

# SAFETY DATA SHEET

## Red markingspray

SDS according to Regulation (EC) No. 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), Annex II-EU

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

Date issued 01.12.2014

#### 1.1. Product identifier

Product name Red markingspray

Article no. 241-141

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

Function Markingspray

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

Company name Center-Gros A/S  
Postal address Nimtoftevej 41-43  
Postcode 8550  
City Ryomgård  
Country Danmark  
Tel +45 8774 1040  
E-mail cg@center-gros.dk  
Website <http://www.center-gros.dk>

#### 1.4. Emergency telephone number

Emergency telephone Giftlinjen :+45 8112 1212

### SECTION 2: Hazards identification

#### 2.1. Classification of substance or mixture

Classification according to 67/548/EEC or 1999/45/EC F+; R12  
Xi; R36  
R67  
Classification according to Regulation (EC) No 1272/2008 [CLP/GHS] Flam Aerosol 1;H222;  
H229;  
Eye Irrit. 2;H319;  
STOT SE3;H336;

#### 2.2. Label elements

##### Hazard Pictograms (CLP)



Composition on the label propan-2-ol:30 - 60 % vgt/vgt  
Signal word Danger  
Hazard statements H222 Extremely flammable aerosol.  
H229 Pressurised container: May burst if heated.  
H319 Causes serious eye irritation.  
H336 May cause drowsiness or dizziness.  
Precautionary statements P210 Keep away from heat, hot surfaces, sparks, open flames and other

ignition sources. No smoking.  
 P211 Do not spray on an open flame or other ignition source.  
 P251 Do not pierce or burn, even after use.  
 P403 Store in a well-ventilated place. P410 + P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122°F.

### 2.3. Other hazards

PBT / vPvB

The mixture does not meet the criteria for PBT or vPvB.

Other hazards

The product releases organic solvent vapours which may cause lethargy and dizziness. At high concentrations, the vapours may cause headache and intoxication.

## SECTION 3: Composition/information on ingredients

### 3.2. Mixtures

| Substance     | Identification                                                                                                  | Classification                                                                            | Contents          |
|---------------|-----------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|-------------------|
| Ethanol       | CAS no.: 64-17-5<br>EC no.: 200-578-6<br>Index no.: 603-002-00-5<br>Synonyms: ethyl alcohol                     | F; R11<br>Flam. Liq. 2; H225;                                                             | 30 - 60 % vgt/vgt |
| butane        | CAS no.: 106-97-8<br>EC no.: 203-448-7<br>Index no.: 601-004-00-0                                               | F+; R12<br>Flam gas 1; H220;<br>Press. Gas;<br>Note : C U                                 | 10 - 30 % vgt/vgt |
| propane       | CAS no.: 74-98-6<br>EC no.: 200-827-9<br>Index no.: 601-003-00-5                                                | F+; R12<br>Flam. gas 1; H220<br>Press. Gas<br>Note : U                                    | 10 - 30 % vgt/vgt |
| and isobutane | CAS no.: 75-28-5<br>EC no.: 200-857-2<br>Index no.: 601-004-00-0                                                | F+; R12<br>Flam gas 1; H220<br>Press. Gas;<br>Note : C U                                  | 10 - 30 % vgt/vgt |
| propan-2-ol   | CAS no.: 67-63-0<br>EC no.: 200-661-7<br>Index no.: 603-117-00-0<br>Synonyms: isopropyl alcohol;<br>isopropanol | F; R11<br>Xi; R36<br>R67<br>Flam. Liq. 2; H225;<br>Eye Irrit. 2; H319;<br>STOT SE3; H336; | 30 - 60 % vgt/vgt |

Substance comments

6) See also section 16.

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

|              |                                                                                                                                                                                                                                                                                        |
|--------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| General      | If medical advice is needed, have product container or label at hand.<br>Forbrænding: Flush with water until pain ceases. Remove clothing that is not stuck to the skin seek medical advice/transport to hospital. If possible, continue flushing until medical attention is obtained. |
| Inhalation   | Seek fresh air. Keep victim under observation. Seek medical advice in case of persistent discomfort.                                                                                                                                                                                   |
| Skin contact | Remove contaminated clothing. Wash skin with soap and water. Seek medical advice in case of persistent discomfort.                                                                                                                                                                     |
| Eye contact  | Flush with water (preferably using eye wash equipment) until irritation subsides. Seek medical advice if symptoms persist.                                                                                                                                                             |
| Ingestion    | Wash out mouth thoroughly and drink 1-2 glasses of water in small sips.                                                                                                                                                                                                                |

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

|                                  |                                                                                                                                                                                                                                                           |
|----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Information for health personnel | Irritation effects: This product contains substances which cause irritation to skin and eyes, or when inhaled. Contact with locally irritative substances can cause the area of contact to be more prone to absorb damaging substances such as allergens. |
|----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

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

|                   |                                          |
|-------------------|------------------------------------------|
| Other Information | No special immediate treatment required. |
|-------------------|------------------------------------------|

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

|                              |                                                                                                                |
|------------------------------|----------------------------------------------------------------------------------------------------------------|
| Suitable extinguishing media | Extinguish with powder, foam, carbon dioxide or water mist. Use water or water mist to cool non-ignited stock. |
| Improper extinguishing media | Do not use water stream, as it may spread the fire.                                                            |

#### 5.2. Special hazards arising from the substance or mixture

|                            |                                                             |
|----------------------------|-------------------------------------------------------------|
| Fire and explosion hazards | Flammable aerosol. CAUTION! Aerosol containers may explode. |
|----------------------------|-------------------------------------------------------------|

#### 5.3. Advice for firefighters

|                   |                                                                                                                                                                                                                                        |
|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Other Information | If there is a risk of exposure to vapour and flue gases, a self-contained breathing apparatus must be worn. Move containers from danger area if it can be done without risk. Avoid inhalation of vapour and flue gases seek fresh air. |
|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

|                  |                                                                                                                                                                                                  |
|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| General measures | Smoking and naked flames prohibited. Eliminate all ignition sources if safe to do so. Take precautionary measures against static discharges. Use spark-free tools and explosion proof equipment. |
|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

##### 6.1.1. For non-emergency personnel

|                      |                                                      |
|----------------------|------------------------------------------------------|
| Personal precautions | Wear respiratory protective equipment with filter A. |
|----------------------|------------------------------------------------------|

##### 6.1.2. For emergency responders

|                          |                             |
|--------------------------|-----------------------------|
| For emergency responders | Stop leak if safe to do so. |
|--------------------------|-----------------------------|

#### 6.2. Environmental precautions

|                                      |                                               |
|--------------------------------------|-----------------------------------------------|
| Environmental precautionary measures | Avoid unnecessary release to the environment. |
|--------------------------------------|-----------------------------------------------|

#### 6.3. Methods and material for containment and cleaning up

|                 |                                    |
|-----------------|------------------------------------|
| Cleaning method | Wipe up minor spills with a cloth. |
|-----------------|------------------------------------|

#### 6.4. Reference to other sections

|                    |                                                                                              |
|--------------------|----------------------------------------------------------------------------------------------|
| Other instructions | See section 8 for type of protective equipment. See section 13 for instructions on disposal. |
|--------------------|----------------------------------------------------------------------------------------------|

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

|          |                                                                                                                                                                   |
|----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Handling | Use the product under well-ventilated conditions, preferably outdoors. See section 8 for information about precautions for use and personal protective equipment. |
|----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|

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

|         |                                                                                                                                                                                   |
|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Storage | Pressurized container: Protect from sunlight and do not expose to temperatures exceeding 50°C. Store frost-free. Keep out of reach of children. Store in a well-ventilated place. |
|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

#### Conditions for safe storage

|                     |                     |
|---------------------|---------------------|
| Storage Temperature | Value: 10-50 grader |
|---------------------|---------------------|

#### 7.3. Specific end use(s)

Specific use(s) See application section 1

**Specific end users****SECTION 8: Exposure controls/personal protection****8.1. Control parameters****Occupational Exposure limit values**

| Substance     | Identification                                                                                                  | Value                                                                                    | TWA Year |
|---------------|-----------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|----------|
| Ethanol       | CAS no.: 64-17-5<br>EC no.: 200-578-6<br>Index no.: 603-002-00-5<br>Synonyms: ethyl alcohol                     | 8-hour TWA: 1000 ppm<br>8-hour TWA: 1920 mg/m3                                           |          |
| butane        | CAS no.: 106-97-8<br>EC no.: 203-448-7<br>Index no.: 601-004-00-0                                               | 8-hour TWA: 600 ppm<br>8-hour TWA: 1450 mg/m3<br>15 min.: 750 ppm<br>15 min.: 1810 mg/m3 |          |
| propane       | CAS no.: 74-98-6<br>EC no.: 200-827-9<br>Index no.: 601-003-00-5                                                |                                                                                          |          |
| and isobutane | CAS no.: 75-28-5<br>EC no.: 200-857-2<br>Index no.: 601-004-00-0                                                |                                                                                          |          |
| propan-2-ol   | CAS no.: 67-63-0<br>EC no.: 200-661-7<br>Index no.: 603-117-00-0<br>Synonyms: isopropyl alcohol;<br>isopropanol | 8-hour TWA: 400 ppm<br>8-hour TWA: 999 mg/m3<br>15 min.: 500 ppm<br>15 min.: 1250 mg/m3  |          |

**DNEL / PNEC from substances**

|           |                                                                                                                                                   |
|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| Substance | Ethanol                                                                                                                                           |
| DNEL      | Group: Worker<br>Exposure route: Inhalation<br>Exposure frequency: Short term (acute)<br>Type of effect: Local effect<br>Value: 1900 mg/m3        |
| DNEL      | Group: Worker<br>Exposure route: Dermal<br>Exposure frequency: Long term (repeated)<br>Type of effect: Systemic effect<br>Value: 343 mg/kg bw/day |
| DNEL      | Group: Worker<br>Exposure route: Inhalation<br>Exposure frequency: Long term (repeated)<br>Type of effect: Systemic effect<br>Value: 950 mg/m3    |
| DNEL      | Group: Consumer<br>Exposure route: Inhalation<br>Exposure frequency: Short term (acute)<br>Type of effect: Local effect<br>Value: 950 mg/m3       |
| DNEL      | Group: Consumer<br>Exposure route: Oral<br>Exposure frequency: Long term (repeated)<br>Type of effect: Systemic effect<br>Value: 87 mg/kg bw/day  |
| DNEL      | Group: Consumer                                                                                                                                   |

|           |                                                                                                                                                              |
|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
|           | Exposure route: Dermal<br>Exposure frequency: Long term (repeated)<br>Type of effect: Systemic effect<br>Value: 206 mg/kg bw/day                             |
| DNEL      | Group: Consumer<br>Exposure route: Inhalation<br>Exposure frequency: Long term (repeated)<br>Type of effect: Systemic effect<br>Value: 114 mg/m <sup>3</sup> |
| PNEC      | Exposure route: Water<br>Value: 0,96 mg/L<br>Remarks: Fresh Water                                                                                            |
| PNEC      | Exposure route: Water<br>Value: 0,79 mg/L<br>Remarks: Marine Water                                                                                           |
| PNEC      | Exposure route: Water<br>Value: 2,75 mg/L<br>Remarks: Intermittent releases Water                                                                            |
| PNEC      | Exposure route: Soil<br>Value: 0,63 mg/kg soil dw                                                                                                            |
| Substance | propan-2-ol                                                                                                                                                  |
| DNEL      | Group: Worker<br>Exposure route: Inhalation<br>Exposure frequency: Long term (repeated)<br>Type of effect: Systemic effect<br>Value: 500 mg/m <sup>3</sup>   |
| DNEL      | Group: Consumer<br>Exposure route: Oral<br>Exposure frequency: Long term (repeated)<br>Type of effect: Systemic effect<br>Value: 26 mg/kg bw/day             |
| DNEL      | Group: Consumer<br>Exposure route: Dermal<br>Exposure frequency: Long term (repeated)<br>Type of effect: Systemic effect<br>Value: 319 mg/kg bw/day          |
| DNEL      | Group: Consumer<br>Exposure route: Inhalation<br>Exposure frequency: Long term (repeated)<br>Type of effect: Systemic effect<br>Value: 89 mg/m <sup>3</sup>  |
| DNEL      | Group: Worker<br>Exposure route: Dermal<br>Exposure frequency: Long term (repeated)<br>Type of effect: Systemic effect<br>Value: 888 mg/kg bw/day            |
| PNEC      | Exposure route: Soil<br>Remarks: 28 mg/kg soil dw                                                                                                            |
| PNEC      | Exposure route: Freshwater<br>Value: 140.9 mg/L                                                                                                              |
| PNEC      | Exposure route: Saltwater<br>Value: 140.9 mg/L                                                                                                               |
| PNEC      | Exposure route: Water<br>Value: 140.9 mg/L<br>Remarks: Intermittent releases                                                                                 |

## 8.2. Exposure controls

## Safety signs



### Respiratory protection

Respiratory protection In case of insufficient ventilation, wear respiratory protective equipment with filter A.

### Hand protection

Hand protection Plastic or rubber gloves recommended.

### Eye / face protection

Eye protection Wear safety goggles if there is a risk of eye splash.

### Skin protection

Skin protection (except hands) Not required.

### Thermal hazards

Thermal hazards Aerosol cans can explode.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

|                |         |
|----------------|---------|
| Physical state | Aerosol |
| Colour         | Red     |
| Odour          | Alcohol |

### 9.2. Other information

#### Physical hazards

Miscibility Not miscible with water.

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Reactivity Heating may cause a fire or explosion.

### 10.2. Chemical stability

Stability The product is stable when used in accordance with the supplier's directions.

### 10.3. Possibility of hazardous reactions

Possibility of hazardous reactions No risk of hazardous reactions.

### 10.4. Conditions to avoid

Conditions to avoid Avoid heating and contact with ignition sources.

### 10.5. Incompatible materials

Materials to avoid None known.

### 10.6. Hazardous decomposition products

Hazardous decomposition products Mangler oversættelse

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

#### Toxicological data for substances

|                 |                                                        |
|-----------------|--------------------------------------------------------|
| Substance       | Ethanol                                                |
| LD50 oral       | Value: 10470 mg/kg bw<br>Animal test species: rat      |
| LD50 dermal     | Value: > 20000 mL/kg bw<br>Animal test species: rabbit |
| LC50 inhalation | Value: 124,7 mg/L air                                  |

|                 |                                                                     |
|-----------------|---------------------------------------------------------------------|
|                 | Animal test species: rat<br>Duration: 4 h                           |
| Substance       | butane                                                              |
| LC50 inhalation | Value: 1237 mg/L air<br>Animal test species: Mouse<br>Duration: 2 h |
| Substance       | propan-2-ol                                                         |
| LD50 oral       | Value: 5,84 g/kg bw<br>Animal test species: rat                     |
| LD50 dermal     | Value: 16,4 mL/kg bw<br>Animal test species: rabbit                 |
| LC50 inhalation | Value: > 10000 ppm<br>Animal test species: rat<br>Duration: 6 h     |

### Other information regarding health hazards

|         |                                                                                                                                                             |
|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| General | The product releases organic solvent vapours. At high concentrations, the vapours may cause headache, dizziness, intoxication and possible unconsciousness. |
|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|

### Potential acute effects

|              |                                                             |
|--------------|-------------------------------------------------------------|
| Inhalation   | May cause drowsiness or dizziness.                          |
| Skin contact | May cause slight irritation.                                |
| Eye contact  | Irritating to eyes. Causes a burning sensation and tearing. |
| Ingestion    | Ingestion may cause discomfort.                             |

## SECTION 12: Ecological information

### 12.1. Toxicity

#### Toxicological data for substances

|                        |                                                                                                     |
|------------------------|-----------------------------------------------------------------------------------------------------|
| Substance              | Ethanol                                                                                             |
| Acute aquatic, fish    | Value: 14,2 g/L<br>Method of testing: LC50<br>Duration: 96 h                                        |
| Acute aquatic, algae   | Value: ~ 1,96 g/L<br>Method of testing: EC50<br>Duration: 96 h                                      |
| Acute aquatic, Daphnia | Value: 5012 mg/L<br>Method of testing: LC50<br>Duration: 48 h                                       |
| Biodegradability       | Value: 97<br>Test period: 28 days<br>Method of testing: OECD Guideline 301 B                        |
| Bioaccumulation        | Log Pow = -0,35                                                                                     |
| Substance              | butane                                                                                              |
| Acute aquatic, fish    | Value: 27,98 mg/L<br>Method of testing: LC50<br>Duration: 96 h                                      |
| Acute aquatic, algae   | Value: 7,71 mg/L<br>Method of testing: EC50<br>Duration: 96 h                                       |
| Acute aquatic, Daphnia | Value: 14,22 mg/L<br>Method of testing: LC50<br>Duration: 48 h                                      |
| Biodegradability       | Value: 100<br>Test period: 385,5 h<br>Method of testing: Biodegradation test, (predates, OECD test) |

|                        |                                                                      |
|------------------------|----------------------------------------------------------------------|
| Bioaccumulation        | Log Pow = 1.09                                                       |
| Substance              | propan-2-ol                                                          |
| Acute aquatic, fish    | Value: 10000 mg/L<br>Method of testing: LC50<br>Duration: 96 h       |
| Acute aquatic, Daphnia | Value: > 10000 mg/L<br>Method of testing: LC50<br>Duration: 24 h     |
| Biodegradability       | Value: 53<br>Test period: 5 days<br>Method of testing: EU Method C.5 |
| Bioaccumulation        | Log Pow = 0,05                                                       |

## 12.2. Persistence and degradability

|                               |                        |
|-------------------------------|------------------------|
| Persistence and degradability | Readily biodegradable. |
|-------------------------------|------------------------|

## 12.3. Bioaccumulative potential

|                           |                                    |
|---------------------------|------------------------------------|
| Bioaccumulative potential | The product is not bioaccumulable. |
|---------------------------|------------------------------------|

## 12.4. Mobility in soil

|          |                              |
|----------|------------------------------|
| Mobility | Test data are not available. |
|----------|------------------------------|

## 12.5. Results of PBT and vPvB assessment

|                        |                                                         |
|------------------------|---------------------------------------------------------|
| PBT assessment results | The mixture does not meet the criteria for PBT or vPvB. |
|------------------------|---------------------------------------------------------|

## 12.6. Other adverse effects

|                                 |       |
|---------------------------------|-------|
| Other adverse effects / Remarks | None. |
|---------------------------------|-------|

# SECTION 13: Disposal considerations

## 13.1. Waste treatment methods

|                                             |                                                                                                                                                                                            |
|---------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Specify the appropriate methods of disposal | Do not dispose of aerosol sprays in refuse collection, even when empty. The sprays must be sent to the municipal chemical waste collection facility with the specifications set out below. |
| EWC waste code                              | EWC: 160504 gases in pressure containers (including halons) containing dangerous substances                                                                                                |

# SECTION 14: Transport information

## 14.1. UN number

|           |                                                                       |
|-----------|-----------------------------------------------------------------------|
| ADR       | 1950                                                                  |
| RID       | 1950                                                                  |
| IMDG      | 1950                                                                  |
| ICAO/IATA | 1950                                                                  |
| Comments  | The product is covered by the rules for transport of dangerous goods. |

## 14.2. UN proper shipping name

|           |                     |
|-----------|---------------------|
| ADR       | AEROSOLS            |
| RID       | AEROSOLS            |
| IMDG      | AEROSOLS            |
| ICAO/IATA | AEROSOLS, FLAMMABLE |

## 14.3. Transport hazard class(es)

|           |     |
|-----------|-----|
| ADR       | 2.1 |
| RID       | 2.1 |
| IMDG      | 2.1 |
| ICAO/IATA | 2.1 |

## 14.4. Packing group

## 14.5. Environmental hazards

|     |   |
|-----|---|
| ADR | - |
|-----|---|

**14.6. Special precautions for user**

EmS F-D, S-U

**14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code****SECTION 15: Regulatory information****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

Declaration no. 2154821

**15.2. Chemical safety assessment**

Chemical safety assessment performed No

**SECTION 16: Other information**

|                                                                    |                                                                                                                                                                                                                                                      |
|--------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Classification according to Regulation (EC) No 1272/2008 [CLP/GHS] | Flam Aerosol 1; H222;<br>Eye Irrit. 2; H319;<br>STOT SE3; H336;<br>; H229;                                                                                                                                                                           |
| List of relevant R-phrases (under headings 2 and 3).               | R36 Irritating to eyes.<br>R11 Highly flammable.<br>R67 Vapours may cause drowsiness and dizziness.<br>R12 Extremely flammable.                                                                                                                      |
| List of relevant H-phrases (Section 2 and 3).                      | H222 Extremely flammable aerosol.<br>H336 May cause drowsiness or dizziness.<br>H220 Extremely flammable gas.<br>H225 Highly flammable liquid and vapour.<br>H229 Pressurised container: May burst if heated.<br>H319 Causes serious eye irritation. |
| Version                                                            | 2                                                                                                                                                                                                                                                    |
| Responsible for safety data sheet                                  | Center-Gros A/S                                                                                                                                                                                                                                      |
| Prepared by                                                        |                                                                                                                                                                                                                                                      |