SAFETY DATA SHEET

RENLEASE® QZ 5111

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

1.1 Product identifier

Product name: RENLEASE® QZ 5111
Product code: 00049314
Product description:

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

Product use: Mould release for tooling systems

1.3 Details of the supplier of the safety data sheet

Supplier: Huntsman Advanced Materials (Europe)BVBA
Everslaan 45
3078 Everberg / Belgium
Tel.: +41 61 299 20 41
Fax: +41 61 299 20 40

e-mail address of person responsible for this SDS: Global_Product_EHS_AdMat@huntsman.com

1.4 Emergency telephone number

Supplier
Telephone number: EUROPE: +32 35 75 1234
France ORFILA: +33(0)145425959
ASIA: +65 6336-6011
China: +86 20 39377888
Australia: 1800 786 152
New Zealand: 0800 767 437
USA: +1/800/424.9300

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition: Mixture

Classification according to Directive 1999/45/EC [DPD]

The product is classified as dangerous according to Directive 1999/45/EC and its amendments.

Classification: F; R11
X; R38
R67
N; R51/53

Physical/chemical hazards: Highly flammable.

Human health hazards: Irritating to skin. Vapours may cause drowsiness and dizziness.

Environmental hazards: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

See Section 16 for the full text of the R phrases or H statements declared above.
See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

Date of issue / Date of revision: 5/4/2012.
SECTION 2: Hazards identification

Hazard symbol or symbols:

Indication of danger:
Highly flammable, Irritant, Dangerous for the environment

Risk phrases:
R11- Highly flammable.
R38- Irritating to skin.
R67- Vapours may cause drowsiness and dizziness.
R51/53- Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Safety phrases:
S61- Avoid release to the environment. Refer to special instructions/safety data sheet.

Hazardous ingredients:
naphtha (petroleum), hydrogen treated, light, contains <0.1% benzene (R11-38-51/53-65-67)

Supplemental label elements:

Special packaging requirements:
Containers to be fitted with child-resistant fastenings: Not applicable.

Tactile warning of danger: Not applicable.

2.3 Other hazards
Other hazards which do not result in classification: Not available.

SECTION 3: Composition/information on ingredients

<table>
<thead>
<tr>
<th>Substance/mixture</th>
<th>Identifiers</th>
<th>%</th>
<th>Classification</th>
</tr>
</thead>
</table>

Date of issue / Date of revision: 5/4/2012.
SECTION 3: Composition/information on ingredients

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>CAS:</th>
<th>EC:</th>
<th>R-phrases</th>
<th>H-statements</th>
</tr>
</thead>
<tbody>
<tr>
<td>methylcyclohexane</td>
<td>108-87-2</td>
<td>203-624-3</td>
<td>R67, N; R50/53</td>
<td>Asp. Tox. 1, H304, Aquatic Acute 1, H400, Aquatic Chronic 1, H410</td>
</tr>
<tr>
<td>octane</td>
<td>111-65-9</td>
<td>203-892-1</td>
<td>F; R11, Xn; R65, Xi; R38, R67, N; R51/53</td>
<td>Flam. Liq. 2, H225, Skin Irrit. 2, H315, STOT SE 3, H336, Asp. Tox. 1, H304, Aquatic Chronic 2, H411</td>
</tr>
<tr>
<td>n-hexane</td>
<td>110-54-3</td>
<td>203-777-6</td>
<td>F; R11, Repr. Cat. 3; R62, Xn; R48/20, R65, Xi; R38, R67, N; R51/53</td>
<td>Flam. Liq. 2, H225, Skin Irrit. 2, H315, STOT SE 3, H336, Asp. Tox. 1, H304, Aquatic Chronic 1, H410, Aquatic Acute 1, H400, Aquatic Chronic 2, H411</td>
</tr>
</tbody>
</table>

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Type

[1] Substance classified with a health or environmental hazard
[2] Substance with a workplace exposure limit

Occupational exposure limits, if available, are listed in Section 8.

SECTION 4: First aid measures

4.1 Description of first aid measures

**Eye contact**: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.

**Inhalation**: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

**Skin contact**: Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.
SECTION 4: First aid measures

Ingestion: Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Protection of first-aiders: No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

4.2 Most important symptoms and effects, both acute and delayed

Potential acute health effects

Eye contact: May cause eye irritation.
Inhalation: Vapours may cause drowsiness and dizziness.
Skin contact: Irritating to skin.
Ingestion: Irritating to mouth, throat and stomach.

Over-exposure signs/symptoms

Eye contact: No specific data.
Inhalation: Adverse symptoms may include the following:
- Nausea or vomiting
- Headache
- Drowsiness/fatigue
- Dizziness/vertigo

Skin contact: Adverse symptoms may include the following:
- Irritation
- Redness

Ingestion: No specific data.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician: Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Specific treatments: Symptomatic treatment and supportive therapy as indicated. Following severe exposure the patient should be kept under medical review for at least 48 hours.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media: Use dry chemical, CO₂, water spray (fog) or foam.

Unsuitable extinguishing media: Do not use water jet.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture: Highly flammable liquid. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Runoff to sewer may create fire or explosion hazard.

Hazardous thermal decomposition products: Decomposition products may include the following materials: carbon dioxide, carbon monoxide.
SECTION 5: Firefighting measures

5.3 Advice for firefighters

Special precautions for firefighters:
Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool. This material is toxic to aquatic organisms. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

Special protective equipment for fire-fighters:
Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel:
No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spill material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders:
If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also Section 8 for additional information on hygiene measures.

6.2 Environmental precautions:
Avoid dispersal of spill material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities.

6.3 Methods and materials for containment and cleaning up

Small spill:
Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor.

Large spill:
Stop leak if without risk. Move containers from spill area. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product.

6.4 Reference to other sections:
See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.
**SECTION 7: Handling and storage**

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

### 7.1 Precautions for safe handling

**Protective measures**

- Put on appropriate personal protective equipment (see Section 8). Do not ingest.
- Avoid contact with eyes, skin and clothing. Avoid breathing vapour or mist. Avoid release to the environment. Refer to special instructions/safety data sheet. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use non-sparking tools. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by earthing and bonding containers and equipment before transferring material. Empty containers retain product residue and can be hazardous. Do not reuse container.

**Advice on general occupational hygiene**

- Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

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

- Store between the following temperatures: 2 to 40°C (35.6 to 104°F). Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination.

**Storage hazard class**

Huntsman Advanced Materials: Storage class 3, Flammable liquids

### 7.3 Specific end use(s) Recommendations

**Industrial sector specific solutions**

- Not available.

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

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

### 8.1 Control parameters

**Occupational exposure limits**
SECTION 8: Exposure controls/personal protection

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Exposure limit values</th>
</tr>
</thead>
</table>
| cyclohexane             | EH40/2005 WELs (United Kingdom (UK), 8/2007).  
STEL: 1050 mg/m³ 15 minute(s).  
STEL: 300 ppm 15 minute(s).  
TWA: 100 ppm 8 hour(s).  
TWA: 350 mg/m³ 8 hour(s).  
| n-hexane               | EH40/2005 WELs (United Kingdom (UK), 8/2007).  
TWA: 72 mg/m³ 8 hour(s).  
TWA: 20 ppm 8 hour(s).  |

**Recommended monitoring procedures**: If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to European Standard EN 689 for methods for the assessment of exposure by inhalation to chemical agents and national guidance documents for methods for the determination of hazardous substances.

**Derived effect levels**: No DELs available.

**Predicted effect concentrations**: No PECs available.

**8.2 Exposure controls**

**Appropriate engineering controls**: Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapour or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

**Individual protection measures**

**Hygiene measures**: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

**Eye/face protection**: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists or dusts.

**Skin protection**

**Hand protection**: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

**Material of gloves for long term application (BTT>480min)**: Ethyl Vinyl Alcohol Laminate (EVAL), butyl rubber

**Material of gloves for short term/splash application (10min<BTT<480min)**: nitrile rubber

Use gloves approved to relevant standards e.g. EN 374 (Europe), F739 (US). Suitability and durability of a glove is dependent on usage, e.g. frequency and duration of contact, chemical resistance of glove material and dexterity. Always seek advice from glove suppliers. Additional information can be found for instance at www.gisbau.de.
SECTION 8: Exposure controls/personal protection

Body protection: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection: In case of inadequate ventilation wear respiratory protection. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Environmental exposure controls: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

**Appearance**

- Physical state: Liquid. [Emulsion.]
- Colour: Not available.
- Odour: of solvent
- Odour threshold: Not available.
- pH: Not available.
- Melting point/freezing point: Not available.
- Initial boiling point and boiling range: 84°C
- Flash point: Closed cup: -9°C [PMCC]
- Evaporation rate: Not available.
- Flammability (solid, gas): Not available.
  - Burning time: Not applicable.
  - Burning rate: Not applicable.
- Upper/lower flammability or explosive limits: Lower: 0.8%
  - Upper: 6.5%
- Vapour pressure: 7.5 kPa [20°C]
- Vapour density: Not available.
- Relative density: Not available.
- Solubility(ies): Not available.
- Water solubility: practically insoluble
  - 20 deg C
- Partition coefficient: n-octanol/water (LogK<sub>ow</sub>): Not available.
- Auto-ignition temperature: 250°C
- Decomposition temperature: Not available.
- Viscosity: Dynamic: 5 mPa·s
- Explosive properties: Not available.
- Oxidising properties: Not available.

9.2 Other information

- Density: 0.71 g/cm³ [20°C (68°F)]
SECTION 10: Stability and reactivity

10.1 Reactivity: No specific test data related to reactivity available for this product or its ingredients.

10.2 Chemical stability: The product is stable.

10.3 Possibility of hazardous reactions: Under normal conditions of storage and use, hazardous reactions will not occur.

10.4 Conditions to avoid: Avoid all possible sources of ignition (spark or flame). Do not pressurise, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.

10.5 Incompatible materials: Reactive or incompatible with the following materials: oxidizing materials and acids, strong bases.

10.6 Hazardous decomposition products: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Decomposition products may include the following materials: Carbon oxides, Burning produces obnoxious and toxic fumes.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Endpoint</th>
<th>Species</th>
<th>Result</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>cyclohexane</td>
<td>LD50 Dermal</td>
<td>Rabbit</td>
<td>&gt;2000 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>5500 to 6000 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td>n-hexane</td>
<td>LC50 Inhalation Vapour</td>
<td>Rat</td>
<td>135 to 169 mg/L</td>
<td>4 hours</td>
</tr>
<tr>
<td></td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>25000 to 32400 mg/kg</td>
<td>-</td>
</tr>
</tbody>
</table>

Irritation/Corrosion

Conclusion/Summary: No additional information.

Skin: No additional information.
Eyes: No additional information.
Respiratory: No additional information.

Sensitiser
Conclusion/Summary: No additional information.

Mutagenicity

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Test</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>n-hexane</td>
<td>-</td>
<td>Negative</td>
</tr>
</tbody>
</table>

Carcinogenicity

Reproductive toxicity

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Test</th>
<th>Species</th>
<th>Result/Result type</th>
<th>Target organs</th>
</tr>
</thead>
<tbody>
<tr>
<td>n-hexane</td>
<td>-</td>
<td>Rat</td>
<td>Inhalation</td>
<td>-</td>
</tr>
</tbody>
</table>

Teratogenicity

Information on the likely routes of exposure: Not available.

Potential acute health effects

Inhalation: Vapours may cause drowsiness and dizziness.
SECTION 11: Toxicological information

### Ingestion
- Irritating to mouth, throat and stomach.

### Skin contact
- Irritating to skin.

### Eye contact
- May cause eye irritation.

#### Symptoms related to the physical, chemical and toxicological characteristics

**Inhalation**
- Adverse symptoms may include the following:
  - Nausea or vomiting
  - Headache
  - Drowsiness/fatigue
  - Dizziness/vertigo

**Ingestion**
- No specific data.

**Skin contact**
- Adverse symptoms may include the following:
  - Irritation
  - Redness

**Eye contact**
- No specific data.

### Delayed and immediate effects and also chronic effects from short and long term exposure

#### Short term exposure
- **Potential immediate effects**: Not available.
- **Potential delayed effects**: Not available.

#### Long term exposure
- **Potential immediate effects**: Not available.
- **Potential delayed effects**: Not available.

### Potential chronic health effects
- **Conclusion/Summary**: Not available.

- **General**: No known significant effects or critical hazards.
- **Carcinogenicity**: No known significant effects or critical hazards.
- **Mutagenicity**: No known significant effects or critical hazards.
- **Teratogenicity**: No known significant effects or critical hazards.
- **Developmental effects**: No known significant effects or critical hazards.
- **Fertility effects**: No known significant effects or critical hazards.
- **Other information**: Not available.

SECTION 12: Ecological information

12.1 Toxicity

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Test</th>
<th>Endpoint</th>
<th>Exposure</th>
<th>Species</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>n-hexane</td>
<td>-</td>
<td>Acute</td>
<td>EC50</td>
<td>Daphnia</td>
<td>3.88 mg/L</td>
</tr>
</tbody>
</table>

12.2 Persistence and degradability

12.3 Bioaccumulative potential

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>LogP&lt;sub&gt;ow&lt;/sub&gt;</th>
<th>BCF</th>
<th>Potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>n-hexane</td>
<td>3.9 to 4.11</td>
<td>-</td>
<td>high</td>
</tr>
</tbody>
</table>

12.4 Mobility in soil

- **Soil/water partition coefficient (K<sub>oc</sub>)**: Not available.
- **Mobility**: Not available.
SECTION 12: Ecological information

12.5 Results of PBT and vPvB assessment
Not applicable.

12.6 Other adverse effects : No known significant effects or critical hazards.

12.7 Other ecological information

SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

13.1 Waste treatment methods

Product
Methods of disposal : The generation of waste should be avoided or minimised wherever possible. Significant quantities of waste product residues should not be disposed of via the foul sewer but processed in a suitable effluent treatment plant. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

Hazardous waste : Yes.

European waste catalogue (EWC)

<table>
<thead>
<tr>
<th>Waste code</th>
<th>Waste designation</th>
</tr>
</thead>
<tbody>
<tr>
<td>07 02 04*</td>
<td>other organic solvents, washing liquids and mother liquors</td>
</tr>
</tbody>
</table>

Packaging
Methods of disposal : The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

Special precautions : This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

<table>
<thead>
<tr>
<th>14.1 UN number</th>
<th>14.2 UN proper shipping name</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADR/RID UN1993</td>
<td>Flammable liquid, n.o.s. NAPHTA, HYDROTREATED LIGHT AND HEXANE, MIXTURE OF ISOMERS (MAX. 5% N-HEXANE)</td>
</tr>
<tr>
<td>IMDG UN1993</td>
<td>Flammable liquid, n.o.s. (NAPHTA, HYDROTREATED LIGHT AND HEXANE, MIXTURE OF ISOMERS (MAX. 5% N-HEXANE)). Marine pollutant (naphtha (petroleum), hydrogen treated, light, contains &lt;0.1% benzene (R11-38-51/53-65-67), cyclohexane)</td>
</tr>
</tbody>
</table>

Date of issue / Date of revision : 5/4/2012.
Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II - United Kingdom (UK)

**SECTION 14: Transport information**

| IATA | UN1993 | Flammable liquid, n.o.s. (NAPHTA, HYDROTREATED LIGHT AND HEXANE, MIXTURE OF ISOMERS (MAX. 5% N-HEXANE)) |

<table>
<thead>
<tr>
<th>14.3 Transport hazard class(es)</th>
<th>14.4 Packing group</th>
<th>14.5 Environmental hazards</th>
<th>14.6 Special precautions for user</th>
<th>Additional information</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADR/RID 3</td>
<td>II</td>
<td>Yes.</td>
<td>Not available.</td>
<td>Hazard identification number 33</td>
</tr>
<tr>
<td>IMDG 3</td>
<td>II</td>
<td>Yes.</td>
<td>Not available.</td>
<td>Emergency schedules (EmS) F-E, <em>S-E</em></td>
</tr>
<tr>
<td>IATA 3</td>
<td>II</td>
<td>Yes.</td>
<td>Not available.</td>
<td>Passenger and Cargo Aircraft Quantity limitation: 5 L Packaging instructions: 353 Cargo Aircraft Only Quantity limitation: 60 L Packaging instructions: 364</td>
</tr>
</tbody>
</table>

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

**SECTION 15: Regulatory information**

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

EU Regulation (EC) No. 1907/2006 (REACH)

**Annex XIV - List of substances subject to authorisation**

- **Substances of very high concern**
  - None of the components are listed.

**Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles**

- Not applicable.

Other EU regulations

**Date of issue / Date of revision**: 5/4/2012.
SECTION 15: Regulatory information

Europe inventory: All components are listed or exempted.
Black List Chemicals: Not listed
Priority List Chemicals: Listed
Integrated pollution prevention and control list (IPPC) - Air: Not listed
Integrated pollution prevention and control list (IPPC) - Water: Not listed

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Carcinogenic effects</th>
<th>Mutagenic effects</th>
<th>Developmental effects</th>
<th>Fertility effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>n-hexane</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>Repr. Cat. 3; R62</td>
</tr>
</tbody>
</table>

National regulations

References: The provision of Safety Data Sheets comes under Regulation 6 of CHIP (CHIP is the recognised abbreviation for the Chemicals Hazard Information and Packaging Regulations). This is an addition to the Health and Safety at Work Act 1974.

International regulations

Chemical Weapons Convention List Schedule I Chemicals: Not listed
Chemical Weapons Convention List Schedule II Chemicals: Not listed
Chemical Weapons Convention List Schedule III Chemicals: Not listed

15.2 Chemical Safety Assessment: This product contains substances for which Chemical Safety Assessments are still required.

SECTION 16: Other information

Indicates information that has changed from previously issued version.

Abbreviations and acronyms:
- ATE = Acute Toxicity Estimate
- CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
- DNEL = Derived No Effect Level
- EUH statement = CLP-specific Hazard statement
- PNEC = Predicted No Effect Concentration
- RRN = REACH Registration Number

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]
Flam. Liq. 2, H225
Skin Irrit. 2, H315
Repr. 2, H361f
STOT SE 3, H336
Aquatic Chronic 2, H411

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

<table>
<thead>
<tr>
<th>Classification</th>
<th>Justification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flam. Liq. 2, H225</td>
<td>On basis of test data</td>
</tr>
<tr>
<td>Skin Irrit. 2, H315</td>
<td>Calculation method</td>
</tr>
<tr>
<td>Repr. 2, H361f</td>
<td>Calculation method</td>
</tr>
<tr>
<td>STOT SE 3, H336</td>
<td>Calculation method</td>
</tr>
<tr>
<td>Aquatic Chronic 2, H411</td>
<td>Calculation method</td>
</tr>
</tbody>
</table>

Date of issue / Date of revision: 4 May 2012
SECTION 16: Other information

Full text of abbreviated H 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.
- H373i: May cause damage to organs through prolonged or repeated exposure if inhaled.
- H400: Very toxic to aquatic life.
- H410: Very toxic to aquatic life with long lasting effects.
- H411: Toxic to aquatic life with long lasting effects.

Full text of classifications [CLP/GHS]:
- Aquatic Acute 1, H400: AQUATIC TOXICITY (ACUTE) - Category 1
- Aquatic Chronic 1, H410: AQUATIC TOXICITY (CHRONIC) - Category 1
- Aquatic Chronic 2, H411: AQUATIC TOXICITY (CHRONIC) - Category 2
- Asp. Tox. 1, H304: ASPIRATION HAZARD - Category 1
- Flam. Liq. 2, H225: FLAMMABLE LIQUIDS - Category 2
- Repr. 2, H361f: TOXIC TO REPRODUCTION [Fertility] - Category 2
- Skin Irrit. 2, H315: SKIN CORROSION/IRRITATION - Category 2
- STOT RE 2, H373i: SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE): INHALATION [central nervous system (CNS), muscle tissue, peripheral nervous system and testes] - Category 2
- STOT SE 3, H336: SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) [Narcotic effects] - Category 3

Full text of abbreviated R phrases:
- R11: Highly flammable.
- R48/20: Harmful: danger of serious damage to health by prolonged exposure through inhalation.
- R65: Harmful: may cause lung damage if swallowed.
- R38: Irritating to skin.
- R67: Vapours may cause drowsiness and dizziness.
- R50/53: Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- R51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Full text of classifications [DSD/DPD]:
- F - Highly flammable
- Repr. Cat. 3 - Toxic to reproduction category 3
- Xn - Harmful
- Xi - Irritant
- N - Dangerous for the environment

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SECTION 16: Other information

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