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

- Product identifier
  - Trade name: CARSYSTEM BUMPER STRUCTURANT SPRAY
  - Relevant identified uses of the substance or mixture and uses advised against: Not determined
  - Application of the substance / the preparation: Coating compound/ Surface coating/ paint

- Details of the supplier of the safety data sheet
  - Manufacturer/Supplier:
    Vosschemie GmbH
    Esinger Steinweg 50
    D-25436 Uetersen
    Phone: +49 (0)4122 717 0;  Fax: +49 (0)4122 717158; info@vosschemie.de

- Further information obtainable from:
  - Abteilung Labor /  +49 (0)4122 717 0
  - s.schuller@vosschemie.de

- Emergency telephone number:
  - Giftnationszentrum (GIZ)-Nord, Goettingen, Deutschland
  - Phone: +49 (0)551 19240, +49 (0)551 383180

2 Hazards identification

- Classification of the substance or mixture
  - Classification according to Directive 67/548/EEC or Directive 1999/45/EC
    - Xi: Irritant
      - R36: Irritating to eyes.
    - F+: Extremely flammable
      - R12: Extremely flammable.
      - R66-67: Repeated exposure may cause skin dryness or cracking. Vapours may cause drowsiness and dizziness.

- Information concerning particular hazards for human and environment:
  - Has a narcotizing effect.
  - Contact with skin and inhalation of aerosols/ vapours of the preparation should be avoided.
  - Warning! Pressurized container.
  - The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

- Classification system:
  - The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

- Label elements
  - Labelling according to EU guidelines:
    - The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials.

- Code letter and hazard designation of product:
  - Xi Irritant
  - F+ Extremely flammable

- Risk phrases:
  - 12 Extremely flammable.
  - 36 Irritating to eyes.

(Contd. on page 2)
Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 14.01.2013

Revision: 26.03.2012

Trade name: CARSYSTEM BUMPER STRUCTURANT SPRAY

66 Repeated exposure may cause skin dryness or cracking.
67 Vapours may cause drowsiness and dizziness.

- Safety phrases:
  2 Keep out of the reach of children.
  16 Keep away from sources of ignition - No smoking.
  23 Do not breathe vapourspray.
  26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
  29/56 Do not empty into drains, dispose of this material and its container at hazardous or special waste collection point.
  46 If swallowed, seek medical advice immediately and show this container or label.
  51 Use only in well-ventilated areas.

- Special labelling of certain preparations:
  Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use.
  Do not spray on a naked flame or any incandescent material.

- Other hazards
- Results of PBT and vPvB assessment
  - PBT: Not applicable.
  - vPvB: Not applicable.

3 Composition/information on ingredients

- Chemical characterization: Mixtures
- Description: Mixture of substances listed below with nonhazardous additions.

- Dangerous components:

<table>
<thead>
<tr>
<th>CAS</th>
<th>EINECS: 205-500-4</th>
<th>EINECS: 200-827-9</th>
<th>EINECS: 204-658-1</th>
<th>EINECS: 203-448-7</th>
<th>EINECS: 201-159-0</th>
</tr>
</thead>
<tbody>
<tr>
<td>141-78-6</td>
<td>01-2119475103-46</td>
<td>01-2119486944-21</td>
<td>01-2119485493-29</td>
<td>01-2119457290-43</td>
<td>01-2119752535-35</td>
</tr>
<tr>
<td>n-butyl acetate</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>butane</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>isobutane</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>butanone</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- Additional information: For the wording of the listed risk phrases refer to section 16.
4 First aid measures

- Description of first aid measures
- General information:
  Personal protection for the First Aider.
  Take affected persons out of danger area and lay down.
  In case of irregular breathing or respiratory arrest provide artificial respiration.
  Immediately remove any clothing soiled by the product.
  Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
- After inhalation:
  Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.
  In case of unconsciousness place patient stably in side position for transportation.
- After skin contact:
  Immediately wash with water and soap and rinse thoroughly.
  If skin irritation continues, consult a doctor.
- After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.
- After swallowing: Drink plenty of water and provide fresh air. Call for a doctor immediately.
- Information for doctor:
  Most important symptoms and effects, both acute and delayed No further relevant information available.
  Indication of any immediate medical attention and special treatment needed
  No further relevant information available.

5 Firefighting measures

- Extinguishing media
- Suitable extinguishing agents: CO2, sand, extinguishing powder. Do not use water.
- For safety reasons unsuitable extinguishing agents: Water
- Special hazards arising from the substance or mixture
  Carbon monoxide and carbon dioxide
  Formation of toxic gases is possible during heating or in case of fire.
- Advice for firefighters
- Protective equipment:
  Do not inhale explosion gases or combustion gases.
  Wear self-contained respiratory protective device.
- Additional information
  Cool endangered receptacles with water spray.
  Remove undamaged containers from the danger zone.
  Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.
  Collect contaminated fire fighting water separately. It must not enter the sewage system.

6 Accidental release measures

- Personal precautions, protective equipment and emergency procedures
  Wear protective equipment. Keep unprotected persons away.
  Keep away from ignition sources.
  Ensure adequate ventilation
  Do not inhale gases / fumes / aerosols.
  Use respiratory protective device against the effects of fumes/dust/aerosol.
  Avoid contact with the eyes and skin.
Trade name: CARSYSTEM BUMPER STRUCTURANT SPRAY

- Environmental precautions:
  Inform respective authorities in case of seepage into water course or sewage system.
  Do not allow to enter sewers/ surface or ground water.
- Methods and material for containment and cleaning up:
  Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
  Ensure adequate ventilation.
  Dispose contaminated material as waste according to item 13.
  Do not flush with water or aqueous cleansing agents
- Reference to other sections
  See Section 7 for information on safe handling.
  See Section 8 for information on personal protection equipment.
  See Section 13 for disposal information.

7 Handling and storage

- Handling:
  - Precautions for safe handling
    Open and handle receptacle with care.
    Keep away from heat and direct sunlight.
    Ensure good ventilation/exhaustion at the workplace.
    Ensure good interior ventilation, especially at floor level. (Fumes are heavier than air).
    Do not inhale gases / fumes / aerosols.
    Avoid contact with the eyes and skin.
  - Information about fire - and explosion protection:
    Fumes can combine with air to form an explosive mixture.
    Do not spray onto a naked flame or any incandescent material.
    Keep ignition sources away - Do not smoke.
    Protect against electrostatic charges.
    Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50 °C, i.e. electric lights. Do not pierce or burn, even after use.
- Conditions for safe storage, including any incompatibilities
- Storage:
  - Requirements to be met by storerooms and receptacles:
    Store in a cool location.
    Observe official regulations on storing packagings with pressurized containers.
  - Information about storage in one common storage facility: Store away from foodstuffs.
  - Further information about storage conditions:
    Store in cool, dry conditions in well sealed receptacles.
    Store receptacle in a well ventilated area.
    Keep container tightly sealed.
    Protect from heat and direct sunlight.
- Specific end use(s) No further relevant information available.

* 8 Exposure controls/personal protection

- Additional information about design of technical facilities: No further data; see item 7.
- Control parameters
  - Ingredients with limit values that require monitoring at the workplace:
    141-78-6 ethyl acetate
    WEL (Great Britain) 
    Short-term value: 400 ppm
    Long-term value: 200 ppm

(Contd. of page 3)

(Contd. on page 5)
### 123-86-4 n-butyl acetate

<table>
<thead>
<tr>
<th>Route</th>
<th>Effect</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>WEL (Great Britain)</strong></td>
<td>Short-term</td>
<td>966 mg/m³, 200 ppm</td>
</tr>
<tr>
<td></td>
<td>Long-term</td>
<td>724 mg/m³, 150 ppm</td>
</tr>
</tbody>
</table>

### 106-97-8 butane

<table>
<thead>
<tr>
<th>Route</th>
<th>Effect</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>WEL (Great Britain)</strong></td>
<td>Short-term</td>
<td>1810 mg/m³, 750 ppm</td>
</tr>
<tr>
<td></td>
<td>Long-term</td>
<td>1450 mg/m³, 600 ppm</td>
</tr>
<tr>
<td></td>
<td>Carc (if more than 0.1% of buta-1,3-diene)</td>
<td></td>
</tr>
</tbody>
</table>

### 78-93-3 butanone

<table>
<thead>
<tr>
<th>Route</th>
<th>Effect</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>WEL (Great Britain)</strong></td>
<td>Short-term</td>
<td>899 mg/m³, 300 ppm</td>
</tr>
<tr>
<td></td>
<td>Long-term</td>
<td>600 mg/m³, 200 ppm</td>
</tr>
<tr>
<td></td>
<td>Sk. BMGV</td>
<td></td>
</tr>
<tr>
<td><strong>IOELV (EU)</strong></td>
<td>Short-term</td>
<td>900 mg/m³, 300 ppm</td>
</tr>
<tr>
<td></td>
<td>Long-term</td>
<td>600 mg/m³, 200 ppm</td>
</tr>
</tbody>
</table>

### DNELs

#### 141-78-6 ethyl acetate

<table>
<thead>
<tr>
<th>Route</th>
<th>Effect</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>Long-term exposure - systemic effects</td>
<td>4.5 mg/kg bw/day (general population)</td>
</tr>
<tr>
<td>Dermal</td>
<td>Long-term exposure - systemic effects</td>
<td>37 mg/kg bw/day (general population)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>63 mg/kg bw/day (worker)</td>
</tr>
<tr>
<td>Inhalative</td>
<td>Acute/short-term exposure - local effects</td>
<td>734 mg/m³ (general population)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1468 mg/m³ (worker)</td>
</tr>
<tr>
<td></td>
<td>Acute/short-term exposure - systemic effects</td>
<td>734 mg/m³ (general population)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1468 mg/m³ (worker)</td>
</tr>
<tr>
<td></td>
<td>Long-term exposure - local effects</td>
<td>367 mg/m³ (general population)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>734 mg/m³ (worker)</td>
</tr>
<tr>
<td></td>
<td>Long-term exposure - systemic effects</td>
<td>367 mg/m³ (general population)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>734 mg/m³ (worker)</td>
</tr>
</tbody>
</table>

#### 123-86-4 n-butyl acetate

<table>
<thead>
<tr>
<th>Route</th>
<th>Effect</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>Long-term exposure - systemic effects</td>
<td>3.4 mg/kg bw/day (general population)</td>
</tr>
<tr>
<td>Dermal</td>
<td>Long-term exposure - systemic effects</td>
<td>3.4 mg/kg bw/day (general population)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>7 mg/kg bw/day (worker)</td>
</tr>
<tr>
<td>Inhalative</td>
<td>Acute/short-term exposure - local effects</td>
<td>859.7 mg/m³ (general population)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>960 mg/m³ (worker)</td>
</tr>
<tr>
<td></td>
<td>Acute/short-term exposure - systemic effects</td>
<td>859.7 mg/m³ (general population)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>960 mg/m³ (worker)</td>
</tr>
<tr>
<td></td>
<td>Long-term exposure - local effects</td>
<td>102.34 mg/m³ (general population)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>480 mg/m³ (worker)</td>
</tr>
<tr>
<td></td>
<td>Long-term exposure - systemic effects</td>
<td>102.34 mg/m³ (general population)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>480 mg/m³ (worker)</td>
</tr>
</tbody>
</table>

#### 78-93-3 butanone

<table>
<thead>
<tr>
<th>Route</th>
<th>Effect</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>Long-term exposure - systemic effects</td>
<td>31 mg/kg bw/day (general population)</td>
</tr>
<tr>
<td>Dermal</td>
<td>Long-term exposure - systemic effects</td>
<td>412 mg/kg bw/day (general population)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1161 mg/kg bw/day (worker)</td>
</tr>
<tr>
<td>Inhalative</td>
<td>Long-term exposure - systemic effects</td>
<td>106 mg/m³ (general population)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>600 mg/m³ (worker)</td>
</tr>
</tbody>
</table>

(Contd. of page 6)
### PNECs

#### 141-78-6 ethyl acetate

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>PNEC STP</td>
<td>650 mg/l (-)</td>
<td></td>
</tr>
<tr>
<td>PNEC aqua</td>
<td>0.26 mg/l (freshwater)</td>
<td>0.026 mg/l (marine water)</td>
</tr>
<tr>
<td>PNEC sediment</td>
<td>1.25 mg/kg (freshwater)</td>
<td>0.125 mg/kg (marine water)</td>
</tr>
<tr>
<td>PNEC soil</td>
<td>0.24 mg/kg (soil dw)</td>
<td></td>
</tr>
</tbody>
</table>

#### 123-86-4 n-butyl acetate

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>PNEC STP</td>
<td>35.6 mg/l (-)</td>
<td></td>
</tr>
<tr>
<td>PNEC aqua</td>
<td>0.18 mg/l (freshwater)</td>
<td>0.018 mg/l (marine water)</td>
</tr>
<tr>
<td>PNEC sediment</td>
<td>0.981 mg/kg (freshwater)</td>
<td>0.0981 mg/kg (marine water)</td>
</tr>
</tbody>
</table>

#### 78-93-3 butanone

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>PNEC STP</td>
<td>709 mg/l (-)</td>
<td></td>
</tr>
<tr>
<td>PNEC aqua</td>
<td>55.8 mg/l (freshwater)</td>
<td>55.8 mg/l (marine water)</td>
</tr>
<tr>
<td>PNEC oral</td>
<td>1000 mg/kg (-)</td>
<td></td>
</tr>
<tr>
<td>PNEC sediment</td>
<td>284.74 mg/kg (freshwater)</td>
<td>284.7 mg/kg (marine water)</td>
</tr>
<tr>
<td>PNEC soil</td>
<td>22.5 mg/kg (-)</td>
<td></td>
</tr>
</tbody>
</table>

### Ingredients with biological limit values:

#### 78-93-3 butanone

<table>
<thead>
<tr>
<th>BMGV (Great Britain)</th>
<th>70 µmol/L</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medium</td>
<td>urine</td>
</tr>
<tr>
<td>Sampling time</td>
<td>post shift</td>
</tr>
<tr>
<td>Parameter</td>
<td>butan-2-one</td>
</tr>
</tbody>
</table>

### Additional information:

- The lists valid during the making were used as basis.

### Exposure controls

**Personal protective equipment:**

- **General protective and hygienic measures:**
  - Do not eat, drink, smoke or sniff while working.
  - Do not inhale gases / fumes / aerosols.
  - Keep away from foodstuffs, beverages and feed.
  - Immediately remove all soiled and contaminated clothing.
  - Store protective clothing separately.
  - Avoid contact with the eyes and skin.
  - Use skin protection cream for skin protection.
  - Wash hands before breaks and at the end of work.

### Respiratory protection:

- No special procedures required if all workplace limit values are continuously respected.
- Use suitable respiratory protective device in case of insufficient ventilation.
- Filter A/P2
Trade name: CARSYSTEM BUMPER STRUCTURANT SPRAY

- Protection of hands:

  Protective gloves

  To avoid skin problems reduce the wearing of gloves to the required minimum.
  Check the permeability prior to each anewed use of the glove.
  The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
  Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
  Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
  Preventive skin protection by use of skin-protecting agents is recommended.

- Material of gloves

  The selection of the suitable gloves does not only depend on the material, but also on further marks of quality
  and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the
  resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the
  application.

- Penetration time of glove material

  The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be
  observed.

- Eye protection:

  Tightly sealed goggles

- Body protection: Protective work clothing

### 9 Physical and chemical properties

- Information on basic physical and chemical properties

- General Information

  - Appearance:
    - Form: Aerosol
    - Colour: Black
    - Odour: Characteristic

  - Change in condition
    - Melting point/Melting range: Undetermined.
    - Boiling point/Boiling range: Not applicable, as aerosol.

  - Flash point: Not applicable, as aerosol.

  - Ignition temperature: 365 °C

  - Self-igniting: Product is not selfigniting.

  - Danger of explosion: Product is not explosive. However, formation of explosive air/vapour
    mixtures are possible.

  - Explosion limits:
    - Lower: 1.7 Vol %
    - Upper: 11.5 Vol %

  - Vapour pressure at 20 °C: 3500 hPa
Trade name: CARSYSTEM BUMPER STRUCTURANT SPRAY

(Contd. of page 7)

10 Stability and reactivity

- Reactivity
- Chemical stability
- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- Possibility of hazardous reactions
  Forms explosive gas mixture with air.
  Danger of bursting.
- Conditions to avoid: No further relevant information available.
- Incompatible materials: No further relevant information available.
- Hazardous decomposition products: No dangerous decomposition products known.

11 Toxicological information

- Information on toxicological effects
- Acute toxicity:

<table>
<thead>
<tr>
<th>LD/LC50 values relevant for classification:</th>
</tr>
</thead>
<tbody>
<tr>
<td>141-78-6 ethyl acetate</td>
</tr>
<tr>
<td>Oral LD50</td>
</tr>
<tr>
<td>Dermal LD50</td>
</tr>
<tr>
<td>Dermal LD50</td>
</tr>
<tr>
<td>Inhalative LC50 /4h</td>
</tr>
<tr>
<td>123-86-4 n-butyl acetate</td>
</tr>
<tr>
<td>Oral LD50</td>
</tr>
<tr>
<td>Dermal LD50</td>
</tr>
<tr>
<td>Dermal LD50</td>
</tr>
<tr>
<td>Inhalative LC50 /4h</td>
</tr>
<tr>
<td>106-97-8 butane</td>
</tr>
<tr>
<td>Inhalative LC50 /4h</td>
</tr>
<tr>
<td>78-93-3 butanone</td>
</tr>
<tr>
<td>Oral LD50</td>
</tr>
<tr>
<td>Dermal LD50</td>
</tr>
<tr>
<td>Inhalative LC50 /4h</td>
</tr>
</tbody>
</table>

- Primary irritant effect:
  - on the skin: No irritant effect.
  - on the eye: Irritating effect.
- Additional toxicological information:
  Vapours may cause drowsiness and dizziness.
  The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:

(Contd. on page 9)
12 Ecological information

- Toxicity
  - Aquatic toxicity:
    - 141-78-6 ethyl acetate
      - EC50/48h 5600 mg/l (scenedesmus subspicatus)
      - 165 mg/l (daphnia magna)
      - LC50 180 mg/l (Xenopus Laevis) (48h)
      - LC50/96h 230 mg/l (pimephales promelas)
    - 123-86-4 n-butyl acetate
      - EC50 356 mg/l (bacteria) (Tetrahymena, 40h)
      - 73 mg/l (daphnia magna) (24h)
      - EC50/48h 44 mg/l (daphnia magna)
      - EC50/72h 674.7 mg/l (scenedesmus subspicatus)
      - 647.7 mg/l (desmodesmus subspicatus)
      - LC50 64 mg/l (dantio rario) (48h)
      - 205 mg/l (daphnia magna) (24h)
      - LC50/96h 320 mg/l (Pseudokirchneriella subcapitata)
      - 18 mg/l (pimephales promelas) (OECD 203)
      - NOEC 200 mg/l (desmodesmus subspicatus)
    - 78-93-3 butanone
      - EC50/48h 308 mg/l (daphnia magna)
      - LC50/96h 3220 mg/l (Lepomis macrochirus)
      - 2993 mg/l (pimephales promelas)

- Persistence and degradability
  - 141-78-6 ethyl acetate
    - Biodegradation > 70 % (-) (440/2008/EG C.4-A, DOC)
  - 123-86-4 n-butyl acetate
    - Biodegradation 83 % (-) (OECD 301 D 28d)

- Behaviour in environmental systems:
  - Bioaccumulative potential
    - 141-78-6 ethyl acetate
      - log Pow 0.68 - 0.73 (-) (25 °C)
    - 123-86-4 n-butyl acetate
      - BCF 15.3 (-)
      - Kow 2.3 (-)
      - log Pow 2.3 (-) (OECD 117)
    - 106-97-8 butane
      - log Pow 2.8 (-)
13 Disposal considerations

- Waste treatment methods
- Recommendation
  Disposal must be made according to official regulations. Must not be disposed together with household garbage. Do not allow product to reach sewage system.

- European waste catalogue
  - 08 01 11* waste paint and varnish containing organic solvents or other dangerous substances
  - 15 01 04 metallic packaging

- Uncleaned packaging:
  - Recommendation: Disposal must be made according to official regulations.

14 Transport information

- UN-Number
  - ADR, IMDG, IATA UN1950

- UN proper shipping name
  - ADR
  - IMDG, IATA 1950 AEROSOLS

- Transport hazard class(es)
  - ADR
    - Class 2 5F Gases.
    - Label 2.1
  - IMDG, IATA
    - Class 2 Gases.
    - Label 2.1
15 Regulatory information

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

- National regulations:

- Information about limitation of use:
  Employment restrictions concerning juveniles must be observed.
  Employment restrictions concerning pregnant and lactating women must be observed.

- Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- Relevant phrases
  H220 Extremely flammable gas.
  H225 Highly flammable liquid and vapour.
  H226 Flammable liquid and vapour.
  H280 Contains gas under pressure; may explode if heated.
  H319 Causes serious eye irritation.
  H336 May cause drowsiness or dizziness.
  R10 Flammable.
  R11 Highly flammable.
  R12 Extremely flammable.
  R36 Irritating to eyes.
  R66 Repeated exposure may cause skin dryness or cracking.
  R67 Vapours may cause drowsiness and dizziness.

- Department issuing MSDS: Abteilung Labor

- Contact: Frau S. Schaller

- Abbreviations and acronyms:
  RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
  ICAO: International Civil Aviation Organization
  ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
**Trade name: CARSYSTEM BUMPER STRUCTURANT SPRAY**

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
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<tbody>
<tr>
<td>IMDG</td>
<td>International Maritime Code for Dangerous Goods</td>
</tr>
<tr>
<td>IATA</td>
<td>International Air Transport Association</td>
</tr>
<tr>
<td>VOC</td>
<td>Volatile Organic Compounds (USA, EU)</td>
</tr>
<tr>
<td>DNEL</td>
<td>Derived No-Effect Level (REACH)</td>
</tr>
<tr>
<td>PNEC</td>
<td>Predicted No-Effect Concentration (REACH)</td>
</tr>
<tr>
<td>LC50</td>
<td>Lethal concentration, 50 percent</td>
</tr>
<tr>
<td>LD50</td>
<td>Lethal dose, 50 percent</td>
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</tbody>
</table>

* Data compared to the previous version altered. (Contd. of page 11)