

Safety Data Sheet
acc. to OSHA HCS

Printing date 01/03/2020

Version number 11

Reviewed on 01/03/2020

1 Identification

- **Product identifier**
- **Trade name: Lubrifluid**
- **Article number: 1600064**
- **Application of the substance / the mixture**
Auxiliary for dental technology
Lubricant
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Bien-Air Dental S.A.
Länggasse 60
CH-2504 Biel/Bienne
Switzerland
Tel.: int. +41 (0)32 344 64 64
office@bienair.com
- **Information department: Product safety department**
- **Emergency telephone number:**
Swiss Toxicological information center
E-Mail: info@toxi.ch
24-h-Emergency number: From CH: 145
From abroad: +41 44 251 51 51

2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS02 Flame

Flam. Aerosol 1 H222 Extremely flammable aerosol.



GHS04 Gas cylinder

Press. Gas H280 Contains gas under pressure; may explode if heated.



GHS08 Health hazard

Asp. Tox. 1 H304 May be fatal if swallowed and enters airways.



GHS07

Acute Tox. 4 H312 Harmful in contact with skin.

Skin Irrit. 2 H315 Causes skin irritation.

STOT SE 3 H336 May cause drowsiness or dizziness.

- **Label elements**

- **GHS label elements**

The product is classified and labeled according to the Globally Harmonized System (GHS).

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Hazard pictograms



GHS02 GHS04 GHS07 GHS08

Signal word Danger

Hazard-determining components of labeling:

Dec-1-ene, homopolymer, hydrogenated Dec-1-ene, oligomers, hydrogenated

Hydrocarbons, C6, isoalkanes, <5% n-hexane

Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, < 5% n-hexane

Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics

Hazard statements

Extremely flammable aerosol.

Contains gas under pressure; may explode if heated.

Harmful in contact with skin.

Causes skin irritation.

May cause drowsiness or dizziness.

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.

Avoid breathing spray.

Wash thoroughly after handling.

Avoid release to the environment.

Wear protective gloves.

If on skin: Wash with plenty of water.

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

Call a poison center/doctor if you feel unwell.

If skin irritation occurs: Get medical advice/attention.

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

Dispose of contents/container in accordance with local/regional/national/international regulations.

Classification system:

NFPA ratings (scale 0 - 4)



Health = 1

Fire = 4

Reactivity = 3

HMIS-ratings (scale 0 - 4)



Health = 1

Fire = 4

Reactivity = 3

Other hazards

Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

3 Composition/information on ingredients

Chemical characterization: Mixtures

Description: Active substance with propellant

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· Dangerous components:		
75-28-5	<i>isobutane</i>	20-30%
74-98-6	<i>propane</i>	10-20%
68037-01-4	<i>Dec-1-ene, homopolymer, hydrogenated Dec-1-ene, oligomers, hydrogenated</i>	10-20%
64742-49-0	<i>Hydrocarbons, C6, isoalkanes, <5% n-hexane</i>	10-20%
64742-49-0	<i>Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, < 5% n-hexane</i>	10-20%
64742-49-0	<i>Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics</i>	10-20%
124-38-9	<i>carbon dioxide</i>	1-10%
68649-11-6	<i>1-Decen, Dimer, hydriert</i>	1-10%

4 First-aid measures

- **Description of first aid measures**

- **General information:**

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

- **After skin contact:** *Immediately wash with water and soap and rinse thoroughly.*

- **After eye contact:** *Rinse opened eye for several minutes under running water.*

- **After swallowing:** *If symptoms persist consult doctor.*

- **Information for doctor:**

- **Most important symptoms and effects, both acute and delayed** *No further relevant information available.*

- **Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

5 Fire-fighting measures

- **Extinguishing media**

- **Suitable extinguishing agents:**

CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

- **Special hazards arising from the substance or mixture** *No further relevant information available.*

- **Advice for firefighters**

- **Protective equipment:** *No special measures required.*

- **Additional information**

Collect contaminated fire fighting water separately. It must not enter the sewage system.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**

Wear protective equipment. Keep unprotected persons away.

- **Environmental precautions:**

Do not allow product to reach sewage system or any water course.

Inform respective authorities in case of seepage into water course or sewage system.

Do not allow to enter sewers/ surface or ground water.

- **Methods and material for containment and cleaning up:**

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

- **Reference to other sections**

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

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· Protective Action Criteria for Chemicals

· PAC-1:

75-28-5	isobutane	5500* ppm
74-98-6	propane	5500* ppm
68037-01-4	Dec-1-ene, homopolymer, hydrogenated Dec-1-ene, oligomers, hydrogenated	30 mg/m ³
64742-49-0	Hydrocarbons, C6, isoalkanes, <5% n-hexane	1,000 mg/m ³
64742-49-0	Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, < 5% n-hexane	1,000 mg/m ³
64742-49-0	Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics	1,000 mg/m ³

· PAC-2:

75-28-5	isobutane	17000** ppm
74-98-6	propane	17000** ppm
68037-01-4	Dec-1-ene, homopolymer, hydrogenated Dec-1-ene, oligomers, hydrogenated	330 mg/m ³
64742-49-0	Hydrocarbons, C6, isoalkanes, <5% n-hexane	11,000 mg/m ³
64742-49-0	Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, < 5% n-hexane	11,000 mg/m ³
64742-49-0	Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics	11,000 mg/m ³

· PAC-3:

75-28-5	isobutane	53000*** ppm
74-98-6	propane	33000*** ppm
68037-01-4	Dec-1-ene, homopolymer, hydrogenated Dec-1-ene, oligomers, hydrogenated	2,000 mg/m ³
64742-49-0	Hydrocarbons, C6, isoalkanes, <5% n-hexane	66,000 mg/m ³
64742-49-0	Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, < 5% n-hexane	66,000 mg/m ³
64742-49-0	Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics	66,000 mg/m ³

7 Handling and storage

· Handling:

· **Precautions for safe handling** Ensure good ventilation/exhaustion at the workplace.

· Information about protection against explosions and fires:

Do not spray on a naked flame or any incandescent material.

Keep ignition sources away - Do not smoke.

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

· Conditions for safe storage, including any incompatibilities

· Storage:

· Requirements to be met by storerooms and receptacles:

Observe official regulations on storing packagings with pressurized containers.

· Information about storage in one common storage facility: Store away from oxidizing agents.

· Further information about storage conditions:

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

· Storage class: 2 B

· Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

· **Additional information about design of technical systems:** No further data; see item 7.

· Control parameters

· Components with limit values that require monitoring at the workplace:

The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit.

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At this time, the other constituents have no known exposure limits.

75-28-5 isobutane	
TLV	Short-term value: 2370 mg/m ³ , 1000 ppm (EX)
74-98-6 propane	
PEL	Long-term value: 1800 mg/m ³ , 1000 ppm
REL	Long-term value: 1800 mg/m ³ , 1000 ppm
TLV	refer to Appendix F in TLVs&BEIs book; D, EX
124-38-9 carbon dioxide	
PEL	Long-term value: 9000 mg/m ³ , 5000 ppm
REL	Short-term value: 54,000 mg/m ³ , 30,000 ppm Long-term value: 9000 mg/m ³ , 5000 ppm
TLV	Short-term value: 54,000 mg/m ³ , 30,000 ppm Long-term value: 9000 mg/m ³ , 5000 ppm

· **Additional information:** The lists that were valid during the creation were used as basis.

· **Exposure controls**

· **Personal protective equipment:**

· **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Do not inhale gases / fumes / aerosols.

Avoid contact with the skin.

Avoid contact with the eyes and skin.

· **Breathing equipment:**

Use suitable respiratory protective device when high concentrations are present.

Filter AX

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

Not necessary if room is well-ventilated.

· **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· **Material of gloves**

Nitrile rubber, NBR

Recommended thickness of the material: ≥ 0.3 mm

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye protection:** Not required.

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9 Physical and chemical properties

- **Information on basic physical and chemical properties**

- **General Information**

- **Appearance:**

· Form:	Aerosol
· Color:	Colorless
· Odor:	Characteristic
· Odor threshold:	Not determined.

- **pH-value:** Not determined.

- **Change in condition**

· Melting point/Melting range:	Undetermined.
· Boiling point/Boiling range:	Not applicable, as aerosol.

- **Flash point:** -60 °C (-140 °F)

- **Flammability (solid, gaseous):** Extremely flammable liquefied gas.

- **Ignition temperature:** >200 °C (>392 °F)

- **Decomposition temperature:** Not determined.

- **Auto igniting:** Product is not selfigniting.

- **Danger of explosion:** Product is not explosive. However, formation of explosive air/vapor mixtures are possible.

- **Explosion limits:**

· Lower:	1 Vol %
· Upper:	10.9 Vol %

- **Vapor pressure:** Not determined.

- **Density at 20 °C (68 °F):** 0.62 g/cm³ (5.17 lbs/gal)

- **Relative density** Not determined.

- **Vapor density** Not determined.

- **Evaporation rate** Not applicable.

- **Solubility in / Miscibility with**

- **Water:** Not miscible or difficult to mix.

- **Partition coefficient (n-octanol/water):** Not determined.

- **Viscosity:**

· Dynamic:	Not determined.
· Kinematic:	Not determined.

- **Solvent content:**

· Organic solvents:	82.5 %
· VOC content:	82.55 %
	511.8 g/l / 4.27 lb/gal

- **Other information** No further relevant information available.

10 Stability and reactivity

- **Reactivity** No further relevant information available.

- **Chemical stability**

- **Thermal decomposition / conditions to be avoided:**

- No decomposition if used and stored according to specifications.

- **Possibility of hazardous reactions** Reacts violently with oxidizing agents.

- **Conditions to avoid** No further relevant information available.

- **Incompatible materials:** No further relevant information available.

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· **Hazardous decomposition products:** Carbon monoxide and carbon dioxide

11 Toxicological information

· **Information on toxicological effects**· **Acute toxicity:**· **LD/LC50 values that are relevant for classification:**

68037-01-4 Dec-1-ene, homopolymer, hydrogenated Dec-1-ene, oligomers, hydrogenated

Oral	LD50	>5,000 mg/kg (rat)
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· **Primary irritant effect:**· **on the skin:** Irritant to skin and mucous membranes.· **on the eye:** No irritating effect.· **Sensitization:** No sensitizing effects known.· **Additional toxicological information:**

The product shows the following dangers according to internally approved calculation methods for preparations:

Harmful

Irritant

· **Carcinogenic categories**· **IARC (International Agency for Research on Cancer)**

None of the ingredients is listed.

· **NTP (National Toxicology Program)**

None of the ingredients is listed.

· **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

12 Ecological information

· **Toxicity**· **Aquatic toxicity:** No further relevant information available.· **Persistence and degradability** No further relevant information available.· **Behavior in environmental systems:**· **Bioaccumulative potential** No further relevant information available.· **Mobility in soil** No further relevant information available.· **Additional ecological information:**· **General notes:**

Water hazard class 2 (Self-assessment): hazardous for water

Do not allow product to reach ground water, water course or sewage system.

Danger to drinking water if even small quantities leak into the ground.

· **Results of PBT and vPvB assessment**· **PBT:** Not applicable.· **vPvB:** Not applicable.· **Other adverse effects** No further relevant information available.

13 Disposal considerations

· **Waste treatment methods**· **Recommendation:**

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

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- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

<ul style="list-style-type: none"> · UN-Number · DOT, ADR, IMDG, IATA 	UN1950
<ul style="list-style-type: none"> · UN proper shipping name · DOT · ADR · IMDG · IATA 	<i>Aerosols, flammable</i> 1950 AEROSOLS, ENVIRONMENTALLY HAZARDOUS AEROSOLS (Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, < 5% n-hexane, Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics), MARINE POLLUTANT AEROSOLS, flammable
<ul style="list-style-type: none"> · Transport hazard class(es) · DOT 	
<ul style="list-style-type: none"> · Class · Label 	2.1 2.1
<ul style="list-style-type: none"> · ADR 	
<ul style="list-style-type: none"> · Class · Label 	2.5F Gases 2.1
<ul style="list-style-type: none"> · IMDG 	
<ul style="list-style-type: none"> · Class · Label 	2.1 2.1
<ul style="list-style-type: none"> · IATA 	
<ul style="list-style-type: none"> · Class · Label 	2.1 2.1
<ul style="list-style-type: none"> · Packing group · DOT, ADR, IMDG, IATA 	Void
<ul style="list-style-type: none"> · Environmental hazards: · Marine pollutant: · Special marking (ADR): 	<i>Product contains environmentally hazardous substances:</i> <i>oleoylsarcosine</i> <i>Symbol (fish and tree)</i> <i>Symbol (fish and tree)</i>
<ul style="list-style-type: none"> · Special precautions for user 	Warning: Gases

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· Hazard identification number (Kemler code): -	
· EMS Number:	F-D,S-U
· Stowage Code	SW1 Protected from sources of heat. SW22 For AEROSOLS with a maximum capacity of 1 litre: Category A. For AEROSOLS with a capacity above 1 litre: Category B. For WASTE AEROSOLS: Category C, Clear of living quarters.
· Segregation Code	SG69 For AEROSOLS with a maximum capacity of 1 litre: Segregation as for class 9. Stow "separated from" class 1 except for division 1.4. For AEROSOLS with a capacity above 1 litre: Segregation as for the appropriate subdivision of class 2. For WASTE AEROSOLS: Segregation as for the appropriate subdivision of class 2.
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· Transport/Additional information:	
· DOT	
· Quantity limitations	On passenger aircraft/rail: 75 kg On cargo aircraft only: 150 kg
· ADR	
· Excepted quantities (EQ)	Code: E0 Not permitted as Excepted Quantity
· IMDG	
· Limited quantities (LQ)	1L
· Excepted quantities (EQ)	Code: E0 Not permitted as Excepted Quantity
· UN "Model Regulation":	UN 1950 AEROSOLS, 2.1, ENVIRONMENTALLY HAZARDOUS

15 Regulatory information

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

· **Section 355 (extremely hazardous substances):**

None of the ingredients is listed.

· **Section 313 (Specific toxic chemical listings):**

None of the ingredients is listed.

· **TSCA (Toxic Substances Control Act):**

All components have the value ACTIVE.

· **Hazardous Air Pollutants**

None of the ingredients is listed.

· **Proposition 65**

· **Chemicals known to cause cancer:**

None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.

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· **Chemicals known to cause developmental toxicity:**

None of the ingredients is listed.

· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

· **TLV (Threshold Limit Value established by ACGIH)**

None of the ingredients is listed.

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is listed.

· **GHS label elements**

The product is classified and labeled according to the Globally Harmonized System (GHS).

· **Hazard pictograms**



GHS02 GHS04 GHS07 GHS08

· **Signal word** Danger

· **Hazard-determining components of labeling:**

Dec-1-ene, homopolymer, hydrogenated Dec-1-ene, oligomers, hydrogenated Hydrocarbons, C6, isoalkanes, <5% n-hexane
Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, < 5% n-hexane
Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics

· **Hazard statements**

Extremely flammable aerosol.
Contains gas under pressure; may explode if heated.
Harmful in contact with skin.
Causes skin irritation.
May cause drowsiness or dizziness.
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.
Avoid breathing spray.
Wash thoroughly after handling.
Avoid release to the environment.
Wear protective gloves.
If on skin: Wash with plenty of water.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
Call a poison center/doctor if you feel unwell.
If skin irritation occurs: Get medical advice/attention.
Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.
Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Department issuing SDS:** Product Stewardship
- **Date of preparation / last revision** 01/03/2020 / 10

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· **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)
- IMDG: International Maritime Code for Dangerous Goods
- DOT: US Department of Transportation
- IATA: International Air Transport Association
- ACGIH: American Conference of Governmental Industrial Hygienists
- 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)
- NFPA: National Fire Protection Association (USA)
- HMIS: Hazardous Materials Identification System (USA)
- VOC: Volatile Organic Compounds (USA, EU)
- LC50: Lethal concentration, 50 percent
- LD50: Lethal dose, 50 percent
- PBT: Persistent, Bioaccumulative and Toxic
- vPvB: very Persistent and very Bioaccumulative
- NIOSH: National Institute for Occupational Safety
- OSHA: Occupational Safety & Health
- TLV: Threshold Limit Value
- PEL: Permissible Exposure Limit
- REL: Recommended Exposure Limit
- Flam. Aerosol 1: Aerosols – Category 1
- Press. Gas: Gases under pressure – Compressed gas
- Acute Tox. 4: Acute toxicity – Category 4
- Skin Irrit. 2: Skin corrosion/irritation – Category 2
- STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
- Asp. Tox. 1: Aspiration hazard – Category 1
- *** Data compared to the previous version altered.**

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