

1. IDENTIFICATION OF SUBSTANCES / PREPARATION AND COMPANY

Product Name: Endo Mate Pana Spray Lubricant
 Product Code: 0222
 Application: Lubricant Spray

Company: Davis Schottlander & Davis Ltd
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Date: 02.05.2017 V1.0

2. HAZARD IDENTIFICATION

Classification of the substance or mixture:
 Classification (REGULATION (EC) No 1272/2008)
 Aerosols, Category 1 H222: Extremely flammable aerosol.
 H229: Pressurised container: May burst if heated.

Label elements:

Labelling (REGULATION (EC) No 1272/2008)
 Hazard pictograms



Signal word: Danger
 Hazard statements: H222 Extremely flammable aerosol.
 H229 Pressurised container: May burst if heated.

Precautionary statements: **Prevention:**
 P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 P211 Do not spray on an open flame or other ignition source.
 P251 Do not pierce or burn, even after use.

Storage:
 P410 + P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/ 122 °F.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Mixtures:

Chemical nature: Active substance with propellant

Hazardous components:

Chemical Name	CAS No EC No. Index No. Registration number	Classification REGULATION (EC) No. 1272/2008)	Concentration [%]
Ethanol	64-17-5 200-578-6 603-002-00-5	Flam. Liq. 2; H225 Eye Irrit. 2; H319	>=20 - <30

Substances with a workplace exposure limit:

Isobutane	75-28-5 200-857-2 601-004-00-0	Flam. Gas 1; H220 Press. Gas Compr. Gas; H280	>=50 - <70
Propane	74-98-6 200-827-9 601-003-00-5	Flam. Gas 1; H220 Press. Gas Compr. Gas; H280	>=1 - <10
Butane	106-97-8 203-448-7 601-004-00-0	Flam. Gas 1; H220 Press. Gas Compr. Gas; H280	>=1 - <10

4. FIRST AID MEASURES

Description of first aid measures:

- If inhaled:** Remove person to fresh air. If signs/symptoms continue, get medical attention. Keep patient warm and at rest. If unconscious place in recovery position and seek medical advice. Keep respiratory tract clear. If breathing is irregular or stopped, administer artificial respiration.
- In case of skin contact:** Take off all contaminated clothing immediately. Wash off immediately with soap and plenty of water. Get medical attention immediately if irritation develops and persists. Wash clothing before reuse. Thoroughly clean shoes before reuse.
- In case of eye contact:** Rinse immediately with plenty of water, also under the eyelids, for at least 10 minutes. If eye irritation persists, consult a specialist.
- If swallowed:** Move the victim to fresh air. Keep respiratory tract clear. Do NOT induce vomiting. Rinse mouth with water.

Most important symptoms and effects, both acute and delayed:

- Symptoms: No information available.
Risks: None known.

Indication of any immediate medical attention and special treatment needed:

- Treatment: No information available.

5. FIRE FIGHTING MEASURES

Extinguishing media:

- Suitable extinguishing media: ABC powder
Unsuitable extinguishing media: High volume water jet

Special hazards arising from the substance or mixture:

- Specific hazards during fire fighting: Fire may cause evolution of:
Carbon oxides
Fire Hazard
Do not let product enter drains. Contains gas under pressure; may explode if heated. Beware of vapours accumulating to form explosive concentrations.
Vapours can accumulate in low areas.

Advice for firefighters:

Special protective equipment for firefighters:

In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment. In the case of respirable dust and/or fumes, use self-contained breathing apparatus. Exposure to decomposition products may be a hazard to health.

Further information:

Standard procedure for chemical fires. Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Cool containers / tanks with water spray.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:

Personal precautions:

Evacuate personnel to safe areas. Ensure adequate ventilation. Remove all sources of ignition. Do not breathe vapours or spray mist. Refer to protective measures listed in sections 7 and 8.

Environmental precautions:

Try to prevent the material from entering drains or water courses. Prevent further leakage or spillage if safe to do so. Local authorities should be advised if significant spillages cannot be contained.

Methods and materials for containment and cleaning up

Methods for cleaning up:

Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). Keep in suitable, closed containers for disposal. Non-sparking tools should be used.

Reference to other sections:

For personal protection see section 8.

7. HANDLING AND STORAGE

Precautions for safe handling:

Advice on safe handling:

Do not use in areas without adequate ventilation. Do not breathe vapours or spray mist. In case of insufficient ventilation, wear suitable respiratory equipment. Avoid contact with skin and eyes. For personal protection see section 8. Keep away from fire, sparks and heated surfaces. Smoking, eating and drinking should be prohibited in the application area. Wash hands and face before breaks and immediately after handling the product. Do not get in eyes or mouth or on skin. Do not get on skin or clothing. Do not ingest. Do not use sparking tools. These safety instructions

also apply to empty packaging which may still contain product residues.

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

Conditions for safe storage, including any incompatibilities:

Requirements for storage areas and containers:

BEWARE: Aerosol is pressurized. Keep away from direct sun exposure and temperatures over 50 °C. Do not open by force or throw into fire even after use. Do not spray on flames or red-hot objects. Store in accordance with the particular national regulations.

Specific end use(s):

Consult the technical guidelines for the use of this substance/mixture.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters

Components	CAS No.	Value type	Control parameters	Update	Basis
Isobutane	75-28-5	AGW	1.000 ppm 2.400 mg/m ³	2006-01-01	DE TRGS 900

Further information: DFG: Senate commission for the review of compounds at the work place dangerous for the health (MAK-commission).

Ethanol	64-17-5	AGW	500 ppm 960 mg/m ³	2006-01-01	DE TRGS 900
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Further information: DFG: Senate commission for the review of compounds at the work place dangerous for the health (MAK-commission). When there is compliance with the OEL and biological tolerance values, there is no risk of harming the unborn child.

Propane	74-98-6	AGW	1.000 ppm 1.800 mg/m ³	2006-01-01	DE TRGS 900
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Further information: DFG: Senate commission for the review of compounds at the work place dangerous for the health (MAK-commission).

Butane	106-97-8	AGW	1.000 ppm 2.400 mg/m ³	2006-01-01	DE TRGS 900
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Further information: DFG: Senate commission for the review of compounds at the work place dangerous for the health (MAK-commission).

DNEL Ethanol:

End Use: Industrial use
 Exposure routes: Inhalation
 Potential health effects: Acute local effects
 Value: 1900 mg/m³

End Use: Industrial use
 Exposure routes: Inhalation
 Potential health effects: Long-term systemic effects
 Value: 950 mg/m³

End Use: Industrial use
 Exposure routes: Skin contact
 Potential health effects: Long-term systemic effects
 Value: 343 mg/kg

PNEC Ethanol:	Fresh water Value: 0,96 mg/l
	Marine water Value: 0,79 mg/l
	Intermittent use/release Value: 2,75 mg/l
	Microbiological Activity in Sewage Treatment Systems Value: 580 mg/l
	Fresh water sediment Value: 3,6 mg/kg
	Soil Value: 0,63 mg/kg

Exposure controls

Engineering measures:

Use only in an area equipped with explosion proof exhaust ventilation. Handle only in a place equipped with local exhaust (or other appropriate exhaust).

Personal protective equipment

Respiratory protection:

Use respiratory protection unless adequate local exhaust ventilation is provided or exposure assessment demonstrates that exposures are within recommended exposure guidelines.

Short term only

Filter type A-P

Hand protection:

For prolonged or repeated contact use protective gloves. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it. The break through time depends amongst other things on the material, the thickness and the type of glove and therefore has to be measured for each case. In case of contact through splashing:

Nitrile rubber

Protective index Class 1

Eye protection:

Safety glasses with side-shields conforming to EN166

Hygiene measures:

Wash face, hands and any exposed skin thoroughly after handling.

Protective measures: The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place.

Environmental exposure controls

General advice: Try to prevent the material from entering drains or water courses. Prevent further leakage or spillage if safe to do so. Local authorities should be advised if significant spillages cannot be contained.

9. PHYSICAL AND CHEMICAL PROPERTIES

Values refer to the propellant

Information on basic physical and chemical properties:

Appearance:	aerosol
Colour:	colourless
Odour:	characteristic
Odour Threshold:	No data available
pH:	No data available
Melting point/range:	No data available
Boiling point/boiling range:	< -10 °C, 1.013 hPa
Flash point:	-80 °C, Test Method: open cup
Evaporation rate:	No data available
Flammability (solid, gas):	Extremely flammable aerosol.
Lower explosion limit:	1,5 %(V)
Upper explosion limit:	11,2 %(V)
Vapour pressure:	2.700 hPa, 20 °C
Relative vapour density:	No data available
Density:	0,60 g/cm ³ , 20 °C
Water solubility:	insoluble
Solubility in other solvents:	No data available
Partition coefficient	
n-octanol/water:	No data available
Auto-ignition temperature:	No data available
Ignition temperature:	> 350 °C
Viscosity, dynamic:	No data available
Viscosity, kinematic:	No data available
Oxidizing properties:	No data available

Other information:

Sublimation point:	No data available
Bulk density:	No data available

10. STABILITY AND REACTIVITY

Reactivity:

No hazards to be specially mentioned.

Chemical stability:

No decomposition if stored and applied as directed.

Possibility of hazardous reactions:

Hazardous reactions: No dangerous reaction known under conditions of normal use.

Conditions to avoid: Heat, flames and sparks.

Incompatible materials:

Materials to avoid: Oxidizing agents

Hazardous decomposition products:

No decomposition if stored and applied as directed.

11. TOXICOLOGY INFORMATION

Information on toxicological effects:Product

Acute oral toxicity:	This information is not available.
Acute inhalation toxicity:	Respiratory disorder, Inhalation may provoke the following symptoms:
Skin corrosion/irritation:	This information is not available.
Serious eye damage/eye irritation:	Irritating to eyes.
Respiratory or skin sensitisation:	This information is not available.
Germ cell mutagenicity	
Genotoxicity in vitro:	No data available
Genotoxicity in vivo:	No data available
Carcinogenicity:	No data available
Reproductive toxicity:	No data available
Teratogenicity:	No data available
Repeated dose toxicity:	This information is not available.
Aspiration toxicity:	This information is not available.
Further information:	Information given is based on data on the components and the toxicology of similar products.

Components:**Ethanol :**

Acute oral toxicity:	LD50: 10.470 mg/kg, rat, OECD Test Guideline 401
Acute inhalation toxicity:	LC50: 124,7 mg/l, 4 h, rat, vapour, OECD Test Guideline 403
Skin corrosion/irritation:	rabbit, Result: No skin irritation, Classification: No skin irritation, OECD Test Guideline 404
Serious eye damage/eye irritation:	rabbit, Result: Irritating to eyes., Classification: Irritating to eyes., OECD Test Guideline 405
Respiratory or skin sensitisation:	mouse, Result: Does not cause skin sensitisation., Classification: Does not cause skin sensitisation., OECD Test Guideline 429
Germ cell mutagenicity	
Genotoxicity in vitro:	Ames test, with and without metabolic activation, Result: negative, OECD Test Guideline 471
Genotoxicity in vivo:	In vivo micronucleus test, mouse, Result: negative
Assessment:	Tests on bacterial or mammalian cell cultures did not show mutagenic effects.

Repeated dose toxicity:	rat (female), Oral, 90 d, NOAEL: 1.730 mg/kg, OECD Test Guideline 408.
STOT - repeated exposure:	Assessment: The substance or mixture is not classified as specific target organ toxicant, repeated exposure.
Isobutane :	
Acute inhalation toxicity:	LC50: 658 mg/l, 4 h, rat, gas
Butane :	
Acute inhalation toxicity:	LC50: 658 mg/l, 4 h, rat, gas

12. ECOLOGICAL INFORMATION

Toxicity

Product:

Toxicity to fish:	No data available
Toxicity to daphnia and other aquatic invertebrates:	No data available
Toxicity to algae:	No data available
Toxicity to bacteria:	No data available

Components:

Ethanol :

Toxicity to fish:	LC50: 3.220 mg/l, 96 h, Pimephales promelas (fathead minnow)
Toxicity to daphnia and other aquatic invertebrates:	EC50: > 10.000 mg/l, 48 h, Daphnia magna (Water flea)
Toxicity to algae:	EC50: 275 mg/l, 72 h, Chlorella vulgaris (Fresh water algae), OECD Test Guideline 201
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity):	NOEC: 6.300 mg/l, 48 d, Daphnia magna (Water flea)

Persistence and degradability

Product:

Biodegradability:	No data available
Physico-chemical removability:	No data available

Components:

Ethanol :

Biodegradability:	aerobic, Result: Readily biodegradable., OECD Test Guideline 301B
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Bioaccumulative potential

Product:

Bioaccumulation:	This mixture contains no substance considered to be persistent, bioaccumulating nor toxic (PBT). This mixture contains no substance considered to be very persistent nor very bioaccumulating (vPvB).
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Components:

Ethanol :

Bioaccumulation: Bioconcentration factor (BCF): 3,2. Due to the distribution coefficient n-octanol/water, accumulation in organisms is not expected.

Mobility in soil

Product:

Mobility: No data available

Distribution among environmental compartments: No data available

Results of PBT and vPvB assessment

Product:

Assessment: This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Components:

Ethanol :

Assessment: This substance is not considered to be persistent, bioaccumulating nor toxic (PBT)., This substance is not considered to be very persistent nor very bioaccumulating (vPvB).

Other adverse effects

Product:

Additional ecological information: No information on ecology is available.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Product: In accordance with local and national regulations. Waste codes should be assigned by the user based on the application for which the product was used.

Contaminated packaging: Offer empty spray cans to an established disposal company. Pressurized container: Do not pierce or burn, even after use.

14. TRANSPORT INFORMATION

UN number

ADR: 1950
IMDG: 1950
IATA: 1950

Proper shipping name

ADR: AEROSOLS
IMDG: AEROSOLS
IATA: AEROSOLS, FLAMMABLE

Transport hazard class

ADR: 2
IMDG: 2.1
IATA: 2.1

Packing group

ADR
Classification Code: 5F
Labels: 2.1
Tunnel restriction code: (D)
IMDG
Labels: 2.1
EmS Number: F-D, S-U
IATA
Packing instruction
(cargo aircraft): 203
Labels: 2.1

Environmental hazards

ADR
Environmentally hazardous: no
IMDG
Marine pollutant: no
IATA
Environmentally hazardous: no

Special precautions for user

No data available

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

Not available

15. REGULATORY INFORMATION

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

REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59):

This product does not contain substances of very high concern (Regulation (EC) No 1907/2006 (REACH), Article 57).

Major Accident Hazard Legislation:

96/82/EC Update.
Extremely flammable
8
Quantity 1: 10 t
Quantity 2: 50 t

Chemical Safety Assessment:

This information is not available.

16. FURTHER INFORMATION

The data given above covers exclusively the safety requirements of the product(s) and is based on our current knowledge and experience. It does not signify any warranty with regards to the products properties. This product is only supplied for specific uses in dentistry and must be used in accordance with the directions for use.