

1,5-HEXADIENE

Safety Data Sheet ENEH1190

Date of issue: 08/06/2015 Version: 1.0

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier**

| | |
|-----------------|---------------------------|
| Product form | : Substance |
| Physical state | : Liquid |
| Substance name | : 1,5-HEXADIENE |
| Product code | : ENEH1190 |
| Formula | : C6H10 |
| Synonyms | : BIALLYL; HEXA-1,5-DIENE |
| Chemical family | : HYDROCARBON |

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 : Chemical intermediate

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet**GELEST, INC.**11 East Steel Road
Morrisville, PA 19067**USA**

T 215-547-1015 - F 215-547-2484 - (M-F): 8:00 AM - 5:30 PM EST

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info@gelestde.com - www.gelestde.com**1.4. Emergency telephone number**

Emergency number : CHEMTREC: 1-800-424-9300 (USA); +1 703-527-3887 (International)

SECTION 2: Hazards identification**2.1. Classification of the substance or mixture****Classification according to Regulation (EC) No. 1272/2008 [CLP]**

Flammable liquids, Category 2

H225

Full text of H statements : see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements**Labelling according to Regulation (EC) No. 1272/2008 [CLP]**

Hazard pictograms (CLP) :



GHS02

Signal word (CLP) :

: Danger

Hazard statements (CLP) :

: H225 - Highly flammable liquid and vapour.

Precautionary statements (CLP) :

: P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233 - Keep container tightly closed.

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P240 - Ground/bond container and receiving equipment.
P403+P235 - Keep in a cool place
P370+P378 - In case of fire: Use water spray or fog, foam, carbon dioxide, dry chemical to extinguish.

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances

Substance type : Mono-constituent
Name : 1,5-HEXADIENE
CAS-No. : 592-42-7
EC-No. : 209-754-7

| Name | Product identifier | % | Classification according to Regulation (EC) No. 1272/2008 [CLP] |
|---------------|---|-------|--|
| 1,5-Hexadiene | (CAS-No.) 592-42-7 (EC-No.) 209-754-7 | > 97 | Flam. Liq. 2, H225 |
| Allyl alcohol | (CAS-No.) 107-18-6 (EC-No.) 203-470-7 (EC Index-No.) 603-015-00-6 | < 0.1 | Flam. Liq. 2, H225 Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Dermal), H311 Acute Tox. 3 (Inhalation), H331 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335 Aquatic Acute 1, H400 |

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

First-aid measures general : Remove contaminated clothing and shoes. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). If possible show this sheet; if not available show packaging or label.

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. If you feel unwell, seek medical advice.

First-aid measures after skin contact : Wash with plenty of water/....

First-aid measures after eye contact : Immediately flush eyes thoroughly with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical advice/attention.

First-aid measures after ingestion : Never give anything by mouth to an unconscious person. Get medical advice/attention.

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

Symptoms/effects after inhalation : No information available.

Symptoms/effects after skin contact : May cause skin irritation.

Symptoms/effects after eye contact : May cause eye irritation.

Symptoms/effects after ingestion : May be harmful if swallowed.

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

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Water spray. Water fog. Foam. Carbon dioxide. Dry chemical.

5.2. Special hazards arising from the substance or mixture

Fire hazard : Highly flammable liquid and vapour. Irritating fumes and organic acid vapors may develop when material is exposed to elevated temperatures or open flame.

Explosion hazard : May form flammable/explosive vapour-air mixture.

5.3. Advice for firefighters

Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire.

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Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection. Avoid all eye and skin contact and do not breathe vapour and mist.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Eliminate every possible source of ignition. Use special care to avoid static electric charges.

6.1.1. For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Clean up any spills as soon as possible, using an absorbent material to collect it. Sweep or shovel spills into appropriate container for disposal. Use only non-sparking tools.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed : Handle empty containers with care because residual vapours are flammable.

Precautions for safe handling : Avoid all eye and skin contact and do not breathe vapour and mist. Take precautionary measures against static discharge. Provide good ventilation in process area to prevent formation of vapour. Use only non-sparking tools.

Hygiene measures : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Ground/bond container and receiving equipment. Proper grounding procedures to avoid static electricity should be followed.

Storage conditions : Keep container tightly closed.

Incompatible materials : Oxidizing agent.

Storage area : Store in a well-ventilated place. Store away from heat.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

| Allyl alcohol (107-18-6) | | |
|--------------------------|---|--|
| EU | IOELV TWA (mg/m ³) | 4.8 mg/m ³ |
| EU | IOELV TWA (ppm) | 2 ppm |
| EU | IOELV STEL (mg/m ³) | 12.1 mg/m ³ |
| EU | IOELV STEL (ppm) | 5 ppm |
| Austria | MAK (mg/m ³) | 4.8 mg/m ³ |
| Austria | MAK (ppm) | 2 ppm |
| Austria | MAK Short time value (mg/m ³) | 12 mg/m ³ |
| Austria | MAK Short time value (ppm) | 5 ppm |
| Belgium | Limit value (mg/m ³) | 4.8 mg/m ³ |
| Belgium | Limit value (ppm) | 2 ppm |
| Belgium | Short time value (mg/m ³) | 9.6 mg/m ³ |
| Belgium | Short time value (ppm) | 4 ppm |
| Bulgaria | OEL TWA (mg/m ³) | 4.8 mg/m ³ |
| Bulgaria | OEL TWA (ppm) | 2 ppm |
| Bulgaria | OEL STEL (mg/m ³) | 12.1 mg/m ³ |
| Bulgaria | OEL STEL (ppm) | 5 ppm |
| Cyprus | OEL TWA (mg/m ³) | 4.8 mg/m ³ |
| Cyprus | OEL TWA (ppm) | 2 ppm |
| Cyprus | OEL STEL (mg/m ³) | 12.1 mg/m ³ |
| Cyprus | OEL STEL (ppm) | 5 ppm |
| France | VLE (mg/m ³) | 4.8 mg/m ³ (indicative limit) |

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| Allyl alcohol (107-18-6) | | |
|------------------------------|---|--|
| France | VLE (ppm) | 2 ppm (indicative limit) |
| France | VME (mg/m ³) | 0.48 mg/m ³ (indicative limit) |
| France | VME (ppm) | 0.2 ppm (indicative limit) |
| Germany | TRGS 900 Occupational exposure limit value (mg/m ³) | 4.8 mg/m ³ |
| Germany | TRGS 900 Occupational exposure limit value (ppm) | 2 ppm |
| Gibraltar | Eight hours mg/m ³ | 4.8 mg/m ³ |
| Gibraltar | Eight hours ppm | 2 ppm |
| Gibraltar | Short-term mg/m ³ | 12.1 mg/m ³ |
| Gibraltar | Short-term ppm | 5 ppm |
| Greece | OEL TWA (mg/m ³) | 5 mg/m ³ |
| Greece | OEL TWA (ppm) | 2 ppm |
| Greece | OEL STEL (mg/m ³) | 10 mg/m ³ |
| Greece | OEL STEL (ppm) | 4 ppm |
| Italy - Portugal - USA ACGIH | ACGIH TWA (ppm) | 0.5 ppm |
| Italy | OEL TWA (mg/m ³) | 4.8 mg/m ³ |
| Italy | OEL TWA (ppm) | 2 ppm |
| Italy | OEL STEL (mg/m ³) | 12.1 mg/m ³ |
| Italy | OEL STEL (ppm) | 5 ppm |
| Latvia | OEL TWA (mg/m ³) | 4.8 mg/m ³ |
| Latvia | OEL TWA (ppm) | 2 ppm |
| USA IDLH | US IDLH (ppm) | 20 ppm |
| USA NIOSH | NIOSH REL (TWA) (mg/m ³) | 5 mg/m ³ |
| USA NIOSH | NIOSH REL (TWA) (ppm) | 2 ppm |
| USA NIOSH | NIOSH REL (STEL) (mg/m ³) | 10 mg/m ³ |
| USA NIOSH | NIOSH REL (STEL) (ppm) | 4 ppm |
| USA OSHA | OSHA PEL (TWA) (mg/m ³) | 5 mg/m ³ |
| USA OSHA | OSHA PEL (TWA) (ppm) | 2 ppm |
| Spain | VLA-ED (mg/m ³) | 5 mg/m ³ (indicative limit value) |
| Spain | VLA-ED (ppm) | 2 ppm (indicative limit value) |
| Spain | VLA-EC (mg/m ³) | 12 mg/m ³ |
| Spain | VLA-EC (ppm) | 5 ppm |
| Switzerland | KZGW (mg/m ³) | 10 mg/m ³ |
| Switzerland | KZGW (ppm) | 4 ppm |
| Switzerland | MAK (mg/m ³) | 5 mg/m ³ |
| Switzerland | MAK (ppm) | 2 ppm |
| Netherlands | Grenswaarde TGG 8H (mg/m ³) | 4.8 mg/m ³ |
| Netherlands | Grenswaarde TGG 15MIN (mg/m ³) | 12.1 mg/m ³ |
| United Kingdom | WEL TWA (mg/m ³) | 4.8 mg/m ³ |
| United Kingdom | WEL TWA (ppm) | 2 ppm |
| United Kingdom | WEL STEL (mg/m ³) | 9.7 mg/m ³ |
| United Kingdom | WEL STEL (ppm) | 4 ppm |
| Czech Republic | Expoziční limity (PEL) (mg/m ³) | 4 mg/m ³ |
| Denmark | Grænseværdie (langvarig) (mg/m ³) | 4.8 mg/m ³ |
| Denmark | Grænseværdie (langvarig) (ppm) | 2 ppm |
| Finland | HTP-arvo (8h) (mg/m ³) | 1.2 mg/m ³ |
| Finland | HTP-arvo (8h) (ppm) | 0.5 ppm |
| Finland | HTP-arvo (15 min) | 4.8 mg/m ³ |
| Finland | HTP-arvo (15 min) (ppm) | 2 ppm |
| Hungary | AK-érték | 4.8 mg/m ³ |
| Hungary | CK-érték | 12.1 mg/m ³ |
| Ireland | OEL (8 hours ref) (mg/m ³) | 4.8 mg/m ³ |
| Ireland | OEL (8 hours ref) (ppm) | 2 ppm |
| Ireland | OEL (15 min ref) (mg/m ³) | 12.1 mg/m ³ |

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| Allyl alcohol (107-18-6) | | |
|--------------------------|--|---|
| Ireland | OEL (15 min ref) (ppm) | 5 ppm |
| Lithuania | IPRV (mg/m ³) | 4.8 mg/m ³ |
| Lithuania | IPRV (ppm) | 2 ppm |
| Lithuania | TPRV (mg/m ³) | 12.1 mg/m ³ |
| Lithuania | TPRV (ppm) | 5 ppm |
| Malta | OEL TWA (mg/m ³) | 4.8 mg/m ³ |
| Malta | OEL TWA (ppm) | 2 ppm |
| Malta | OEL STEL (mg/m ³) | 12.1 mg/m ³ |
| Malta | OEL STEL (ppm) | 5 ppm |
| Norway | Grenseverdier (AN) (mg/m ³) | 5 mg/m ³ |
| Norway | Grenseverdier (AN) (ppm) | 2 ppm |
| Norway | Grenseverdier (Korttidsverdi) (mg/m ³) | 5 mg/m ³ |
| Norway | Grenseverdier (Korttidsverdi) (ppm) | 2 ppm |
| Poland | NDS (mg/m ³) | 2 mg/m ³ |
| Poland | NDSch (mg/m ³) | 10 mg/m ³ |
| Romania | OEL TWA (mg/m ³) | 4.8 mg/m ³ |
| Romania | OEL TWA (ppm) | 2 ppm |
| Romania | OEL STEL (mg/m ³) | 12.1 mg/m ³ |
| Romania | OEL STEL (ppm) | 5 ppm |
| Slovakia | NPHV (priemerná) (mg/m ³) | 4.8 mg/m ³ |
| Slovakia | NPHV (priemerná) (ppm) | 2 ppm |
| Slovakia | NPHV (Hraničná) (mg/m ³) | 12.1 mg/m ³ |
| Sweden | nivågränsvärde (NVG) (mg/m ³) | 5 mg/m ³ |
| Sweden | nivågränsvärde (NVG) (ppm) | 2 ppm |
| Sweden | kortidsvärde (KTV) (mg/m ³) | 14 mg/m ³ |
| Sweden | kortidsvärde (KTV) (ppm) | 6 ppm |
| Canada (Quebec) | VECD (mg/m ³) | 9.5 mg/m ³ |
| Canada (Quebec) | VECD (ppm) | 4 ppm |
| Canada (Quebec) | VEMP (mg/m ³) | 4.8 mg/m ³ |
| Canada (Quebec) | VEMP (ppm) | 2 ppm |
| Australia | TWA (mg/m ³) | 4.8 mg/m ³ |
| Australia | TWA (ppm) | 2 ppm |
| Australia | STEL (mg/m ³) | 9.5 mg/m ³ |
| Australia | STEL (ppm) | 4 ppm |
| Portugal | OEL TWA (mg/m ³) | 4.8 mg/m ³ (indicative limit value) |
| Portugal | OEL TWA (ppm) | 2 ppm (indicative limit value) |
| Portugal | OEL STEL (mg/m ³) | 21.1 mg/m ³ (indicative limit value) |
| Portugal | OEL STEL (ppm) | 5 ppm (indicative limit value) |
| Portugal | OEL chemical category (PT) | A4 - Not Classifiable as a Human Carcinogen, skin - potential for cutaneous exposure indicative limit value |

8.2. Exposure controls

Appropriate engineering controls:

Provide local exhaust or general room ventilation.

Personal protective equipment:

Avoid all unnecessary exposure. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

Hand protection:

Neoprene or nitrile rubber gloves

Eye protection:

Chemical goggles. Contact lenses should not be worn

Skin and body protection:

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Wear suitable protective clothing

Respiratory protection:

Where exposure through inhalation may occur from use, respiratory protection equipment is recommended. NIOSH-certified organic vapor (black cartridge) respirator.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | |
|--|---------------------------------------|
| Physical state | : Liquid |
| Appearance | : Clear liquid. |
| Molecular mass | : 82.14 g/mol |
| Colour | : No data available |
| Odour | : strong. |
| Odour threshold | : No data available |
| Refractive index | : 1.404 |
| pH | : No data available |
| Relative evaporation rate (butylacetate=1) | : > 1 |
| Melting point | : No data available |
| Freezing point | : -141 °C |
| Boiling point | : 60 °C |
| Flash point | : -27 °C |
| Auto-ignition temperature | : 240 °C |
| Decomposition temperature | : No data available |
| Flammability (solid, gas) | : Highly flammable liquid and vapour. |
| Vapour pressure | : ~ 200 mm Hg @ 25°C |
| Relative vapour density at 20 °C | : 2.9 |
| Relative density | : 0.692 |
| % Volatiles | : 100 % |
| Solubility | : Insoluble in water. |
| Log Pow | : No data available |
| Log Kow | : No data available |
| Viscosity, kinematic | : No data available |
| Viscosity, dynamic | : No data available |
| Explosive properties | : No data available |
| Oxidising properties | : No data available |
| Explosive limits | : 2 - 6 vol % (lower; upper) |

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Stable.

10.3. Possibility of hazardous reactions

No additional information available

10.4. Conditions to avoid

Heat. Open flame. Sparks.

10.5. Incompatible materials

Oxidizing agent.

10.6. Hazardous decomposition products

Organic acid vapors.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

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Allyl alcohol (107-18-6)

| | |
|----------------------------|---------------------|
| LD50 oral rat | 64 mg/kg |
| LD50 oral mouse | 96 mg/kg |
| LD50 dermal rabbit | 89 mg/kg |
| LC50 inhalation rat (mg/l) | 0.391 mg/l/4h |
| ATE CLP (oral) | 64 mg/kg bodyweight |
| ATE CLP (dermal) | 45 mg/kg bodyweight |
| ATE CLP (vapours) | 1.76 mg/l/4h |
| ATE CLP (dust,mist) | 1.76 mg/l/4h |

1,5-Hexadiene (592-42-7)

| | |
|----------------------------|--------------------------------|
| LC50 inhalation rat (mg/l) | > 11 lb/h (Exposure time: 4 h) |
|----------------------------|--------------------------------|

| | |
|-------------------------------------|--------------------------------|
| Skin corrosion/irritation | : Not classified |
| Serious eye damage/irritation | : Not classified |
| Respiratory or skin sensitisation | : Not classified |
| Germ cell mutagenicity | : Not classified |
| Carcinogenicity | : Not classified |
| Reproductive toxicity | : Not classified |
| STOT-single exposure | : Not classified |
| STOT-repeated exposure | : Not classified |
| Aspiration hazard | : Not classified |
| Symptoms/effects after inhalation | : No information available. |
| Symptoms/effects after skin contact | : May cause skin irritation. |
| Symptoms/effects after eye contact | : May cause eye irritation. |
| Symptoms/effects after ingestion | : May be harmful if swallowed. |

SECTION 12: Ecological information

12.1. Toxicity

| | |
|--------------------------|------------------|
| Acute aquatic toxicity | : Not classified |
| Chronic aquatic toxicity | : Not classified |

Allyl alcohol (107-18-6)

| | |
|-------------|--|
| LC50 fish 1 | 0.28 - 0.37 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through]) |
| LC50 fish 2 | 0.32 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static]) |

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

Allyl alcohol (107-18-6)

| | |
|------------|-------------------------------|
| BCF fish 1 | (no bioaccumulation expected) |
| Log Pow | 0.17 |

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

Other adverse effects : This substance may be hazardous to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

| | |
|--|--|
| Product/Packaging disposal recommendations | : Incinerate. Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container to licensed waste disposal facility. |
| Additional information | : Handle empty containers with care because residual vapours are flammable. |
| Ecology - waste materials | : Avoid release to the environment. |

SECTION 14: Transport information

14.1. UN number

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

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14.1. UN number

| | |
|---------------|--------|
| UN-No. (ADR) | : 1993 |
| UN-No. (IMDG) | : 1993 |
| UN-No. (IATA) | : 1993 |
| UN-No. (ADN) | : 1993 |
| UN-No. (RID) | : 1993 |

14.2. UN proper shipping name

| | |
|---------------------------------------|--|
| Proper Shipping Name (ADR) | : FLAMMABLE LIQUID, N.O.S. |
| Proper Shipping Name (IMDG) | : FLAMMABLE LIQUID, N.O.S. |
| Proper Shipping Name (IATA) | : Flammable liquid, n.o.s. |
| Proper Shipping Name (ADN) | : FLAMMABLE LIQUID, N.O.S. |
| Proper Shipping Name (RID) | : FLAMMABLE LIQUID, N.O.S. |
| Transport document description (ADR) | : UN 1993 FLAMMABLE LIQUID, N.O.S. (1,5-HEXADIENE), 3, II, (D/E) |
| Transport document description (IMDG) | : UN 1993 FLAMMABLE LIQUID, N.O.S. (1,5-HEXADIENE), 3, II |
| Transport document description (IATA) | : UN 1993 Flammable liquid, n.o.s. (1,5-HEXADIENE), 3, II |
| Transport document description (ADN) | : UN 1993 FLAMMABLE LIQUID, N.O.S. (1,5-HEXADIENE), 3, II |
| Transport document description (RID) | : UN 1993 FLAMMABLE LIQUID, N.O.S. (1,5-HEXADIENE), 3, II |

14.3. Transport hazard class(es)

ADR

| | |
|----------------------------------|-----|
| Transport hazard class(es) (ADR) | : 3 |
| Danger labels (ADR) | : 3 |



IMDG

| | |
|-----------------------------------|-----|
| Transport hazard class(es) (IMDG) | : 3 |
| Danger labels (IMDG) | : 3 |



IATA

| | |
|-----------------------------------|-----|
| Transport hazard class(es) (IATA) | : 3 |
| Hazard labels (IATA) | : 3 |



ADN

| | |
|----------------------------------|-----|
| Transport hazard class(es) (ADN) | : 3 |
| Danger labels (ADN) | : 3 |



RID

| | |
|----------------------------------|-----|
| Transport hazard class(es) (RID) | : 3 |
|----------------------------------|-----|

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Danger labels (RID) : 3



14.4. Packing group

Packing group (ADR) : II
Packing group (IMDG) : II
Packing group (IATA) : II
Packing group (ADN) : II
Packing group (RID) : II

14.5. Environmental hazards

Dangerous for the environment : No
Marine pollutant : No
Other information : No supplementary information available

14.6. Special precautions for user

- Overland transport

Classification code (ADR) : F1
Special provisions (ADR) : 274, 601, 640C
Limited quantities (ADR) : 1I
Excepted quantities (ADR) : E2
Packing instructions (ADR) : P001
Mixed packing provisions (ADR) : MP19
Portable tank and bulk container instructions (ADR) : T7
Portable tank and bulk container special provisions (ADR) : TP1, TP8, TP28
Tank code (ADR) : L1.5BN
Vehicle for tank carriage : FL
Transport category (ADR) : 2
Special provisions for carriage - Operation (ADR) : S2, S20
Hazard identification number (Kemler No.) : 33
Orange plates :



Tunnel restriction code (ADR) : D/E

- Transport by sea

Special provisions (IMDG) : 274
Limited quantities (IMDG) : 1 L
Excepted quantities (IMDG) : E2
Packing instructions (IMDG) : P001
IBC packing instructions (IMDG) : IBC02
Tank instructions (IMDG) : T7
Tank special provisions (IMDG) : TP1, TP8, TP28
EmS-No. (Fire) : F-E
EmS-No. (Spillage) : S-E
Stowage category (IMDG) : B

- Air transport

PCA Excepted quantities (IATA) : E2
PCA Limited quantities (IATA) : Y341
PCA limited quantity max net quantity (IATA) : 1L
PCA packing instructions (IATA) : 353

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| | |
|---------------------------------|-------|
| PCA max net quantity (IATA) | : 5L |
| CAO packing instructions (IATA) | : 364 |
| CAO max net quantity (IATA) | : 60L |
| Special provisions (IATA) | : A3 |
| ERG code (IATA) | : 3H |

- Inland waterway transport

| | |
|-----------------------------------|------------------|
| Classification code (ADN) | : F1 |
| Special provisions (ADN) | : 274, 601, 640C |
| Limited quantities (ADN) | : 1 L |
| Excepted quantities (ADN) | : E2 |
| 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) | : 274, 601, 640C |
| Limited quantities (RID) | : 1L |
| Excepted quantities (RID) | : E2 |
| Packing instructions (RID) | : P001 |
| Mixed packing provisions (RID) | : MP19 |
| Portable tank and bulk container instructions (RID) | : T7 |
| Portable tank and bulk container special provisions (RID) | : TP1, TP8, TP28 |
| Tank codes for RID tanks (RID) | : L1.5BN |
| Transport category (RID) | : 2 |
| Colis express (express parcels) (RID) | : CE7 |
| Hazard identification number (RID) | : 33 |

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

No REACH Annex XVII restrictions

1,5-HEXADIENE is not on the REACH Candidate List

1,5-HEXADIENE is not on the REACH Annex XIV List

1,5-HEXADIENE is not subject to REGULATION (EU) No 649/2012 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 4 July 2012 concerning the export and import of hazardous chemicals.

1,5-HEXADIENE is not subject to Regulation (EC) No 850/2004 of the European Parliament and of the Council of 29 April 2004 on persistent organic pollutants and amending Directive 79/117/EEC

% Volatiles : 100 %

15.1.2. National regulations

Germany

12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV : Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

Netherlands

SZW-lijst van kankerverwekkende stoffen : The substance is not listed

SZW-lijst van mutagene stoffen : The substance is not 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

1,5-HEXADIENE

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NIET-limitatieve lijst van voor de voortplanting : The substance is not listed
giftige stoffen – Ontwikkeling

Denmark

Classification remarks : Emergency management guidelines for the storage of flammable liquids must be followed

15.2. Chemical safety assessment

No additional information available

SECTION 16: Other information

Abbreviations and acronyms:

Abbreviations: ND: Not Determined, No Data; NA: Not Applicable; LD: Lethal Dose; LC: Lethal Concentration; ATE: Acute Toxicity Estimates; H: hour; °: °C unless otherwise stated; mm: millimeters Hg, torr; PEL: permissible exposure level; TWA: time weighted average; TLV: threshold limit value; TG: Test Guideline; NIOSH: National Institute for Occupational Safety and Health; IARC: International Agency for Research on Cancer; NTP: National Toxicology Program; HMIS: Hazardous Material Information System; CAS No.: Chemical Abstract Service Registration Number; EC No.: European Commission Registration Number; EC Index No.: European Commission Index Number; OECD: The Organisation for Economic Co-operation and Development; GHS: The Globally Harmonized System of Classification and Labelling; APF: Assigned Protection Factor

Other information : Prepared by safety and environmental affairs.

Full text of H- and EUH-statements:

| | |
|---------------------------|--|
| Acute Tox. 3 (Dermal) | Acute toxicity (dermal), Category 3 |
| Acute Tox. 3 (Inhalation) | Acute toxicity (inhal.), Category 3 |
| Acute Tox. 3 (Oral) | Acute toxicity (oral), Category 3 |
| Aquatic Acute 1 | Hazardous to the aquatic environment — Acute Hazard, Category 1 |
| Eye Irrit. 2 | Serious eye damage/eye irritation, Category 2 |
| Flam. Liq. 2 | Flammable liquids, Category 2 |
| Skin Irrit. 2 | Skin corrosion/irritation, Category 2 |
| STOT SE 3 | Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation |
| H225 | Highly flammable liquid and vapour. |
| H301 | Toxic if swallowed. |
| H311 | Toxic in contact with skin. |
| H315 | Causes skin irritation. |
| H319 | Causes serious eye irritation. |
| H331 | Toxic if inhaled. |
| H335 | May cause respiratory irritation. |
| H400 | Very toxic to aquatic life. |

SDS EU (REACH Annex II) - Custom

The information contained in this document has been gathered from reference materials and/or Gelest, Inc. test data and is to the best knowledge and belief of Gelest, Inc. accurate and reliable. Such information is offered solely for your consideration, investigation and verification. It is not suggested or guaranteed that the hazard precautions or procedures described are the only ones which exist. Gelest, Inc. makes no warranties, express or implied, with respect to the use of such information and assumes no responsibility therefore. Information on this safety data sheet is not intended to constitute a basis for product specifications.

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