ] | STEL [ppm] | STEL [mg/m <sup>3</sup> ] | Source                           |
|---------|--|------------|------------|-----------|--------------------------|------------|---------------------------|----------------------------------|
| DE      | n-hexane   | 110-54-3   | AGW        | 50        | 180                      | 400        | 1,440                     | TRGS 900                         |
| DE      | Hydrocarbons, C6, n-alkanes, iso-alkanes, cyclics, n-hexane rich | 64742-49-0 | AGW        |           | 300                      |            | 600                       | RCP method according to TRGS 900 |
| EU      | n-hexane   | 110-54-3   | IOELV      | 20        | 72                       |            |                           | 2006/15/EC                       |
| GB      | n-hexane   | 110-54-3   | WEL        | 20        | 72                       |            |                           | EH40/2005                        |
| IE      | n-hexane   | 110-54-3   | OELV       | 20        | 72                       |            |                           | S.I. No. 619 of 2001             |

##### 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.

#### Relevant DNELs/DMELs/PNECs and other threshold levels

##### • human health values

| Endpoint | Threshold level      | Protection goal, route of exposure | Used in                       | Exposure time              |
|----------|----------------------|------------------------------------|-------------------------------|----------------------------|
| DNEL     | 13 mg/kg             | human, dermal                      | worker (industry)             | chronic - systemic effects |
| DNEL     | 93 mg/m <sup>3</sup> | human, inhalatory                  | worker (industry)             | chronic - systemic effects |
| DNEL     | 6 mg/kg              | human, oral                        | consumer (private households) | chronic - systemic effects |
| DNEL     | 7 mg/kg              | human, dermal                      | consumer (private households) | chronic - systemic effects |
| DNEL     | 20 mg/m <sup>3</sup> | human, inhalatory                  | consumer (private households) | chronic - systemic effects |

| Name of substance | CAS No   | End-point | Threshold level      | Protection goal, route of exposure | Used in           | Exposure time              |
|-------------------|----------|-----------|----------------------|------------------------------------|-------------------|----------------------------|
| n-hexane          | 110-54-3 | DNEL      | 11 mg/kg             | human, dermal                      | worker (industry) | chronic - systemic effects |
| n-hexane          | 110-54-3 | DNEL      | 75 mg/m <sup>3</sup> | human, inhalatory                  | worker (industry) | chronic - systemic effects |

#### 8.2 Exposure controls

##### Appropriate engineering controls

Technical measures and the appliance of appropriate working methods take priority over the use of personal protective equipment.

Safety and necessary control measures vary according to exposure conditions. Appropriate measures are:

Open windows, door, to allow sufficient ventilation. If this is not possible employ a fan to increase air exchange (see attached exposure scenarios).

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### Individual protection measures (personal protective equipment)

#### Eye/face protection

Use safety goggles with side protection.

#### Skin protection

##### • hand protection

Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374.

Short-term contact with the skin: Disposable gloves

Long-term contact with the skin: Gloves with long cuffs

Check leak-tightness/impermeability prior to use.

##### • type of material

NBR: acrylonitrile-butadiene rubber, FKM: fluoro-elastomer

##### • material thickness

0,40 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. Wash hands thoroughly after handling.

Body protection:

Suitable protective clothing: Flame resistant clothing

Suitable safety shoes: Anti static safety shoes according to EN 345 S3

#### Respiratory protection

For activities in enclosed areas at elevated temperatures of the substance, local extraction or explosion protected ventilation equipment is recommended. In case this is not sufficient for the intended use, then apply a suitable respiratory protection according to EN 140 type A or better (see exposure scenarios).

#### Environmental exposure controls

Do not empty into drains.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

#### Appearance

|                |                |
|----------------|----------------|
| Physical state | liquid         |
| Colour         | colourless     |
| Odour          | characteristic |

#### Other physical and chemical parameters

|   |                                       |
|---|---------------------------------------|
| pH (value)                              | not determined                        |
| Melting point/freezing point            | <-20 °C (ASTM D 5950)                 |
| Initial boiling point and boiling range | 55 - 85 °C at 1,013 mbar              |
| Flash point                             | -20 °C (DIN 51755)                    |
| Explosive limits                        |                                       |
| • lower explosion limit (LEL)           | 1.2 vol%                              |
| • upper explosion limit (UEL)           | 8.3 vol%                              |
| Vapour pressure                         | 19 - 50 kPa at 25 °C                  |
| Density                                 | 0.65 - 0.7 kg/m <sup>3</sup> at 15 °C |
| Solubility(ies)                         | not determined                        |

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|   |                                    |
|---|------------------------------------|
| Partition coefficient                                   |                                    |
| n-octanol/water (log KOW)                               | This information is not available. |
| Auto-ignition temperature                               | >200 °C                            |
| Viscosity   |                                    |
| • kinematic viscosity                                   | 0.4 - 0.7 mm <sup>2</sup> /s       |
| Explosive properties                                    |                                    |
| in use, may form flammable/explosive vapour-air mixture |                                    |
| Oxidising properties                                    | none                               |

### 9.2 Other information

|                 |                              |
|-----------------|------------------------------|
| Surface tension | 18 - 20 N/m (Wilhelmy Plate) |
|-----------------|------------------------------|

## SECTION 10: STABILITY AND REACTIVITY

### 10.1 Reactivity

risk of ignition  
**• if heated**  
 risk of ignition

### 10.2 Chemical stability

The material is stable under normal ambient and anticipated storage and handling conditions of temperature and pressure (see below "Conditions to avoid").

### 10.3 Possibility of hazardous reactions

No known hazardous reactions.

### 10.4 Conditions to avoid

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

#### Hints to prevent fire or explosion

Use only non-sparking tools.

### 10.5 Incompatible materials

oxidisers

### 10.6 Hazardous decomposition products

No known hazardous decomposition products.

## SECTION 11: TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

#### Classification according to GHS (1272/2008/EC, CLP)

##### Acute toxicity

Shall not be classified as acutely toxic.

| Exposure route     | Endpoint | Value           | Species |
|--------------------|----------|-----------------|---------|
| oral               | LD50     | 16,750 mg/kg    | rat     |
| dermal             | LD50     | 3,350 mg/kg     | rabbit  |
| inhalation: vapour | LC50     | 259,354 mg/l/4h | rat     |

#### Skin corrosion/irritation

Causes skin irritation.



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**Respiratory or skin sensitisation**

Shall not be classified as a respiratory or skin sensitiser.

**Summary of evaluation of the CMR properties**

Suspected of damaging the unborn child.

Suspected of damaging fertility.

Shall not be classified as germ cell mutagenic.

Shall not be classified as carcinogenic.

**Specific target organ toxicity (STOT)**

• **Specific target organ toxicity - single exposure**

May cause drowsiness or dizziness.

• **Specific target organ toxicity - repeated exposure**

May cause damage to organs through prolonged or repeated exposure (if inhaled).

**Aspiration hazard**

May be fatal if swallowed and enters airways.

### SECTION 12: ECOLOGICAL INFORMATION

**12.1 Toxicity**

**Aquatic toxicity (acute)**

| Endpoint | Value      | Species                             | Exposure time |
|----------|------------|-------------------------------------|---------------|
| EL50     | 9.902 mg/l | algae                               | 72 hours      |
| LL50     | 13.37 mg/l | rainbow trout (Oncorhynchus mykiss) | 96 hours      |

**Aquatic toxicity (chronic)**

May cause long-term adverse effects in the aquatic environment.

| Endpoint | Value      | Species                             | Exposure time |
|----------|------------|-------------------------------------|---------------|
| NOELR    | 2.992 mg/l | rainbow trout (Oncorhynchus mykiss) | 28 d          |
| NOELR    | 5.224 mg/l | daphnia magna                       | 21 d          |

**12.2 Persistence and degradability**

The substance is readily biodegradable.

**12.3 Bioaccumulative potential**

Data are not available.

**BCF**

501.2

**12.4 Mobility in soil**

Data are not available.

**12.5 Results of PBT and vPvB assessment**

According to the results of its assessment, this substance is not a PBT or a vPvB.

**12.6 Other adverse effects**

Data are not available.

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### SECTION 13: DISPOSAL CONSIDERATIONS

#### 13.1 Waste treatment methods

##### Waste treatment-relevant information

Solvent reclamation/regeneration.

##### Sewage disposal-relevant information

Do not empty into drains.

##### Waste treatment of containers/packagings

Empty containers may contain residue and can be dangerous. Do not attempt to refill or clean containers without proper instructions. Empty drums should be completely drained and safely stored until appropriately re-conditioned or disposed. Empty containers should be taken for recycling, recovery, or disposal through suitably qualified or licensed contractor and in accordance with governmental regulations. DO NOT PRESSURISE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION. THEY MAY EXPLODE AND CAUSE INJURY OR DEATH.

##### List of wastes

Proposed waste code(s) for the used product:

07 01 04x Other organic solvents, washing liquids and mother liquors

##### Remarks



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

### SECTION 14: TRANSPORT INFORMATION

|      |   |   |
|------|---|---|
| 14.1 | UN number   | 1208  |
| 14.2 | UN proper shipping name<br>Technical name   | HEXANES<br>Hydrocarbons, C6, n-alkanes, iso-alkanes, cyclics, n-hexane rich |
| 14.3 | Transport hazard class(es)<br>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<br>Provisions for dangerous goods (ADR) should be complied within the premises.                  |   |
| 14.7 | <b>Transport in bulk according to Annex II of MARPOL and the IBC Code</b><br>The cargo is not intended to be carried in bulk. |   |

##### Information for each of the UN Model Regulations

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

|   |  |
|---|--|
| UN number   | 1208   |
| Proper shipping name  | HEXANES  |
| Technical name (hazardous constituents)   | Hydrocarbons, C6, n-alkanes, iso-alkanes, cyclics, n-hexane rich |
| Class   | 3  |
| Classification code   | F1   |
| Packing group   | II   |
| Danger label(s)   | 3 + "fish and tree"  |
|   |  |
| Environmental hazards   | yes (hazardous to the aquatic environment)                       |
| Exempted quantities (EQ)  | E2   |
| Limited quantities (LQ)   | 1 L  |
| Transport category (TC)   | 2  |
| Tunnel restriction code (TRC)   | D/E  |

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|   |  |
|---|--|
| Hazard identification No                                    | 33   |
| <b>Emergency Action Code</b>                                | 3YE  |
| <b>• International Maritime Dangerous Goods Code (IMDG)</b> |  |
| UN number   | 1208   |
| Proper shipping name  | HEXANES  |
| Particulars in the shipper's declaration                    | UN1208, HEXANES, 3, II, -20°C c.c., MARINE POLLUTANT |
| Class   | 3  |
| Marine pollutant  | yes (hazardous to the aquatic environment)           |
| Packing group   | II   |
| Danger label(s)   | 3 + "fish and tree"                                  |



|  |  |
|--|--|
| Special provisions (SP)  | -  |
| Excepted quantities (EQ)   | E2   |
| Limited quantities (LQ)  | 1 L  |
| EmS  | F-E, S-D                                   |
| Stowage category   | E  |
| <b>• International Civil Aviation Organization (ICAO-IATA/DGR)</b> |  |
| UN number  | 1208                                       |
| Proper shipping name   | Hexanes                                    |
| Class  | 3  |
| 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)

**• 2012/18/EU (Seveso III)**

| No | Dangerous substance/hazard categories                                | Qualifying quantity (tonnes) for the application of lower and upper-tier requirements |     | Notes |
|----|--|---|-----|-------|
| E2 | environmental hazards (hazardous to the aquatic environment, cat. 2) | 200   | 500 | 57)   |

**Notation**

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

**• Limitation of emissions of volatile organic compounds due to the use of organic solvents in certain paints and varnishes and vehicle refinishing products (2004/42/EC, Deco-Paint Directive)**

VOC content 100 %

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

VOC content 100 %

### 15.2 Chemical Safety Assessment

For this substance a chemical safety assessment has been carried out.

## SECTION 16: OTHER INFORMATION

### Abbreviations and acronyms

| Abbr.           | Descriptions of used abbreviations  |
|-----------------|---|
| 2006/15/EC      | Commission Directive establishing a second list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC and amending Directives 91/322/EEC and 2000/39/EC                    |
| ADN             | 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) |
| ADR             | Accord européen relatif au transport international des marchandises dangereuses par route (European Agreement concerning the International Carriage of Dangerous Goods by Road)                                       |
| AGW             | workplace exposure limit  |
| Aquatic Chronic | hazardous to the aquatic environment - chronic hazard   |
| Asp. Tox.       | aspiration hazard   |
| BCF             | BioConcentration Factor   |
| CAS             | Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)  |
| CLP             | Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures  |
| CMR             | Carcinogenic, Mutagenic or toxic for Reproduction   |
| DGR             | Dangerous Goods Regulations (see IATA/DGR)  |
| DMEL            | Derived Minimal Effect Level  |
| DNEL            | Derived No-Effect Level   |
| EC No           | The EC Inventory (EINECS, ELINCS and the NLP-list) is the source for the seven-digit EC number, an identifier of substances commercially available within the EU (European Union)                                     |
| EH40/2005       | EH40/2005 Workplace exposure limits ( <a href="http://www.nationalarchives.gov.uk/doc/open-government-licence/">http://www.nationalarchives.gov.uk/doc/open-government-licence/</a> )                                 |
| EINECS          | European Inventory of Existing Commercial Chemical Substances   |
| ELINCS          | European List of Notified Chemical Substances   |
| EmS             | Emergency Schedule  |
| Flam. Liq.      | flammable liquid  |
| GHS             | "Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations   |
| IATA            | International Air Transport Association   |
| IATA/DGR        | Dangerous Goods Regulations (DGR) for the air transport (IATA)  |
| ICAO            | International Civil Aviation Organization   |
| IMDG            | International Maritime Dangerous Goods Code   |
| index No        | the Index number is the identification code given to the substance in Part 3 of Annex VI to Regulation (EC) No 1272/2008  |
| IOELV           | indicative occupational exposure limit value  |
| MARPOL          | International Convention for the Prevention of Pollution from Ships (abbr. of "Marine Pollutant")   |
| NLP             | No-Longer Polymer   |
| PBT             | Persistent, Bioaccumulative and Toxic   |
| PNEC            | Predicted No-Effect Concentration   |

## Hydrocarbons, C6, n-alkanes, iso-alkanes, cyclics, n-hexane rich

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| Abbr.                | Descriptions of used abbreviations  |
|----------------------|---|
| ppm                  | parts per million   |
| REACH                | Registration, Evaluation, Authorisation and Restriction of Chemicals  |
| Repr.                | reproductive toxicity   |
| RID                  | Règlement concernant le transport International ferroviaire des marchandises Dangereuses (Regulations concerning the International carriage of Dangerous goods by Rail) |
| S.I. No. 619 of 2001 | Safety, Health and Welfare at Work (Chemical Agents) Regulations 2001   |
| Skin Corr.           | corrosive to skin   |
| Skin Irrit.          | irritant to skin  |
| STEL                 | short-term exposure limit   |
| STOT RE              | specific target organ toxicity - repeated exposure  |
| STOT SE              | specific target organ toxicity - single exposure  |
| TRGS 900             | Arbeitsplatzgrenzwerte (TRGS 900)   |
| TWA                  | time-weighted average   |
| VOC                  | Volatile Organic Compounds  |
| vPvB                 | very Persistent and very Bioaccumulative  |
| WEL                  | workplace exposure limit  |

### Key literature references and sources for data

- Regulation (EC) No. 1907/2006 (REACH), amended by 2015/830/EU
- Regulation (EC) No. 1272/2008 (CLP, EU GHS)
- See attached exposure scenarios

[http://www.dhc-solvent.de/dhc\\_sdbreach.html](http://www.dhc-solvent.de/dhc_sdbreach.html)

[http://www.dhc-solvent.de/en/dhc\\_sdbreach.html](http://www.dhc-solvent.de/en/dhc_sdbreach.html)

Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN).  
International Maritime Dangerous Goods Code (IMDG).  
International Air Transport Association (IATA).

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

| Code  | Text   |
|-------|--|
| 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  |
| H361  | suspected of damaging fertility or the unborn child                            |
| H361f | suspected of damaging fertility  |
| H373  | may cause damage to organs through prolonged or repeated exposure (if inhaled) |
| H411  | toxic to aquatic life with long lasting effects                                |