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

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

SECTION 3: Composition/information on ingredients

3.2. Mixtures

General information

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

Inhalation Move to fresh air. For breathing difficulties, oxygen may be necessary. Call a physician if symptoms develop or persist.

Skin contact Take off immediately all contaminated clothing. Rinse skin with water/shower.

Eye contact 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.

Ingestion 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

Suitable extinguishing media Water spray, foam, dry powder or carbon dioxide.

Unsuitable extinguishing media 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) (106-97-8)	STEL	1810 mg/m3 750 ppm
	TWA	1450 mg/m3 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

Ingestion	Not available.
Inhalation	Vapours may cause drowsiness and dizziness.
Skin contact	Not available.
Eye contact	Not available.
Symptoms	Not available.

11.1. Information on toxicological effects

Components	Species	Test results
Butane (< 0,1 % Butadiene) (106-97-8)		
Acute		
Inhalation		
LC50	Mouse	680 mg/l, 2 Hours
	Rat	658 mg/l, 4 Hours
Isobutane (< 0,1% Butadiene) (75-28-5)		
Acute		
Inhalation		
LC50	Mouse	52 mg/l, 1 Hours
PROPANE (74-98-6)		
Acute		
Inhalation		
LC50	Rat	> 1442.847 mg/l, 15 Minutes

Skin corrosion/irritation	Prolonged or repeated contact may cause drying, cracking, or irritation.
Serious eye damage/irritation	May irritate eyes.
Respiratory sensitisation	Not available.
Skin sensitisation	Not available.
Germ cell mutagenicity	Not available.
Carcinogenicity	Not available.
Reproductive toxicity	Not available.
Specific target organ toxicity - single exposure	Not available.
Specific target organ toxicity - repeated exposure	Not available.
Aspiration hazard	Not available.
Mixture versus substance information	Not available.
Other information	Not available.

SECTION 12: Ecological information

12.1. Toxicity	There are no data on the ecotoxicity of this product.
12.2. Persistence and degradability	No data is available on the degradability of this product.
12.3. Bioaccumulative potential	Not available.

Partition coefficient n-octanol/water (log Kow)

PROPANE	2.36
Isobutane (< 0,1% Butadiene)	2.76
Butane (< 0,1 % Butadiene)	2.89

Bioconcentration factor (BCF)	Not available.
12.4. Mobility in soil	Not available.
12.5. Results of PBT and vPvB assessment	Not a PBT or vPvB substance or mixture.
12.6. Other adverse effects	Not available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Residual waste	Dispose of in accordance with local regulations. Avoid discharge into water courses or onto the ground.
Contaminated packaging	Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers.
EU waste code	The Waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Disposal methods/information	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

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

IATA

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

IMDG

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

according to 29 CFR 1910.1200(g)

KaVo QUATTROcare plus Spray North America - Canada

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

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 (CO2), 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

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 no 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/m³	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)

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

		Test method
pH-Value (at 20 °C):	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/cm³	DIN 51757
Bulk density:	No information available.	

Water solubility:	insoluble

Solubility in other solvents

not determined

Partition coefficient:	not determined
Viscosity / dynamic:	No information available.
Viscosity / kinematic:	15,5 mm²/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

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)

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.

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.