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

1.1 Product identifier

Trade name: CES-Pflegespray

Application / Use: Forming lubricant

Article number: 9801S

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

Application of the substance / the preparation:

- Special lubricant
- Metal forming lubricant

Uses advised against: No further relevant information available.

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier:

C.Ed. Schulte GmbH
Friedrichstr. 243
DE - 42551 Velbert

Tel: +49 (0) 2051 204-0
Fax: +49 (0) 2051 204-229

Exclusively produced by:

HERMANN BANTLEON GmbH
Blaubeuer Strasse 32
DE - 89077 Ulm

Further information obtainable from:

Department: Product safety
Contact specialist: info@ces.eu

1.4 Emergency telephone number:

In case of emergency ONLY:

During working hours (CET):

+49 (0) 731 / 39 90 260 or +49 (0) 731 / 39 90 250

Emergency response (24 hours) CHEMTREC:

1-800-424-9300 / +1-703-741-5970
+(44)-870-8200418 (United Kingdom)
+(44)-203-8073798 (United Kingdom)
+(31)-858880596 (Netherlands)
+(61)-290372994 (Australia)
0-800-983-611 (South Africa)
+1 703-527-3887 (USA & Canada)

**SECTION 2: Hazards identification**

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

- Aerosol 1 H222-H229 Extremely flammable aerosol. Pressurised container: May burst if heated.
- Asp. Tox. 1 H304 May be fatal if swallowed and enters airways.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008 The product is classified and labelled according to the CLP regulation.
### SECTION 3: Composition/Information on Ingredients

#### 3.2 Mixture

**Description:** Mixture

<table>
<thead>
<tr>
<th>CAS:</th>
<th>EC number:</th>
<th>EINECS:</th>
<th>Description</th>
<th>Fire Hazard</th>
<th>Skin Sensitisation</th>
<th>Eye Irritation</th>
<th>Skin Irritation</th>
<th>H221</th>
<th>H222</th>
<th>H223</th>
<th>H314</th>
<th>H315</th>
<th>H316</th>
<th>H335</th>
<th>H336</th>
<th>GB</th>
</tr>
</thead>
<tbody>
<tr>
<td>106-97-8</td>
<td>918-167-1</td>
<td>203-448-7</td>
<td>Butane</td>
<td>Flam. Gas 1, H220; Press. Gas (Comp.), H280</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>10-25%</td>
<td>10-25%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>74-98-6</td>
<td>200-827-9</td>
<td>Hydrocarbons, C11-C12, &lt; 2% aromatics</td>
<td>Flam. Liq. 3, H226, Asp. Tox. 1, H304, Aquatic Chronic 4, H413</td>
<td>Flam. Gas 1, H220; Press. Gas (Comp.), H280</td>
<td>2</td>
<td>2</td>
<td>≤10%</td>
<td>≤25%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>112-34-5</td>
<td>203-961-6</td>
<td>200-827-9</td>
<td>Propane</td>
<td>Flam. Gas 1, H220; Press. Gas (Comp.), H280</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>≤10%</td>
<td>≤5%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>939-717-7</td>
<td>203-961-6</td>
<td>200-827-9</td>
<td>2-(2-Butoxyethoxy)ethanol</td>
<td>Flam. Liq. 3, H226, Asp. Tox. 1, H304, Aquatic Chronic 4, H413</td>
<td>Flam. Gas 1, H220; Press. Gas (Comp.), H280</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>≤2.5%</td>
<td>≤2.5%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>920-54-7</td>
<td>203-961-6</td>
<td>200-827-9</td>
<td>Calcium bis(dinonylnaphthalenesulphonate)</td>
<td>Flam. Liq. 3, H226, Asp. Tox. 1, H304, Aquatic Chronic 4, H413</td>
<td>Flam. Gas 1, H220; Press. Gas (Comp.), H280</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>≤2.5%</td>
<td>≤2.5%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Additional information:**

The wording of the hazard symbols and H-phrases is specified in section 16 if dangerous ingredients are mentioned.
SECTION 4: First aid measures

4.1 Description of first aid measures

General information:
Take affected persons out into the fresh air.
Position and transport stably in side position.

After inhalation: Supply fresh air; consult doctor in case of complaints.
After skin contact: Immediately wash with water and soap and rinse thoroughly.
After eye contact: Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
After swallowing: Do not induce vomiting; call for medical help immediately.

4.2 Most important symptoms and effects, both acute and delayed: If swallowed or in case of vomiting, danger of entering the lungs.

Information for doctor: Treat symptomatically.

Hazards
Danger of pulmonary oedema.
Danger of pneumonia.

4.3 Indication of any immediate medical attention and special treatment needed:
Later observation for pneumonia and pulmonary oedema.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing agents:
CO₂, sand, extinguishing powder.
Use fire extinguishing methods suitable to surrounding conditions.

For safety reasons unsuitable extinguishing agents: Do not use water with full jet.

5.2 Special hazards arising from the substance or mixture:
In case of fire, the following can be released:
Nitrogen oxides (NOₓ)
Carbon monoxide (CO)
Sulphur oxide (SOₓ)

5.3 Advice for firefighters

Protective equipment:
Wear self-contained respiratory protective device.
Do not inhale explosion gases or combustion gases.
Wear fully protective suit.

Additional information: Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.
Wear protective clothing.

6.2 Environmental precautions: Do not allow to enter sewers, surface or ground water.
Safety data sheet
according to 1907/2006/EC, Article 31
Trade name: CES-Pflegespray

6.3 Methods and material for containment and cleaning up:
Ensure adequate ventilation.
Dispose of the material collected according to regulations.
6.4 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.

SECTION 7: Handling and storage

7.1 Precautions for safe handling
Ensure that suitable extractors are available on processing machines.
Avoid direct contact with the product.
Handling: When handling product in drums use safety footwear and suitable tools. At work please do not eat, drink or smoke.
Information about fire - and explosion protection:
Keep ignition sources away - Do not smoke.
Fire class EN 2: B
7.2 Conditions for safe storage, including any incompatibilities
Storage:
Requirements to be met by storerooms and receptacles:
Observe official regulations on storing packagings with pressurised containers.
Prevent any seepage into the ground.
Information about storage in one common storage facility:
Store away from foodstuffs.
Store away from oxidising agents.
Store away from water.
Further information about storage conditions:
Protect from humidity and water.
Recommended storage temperature 0 to 30 °C.
Shelf life from date of dispatch: Maximum 3 years
Storage class: 2 B (acc. TRGS 510 Germany): Aerosols
7.3 Specific end use(s): For more information see technical information.

SECTION 8: Exposure controls/personal protection

Additional information about design of technical facilities:
Use only in well-ventilated rooms. If necessary please install an isolating or suction mechanism.
See also section 7.
8.1 Control parameters
Ingredients with limit values that require monitoring at the workplace:
<table>
<thead>
<tr>
<th>CAS: 106-97-8 Butane (10-25%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>WEL (Great Britain)</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

(Contd. on page 5)
Safety data sheet
according to 1907/2006/EC, Article 31

Printing date: 19.10.2020  Revision: 19.10.2020

**Version number 5

Trade name: CES-Pflegespray

CAS: 112-34-5 2-(2-Butoxyethoxy)ethanol (≤2.5%)

<table>
<thead>
<tr>
<th>CAS</th>
<th>WEL (Great Britain)</th>
<th>IOELV (EU)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Short-term value: 101.2 mg/m³, 15 ppm</td>
<td>Short-term value: 101.2 mg/m³, 15 ppm</td>
</tr>
<tr>
<td></td>
<td>Long-term value: 67.5 mg/m³, 10 ppm</td>
<td>Long-term value: 67.5 mg/m³, 10 ppm</td>
</tr>
</tbody>
</table>

DNELs

CAS: 112-34-5 2-(2-Butoxyethoxy)ethanol

<table>
<thead>
<tr>
<th>Hazard</th>
<th>DNEL worker (long term exposure)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dermal</td>
<td>63 mg/kg bw/day (human)</td>
</tr>
<tr>
<td>Inhalative</td>
<td>67.5 mg/m³ (human)</td>
</tr>
</tbody>
</table>

Calcium bis(dinonylnaphthalenesulphonate)

<table>
<thead>
<tr>
<th>Hazard</th>
<th>DNEL worker (long term exposure)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dermal</td>
<td>10 mg/kg bw/day (human)</td>
</tr>
<tr>
<td>Inhalative</td>
<td>2.23 mg/m³ (human)</td>
</tr>
</tbody>
</table>

PNECs

CAS: 112-34-5 2-(2-Butoxyethoxy)ethanol

<table>
<thead>
<tr>
<th>Hazard</th>
<th>PNEC (fresh water)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PNEC</td>
<td>0.32 mg/kg (soil)</td>
</tr>
<tr>
<td></td>
<td>4.4 mg/kg (freshwater sediment)</td>
</tr>
</tbody>
</table>

Calcium bis(dinonylnaphthalenesulphonate)

<table>
<thead>
<tr>
<th>Hazard</th>
<th>PNEC (sea water)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PNEC</td>
<td>0.000027 mg/l</td>
</tr>
<tr>
<td></td>
<td>(fresh water)</td>
</tr>
<tr>
<td></td>
<td>0.00027 mg/l</td>
</tr>
<tr>
<td>PNEC</td>
<td>0.936 mg/kg</td>
</tr>
<tr>
<td></td>
<td>(soil)</td>
</tr>
<tr>
<td></td>
<td>0.469 mg/kg</td>
</tr>
<tr>
<td></td>
<td>(sea water sediment)</td>
</tr>
<tr>
<td></td>
<td>0.00469 mg/kg</td>
</tr>
<tr>
<td></td>
<td>(freshwater sediment)</td>
</tr>
</tbody>
</table>

Additional Occupational Exposure Limit Values for possible hazards during processing: TLV-TWA oil mist 5 mg/m³ (USA, ACGIH)

Additional information: The lists valid during the making were used as basis.

8.2 Exposure controls

Personal protective equipment:

General protective and hygienic measures:
The usual precautionary measures are to be adhered to when handling chemicals. Keep away from foodstuffs, beverages and feed. Wash hands before breaks and at the end of work. Avoid close or long term contact with the skin.

Respiratory protection:
No respiratory protection is ordinarily required under normal conditions of use. Select a filter suitable for combined particulate/ gases and organic vapours (gas filter type AX acc. EN 14387 ), if exposure limit is exceeded or when aerosol or mist is formed.

Protection of hands:
Safety gloves of nitrile rubber or viton. Preventive skin protection by use of skin-protecting agents is recommended.

Material of gloves
Fluorocarbon rubber (Viton)
Nitrile rubber, NBR
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.
## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

#### General Information

**Appearance:**
- Form: Aerosol
- Colour: Light brown
- Odour: Characteristic
- Odour threshold: Not determined.

**pH-value:** Not determined.

#### Change in condition
- Melting point/freezing point: Not determined.
- Initial boiling point and boiling range: Not applicable, as aerosol.
- Drip point: Not determined.

**Flash point:** Not applicable, as aerosol.

**Flammability (solid, gas):** Not applicable.

**Ignition temperature:** Not determined.

**Decomposition temperature:** Not determined.

**Auto-Ignition temperature:** Product is not self-igniting.

**Explosion limits:**
- Lower: Not determined.
- Upper: Not determined.

**Vapour pressure:** Not determined.

**Density at 20 °C:** ~ 0.74 g/cm³ (DIN 51 757)

**Relative density:** Not determined.

**Vapour density:** Not determined.

**Evaporation rate:** Not applicable.

**Solubility in / Miscibility with:**
- Water: Not miscible or difficult to mix.

**Partition coefficient: n-octanol/water:** Not determined.

**Viscosity:**
- Kinematic: Not applicable.

### 9.2 Other information
No further relevant information available.
## SECTION 10: Stability and reactivity

10.1 Reactivity
See 10.2 to 10.6

10.2 Chemical stability: Stable at normal conditions.

Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.

10.3 Possibility of hazardous reactions: Reacts with strong oxidising agents.

10.4 Conditions to avoid
Avoid contact with heat, sparks, flames and all other sources of ignition.

10.5 Incompatible materials: No further relevant information available.

10.6 Hazardous decomposition products:
Carbon monoxide and carbon dioxide

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

These statements are based on data for components of the material or for similar materials.

**Acute toxicity**
Based on available data, the classification criteria are not met.

<table>
<thead>
<tr>
<th>LD/LC50 values relevant for classification:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Hydrocarbons, C11-C12, &lt; 2% aromatics</strong></td>
</tr>
<tr>
<td>Oral LD50</td>
</tr>
<tr>
<td>Dermal LD50</td>
</tr>
<tr>
<td>Inhalative LC50/8h</td>
</tr>
<tr>
<td><strong>CAS: 112-34-5 2-(2-Butoxyethoxy)ethanol</strong></td>
</tr>
<tr>
<td>Oral LD50</td>
</tr>
<tr>
<td>Dermal LD50</td>
</tr>
<tr>
<td><strong>Calcium bis(dinonylnaphthalenesulphonate)</strong></td>
</tr>
<tr>
<td>Oral LD50</td>
</tr>
<tr>
<td>Dermal LD50</td>
</tr>
</tbody>
</table>

**Primary irritant effect:**

- **Skin corrosion/irritation**
  Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation**
  Based on available data, the classification criteria are not met.
- **by inhalation:**
  No irritant effect expected.
- **Respiratory or skin sensitisation**
  Based on available data, the classification criteria are not met.

**Other information (about experimental toxicology):**

- **After swallowing:** Swallow and particularly subsequent vomiting can lead to lung damage - pneumonia - pulmonary edema.
- **Subacute to chronic toxicity:**
  Prolonged and/or repeated contact may cause defatting of the skin which can lead to dermatitis and may make the skin more susceptible to irritation and penetration by other materials.

**Additional toxicological information:**

- The product shows the following dangers according to the calculation method of Regulation (EC) No 1272/2008 as issued in the latest version:
  - Asp. Tox. 1
- **CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)**
  - Germ cell mutagenicity: Based on available data, the classification criteria are not met.
  - Carcinogenicity: Based on available data, the classification criteria are not met.
  - Reproductive toxicity: Based on available data, the classification criteria are not met.
- **STOT-single exposure**
  Based on available data, the classification criteria are not met.
- **STOT-repeated exposure**
  Based on available data, the classification criteria are not met.
## SECTION 12: Ecological information

### 12.1 Toxicity

**Aquatic toxicity:**

<table>
<thead>
<tr>
<th>Hydrocarbons, C11-C12, &lt; 2% aromatics</th>
</tr>
</thead>
<tbody>
<tr>
<td>NOEL</td>
</tr>
<tr>
<td>NOELR/21d</td>
</tr>
<tr>
<td>CAS: 112-34-5</td>
</tr>
</tbody>
</table>

| EC50/24h | 2,850 mg/l (Daphnia magna) |
| LC50/96h | 1,300 mg/l (fish) |

### 12.2 Persistence and degradability
No further relevant information available.

### 12.3 Bioaccumulative potential
No further relevant information available.

### 12.4 Mobility in soil
The product is not soluble in water. If it enters soil, it will adsorb to soil particles and will not be mobile.

**Additional ecological information:**

**General notes:**
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water
Do not allow product to reach ground water, water course or sewage system.

### 12.5 Results of PBT and vPvB assessment

**PBT:** Not applicable.

**vPvB:** Not applicable.

### 12.6 Other adverse effects
No further relevant information available.

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

**Recommendation:** Must not be disposed together with household garbage. Do not allow product to reach sewage system.

**European waste catalogue:**

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>15 01 10</td>
<td>packaging containing residues of or contaminated by hazardous substances</td>
</tr>
<tr>
<td>15 01 04</td>
<td>metallic packaging</td>
</tr>
<tr>
<td>HP3</td>
<td>Flammable</td>
</tr>
</tbody>
</table>

**Uncleaned packaging:** Empty packing completely. Handover to authorized disposal company.

**Recommendation:**
Disposal must be made according to official regulations.
Empty contaminated packagings thoroughly. They may be recycled after thorough and proper cleaning.
## SECTION 14: Transport information

### 14.1 UN-Number
ADR, IMDG, IATA

UN1950

### 14.2 UN proper shipping name
ADR, IMDG

AEROSOLS

IATA

AEROSOLS, flammable

### 14.3 Transport hazard class(es)

ADR

- Class 2 5F Gases.
- Label 2.1

IMDG, IATA

- Class 2.1
- Label 2.1

### 14.4 Packing group

ADR, IMDG, IATA

Void

### 14.5 Environmental hazards:
Not applicable.

### 14.6 Special precautions for user

**Hazard identification number (Kemler code):** Warning: Gases.

**EMS Number:** F-D-S-U

**Stowage Code**

- SW1 Protected from sources of heat.
- SW2 Clear of living quarters.

**Segregation Code**

- SG69 For AEROSOLS with a maximum capacity of 1 litre:
  Segregation as for class 9. Stow "separated from" class 1 except for division 1.4.
  For AEROSOLS with a capacity above 1 litre:
  Segregation as for the appropriate subdivision of class 2.
  For WASTE AEROSOLS:
  Segregation as for the appropriate subdivision of class 2.

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

Not applicable.

**Transport/Additional information:**

- **Limited quantities (LQ):** 1L
- **Excepted quantities (EQ):** Code: E0 Not permitted as Excepted Quantity
- **Transport category:** 2
- **Tunnel restriction code:** D

**IMDG**

- **Limited quantities (LQ):** 1L
Trade name: CES-Pflegespray

SECTION 15: Regulatory information

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

- Directive 2012/18/EU
- Seveso category P3a FLAMMABLE AEROSOLS
- Qualifying quantity (tonnes) for the application of lower-tier requirements: 150 t
- Qualifying quantity (tonnes) for the application of upper-tier requirements: 500 t

REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3

DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II

None of the ingredients is listed.

National regulations:

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

- Waterhazard class: Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water

ORDINANCE ON THE INCENTIVE TAX ON VOLATILE ORGANIC COMPOUNDS (SWITZERLAND) OVOC (CH) ~70.00 %

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

SECTION 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.
- H226 Flammable liquid and vapour.
- H280 Contains gas under pressure; may explode if heated.
- H304 May be fatal if swallowed and enters airways.
- H315 Causes skin irritation.
- H319 Causes serious eye irritation.
- H413 May cause long lasting harmful effects to aquatic life.

Department issuing SDS: Department: Product safety

Contact: info@ces.eu

Abbreviations and acronyms:

- ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
- IMDG: International Maritime Code for Dangerous Goods
- IATA: International Air Transport Association

(Contd. of page 9)
Safety data sheet
according to 1907/2006/EC, Article 31

Printing date: 19.10.2020
Revision: 19.10.2020
**Version number 5

Trade name: CES-Pflegespray

GHS: Globally Harmonised System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
DNEL: Derived No-Effect Level (REACH)
PNEC: Predicted No-Effect Concentration (REACH)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
vPvB: very Persistent and very Bioaccumulative
Flam. Gas 1: Flammable gases – Category 1
Aerosol 1: Aerosols – Category 1
Press. Gas (Comp.): Gases under pressure – Compressed gas
Flam. Liq. 3: Flammable liquids – Category 3
Skin Irrit. 2: Skin corrosion/irritation – Category 2
Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
Asp. Tox. 1: Aspiration hazard – Category 1
Aquatic Chronic 4: Hazardous to the aquatic environment - long-term aquatic hazard – Category 4

* Data compared to the previous version altered.

**Information about the version number: Replaces all previous versions.