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

#### 1.1. Product identifier

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemical name</td>
<td>benzene</td>
</tr>
<tr>
<td>EC Index</td>
<td>601-020-00-8</td>
</tr>
<tr>
<td>EC No</td>
<td>200-753-7</td>
</tr>
<tr>
<td>CAS No.</td>
<td>71-43-2</td>
</tr>
<tr>
<td>REACH registration No.</td>
<td>01-2119447106-44</td>
</tr>
<tr>
<td>Formula</td>
<td>C6H6</td>
</tr>
</tbody>
</table>

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

Specific use(s): Use as an intermediate

The substance/product is registered with strictly controlled conditions as defined in Article 18(4) of Regulation (EC) No. 1907/2006 (REACH Regulation) and must therefore be handled as such.

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

<table>
<thead>
<tr>
<th>Company</th>
<th>Transcor Energy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Address</td>
<td>Parc de L'Alliance, Boulevard de France 7, 1420 Braine-L'Alleud, Belgium</td>
</tr>
<tr>
<td>Telephone</td>
<td>+32 2 663 19 00</td>
</tr>
<tr>
<td>Telefax</td>
<td>+32 2 675 49 99</td>
</tr>
<tr>
<td>E-mail</td>
<td><a href="mailto:reach@transcor.be">reach@transcor.be</a></td>
</tr>
</tbody>
</table>

#### 1.4. Emergency telephone number

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

**IRELAND (REPUBLIC OF)**

National Poisons Information Centre

Beaumont Hospital

Tel: +353 18 37 99 64/+353 1 809 21 66

**UNITED KINGDOM**

National Poisons Information Service (Newcastle Centre)

Regional Drugs and Therapeutics Centre, Wolfson Unit

Tel: 0844 892 0111 (UK only, Monday to Friday, 08.00 to 18.00 hours)

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

**2.1.1. Classification according to Regulation (EU) 1272/2008**

CLP-Classification: The product is classified as hazardous in accordance with Regulation (EC) No. 1272/2008.

- Flam. Liq. 2 H225
- Skin Irrit. 2 H315
- Eye Irrit. 2 H319
- Mut. 1B H340
- Carc. 1A H350
- STOT RE 1 H372
- Asp. Tox. 1 H304
2.1.2. Classification according to EU Directives 67/548/EEC or 1999/45/EC
Classification: This substance is classified as hazardous according to 67/548/EEC.
F: R11
Xn: R65
T: R48/23/24/25
Xi: R36/38
Carc.Cat.1; R45
Muta.Cat.2; R46

Full text of R-phrases: see section 16

2.2. Label elements
2.2.1. Labelling according to Regulation (EU) 1272/2008
Hazard pictograms:
- GHS02
- GHS07
- GHS08

Signal word: Danger
Hazard statements:
- H225 - Highly flammable liquid and vapour.
- H304 - May be fatal if swallowed and enters airways.
- H315 - Causes skin irritation.
- H319 - Causes serious eye irritation.
- H340 - May cause genetic defects.
- H350 - May cause cancer.
- H372 - Causes damage to organs through prolonged or repeated exposure.

Precautionary statements:
- P202 - Do not handle until all safety precautions have been read and understood.
- P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- P243 - Take precautionary measures against static discharge.
- P280 - Wear protective gloves/protective clothing/eye protection/face protection.
- P301+P310 - IF SWALLOWED: Immediately call a POISON CENTER/doctor/.
- P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
- P331 - Do NOT induce vomiting.

2.2.2. Labelling according to Directives (67/548 - 1999/45)
Not relevant

2.3. Other hazards
Other hazards:
- Vapours can form explosive mixtures with air.

Results of PBT and vPvB assessment:
- Not applicable

SECTION 3: Composition/information on ingredients
3.1. Substances
Substance name | Product identifier | % | Classification according to Directive 67/548/EEC |
--- | --- | --- | --- |
Benzene | (CAS No.) 71-43-2 (EC No) 200-753-7 (EC Index) 601-020-00-8 (REACH-no) 01-2119447106-44-0099 | 100 | F; R11 Xn; R65 T; R48/23/24/25 Xi; R36/38 Carc. Cat. 1; R45 Mut. Cat. 2; R46 |

Substance name | Product identifier | % | Classification according to Regulation (EC) No. 1272/2008 [CLP] |
--- | --- | --- | --- |
Benzene | (CAS No.) 71-43-2 (EC No) 200-753-7 (EC Index) 601-020-00-8 (REACH-no) 01-2119447106-44-0099 | 100 | Flam. Liq. 2, H225 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Mut. 1B, H340 Carc. 1A, H350 STOT RE 1, H372 Asp. Tox. 1, H304 |

Full text of R- and H-phrases: see section 16

### 3.2. Mixtures
Not applicable

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

**Inhalation**: Remove person to fresh air and keep comfortable for breathing. When in doubt or if symptoms are observed, get medical advice. If breathing is irregular or stopped, administer artificial respiration. Get medical advice/attention.

**Skin contact**: Take off contaminated clothing. Gently wash with plenty of soap and water. Get medical advice/attention.

**Eye contact**: Rinse immediately carefully and thoroughly with eye-bath or water. Remove contact lenses, if present and easy to do. Continue rinsing. Get immediate medical advice/attention.

**In case of ingestion**: Rinse mouth thoroughly with water. Do NOT induce vomiting. Get immediate medical advice/attention.

**Additional advice**: First aider: Pay attention to self-protection! Personal protection equipment: see section 8. Never give anything by mouth to an unconscious person or a person with cramps. When in doubt or if symptoms are observed, get medical advice. Show this safety data sheet to the doctor in attendance. Treat symptomatically.

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

**Inhalation**: Causes damage to organs through prolonged or repeated exposure. The following symptoms may occur: Dizziness Drowsiness Unconsciousness Headache Nausea Convulsions Shortness of breath.
Skin contact: Causes skin irritation. Causes damage to organs through prolonged or repeated exposure. The following symptoms may occur: Dry skin. Pain. Erythema (redness).

Eye contact: Causes serious eye irritation. The following symptoms may occur: Redness, pain.

Ingestion: May be fatal if swallowed and enters airways. Causes damage to organs through prolonged or repeated exposure. The following symptoms may occur: Abdominal pain. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea. Sore throat.

Other adverse effects: Causes damage to organs through prolonged or repeated exposure. May cause cancer. May cause genetic defects.

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

No data available

SECTION 5: Firefighting measures

5.1. Extinguishing media

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

Extinguishing media which must not be used for safety reasons: Strong water jet

5.2. Special hazards arising from the substance or mixture

Fire hazard: Highly flammable liquid and vapour.

Specific hazards: Heating causes rise in pressure with risk of bursting. Vapours can form explosive mixtures with air. Vapours are heavier than air, spread along floors and form explosive mixtures with air. Vapours can travel considerable distances to a source of ignition where they can ignite, flash back, or explode. Hazardous combustion products: Carbon oxides. Nitrogen oxides (NOx). Volatile organic compounds

5.3. Advice for firefighters

Advice for firefighters: Special protective equipment for firefighters. In case of fire: Wear self-contained breathing apparatus. Use water spray jet to protect personnel and to cool endangered containers. Do not allow run-off from fire-fighting to enter drains or water courses. Dispose according to legislation. Evacuate area.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel: Evacuate area. Stay upwind/keep distance from source. Provide adequate ventilation. Use personal protective equipment as required. Personal protection equipment: see section 8. Do not breathe vapour/spray. Avoid contact with skin, eyes and clothes. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.
sources. No smoking.
Ensure that the equipment is adequately grounded.
Use explosion-proof machinery, apparatus, ventilation facilities, tools etc.
Use only non-sparking tools.

For emergency responders:
Ensure procedures and training for emergency decontamination and disposal are in place.
Personal protection equipment: see section 8.

6.2. Environmental precautions

Environmental precautions:
Do not allow to enter into ground-water, surface water or drains.
If the product contaminates rivers and lakes or drains inform respective authorities.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up:
Use foam on spills to minimise vapours.
Stop leak if safe to do so.
Dam up.
Clean-up methods - small spillage: Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents.), Collect in closed and suitable containers for disposal.
Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents).
Sweep or shovel spills into appropriate container for disposal.
Clean-up methods - large spillage: Large spills should be collected mechanically (remove by pumping) for disposal., Collect in closed and suitable containers for disposal.
Large spills should be collected mechanically (remove by pumping) for disposal.
Use only explosion-proof equipment.
Dispose of waste product or used containers according to local regulations.

6.4. Reference to other sections

Personal protection equipment: see section 8
Disposal: see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Handling:
Provide adequate ventilation.
Use personal protective equipment as required.
Personal protection equipment: see section 8
Do not breathe vapour/spray.
Avoid contact with skin, eyes and clothes.
Take any precaution to avoid mixing with incompatible materials.
See also section 10
Ensure proper process control to avoid excess waste discharge (temperature, concentration, pH value, time).
Do not allow contact with soil, surface or ground water.
Obtain special instructions before use.
(Do not handle until all safety precautions have been read and understood.)
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Ensure that the equipment is adequately grounded.
Use explosion-proof machinery, apparatus, ventilation facilities, tools etc.
Use only non-sparking tools.
The substance/product is registered with strictly controlled conditions as defined in Article 18(4) of Regulation (EC) No. 1907/2006 (REACH Regulation) and must therefore be handled as such.

Advises on general occupational hygiene:
- Keep good industrial hygiene.
- Wash hands before breaks and immediately after using the product.
- When using do not eat, drink or smoke.
- Keep away from food, drink and animal feedingstuffs.
- Keep work clothes separately.
- Take off contaminated clothing.
- Wash contaminated clothing before reuse.

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

**Storage**
- Keep in a dry, cool and well-ventilated place.
- Do not store near or with any of the incompatible materials listed in section 10.
- Bund storage facilities to prevent soil and water pollution in the event of spillage.
- Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

**Packaging materials**
- Keep/Store only in original container.

### 7.3 Specific end use(s)

Intermediate.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

<table>
<thead>
<tr>
<th>Substance</th>
<th>Limit value (mg/m³)</th>
<th>Limit value (ppm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benzene (71-43-2)</td>
<td>3.25 mg/m³</td>
<td>1 ppm</td>
</tr>
<tr>
<td>Belgium</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Limit value (mg/m³)</td>
<td>3.25 mg/m³</td>
<td></td>
</tr>
<tr>
<td>Belgium</td>
<td>Limit value (ppm)</td>
<td>1 ppm</td>
</tr>
<tr>
<td>Bulgaria</td>
<td>OEL TWA (mg/m³)</td>
<td>3.25 mg/m³</td>
</tr>
<tr>
<td>Croatia</td>
<td>GVI (granična vrijednost izloženosti) (mg/m³)</td>
<td>3.25 mg/m³</td>
</tr>
<tr>
<td>Croatia</td>
<td>GVI (granična vrijednost izloženosti) (ppm)</td>
<td>1 ppm</td>
</tr>
<tr>
<td>Cyprus</td>
<td>OEL TWA (mg/m³)</td>
<td>3.25 mg/m³</td>
</tr>
<tr>
<td>Cyprus</td>
<td>OEL TWA (ppm)</td>
<td>1 ppm</td>
</tr>
<tr>
<td>France</td>
<td>VME (mg/m³)</td>
<td>3.25 mg/m³ (restrictive limit)</td>
</tr>
<tr>
<td>France</td>
<td>VME (ppm)</td>
<td>1 ppm (restrictive limit)</td>
</tr>
<tr>
<td>Greece</td>
<td>OEL TWA (mg/m³)</td>
<td>3.19 mg/m³</td>
</tr>
<tr>
<td>Greece</td>
<td>OEL TWA (ppm)</td>
<td>1.0 ppm</td>
</tr>
<tr>
<td>Italy - Portugal - USA</td>
<td>ACGIH TWA (ppm)</td>
<td>0.5 ppm</td>
</tr>
<tr>
<td>Italy - Portugal - USA</td>
<td>ACGIH STEL (ppm)</td>
<td>2.5 ppm</td>
</tr>
<tr>
<td>Italy</td>
<td>OEL TWA (mg/m³)</td>
<td>3.25 mg/m³</td>
</tr>
<tr>
<td>Italy</td>
<td>OEL TWA (ppm)</td>
<td>1 ppm</td>
</tr>
<tr>
<td>Latvia</td>
<td>OEL TWA (mg/m³)</td>
<td>3.25 mg/m³</td>
</tr>
<tr>
<td>Latvia</td>
<td>OEL TWA (ppm)</td>
<td>1 ppm</td>
</tr>
<tr>
<td>Spain</td>
<td>VLA-ED (mg/m³)</td>
<td>3.25 mg/m³ (manufacturing, commercialization, and use restrictions under REACH; worker protection to carcinogens in the workplace)</td>
</tr>
</tbody>
</table>
8.2. Exposure controls

Personal protection equipment: The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection: In case of insufficient ventilation, wear suitable respiratory equipment. Half-face mask (EN 140) Full face mask (EN 136) Filter type: AP (EN 141) The filter class must be suitable for the maximum contaminant
concentration (gas/vapour/aerosol/particulates) that may arise when handling the product. If the concentration is exceeded, self-contained breathing apparatus must be used. (EN 137)

Hand protection : Wear chemically resistant gloves (tested to EN374), Suitable material: NBR (Nitrile rubber) (> 0.45 mm, BTT > 30 min.), PVA (Polyvinyl alcohol) (BTT > 480 min.), Fluoropolymers (BTT > 480 min.). The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances.

Eye protection : Use suitable eye protection. (EN166): Goggles

Body protection : Wear suitable protective clothing. Wear suitable coveralls to prevent exposure to the skin. Chemical resistant safety shoes

Thermal hazard protection : Not required under normal use. Use dedicated equipment.

Engineering control measures : The substance/product is registered with strictly controlled conditions as defined in Article 18(4) of Regulation (EC) No. 1907/2006 (REACH Regulation) and must therefore be handled as such. Provide adequate ventilation. Organisational measures to prevent/limit releases, dispersion and exposure Safe handling: see section 7. Transfer and handle product only in closed systems. Guarantee that the eye flushing systems and safety showers are closely located to the working place. Store locked up. Take precautionary measures against static discharges. Ensure that the equipment is adequately grounded. Use explosion-proof machinery, apparatus, ventilation facilities, tools etc.

Environmental exposure controls : Do not allow contact with soil, surface or ground water. Comply with applicable Community environmental protection legislation.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance : liquid
Colour : clear
Odour : characteristic
Odour threshold : No data available
pH : No data available
Melting point/freezing point : 5,49 °C
Initial boiling point and boiling range : 80,09 °C
Flash point : 11 °C
Evaporation rate : No data available
Flammability (solid, gas) : Not applicable, liquid
Upper/lower flammability or explosive limits : < No data available
Vapour pressure : 10 kPa (20 °C)
100 kPa (79.9 °C)
Vapour density : No data available
Density : 0,8765 g/cm³ (20 °C)
Relative density : No data available
Water solubility : ≈ 1,88 g/l (23.5 °C)
Solubility in different media : Justification for data waiving not relevant
Partition coefficient n-octanol/water : 2,13
Auto-ignition temperature : 498 °C
Decomposition temperature : No data available
Viscosity : 0,604 mPa.s (25 °C)
Explosive properties : The study does not need to be conducted because there are no chemical groups associated with explosive properties present in the molecule.
Oxidising properties : The classification procedure needs not to be applied because there are no chemical groups present in the molecule which are associated with oxidising properties.

9.2. Other information
Surface tension : Justification for data waiving not relevant

SECTION 10: Stability and reactivity

10.1. Reactivity
Reactivity : Highly flammable liquid and vapour.
Reference to other sections: 10.4 & 10.5

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

10.3. Possibility of hazardous reactions
Possibility of hazardous reactions : Vapours can form explosive mixtures with air.

10.4. Conditions to avoid
Conditions to avoid : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Safe handling: see section 7

10.5. Incompatible materials
Incompatible materials : Oxidising substances, Strong acids, Halogens, Safe handling: see section 7

10.6. Hazardous decomposition products
Hazardous decomposition products : Reference to other sections: 5.2

SECTION 11: Toxicological information

11.1. Information on toxicological effects
Acute toxicity : Not classified (Based on available data, the classification criteria are not met.)
Benzene (71-43-2)

LD50/oral/rat: > 2000 mg/kg
LD50/dermal/rabbit: > 5000 mg/kg
ATE CLP (vapours): 44.5 mg/l/4h

Skin corrosion/irritation: Causes skin irritation.
PH: No data available

Serious eye damage/eye irritation: Causes serious eye irritation.
PH: No data available

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

Germ cell mutagenicity: May cause genetic defects.

Carcinogenicity: May cause cancer.
LOAEL, Oral, Rat: 25 mg/kg bw/day

Reproductive toxicity: Not classified (Based on available data, the classification criteria are not met.)
NOAEC, Inhalation: 960 mg/m³
NOAEC, Developmental toxicity, Inhalation, Rat: 32 mg/m³

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

STOT-repeated exposure: Causes damage to organs through prolonged or repeated exposure.

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

Other information
Reference to other sections: 4.2, Symptoms related to the physical, chemical and toxicological characteristics. For further information see section 4

SECTION 12: Ecological information

12.1. Toxicity

Benzene (71-43-2)

LC50 fish 1 eco mg/l (96 h)
ECS0 Daphnia 1 10 mg/l (48h)
ErC50 (algae) 100 mg/l (72 h)
LOEC (chronic) 1,6 mg/l
NOEC (chronic) 3 mg/l Invertebrates.
NOEC chronic fish 0,8 mg/l
NOEC chronic crustacea 3 mg/l
NOEC chronic algae

Additional information
ErC10, Biomass, 72h, algae: 10 mg/l
ErC10, Growth rate, 72h, algae: 34 mg/l
IC50, 24h, micro-organisms: 13 mg/l
12.2. Persistence and degradability

Persistence and degradability : Readily biodegradable.

12.3. Bioaccumulative potential

Bioaccumulation : Low potential
Partition coefficient n-octanol/water : 2.13
Bioconcentration factor (BCF) : < 10

12.4. Mobility in soil

Mobility :
Surface tension : Justification for data waiving

12.5. Results of PBT and vPvB assessment

PBT/vPvB data :

12.6. Other adverse effects

Other information :

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product waste:
Do not allow contact with soil, surface or ground water.
Dispose of empty containers and wastes safely.
Safe handling: see section 7
Refer to manufacturer/supplier for information on recovery/recycling
Recycling is preferred to disposal or incineration
If recycling is not possible, eliminate in accordance with local valid waste disposal regulations

Contaminated packaging:
Never use pressure to empty container.
Do not pierce or burn, even after use.
Handle contaminated packages in the same way as the substance itself.
Dispose according to legislation.

List of proposed waste codes/waste designations in accordance with EWC:
This material and its container must be disposed of as hazardous waste.
Waste codes should be assigned by the user based on the application for which the product was used.

SECTION 14: Transport information

14.1. UN number

UN number : 1114

14.2. UN proper shipping name

Proper Shipping Name : BENZENE
Proper Shipping Name (IATA) : BENZENE
Proper Shipping Name (IMDG) : BENZENE
Proper Shipping Name (ADN) : BENZENE

14.3. Transport hazard class(es)

14.3.1. Overland transport

Class(es) : 3 - Flammable liquid
Hazard Identification number (Kemler No.) : 33
Classification code : F1
ADR/RID-Labels : 3 - Flammable liquid

14.3.2. Inland waterway transport (ADN)
Class (UN) : 3

14.3.3. Transport by sea
Class or Division : 3 - flammable liquids

14.3.4. Air transport
Class or Division : 3 - flammable liquids

14.4. Packing group
Packing group : II

14.5. Environmental hazards
Other information : No supplementary information available.

14.6 Special precautions for user
Special precautions for user : No data available.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
No data available

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

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

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

5. Benzene

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

Benzene
29. Substances which appear in Part 3 of Annex VI to Regulation (EC) No 1272/2008 classified as Germ cell Mutagen category 1A or 1B (Table 3.1) or Mutagen category 1 or 2 (Table 3.2) and listed as follows: Mutagen category 1A (Table 3.1)/Mutagen category 1B (Table 3.1)/Mutagen category 2 (Table 3.2) listed in Appendix 4: Benzene

40. Substances classified as flammable gases category 1 or 2, flammable liquids categories 1, 2 or 3, flammable solids category 1 or 2, substances and mixtures which, in contact with water, emit flammable gases, category 1, 2 or 3, pyrophoric liquids category 1 or pyrophoric solids category 1, regardless of whether they appear in Part 3 of Annex VI to Regulation (EC) No 1272/2008 or not: Benzene

This product contains an ingredient according to the candidate list of Annex XIV of the REACH Regulation 1907/2006/EC: none

Authorisations: Not applicable

15.1.2. National regulations

DE: WGK: 3
NL: ABM: 2 - May cause heritable genetic damage., 3 - May cause cancer.
NL: NeR (Nederlandse emissie Richtlijn): Organic substances in vapour or gaseous form

15.2. Chemical safety assessment

Chemical Safety Assessment: For this substance a chemical safety assessment has been carried out.

SECTION 16: Other information

Full text of R-, H- and EUH-phrases:
Asp. Tox. 1: Aspiration hazard, Category 1
Carc. 1A: Carcinogenicity, Category 1A
Eye Irrit. 2: Serious eye damage/eye irritation Category 2
Flam. Liq. 2: Flammable liquids, Category 2
Mut. 1B: Germ cell mutagenicity, hazard categories 1B
Skin Irrit. 2: Skin corrosion/irritation, Category 2
STOT RE 1: Specific target organ toxicity — Repeated exposure, Category 1
H225: Highly flammable liquid and vapour.
H304: May be fatal if swallowed and enters airways.
H315: Causes skin irritation.
H319: Causes serious eye irritation.
H340: May cause genetic defects.
H350: May cause cancer.
H372: Causes damage to organs through prolonged or repeated exposure.
R11: Highly flammable.
R36/38: Irritating to eyes and skin.
R45: May cause cancer.
R46: May cause heritable genetic damage.
R48/23/24/25: Toxic: danger of serious damage to health by prolonged exposure through inhalation,
in contact with skin and if swallowed.

R65 : Harmful: may cause lung damage if swallowed.
F : Highly flammable
T : Toxic
Xi : Irritant
Xn : Harmful

Key literature references and sources for data : CSR

Safety datasheet sections which have been updated : 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16

Abbreviations and acronyms :
ABM = Algemene beoordelingsmethodiek
ADN = Accord Européen relatif au Transport International des Marchandises Dangereuses par voie de Navigation du Rhin
ADR = Accord européen relatif au transport international des marchandises Dangereuses par Route
CLP = Classification, Labelling and Packaging Regulation according to 1272/2008/EC
IATA = International Air Transport Association
IMDG = International Maritime Dangerous Goods Code
LEL = Lower Explosive Limit/Lower Explosion Limit
UEL = Upper Explosion Limit/Upper Explosive Limit
REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals
BTT = Breakthrough time (maximum wearing time)
DMEL = Derived minimal effect level
DNEL = Derived No Effect Level
EC50 = Median Effective Concentration
EL50 = Median effective level
ErC50 = EC50 in terms of reduction of growth rate
ErL50 = EL50 in terms of reduction of growth rate
EWC = European Waste Catalogue
LC50 = Median lethal concentration
LD50 = Median lethal dose
LL50 = Median lethal level
NA = Not applicable
NOEC = No observed effect concentration
NOEL: no-observed-effect level
NOELR = No observed effect loading rate
NOAEC = No observed adverse effect concentration
NOAEL = No observed adverse effect level
N.O.S. = Not Otherwise Specified
OEL = Occupational Exposure Limits - Short Term Exposure Limits (STELs)
PNEC = Predicted No Effect Concentration
Quantitative structure-activity relationship (QSAR)
STOT = Specific Target Organ Toxicity
TWA = time weighted average
VOC = Volatile organic compounds
WGK = Wassergefährdungsklasse (Water Hazard Class under German Federal Water Management Act)


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