

according to 29 CFR 1910.1200(g)

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Telefax: + 49 (0) 7351 56 1488

1. Identification

Product identifier

QUATTROcare plus Spray AMERICA 2141

Product code:

1.005.3844 1.005.4524

Recommended use of the chemical and restrictions on use

Use of the substance/mixture

Lubricating agent

Details of the supplier of the safety data sheet

KaVo Dental GmbH Company name: Bismarckring 39 Street: Place: D-88400 Biberach Telephone: +49 (0) 7351 56 0

sdb@kavo.com e-mail: e-mail (Contact person): support@gefahrstoff.com

Internet: www.kavo.com

Questions concerning SDB: PES-Ingenieurgesellschaft mbH Responsible Department:

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

2. Hazard(s) identification

Classification of the chemical

29 CFR Part 1910.1200

Flammable aerosols: Flam. Aerosol 1 Gases under pressure: Compressed gas

Aspiration hazard: Asp. Tox. 1

Label elements

29 CFR Part 1910.1200

Signal word: Danger

Pictograms:







Hazard statements

Extremely flammable aerosol

Contains gas under pressure; may explode if heated May be fatal if swallowed and enters airways

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.

If swallowed: Immediately call a poison center/doctor.

Do NOT induce vomiting.



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Store in a well-ventilated place.

Store locked up.

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

Dispose of waste according to applicable legislation.

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

Hazardous components

CAS No	Components	Quantity
106-97-8	butane	35.01 %
75-28-5	isobutane	35.01 %
8042-47-5	White mineral oil (petroleum)	19.99 %
74-98-6	propane	9.99 %

4. First-aid measures

Description of first aid measures

General information

First aider: Pay attention to self-protection! Remove persons to safety. Never give anything by mouth to an unconscious person or a person with cramps.

After inhalation

Remove person to fresh air and keep comfortable for breathing. In all cases of doubt, or when symptoms persist, seek medical advice.

After contact with skin

Wash with plenty of soap and water. Take off contaminated clothing and wash it before reuse. When in doubt or if symptoms are observed, get medical advice.

After contact with eyes

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. In case of troubles or persistent symptoms, consult an ophthalmologist.

After ingestion

Rinse mouth immediately and drink plenty of water. Do NOT induce vomiting. Observe risk of aspiration if vomiting occurs. Call a physician in any case!

Most important symptoms and effects, both acute and delayed

Headache, Nausea, Dizziness. May cause drowsiness or dizziness. Frequently or prolonged contact with skin may cause dermal irritation.

Indication of any immediate medical attention and special treatment needed

Treat symptomatically. Symptoms can occur only after several hours.

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media

Carbon dioxide (CO2), Foam, Extinguishing powder. Water mist.

Co-ordinate fire-fighting measures to the fire surroundings.



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Unsuitable extinguishing media

Full water jet.

Specific hazards arising from the chemical

Extremely flammable aerosol. Vapors may form explosive mixtures with air. Heating causes rise in pressure with risk of bursting.

In case of fire may be liberated: Gases/vapors, toxic (Carbon dioxide (CO2), Carbon monoxide, aldehydes, carbon black)

Special protective equipment and precautions for fire-fighters

In case of fire: Wear self-contained breathing apparatus. In case of fire and/or explosion do not breathe fumes. Move undamaged containers from immediate hazard area if it can be done safely.

Additional information

Use water spray/stream 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. Do not breathe gas/fume/vapour/spray. Remove persons to safety. Evacuate area. Avoid contact with skin, eyes and clothes. Wear respiratory protection when in the presence of vapor, dust, and aerosols.

Environmental precautions

Do not allow uncontrolled discharge of product into the environment. Explosion risk. Do not allow to enter into surface water or drains. Prevent spread over a wide area (e.g. by containment or oil barriers). Ensure all waste water is collected and treated via a waste water treatment plant.

Methods and material for containment and cleaning up

Ventilate affected area. 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. Clean contaminated articles and floor according to the environmental legislation.

Reference to other sections

Safe handling: see section 7

Personal protection equipment (PPE): see section 8

Disposal: see section 13

7. Handling and storage

Precautions for safe handling

Advice on safe handling

Observe instructions for use. Do not pierce or burn, even after use. Provide adequate ventilation. Do not breathe gas/fume/vapour/spray. Avoid contact with skin, eyes and clothes. Wear respiratory protection when in the presence of vapor, dust, and aerosols.

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. Vapors may form explosive mixtures with air. Heating causes rise in pressure with risk of bursting.

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.



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Hints on joint storage

Do not store together with: Oxidizing agent. Pyrophoric or self-heating substances. Food and feedingstuffs.

Further information on storage conditions

Protect against: frost. Protect against direct sunlight. Protect from sunlight.

8. Exposure controls/personal protection

Control parameters

Exposure limits

CAS No.	Substance	ppm	mg/m³	f/cc	Category	Origin
75-28-5	Butane: isobutane	-	-		TWA (8 h)	ACGIH-2019
		1000			STEL (15 min)	ACGIH-2019
106-97-8	Butane: n-butane	-	-		TWA (8 h)	ACGIH-2019
		1000			STEL (15 min)	ACGIH-2019
75-28-5	Isobutane	800	1900		TWA (8 h)	REL
74-98-6	Propane	1000	1800		TWA (8 h)	PEL
		1000	1800		TWA (8 h)	REL
		-	-		Asphyxiant	ACGIH-2019
106-97-8	n-Butane	800	1900		TWA (8 h)	REL

Exposure controls







Appropriate engineering controls

Provide adequate ventilation as well as local exhaustion at critical locations.

Protective and hygiene measures

Take off contaminated clothing. Draw up and observe skin protection programme. Wash hands before breaks and after work. When using do not eat, drink, smoke, sniff. Avoid contact with skin, eyes and clothes. Do not breathe gas/fume/vapour/spray.

Eye/face protection

Suitable eye protection: Tightly sealed safety glasses.

Hand protection

Wear suitable gloves. EN ISO 374

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.

Suitable material: NBR (Nitrile rubber)

Breakthrough time (maximum wearing time) 480 min. Thickness of the glove material: 0,45 mm



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Skin protection

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

Respiratory protection

In case of inadequate ventilation wear respiratory protection. Wear respiratory protection when in the presence of vapor, dust, and aerosols. Respiratory protection necessary at: exceeding exposure limit values.

Suitable respiratory protection apparatus: Combination filtering device (EN 14387)

Filtering device with filter or ventilator filtering device of type: AX

Observe the wear time limits as specified by the manufacturer.

Environmental exposure controls

Do not allow uncontrolled discharge of product into the environment. Explosion risk. Do not allow to enter into surface water or drains. Prevent spread over a wide area (e.g. by containment or oil barriers). Ensure all waste water is collected and treated via a waste water treatment plant.

9. Physical and chemical properties

Information on basic physical and chemical properties

Physical state: Aerosol
Color: light yellow
Odor: characteristic

Test method

pH-Value: not determined DIN 19268

Changes in the physical state

Melting point/freezing point:

Initial boiling point and boiling range:

-40 °C

Flash point:

-80 °C

Flammability

Solid: not applicable
Gas: not applicable

Explosive properties

Heating may cause an explosion. Vapors may form explosive mixtures with air.

Lower explosion limits: 0,9 vol. % Upper explosion limits: 15 vol. %

Auto-ignition temperature

Solid: not applicable
Gas: not applicable

Decomposition temperature: not determined

Oxidizing properties

Not oxidising.

Vapor pressure: not determined

Density (at 20 °C): 0,853 g/cm³ DIN 51757

Water solubility: The study does not need to be conducted

because the substance is known to be insoluble in water.



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Solubility in other solvents

not determined

Partition coefficient:

Viscosity / dynamic:

viscosity / kinematic:

not determined

vapor density:

not determined

not determined

not determined

not determined

not determined

Other information

Odor threshold: not determined.

Relative density, Color, Odor, Viscosity, pH: Data apply to the technically active substance.

10. Stability and reactivity

Reactivity

Extremely flammable aerosol.

Chemical stability

Stability: Stable

The product is stable under storage at normal ambient temperatures.

Possibility of hazardous reactions

Hazardous reactions: May occur

Vapors may form explosive mixtures with air. Heating causes rise in pressure with risk of bursting.

Conditions to avoid

Keep away from sources of heat (e.g. hot surfaces), sparks and open flames. Protect against direct sunlight. Protect against: Frost. Take precautionary measures against static discharges.

Incompatible materials

Oxidizing agent. Pyrophoric or self-heating substances.

Hazardous decomposition products

In case of fire may be liberated: Gases/vapors, toxic (Carbon dioxide (CO2), Carbon monoxide, aldehydes, carbon black)

Further information

Do not mix with other chemicals.

11. Toxicological information

Information on toxicological effects

Route(s) of Entry

Inhalation, oral

Acute toxicity

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



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

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.

Carcinogenic/mutagenic/toxic effects for reproduction

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.

Specific target organ toxicity (STOT) - repeated exposure

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

Carcinogenicity (OSHA): No ingredient of this mixture is listed.
Carcinogenicity (IARC): No ingredient of this mixture is listed.
Carcinogenicity (NTP): No ingredient of this mixture is listed.

Aspiration hazard

May be fatal if swallowed and enters airways

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

Avoid release to the environment.

13. Disposal considerations

Waste treatment methods

Disposal recommendations

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



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Contaminated packaging

Dispose of waste according to applicable legislation.

14. Transport information

US DOT 49 CFR 172.101

UN/ID number: UN 1950
Proper shipping name: AEROSOLS

Transport hazard class(es): 2.1
Hazard label: 2.1

Marine transport (IMDG)

UN 1950
UN proper shipping name: AEROSOLS

Transport hazard class(es):2.1Packing group:-Hazard label:2.1



Special Provisions: 63, 190, 277, 327, 344, 381, 959

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

Air transport (ICAO-TI/IATA-DGR)

UN 1950

UN proper shipping name: AEROSOLS, FLAMMABLE

Transport hazard class(es):2.1Packing group:-Hazard label:2.1



Special Provisions: A145 A167 A802

Limited quantity Passenger: 30 kg G
Passenger LQ: Y203
Excepted quantity: E0

IATA-packing instructions - Passenger:203IATA-max. quantity - Passenger:75 kgIATA-packing instructions - Cargo:203IATA-max. quantity - Cargo:150 kg

Environmental hazards

ENVIRONMENTALLY HAZARDOUS: no

Special precautions for user

Warning: Flammable gases.



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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 Isobutane (75-28-5): Fire hazard Propane (74-98-6): Fire hazard

Clean Air Act Section 112(r):

Butane (106-97-8): Threshold quantities = 10,000 lbs. Isobutane (75-28-5): Threshold quantities = 10,000 lbs. Propane (74-98-6): Threshold quantities = 10,000 lbs.

State Regulations

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

This product can not expose you to chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

16. Other information

Hazardous Materials Information Label (HMIS)

Health: 1
Flammability: 4
Physical Hazard: 3

NFPA Hazard Ratings

Health: 1
Flammability: 4
Reactivity: 3

Unique Hazard:

Changes

Revision date: 17.01.2020 Revision No: 1.2

This data sheet contains changes from the previous version in section(s): 2,3,4,5,6,7,8,9,10,12,13,14,15,16.

Abbreviations and acronyms

ACGIH: American Conference of Governmental Industrial Hygienists

CFR: Code of Federal Regulations DOT: Department of Transportation

ICAO: International Civil Aviation Organization

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association
IARC: International Agency for Research on Cancer



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GHS: Globally Harmonized System of Classification and Labelling of Chemicals

CAS: Chemical Abstracts Service

NFPA: National Fire Protection Association

NTP: National Toxicology Program

OSHA: Occupational Safety and Health Administration

PEL: permissible exposure limit REL: recommended exposure limit

SARA: Superfund Amendments and Reauthorization Act

STEL: Short-term exposure limit TSCA: Toxic Substances Control Act

TWA: time-weighted average TI: Technical Instructions

DGR: Dangerous Goods Regulations

UN: United Nations

ATE: Acute toxicity estimate LC50: Lethal concentration, 50%

LD50: Lethal dose, 50% LL50: Lethal loading, 50% EL50: Effect loading, 50%

EC50: Effective Concentration 50%

ErC50: Effective Concentration 50%, growth rate NOEC: No Observed Effect Concentration

BCF: Bio-concentration factor

MARPOL: International Convention for the Prevention of Marine Pollution from Ships

IBC: Intermediate Bulk Container VOC: Volatile Organic Compounds

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.

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)