

## **SAFETY DATA SHEETS**

**This SDS packet was issued with item:**

070373266

**The safety data sheets (SDS) in this packet apply to one or more components included in the items listed below. Items listed below may require one or more SDS. Please refer to invoice for specific item number(s).**

070398388 273030094



KaVo. Dental Excellence.

# SAFETY DATA SHEET

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

### **1.1. Product identifier**

Trade name or designation of the mixture KaVo QUATTROcare plus Spray

REACH Registration Number -

Product code 1,005,3843-45;1,005,4523/24

Issue date 09-November-2011

Version number 1.0

Revision date 08-January-2013

Supersedes date 09-November-2011

Product use professional use

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

Identified uses Not available.

Uses advised against None known

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

Company name Kaltenbach & Voigt GmbH

Address Bismarckring 39  
D-88400 Biberach  
Germany

Telephone number +49 (0) 7351 56-0

Fax +49 (0) 7351 1488

Contact person Peter Fischer

Telephone number +49 (0) 175 30 57725

e-mail peter.fischer@bayer.com

Emergency telephone number +49 (0) 7351 56 4000

## **SECTION 2: Hazards identification**

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

The mixture has been assessed and/or tested for its physical, health and environmental hazards and the following classification applies.

#### **Classification according to Directive 67/548/EEC or 1999/45/EC as amended**

Classification F+;R12

The full text for all R-phrases is displayed in section 16.

#### **Hazard summary**

Physical hazards Extremely flammable.

Health hazards Not classified for health hazards.

Environmental hazards Not classified for hazards to the environment.

Specific hazards Extremely flammable. Do not breathe dust/fume/gas/mist/vapors/spray.

Main symptoms Not available.

### **2.2. Label elements**

#### **Label according to Directive 67/548/EEC or 1999/45/EC as amended**

Contains: Butane (< 0,1 % Butadiene), Isobutane (< 0,1% Butadiene), PROPANE

EC number -

EC label



Extremely flammable

|                                       |                                                                                                                                                                                                                                    |
|---------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>R-phrases</b>                      | R12 Extremely flammable.                                                                                                                                                                                                           |
| <b>S-phrases</b>                      | S9 Keep container in a well-ventilated place.<br>S16 Keep away from sources of ignition - No smoking.<br>S23 Do not breathe gas/fumes/vapour/spray.<br>S60 This material and its container must be disposed of as hazardous waste. |
| <b>Authorisation number</b>           | Not available.                                                                                                                                                                                                                     |
| <b>Supplemental label information</b> | Not applicable.                                                                                                                                                                                                                    |
| <b>2.3. Other hazards</b>             | Not assigned.                                                                                                                                                                                                                      |

### **SECTION 3: Composition/information on ingredients**

#### **3.2. Mixtures**

##### **General information**

| <b>Chemical name</b>         | <b>%</b>                                                            | <b>CAS-No. / EC No.</b> | <b>REACH Registration No.</b> | <b>INDEX No.</b> | <b>Notes</b> |
|------------------------------|---------------------------------------------------------------------|-------------------------|-------------------------------|------------------|--------------|
| Butane (< 0,1 % Butadiene)   |                                                                     | 106-97-8<br>203-448-7   | -                             | 601-004-00-0     |              |
| <b>Classification:</b>       | <b>DSD:</b> F+;R12<br><b>CLP:</b> Flam. Gas 1;H220                  |                         |                               |                  |              |
| Isobutane (< 0,1% Butadiene) |                                                                     | 75-28-5<br>200-857-2    | -                             | 601-004-00-0     |              |
| <b>Classification:</b>       | <b>DSD:</b> F+;R12<br><b>CLP:</b> Flam. Gas 1;H220, Press. Gas;H280 |                         |                               |                  |              |
| PROPANE                      |                                                                     | 74-98-6<br>200-827-9    | -                             | 601-003-00-5     |              |
| <b>Classification:</b>       | <b>DSD:</b> F+;R12<br><b>CLP:</b> Flam. Gas 1;H220                  |                         |                               |                  |              |

#: This substance has workplace exposure limit(s).  
PBT: persistent, bioaccumulative and toxic substance.  
vPvB: very persistent and very bioaccumulative substance.

**Composition comments** The full text for all R-phrases is displayed in Section 16.

### **SECTION 4: First aid measures**

**General information** Not available.

#### **4.1. Description of first aid measures**

|                     |                                                                                                                                                                                 |
|---------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Inhalation</b>   | Move to fresh air. For breathing difficulties, oxygen may be necessary. Call a physician if symptoms develop or persist.                                                        |
| <b>Skin contact</b> | Take off immediately all contaminated clothing. Rinse skin with water/shower.                                                                                                   |
| <b>Eye contact</b>  | Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists. |
| <b>Ingestion</b>    | Clean mouth with water and drink afterwards plenty of water. Get medical attention if irritation develops and persists.                                                         |

**4.2. Most important symptoms and effects, both acute and delayed** Not available.

**4.3. Indication of any immediate medical attention and special treatment needed** Not available.

### **SECTION 5: Firefighting measures**

**General fire hazards** Not available.

#### **5.1. Extinguishing media**

|                                       |                                                  |
|---------------------------------------|--------------------------------------------------|
| <b>Suitable extinguishing media</b>   | Water spray, foam, dry powder or carbon dioxide. |
| <b>Unsuitable extinguishing media</b> | Do not use water jet.                            |

### 5.3. Advice for firefighters

#### Special protective equipment for firefighters

Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

#### Special fire fighting procedures

Containers close to fire should be removed immediately or cooled with water. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

## **SECTION 6: Accidental release measures**

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

#### For non-emergency personnel

Keep unnecessary personnel away. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep upwind. Keep out of low areas. Ventilate closed spaces before entering them.

#### For emergency responders

Keep unnecessary personnel away. Use personal protection recommended in Section 8 of the MSDS.

### 6.2. Environmental precautions

Prevent further leakage or spillage if safe to do so. Contact local authorities in case of spillage to drain/aquatic environment. Avoid discharge into drains, water courses or onto the ground.

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

Refer to attached safety data sheets and/or instructions for use. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Keep combustibles (wood, paper, oil etc) away from spilled material. Stop leak if you can do so without risk. Move the cylinder to a safe and open area if the leak is irreparable. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

### 6.4. Reference to other sections

For personal protection, see section 8. For waste disposal, see section 13.

## **SECTION 7: Handling and storage**

### 7.1. Precautions for safe handling

Pressurised container: Do not pierce or burn, even after use. Do not spray on a naked flame or any other incandescent material. Do not smoke while using or until sprayed surface is thoroughly dry. May be ignited by open flame. Do not cut, weld, solder, drill, grind, or expose containers to heat, flame, sparks, or other sources of ignition. Ground and bond containers when transferring material. Do not use if spray button is missing or defective. Do not re-use empty containers. Do not breathe dust/fume/gas/mist/vapors/spray. Use only in well-ventilated areas. Avoid prolonged exposure.

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

Level 1 Aerosol.

Contents under pressure. Do not puncture, incinerate or crush. Do not handle or store near an open flame, heat or other sources of ignition. Avoid exposure to long periods of sunlight. Refrigeration recommended. Store in a well-ventilated place. Keep out of the reach of children.

### 7.3. Specific end use(s)

Not available.

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

### 8.1. Control parameters

#### Occupational exposure limits

##### UK. EH40 Workplace Exposure Limits (WELs)

| Components                               | Type | Value                 |
|------------------------------------------|------|-----------------------|
| Butane (< 0,1 % Butadiene)<br>(106-97-8) | STEL | 1810 mg/m3            |
|                                          |      | 750 ppm               |
|                                          | TWA  | 1450 mg/m3<br>600 ppm |

#### Biological limit values

No biological exposure limits noted for the ingredient(s).

#### Recommended monitoring procedures

Follow standard monitoring procedures.

### 8.2. Exposure controls

#### Appropriate engineering controls

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Provide adequate general and local exhaust ventilation.

#### Individual protection measures, such as personal protective equipment

##### Eye/face protection

Wear safety glasses with side shields.

##### Skin protection

##### - Hand protection

Wear protective gloves. Nitrile rubber. Latex gloves.

|                                 |                                                                                                                                                                                                                                       |
|---------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| - Other                         | Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment.                                                                               |
| Respiratory protection          | Use a positive-pressure air-supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air-purifying respirators may not provide adequate protection. |
| Thermal hazards                 | Not available.                                                                                                                                                                                                                        |
| Hygiene measures                | When using do not smoke. Handle in accordance with good industrial hygiene and safety practices.                                                                                                                                      |
| Environmental exposure controls | Environmental manager must be informed of all major releases.                                                                                                                                                                         |

## **SECTION 9: Physical and chemical properties**

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

#### **Appearance**

|                                         |                        |
|-----------------------------------------|------------------------|
| Physical state                          | Liquid.                |
| Form                                    | Aerosol                |
| Colour                                  | Light yellow.          |
| Odour                                   | Odourless.             |
| Odour threshold                         | Not available.         |
| pH                                      | Not applicable.        |
| Melting point/freezing point            | Not available.         |
| Initial boiling point and boiling range | Not available.         |
| Flash point                             | -80.00 °C (-112.00 °F) |
| Evaporation rate                        | Not applicable.        |
| Flammability (solid, gas)               | Not applicable.        |

#### **Upper/lower flammability or explosive limits**

|                                         |                     |
|-----------------------------------------|---------------------|
| Flammability limit - lower (%)          | 1.8 %               |
| Flammability limit - upper (%)          | 11.2 %              |
| Vapour pressure                         | 4.2 bar @ 20 °C     |
| Vapour density                          | Not applicable.     |
| Relative density                        | Not available.      |
| Solubility(ies)                         | slight emulsifiable |
| Partition coefficient (n-octanol/water) | Not available.      |
| Ignition temperature                    | > 350 °C (> 662 °F) |
| Decomposition temperature               | Not available.      |
| Viscosity                               | Not applicable.     |
| Explosive properties                    | Not available.      |
| Oxidizing properties                    | Not available.      |

#### **9.2. Other information**

|                |                   |
|----------------|-------------------|
| Density        | 0.85 g/ml @ 20 °C |
| VOC (Weight %) | 84.46 %           |

## **SECTION 10: Stability and reactivity**

|                                          |                                                                                      |
|------------------------------------------|--------------------------------------------------------------------------------------|
| 10.2. Chemical stability                 | Risk of ignition.                                                                    |
| 10.3. Possibility of hazardous reactions | Not available.                                                                       |
| 10.4. Conditions to avoid                | Heat, flames and sparks. Aerosol containers are unstable at temperatures above 50°C. |
| 10.5. Incompatible materials             | Do not mix with other chemicals.                                                     |
| 10.6. Hazardous decomposition products   | No dangerous reaction known under conditions of normal use.                          |

## **SECTION 11: Toxicological information**

|                     |                |
|---------------------|----------------|
| General information | Not available. |
|---------------------|----------------|

## Information on likely routes of exposure

|                     |                                             |
|---------------------|---------------------------------------------|
| <b>Ingestion</b>    | Not available.                              |
| <b>Inhalation</b>   | Vapours may cause drowsiness and dizziness. |
| <b>Skin contact</b> | Not available.                              |
| <b>Eye contact</b>  | Not available.                              |
| <b>Symptoms</b>     | Not available.                              |

### 11.1. Information on toxicological effects

| Components                                                | Species                                                                  | Test results                |
|-----------------------------------------------------------|--------------------------------------------------------------------------|-----------------------------|
| Butane (< 0,1 % Butadiene) (106-97-8)                     |                                                                          |                             |
| <b>Acute</b>                                              |                                                                          |                             |
| <i>Inhalation</i>                                         |                                                                          |                             |
| LC50                                                      | Mouse                                                                    | 680 mg/l, 2 Hours           |
|                                                           | Rat                                                                      | 658 mg/l, 4 Hours           |
| Isobutane (< 0,1% Butadiene) (75-28-5)                    |                                                                          |                             |
| <b>Acute</b>                                              |                                                                          |                             |
| <i>Inhalation</i>                                         |                                                                          |                             |
| LC50                                                      | Mouse                                                                    | 52 mg/l, 1 Hours            |
| PROPANE (74-98-6)                                         |                                                                          |                             |
| <b>Acute</b>                                              |                                                                          |                             |
| <i>Inhalation</i>                                         |                                                                          |                             |
| LC50                                                      | Rat                                                                      | > 1442.847 mg/l, 15 Minutes |
| <b>Skin corrosion/irritation</b>                          | Prolonged or repeated contact may cause drying, cracking, or irritation. |                             |
| <b>Serious eye damage/irritation</b>                      | May irritate eyes.                                                       |                             |
| <b>Respiratory sensitisation</b>                          | Not available.                                                           |                             |
| <b>Skin sensitisation</b>                                 | Not available.                                                           |                             |
| <b>Germ cell mutagenicity</b>                             | Not available.                                                           |                             |
| <b>Carcinogenicity</b>                                    | Not available.                                                           |                             |
| <b>Reproductive toxicity</b>                              | Not available.                                                           |                             |
| <b>Specific target organ toxicity - single exposure</b>   | Not available.                                                           |                             |
| <b>Specific target organ toxicity - repeated exposure</b> | Not available.                                                           |                             |
| <b>Aspiration hazard</b>                                  | Not available.                                                           |                             |
| <b>Mixture versus substance information</b>               | Not available.                                                           |                             |
| <b>Other information</b>                                  | Not available.                                                           |                             |

## SECTION 12: Ecological information

|                                                 |                                                            |
|-------------------------------------------------|------------------------------------------------------------|
| <b>12.1. Toxicity</b>                           | There are no data on the ecotoxicity of this product.      |
| <b>12.2. Persistence and degradability</b>      | No data is available on the degradability of this product. |
| <b>12.3. Bioaccumulative potential</b>          | Not available.                                             |
| <b>Partition coefficient</b>                    |                                                            |
| <b>n-octanol/water (log Kow)</b>                |                                                            |
| PROPANE                                         | 2.36                                                       |
| Isobutane (< 0,1% Butadiene)                    | 2.76                                                       |
| Butane (< 0,1 % Butadiene)                      | 2.89                                                       |
| <b>Bioconcentration factor (BCF)</b>            | Not available.                                             |
| <b>12.4. Mobility in soil</b>                   | Not available.                                             |
| <b>12.5. Results of PBT and vPvB assessment</b> | Not a PBT or vPvB substance or mixture.                    |
| <b>12.6. Other adverse effects</b>              | Not available.                                             |

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Material name: KaVo QUATTROcare plus Spray

1,005,3843-45;1,005,4523/24 Version No.: 1.0 Revision date: 08-January-2013 Issue date: 09-November-2011

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|                                     |                                                                                                                                                                                                                                                                                                                                                                             |
|-------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Residual waste</b>               | Dispose of in accordance with local regulations. Avoid discharge into water courses or onto the ground.                                                                                                                                                                                                                                                                     |
| <b>Contaminated packaging</b>       | Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers.                                                                                                                                                                                                                                              |
| <b>EU waste code</b>                | The Waste code should be assigned in discussion between the user, the producer and the waste disposal company.                                                                                                                                                                                                                                                              |
| <b>Disposal methods/information</b> | Contents under pressure. Do not puncture, incinerate or crush. This material and its container must be disposed of as hazardous waste. Must be incinerated in a suitable incineration plant holding a permit delivered by the competent authorities. Do not discharge into drains, water courses or onto the ground. Dispose in accordance with all applicable regulations. |

## **SECTION 14: Transport information**

### **ADR**

|                                           |                     |
|-------------------------------------------|---------------------|
| <b>14.1. UN number</b>                    | UN1950              |
| <b>14.2. UN proper shipping name</b>      | Aerosols, flammable |
| <b>14.3. Transport hazard class(es)</b>   | 2.1                 |
| <b>Subsidiary class(es)</b>               | -                   |
| <b>14.4. Packing group</b>                | Not available.      |
| <b>14.5. Environmental hazards</b>        | No                  |
| <b>Tunnel restriction code</b>            | Not available.      |
| <b>Labels required</b>                    | 2.1                 |
| <b>14.6. Special precautions for user</b> | Not available.      |

### **IATA**

|                                           |                     |
|-------------------------------------------|---------------------|
| <b>14.1. UN number</b>                    | UN1950              |
| <b>14.2. UN proper shipping name</b>      | Aerosols, flammable |
| <b>14.3. Transport hazard class(es)</b>   | 2.1                 |
| <b>Subsidiary class(es)</b>               | 6.1 (PGIII)         |
| <b>14.4. Packing group</b>                | Not available.      |
| <b>14.5. Environmental hazards</b>        | Not available.      |
| <b>Labels required</b>                    | 2.1                 |
| <b>ERG Code</b>                           | Not available.      |
| <b>14.6. Special precautions for user</b> | Not available.      |

### **IMDG**

|                                                                                       |                                                                   |
|---------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| <b>14.1. UN number</b>                                                                | UN1950                                                            |
| <b>14.2. UN proper shipping name</b>                                                  | Aerosols, flammable                                               |
| <b>14.3. Transport hazard class(es)</b>                                               | 2                                                                 |
| <b>Subsidiary class(es)</b>                                                           | -                                                                 |
| <b>14.4. Packing group</b>                                                            | Not available.                                                    |
| <b>14.5. Environmental hazards</b>                                                    |                                                                   |
| <b>Marine pollutant</b>                                                               | No                                                                |
| <b>Labels required</b>                                                                | Not available.                                                    |
| <b>14.6. Special precautions for user</b>                                             | Not available.                                                    |
| <b>14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code</b> | This substance/mixture is not intended to be transported in bulk. |

## **SECTION 15: Regulatory information**

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

#### **EU regulations**

**Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex I**

Not listed.

**Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex II**

Not listed.

**Regulation (EC) No. 850/2004 on persistent organic pollutants, Annex I as amended**

Not listed.

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 1 as amended  
Not listed.  
Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 2 as amended  
Not listed.  
Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 3 as amended  
Not listed.  
Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex V as amended  
Not listed.  
Regulation (EC) No. 166/2006 Annex II Pollutant Release and Transfer Registry  
Not listed.  
Regulation (EC) No. 1907/2006, REACH Article 59(1) Candidate List as currently published by ECHA  
Not listed.

#### Authorisations

Regulation (EC) No. 143/2011 Annex XIV Substances Subject to Authorisation  
Not listed.

#### Restrictions on use

Regulation (EC) No. 1907/2006, REACH Annex XVII Substances subject to restriction on marketing and use as amended  
Not listed.  
Directive 2004/37/EC: on the protection of workers from the risks related to exposure to carcinogens and mutagens at work  
Not regulated.  
Directive 92/85/EEC: on the safety and health of pregnant workers and workers who have recently given birth or are breastfeeding  
Not regulated.

#### Other EU regulations

Directive 96/82/EC (Seveso II) on the control of major-accident hazards involving dangerous substances  
Not regulated.  
Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work  
PROPANE (CAS 74-98-6)  
Directive 94/33/EC on the protection of young people at work  
Not regulated.

#### Other regulations

The product is classified and labelled in accordance with EC directives or respective national laws. This Safety Data Sheet complies with the requirements of Regulation (EC) No 1907/2006.

#### National regulations

Pressurised container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use.

#### 15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out.

### **SECTION 16: Other information**

List of abbreviations Not available.

References Not available.

Information on evaluation method leading to the classification of mixture Not available.

Full text of any statements or R-phrases and H-statements under Sections 2 to 15  
R12 Extremely flammable.

H220 - Extremely flammable gas.  
H280 - Contains gas under pressure; may explode if heated.

Revision information Not available.

Training information Not available.

Disclaimer The information in the sheet was written based on the best knowledge and experience currently available.



## Safety Data Sheet

KaVo. Dental Excellence.

according to 29 CFR 1910.1200(g)

### KaVo QUATTROcare plus Spray North America - Canada

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#### 1. Identification

##### Product identifier

KaVo QUATTROcare plus Spray North America - Canada

##### Product code:

1.005.3844

1.005.4524

##### Further trade names

QUATTROcare plus Spray AMERICA+CANADA, KaVo Spray 2141, KaVo Spray 2141P

##### Recommended use of the chemical and restrictions on use

##### Use of the substance/mixture

The product is intended for professional use.

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

Company name: Kaltenbach & Voigt GmbH

Street: Bismarckring 39

Place: D-88400 Biberach

Telephone: +49 (0) 7351 56 0

Telefax: + 49 (0) 7351 56 1488

e-mail: sdb@kavo.com

Internet: <http://www.kavo.com/>

Emergency phone number: +49 (0) 7351 56 4000 (24 h)

#### 2. Hazard(s) identification

##### Classification of the chemical

Hazard categories:

Flammable aerosols: Flam. Aerosol 1

Hazard Statements:

Extremely flammable aerosol

Contains gas under pressure; may explode if heated

##### Label elements

**Signal word:** Danger

##### **Pictograms:**



##### **Hazard statements**

Extremely flammable aerosol

Contains gas under pressure; may explode if heated

##### **Precautionary statements**

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

Do not spray on an open flame or other ignition source.

Pressurized container: Do not pierce or burn, even after use.

Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.

##### Hazards not otherwise classified

In case of insufficient ventilation and/or through use, explosive/highly flammable mixtures may develop.

#### 3. Composition/information on ingredients

##### Mixtures



## Safety Data Sheet

KaVo. Dental Excellence.

according to 29 CFR 1910.1200(g)

### KaVo QUATTROcare plus Spray North America - Canada

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#### Hazardous components

| CAS No    | Components                    | Quantity |
|-----------|-------------------------------|----------|
| 8042-47-5 | White mineral oil (petroleum) | 14.99 %  |

## 4. First-aid measures

### Description of first aid measures

#### General information

Never give anything by mouth to an unconscious person or a person with cramps. Remove persons to safety.

#### After inhalation

Provide fresh air.

#### After contact with skin

Wash with plenty of water. Take off contaminated clothing and wash it before reuse.

#### After contact with eyes

Rinse immediately carefully and thoroughly with eye-bath or water.

#### After ingestion

Rinse mouth immediately and drink plenty of water. Observe risk of aspiration if vomiting occurs.

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

Headache, nausea, dizziness, fatigue, skin irritation

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

Treat symptomatically.

## 5. Fire-fighting measures

### Extinguishing media

#### Suitable extinguishing media

Carbon dioxide (CO<sub>2</sub>), Foam, Extinguishing powder

#### Unsuitable extinguishing media

Full water jet.

### Specific hazards arising from the chemical

Extremely flammable. Vapours can form explosive mixtures with air.

### Special protective equipment and precautions for fire-fighters

In case of fire: Wear self-contained breathing apparatus.

### Additional information

Use water spray jet to protect personnel and to cool endangered containers. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

## 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

Remove all sources of ignition. Provide adequate ventilation.

### Environmental precautions

Do not allow uncontrolled discharge of product into the environment. Danger of explosion

### Methods and material for containment and cleaning up

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents).

Treat the recovered material as prescribed in the section on waste disposal.

### Reference to other sections

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13



## Safety Data Sheet

KaVo. Dental Excellence.

according to 29 CFR 1910.1200(g)

### KaVo QUATTROcare plus Spray North America - Canada

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## 7. Handling and storage

### Precautions for safe handling

#### Advice on safe handling

Do not pierce or burn, even after use.

#### Advice on protection against fire and explosion

Do not spray on naked flames or any incandescent material. Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F. Keep away from sources of ignition. - No smoking. Take precautionary measures against static discharges. Vapours can form explosive mixtures with air.

### Conditions for safe storage, including any incompatibilities

#### Requirements for storage rooms and vessels

Keep container tightly closed. Keep in a cool, well-ventilated place. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

#### Advice on storage compatibility

Do not store together with: Oxidising agent. Pyrophoric or self-heating substances.

#### Further information on storage conditions

Protect from frost. Protect against direct sunlight.

## 8. Exposure controls/personal protection

### Control parameters

### Exposure limits

| CAS No.   | Substance          | ppm  | mg/m <sup>3</sup> | f/cc | Category      | Origin |
|-----------|--------------------|------|-------------------|------|---------------|--------|
| 75-28-5   | Butane: isobutane  | -    | -                 |      | TWA (8 h)     | TLV    |
|           |                    | 1000 |                   |      | STEL (15 min) | TLV    |
| 106-97-8  | Butane: n-butane   | -    | -                 |      | TWA (8 h)     | TLV    |
|           |                    | 1000 |                   |      | STEL (15 min) | TLV    |
| 75-28-5   | Isobutane          | 800  | 1900              |      | TWA (8 h)     | REL    |
| 8012-95-1 | Oil mist (mineral) | -    | 5                 |      | TWA (8 h)     | REL    |
| 8012-95-1 | Oil mist, mineral  | -    | 5                 |      | TWA (8 h)     | PEL    |
| 74-98-6   | Propane            | 1000 | 1800              |      | TWA (8 h)     | PEL    |
|           |                    | 1000 | 1800              |      | TWA (8 h)     | REL    |
|           |                    | -    | -                 |      | Asphyxiant    | TLV    |
| 106-97-8  | n-Butane           | 800  | 1900              |      | TWA (8 h)     | REL    |

### Additional advice on limit values

- a no restriction
- b End of exposure or end of shift
- c at long term exposure: after several previous shifts
- d before next shift

TWA (EC): time-weighted average

Y: A risk of reproductive effects needs not to be feared if the occupational exposure limit value (AGW) and the biological limit value (BGW) is kept

Z: A risk of reproductive effects cannot to be excluded if the occupational exposure limit value (AGW) and the biological limit value (BGW) is kept

Urine (U)

Whole blood (B)



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#### Exposure controls

##### **Protective and hygiene measures**

Take off contaminated clothing. Wash hands before breaks and after work. When using do not eat or drink.

##### **Eye/face protection**

Wear eye/face protection.

##### **Hand protection**

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. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

##### **Skin protection**

Flame-retardant protective clothing. Wear anti-static footwear and clothing

##### **Respiratory protection**

In case of inadequate ventilation wear respiratory protection.

#### **9. Physical and chemical properties**

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

|                 |                  |
|-----------------|------------------|
| Physical state: | liquid (Aerosol) |
| Color:          | light yellow     |
| Odor:           | characteristic   |

pH-Value (at 20 °C):

|                | Test method |
|----------------|-------------|
| not determined | DIN 19268   |

##### **Changes in the physical state**

Melting point/freezing point:

not determined

Initial boiling point and boiling range:

- 40 °C

Sublimation point:

No information available.

Softening point:

No information available.

Flash point:

- 80 °C

##### **Flammability**

Solid:

not applicable

Gas:

not applicable

##### **Explosive properties**

No information available.

Lower explosion limits:

1 vol. %

Upper explosion limits:

11 vol. %

Ignition temperature:

No information available.

##### **Auto-ignition temperature**

Solid:

not applicable

Gas:

not applicable

Decomposition temperature:

not determined

##### **Oxidizing properties**

Not oxidizing.

Vapor pressure:

not determined

Density (at 20 °C):

0,853 g/cm<sup>3</sup> DIN 51757

Bulk density:

No information available.



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Water solubility: insoluble

#### **Solubility in other solvents**

not determined

Partition coefficient:

not determined

Viscosity / dynamic:

No information available.

Viscosity / kinematic:

15,5 mm<sup>2</sup>/s

Vapour density:

not determined

Evaporation rate:

not determined

#### **Other information**

Density: Data apply to the technically active substance.

pressure: - bar (20°C)

Odour threshold: not determined

### 10. Stability and reactivity

#### **Reactivity**

Extremely flammable, Ignition hazard.

#### **Chemical stability**

Stability:

Stable

The product is stable under storage at normal ambient temperatures.

#### **Possibility of hazardous reactions**

Hazardous reactions:

May occur

#### **Conditions to avoid**

Keep away from sources of heat (e.g. hot surfaces), sparks and open flames.

Vapours can form explosive mixtures with air.

#### **Incompatible materials**

No information available.

#### **Hazardous decomposition products**

No known hazardous decomposition products.

#### **Further information**

Do not mix with other chemicals.

### 11. Toxicological information

#### **Information on toxicological effects**

##### **Route(s) of Entry**

Inhalation

##### **Acute toxicity**

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

| CAS No    | Components                    |        |              |         |              |
|-----------|-------------------------------|--------|--------------|---------|--------------|
|           | Exposure routes               | Method | Dose         | Species | Source       |
| 8042-47-5 | White mineral oil (petroleum) |        |              |         |              |
|           | oral                          | LD50   | > 5000 mg/kg | Rat     | Manufacturer |
|           | dermal                        | LD50   | > 2000 mg/kg | Rabbit  | Manufacturer |
|           | inhalative (4 h) aerosol      | LC50   | > 5000 mg/l  | Rat     | Manufacturer |



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#### **Irritation and corrosivity**

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

#### **Sensitizing effects**

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

#### **Specific target organ toxicity (STOT) - single exposure**

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

#### **Severe effects after repeated or prolonged exposure**

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

#### **Carcinogenic/mutagenic/toxic effects for reproduction**

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

No indication of human carcinogenicity.

No indications of human germ cell mutagenicity exist.

No indications of human reproductive toxicity exist.

Carcinogenicity (NTP): none

Carcinogenicity (IARC): Mineral oils, highly-refined is listed in group 3.

Carcinogenicity (OSHA): none

#### **Aspiration hazard**

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

## 12. Ecological information

#### **Ecotoxicity**

The product is not: Ecotoxic.

#### **Persistence and degradability**

The product has not been tested.

#### **Bioaccumulative potential**

The product has not been tested.

#### **Mobility in soil**

The product has not been tested.

#### **Other adverse effects**

No information available.

#### **Further information**

Do not allow uncontrolled discharge of product into the environment.

## 13. Disposal considerations

#### **Waste treatment methods**

##### **Advice on disposal**

Do not allow to enter into surface water or drains. Dispose of waste according to applicable legislation.

##### **Contaminated packaging**

Completely emptied packages can be recycled.

## 14. Transport information

#### **US DOT 49 CFR 172.101**

##### **UN/ID number:**

UN 1950

##### **Proper shipping name:**

Aerosols, flammable, (each not exceeding 1 L capacity)

##### **Transport hazard class(es):**

2.1

##### **Hazard label:**

2.1

#### **Marine transport (IMDG)**



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**UN number:** UN 1950  
**UN proper shipping name:** AEROSOLS  
**Transport hazard class(es):** 2.1  
**Packing group:** -  
Hazard label: 2.1



Limited quantity: 1000 mL  
Excepted quantity: E0  
EmS: F-D, S-U

#### Air transport (ICAO)

**UN number:** UN 1950  
**UN proper shipping name:** AEROSOLS, flammable  
**Transport hazard class(es):** 2.1  
**Packing group:** -  
Hazard label: 2.1



Limited quantity Passenger: 30 kg G  
Passenger LQ: Y203  
Excepted quantity: E0  
IATA-packing instructions - Passenger: 203  
IATA-max. quantity - Passenger: 75 kg  
IATA-packing instructions - Cargo: 203  
IATA-max. quantity - Cargo: 150 kg

#### Environmental hazards

ENVIRONMENTALLY HAZARDOUS: no

#### Special precautions for user

Warning: Flammable gases.

#### Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

not applicable

### 15. Regulatory information

#### U.S. Regulations

##### National Inventory TSCA

White mineral oil (petroleum): Yes.  
butane: Yes.  
isobutane: Yes.  
propane: Yes.

##### National regulatory information

SARA Section 311/312 Hazards:  
Butane (106-97-8): Fire hazard  
Propane (74-98-6): Fire hazard  
Isobutane (75-28-5): Fire hazard

Clean Air Act Section 112(r):  
Butane (106-97-8): Threshold quantities = 10,000 lbs.



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Propane (74-98-6): Threshold quantities = 10,000 lbs.

Isobutane (75-28-5): Threshold quantities = 10,000 lbs.

#### State Regulations

##### Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65, State of California)

This product contains no chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

#### 16. Other information

Health: 1

Flammability: 4

Physical Hazard: 3

##### NFPA Hazard Ratings

Health: 1

Flammability: 4

Reactivity: 3

Unique Hazard:

Revision date: 05.08.2015

Revision No: 2,0



##### 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)

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonized 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/DMEL: Derived No Effect Level / Derived Minimal Effect Level

WEL (UK): Workplace Exposure Limits

TWA (EC): Time-Weighted Average

ATE: Acute Toxicity Estimate

STEL (EC) Short Term Exposure Limit

LC50: Lethal Concentration

EC50: half maximal Effective Concentration

ErC50: means EC50 in terms of reduction of growth rate

VwVwS: Verwaltungsvorschrift wassergefährdende Stoffe (17. Mai 1999)

##### Other data

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.