Safety Data Sheet
acc. to 29 CFR 1910.1200 (OSHA Hazcom 2012)

Issued on 05/03/2016 Edition number 6 Reviewed on 05/03/2016

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1 Identification

· **Product identifier**

· **Trade name: Spraynet**

· **Article number:** 1600036
· **Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
· **Application of the substance / the preparation:**
For industrial use only
Cleaner for dental instruments

· **Details of the supplier of the safety data sheet**
· **Manufacturer / Supplier:**
Bien Air USA, Inc.
5 Corporate Park
Suite 160
IRVINE, CA 92606
USA
Phone..: (800)-433-2436
Phone..: (949)-477-6050
Fax no.: (949)-477-6051
office@bienair.com

· **Information department:**
Product Safety Department
E-mail: reach@blaser.com

· **Emergency telephone number:**
Within USA and Canada . : 1-800-424-9300
Outside USA and Canada: +1-703-527-3887 (collect calls accepted)

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2 Hazard(s) identification

· **Classification of the substance or mixture**
Extremely flammable aerosol.
Contains gas under pressure; may explode if heated.
May cause cancer.

· **Label elements**
· **GHS label elements** The product is classified and labeled according to 29 CFR 1910.1200 (OSHA Hazcom 2012).
· **Hazard pictograms**

GHS02 GHS04 GHS08

· **Signal word** Danger

· **Hazard-determining components of labeling:**
ethanol
· **Hazard statements**
H222 Extremely flammable aerosol.
H280 Contains gas under pressure; may explode if heated.
H350 May cause cancer.
· **Precautionary statements**
P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P251 Do not pierce or burn, even after use.
P405 Store locked up.
P410+P403 Protect from sunlight. Store in a well-ventilated place.
P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

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· **Other hazards** None

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3 Composition/information on ingredients

· **Chemical characterization: Mixtures**
· **Description:** Active substance with propellant

· **Declarable components:**
CAS no.

64-17-5	ethanol	>40-<70%
106-97-8	butane	>10-<30%
74-98-6	propane	>10-<30%
67-63-0	isopropanol	>1-<5%

· **Additional information:**
The specific chemical identity and/or exact percentage concentration of proprietary components is withheld as a trade secret.

4 First-aid measures

· **Description of first aid measures**
· **After skin contact:** Generally the product does not irritate the skin.
· **After eye contact:** Rinse opened eye for several minutes under running water.
· **After swallowing:**
Do not induce vomiting; immediately call for medical help.
A person vomiting while lying on their back should be turned onto their side.
· **Information for doctor:**
· **Most important symptoms and effects, both acute and delayed** Nausea / vomiting
· **Indication of any immediate medical attention and special treatment needed**
If swallowed or in case of vomiting, danger of entering the lungs.
Medical supervision for at least 48 hours.

5 Fire-fighting measures

· **Extinguishing media**
· **Suitable extinguishing agents:** CO_2, extinguishing powder or water spray. Fight larger fires with water spray.
· **For safety reasons unsuitable extinguishing agents:** Water with full jet
· **Special hazards arising from the substance or mixture** No further relevant information available.
· **Advice for firefighters**
· **Protective equipment:** No special measures required.
· **Additional information** Cool endangered receptacles with water spray.

6 Accidental release measures

· **Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
· **Environmental precautions:** 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.

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See Section 13 for disposal information.

7 Handling and storage

· **Handling:**
· **Precautions for safe handling**
Ensure good ventilation/exhaustion at the workplace.
Open and handle receptacle with care.
The product has been classified and marked in accordance with directives on hazardous materials.
Observe the general safety regulations when handling chemicals.
· **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.
Protect against electrostatic charges.
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:**
Store in a cool location.
Store only in the original receptacle.
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:**
Protect from heat and direct sunlight.
Store in a cool place. Heat will increase pressure and may lead to the receptacle bursting.
Optimal storage temperature between -4°F and +104°F
Duration of storage: In original container, at least 6 years.
· **Specific end use(s)** No further relevant information available.

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8 Exposure controls/personal protection

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

· **Control parameters**

· **Components with limit values at the workplace:**	
64-17-5 ethanol (>50-<80%)	
PEL (USA)	Long-term value: 1900 mg/m³, 1000 ppm
REL (USA)	Long-term value: 1900 mg/m³, 1000 ppm
TLV (USA)	Short-term value: 1880 mg/m³, 1000 ppm
74-98-6 propane (>5.0-<15%)	
PEL (USA)	Long-term value: 1800 mg/m³, 1000 ppm
REL (USA)	Long-term value: 1800 mg/m³, 1000 ppm
TLV (USA)	refer to Appendix F inTLVs and BEIs book
106-97-8 butane (>5.0-<15%)	
REL (USA)	Long-term value: 1900 mg/m³, 800 ppm
TLV (USA)	Short-term value: 2370 mg/m³, 1000 ppm
67-63-0 isopropanol (>1.0-4.9%)	
PEL (USA)	Long-term value: 980 mg/m³, 400 ppm
REL (USA)	Short-term value: 1225 mg/m³, 500 ppm Long-term value: 980 mg/m³, 400 ppm

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TLV (USA)	Short-term value: 984 mg/m³, 400 ppm Long-term value: 492 mg/m³, 200 ppm BEI

· **Ingredients with biological limit values:**

67-63-0 isopropanol (>1.0-4.9%)

BEI (USA)	40 mg/L Medium: urine Time: end of shift at end of workweek Parameter: Acetone (background, nonspecific)

· **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.
Wash hands before breaks and at the end of work.
Store protective clothing separately.
· **Respiratory Protection:** Not required.
· **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 (recommended):** Suitable protective gloves: Nitrile gloves, minimum thickness of 0.3 mm.
· **Breakthrough time of glove material:**
The exact breakthrough time has to be found out by the manufacturer of the protective gloves and has to be observed.
· **Eye protection (recommended):**
Eye protector with side protection (framed eyeglasses) ANSI Z87.1 – 2010
Use of tight fitting goggles
· **Body protection (recommended):** Protective work clothing

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9 Physical and chemical properties

· **Information on basic physical and chemical properties**
· **General Information**
· **Appearance:**

Form:	Aerosol
Color:	Colorless
Odor:	Peppermint
Odor threshold:	Not determined.

· **pH-value:**	Not applicable.

· **Change in condition:**

Melting point/Melting range:	Not applicable
Boiling point/Boiling range:	Active substance: > 172°F (> 78 °C) (DIN 51751 / ASTM D86) Not applicable, as aerosol.

· **Flash point:**	Active substance: 54°F (12 °C) (ISO 2592 / ASTM D92) Not applicable, as aerosol.

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· **Evaporation rate**	Not determined.
· **Flammability (solid, gaseous):**	Extremely flammable liquefied gas. Not applicable.
· **Explosion limits (@1013 mbar):**	
Lower:	1.5 Vol %
Upper:	15.0 Vol %
· **Oxidizing properties**	Not applicable.
· **Vapor pressure at 20 °C (68 °F):**	8300 hPa (6226 mm Hg)
· **Vapor density**	Not applicable.
· **Relative density:**	Active substance: 0.79 @ 68°F (20 °C) (DIN 51757 / ASTM D1217)
· **Evaporation rate**	Not applicable.
· **Solubility in / Miscibility with**	
Water:	Active subst.: Soluble.
· **Partition coefficient (n-octanol/water):**	Not determined.
· **Auto-ignition temperature:**	Product is not selfigniting.
· **Decomposition temperature:**	Not determined.
· **Viscosity**	
Kinematic:	Not determined.
· **VOC content**	100 %
· **Other information:**	none

10 Stability and reactivity

· **Reactivity** None known if used as directed.
· **Chemical stability** Stable under recommended storage conditions.
· **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
· **Possibility of hazardous reactions** Reacts with strong oxidizing agents.
· **Conditions to avoid** No further relevant information available.
· **Incompatible materials:** No further relevant information available.
· **Hazardous decomposition products (in case of fire or oxidation):**
Carbon dioxide

11 Toxicological information

· **Information on toxicological effects**
· **Acute toxicity:**
· **LD/LC50 values that are relevant for classification:**
> 2000 - < 5000 mg / kg (oral, rat)
> 5,100 mg/m³ 4h (inhalation, rat)

ATE (Acute Toxicity Estimates)		
Inhalative	LD50	744 mg/L (rat)

67-63-0 isopropanol		
Oral	LD50	5045 mg/kg (rat)
Dermal	LD50	12800 mg/kg (rabbit)
Inhalative	LD50	30 mg/L (rat)

· **Primary irritant effect:**
· **on the skin:** No irritant effect.

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· **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:

· **Carcinogenic categories**

· **IARC (International Agency for Research on Cancer)**		
64-17-5	ethanol	1

· **NTP (National Toxicology Program)**
None of the ingredients are 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:** Do not allow product to reach ground water, water course or sewage system.
· **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.

· **Used containers**
· **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

· **UN-Number**
· **DOT, IMDG, IATA** UN1950
· **DOT** Aerosols, flammable
· **IMDG** AEROSOLS
· **IATA** AEROSOLS, flammable

· **DOT**

· **Hazard Classification:** 2.1

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· **Label**	2.1
· **IMDG, IATA**	

· **Hazard Classification:**	2.1
· **Label**	2.1
· **DOT, IMDG, IATA**	not applicable
· **Environmental hazards**	
· **Marine pollutant (according to IMDG):**	No
· **Special precautions for user**	Warning: Gases
· **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/Additional information:**	
· **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
· **IATA**	IATA Dangerous Goods Regulation (DGR) 56th Edition 2015
· **UN "Model Regulation":**	UN1950, Aerosols, 2.1

15 Regulatory information

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

· **SARA (Superfund Amendments and Reauthorization)**

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

None of the ingredients are listed.

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

isopropanol

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

All ingredients are listed on the U.S. TSCA inventory or exempt from premanufacture notice requirements.

· **California Proposition 65**

This product does not intentionally contain any chemicals known by the State of California to cause cancer and/or birth defects. Moreover, we do not routinely analyze its products for impurities which may be such chemicals.

· **Chemicals known to cause cancer:**

None of the ingredients are listed.

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

None of the ingredients are listed.

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Trade name: Spraynet

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· **Chemicals known to cause reproductive toxicity for males:**
None of the ingredients are listed.

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

64-17-5	ethanol	>40-<70%

· **Carcinogenic categories:**

· **EPA (Environmental Protection Agency)**
None of the ingredients are listed.

· **NIOSH-Carcinogen list**
None of the ingredients are listed.

· **California SCAQMD Rule 1144:** Not applicable.
· **GHS label elements** GHS label elements are issued under section 2.
· **Additional classification according to Decree on Hazardous Materials:**
Carcinogenic hazardous material group III (dangerous).

· **Information about limitation of use:**
Workers are not allowed to be exposed to the hazardous carcinogenic materials contained in this preparation.
Exceptions can be made by the authorities in certain cases.

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.

· **Regulations / approvals / other listings:**
All major components are U.S. FDA listed for H1 Lubricants, or correspond to the current Pharmacopoeia or food grade requirements.
All contents comply with current pharmacological or food grade standards.

· **H.R.2420:**
RoHS:
This product fulfill the H.R.2420 requirements in that the EDEE Act regulated materials are absent or their concentrations are significantly below regulatory thresholds.

· **BSE/TSE:**
This product adheres to the standards of TSE/BSE-free products, according to European Community directives 93/42/EEC and 2003/32/EC.
Materials and/or synthetically modified materials which are of animal origin from bovine, ovine, goats, cats, dogs, deer, elk and/or mink, are NOT included in this product.
This product is entirely free from latex containing materials.
· **NFPA ratings (scale 0-4)**

Health = 0
Fire = 4
Reactivity = 3

· **HMIS ratings (0-4)**

Health = 0
Fire = 4
Reactivity = 3

· **Department issuing SDS:** Product Stewardship

· **Editor's notice:**
The above mentioned data correspond to our present state of knowledge and experience. The safety data sheet serves as description of the products in regard to necessary safety measures. The indications have not the meaning of guarantees on properties.
· **Date of preparation / last revision** 05/03/2016 / 5

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· **Abbreviations and acronyms:**
ICAO: International Civil Aviation Organisation
RoHS: Restriction of Hazardous Substances
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
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
ACGIH: American Conference of Governmental Industrial Hygienists
CAS: Chemical Abstracts Service (division of the American Chemical Society)
VOC: Volatile Organic Compounds (USA, EU)
ISO: International Organisation for Standardisation
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic chemicals
vPvB: very Persistent and very Bioaccumulative chemicals
NIOSH: National Institute for Occupational Safety and Health
OSHA: Occupational Safety and Health Administration
Flam. Aerosol 1: Aerosols – Category 1
Press. Gas: Gases under pressure – Compressed gas
Carc. 1A: Carcinogenicity – Category 1A

· *** Data compared to the previous version altered.**
The asterisk (*) on the left side indicate the respective changes from the previous version.

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1 Identification

· **Product identifier**

· **Trade name: Lubrifluid**

· **Article number:** 1600064
· **Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
· **Application of the substance / the preparation:**
For industrial use only
Lubricant

· **Details of the supplier of the safety data sheet**
· **Manufacturer / Supplier:**
Bien Air USA, Inc.
5 Corporate Park
Suite 160
IRVINE, CA 92606
USA
Phone..: (800)-433-2436
Phone..: (949)-477-6050
Fax no.: (949)-477-6051
office@bienair.com

· **Emergency telephone number:**
Within USA and Canada . : 1-800-424-9300
Outside USA and Canada: +1-703-527-3887 (collect calls accepted)

*
2 Hazard(s) identification

· **Classification of the substance or mixture**
Extremely flammable aerosol.
Contains gas under pressure; may explode if heated.

· **Label elements**
· **GHS label elements** The product is classified and labeled according to 29 CFR 1910.1200 (OSHA Hazcom 2012).
· **Hazard pictograms**

GHS02 GHS04

· **Signal word** Danger
· **Hazard statements**
H222 Extremely flammable aerosol.
H280 Contains gas under pressure; may explode if heated.
· **Precautionary statements**
P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P251 Do not pierce or burn, even after use.
P211 Do not spray on an open flame or other ignition source.
P410+P403 Protect from sunlight. Store in a well-ventilated place.
P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.
· **Other hazards** None

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3 Composition/information on ingredients

· **Chemical characterization: Mixtures**
· **Description:** Active substance with propellant

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· **Declarable components:**

CAS no.		
64742-49-0	Low boiling point hydrogen treated naphtha, content of benzene: < 0.1%	>20-<40%
74-98-6	propane	>20-<30%
106-97-8	butane	>20-<30%
68037-01-4	1-Decene, homopolymer, hydrogenated	>5.0-<15%

· **Additional information:**
The specific chemical identity and/or exact percentage concentration of proprietary components is withheld as a trade secret.

4 First-aid measures

· **Description of first aid measures**
· **After skin contact:** Generally the product does not irritate the skin.
· **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:** CO_2, extinguishing powder or water spray. Fight larger fires with water spray.
· **For safety reasons unsuitable extinguishing agents:** Water with full jet
· **Special hazards arising from the substance or mixture** No further relevant information available.
· **Advice for firefighters**
· **Protective equipment:** No special measures required.
· **Additional information** Cool endangered receptacles with water spray.

6 Accidental release measures

· **Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
· **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
· **Methods and material for containment and cleaning up:** 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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7 Handling and storage

· **Handling:**
· **Precautions for safe handling**
Ensure good ventilation/exhaustion at the workplace.
Open and handle receptacle with care.
The product has been classified and marked in accordance with directives on hazardous materials.
Observe the general safety regulations when handling chemicals.
· **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.

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Trade name: Lubrifluid

(Contd. of page 2)

Protect against electrostatic charges.
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:**
Store in a cool location.
Store only in the original receptacle.
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:**
Protect from heat and direct sunlight.
Store in a cool place. Heat will increase pressure and may lead to the receptacle bursting.
Optimal storage temperature between -4°F and +104°F
Duration of storage: In original container, at least 3 years.
· **Specific end use(s)** No further relevant information available.

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8 Exposure controls/personal protection

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

· **Control parameters**

· **Components with limit values at the workplace:**	
74-98-6 propane (>20-<30%)	
PEL (USA)	Long-term value: 1800 mg/m³, 1000 ppm
REL (USA)	Long-term value: 1800 mg/m³, 1000 ppm
TLV (USA)	refer to Appendix F inTLVs and BEIs book
106-97-8 butane (>20-<30%)	
REL (USA)	Long-term value: 1900 mg/m³, 800 ppm
TLV (USA)	Short-term value: 2370 mg/m³, 1000 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:** Wash hands before breaks and at the end of work.
· **Respiratory Protection:** Use suitable respiratory protective device in case of insufficient ventilation.
· **Protection of hands:**
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 (recommended):** Suitable protective gloves: Nitrile gloves, minimum thickness of 0.3 mm.
· **Breakthrough time of glove material:**
The exact breakthrough time has to be found out by the manufacturer of the protective gloves and has to be observed.
· **Eye protection (recommended):**
Eye protector with side protection (framed eyeglasses) ANSI Z87.1 – 2010
Use of tight fitting goggles
· **Body protection (recommended):** Protective work clothing

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Trade name: Lubrifluid

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*
9 Physical and chemical properties

· **Information on basic physical and chemical properties**	
· **General Information**	
· **Appearance:**	
Form:	Aerosol
Color:	Colorless
Odor:	Peppermint
Odor threshold:	Not determined.
· **pH-value:**	Not applicable.
· **Change in condition:**	
Melting point/Melting range:	Not applicable
Boiling point/Boiling range:	Active substance: > 572°F (> 300 °C) (DIN 51751 / ASTM D86) Not applicable, as aerosol.
· **Flash point:**	Active substance: > 392°F (> 200 °C) (ISO 2592 / ASTM D92) Not applicable, as aerosol.
· **Evaporation rate**	Not determined.
· **Flammability (solid, gaseous):**	Extremely flammable liquefied gas.
· **Explosion limits (@1013 mbar):**	
Lower:	1.1 Vol %
Upper:	10.9 Vol %
· **Oxidizing properties**	Not applicable.
· **Vapor pressure at 20 °C (68 °F):**	8300 hPa (6226 mm Hg)
· **Vapor density**	Not applicable.
· **Relative density:**	Active substance: 0.83 @ 68°F (20 °C) (DIN 51757 / ASTM D1217)
· **Evaporation rate**	Not applicable.
· **Solubility in / Miscibility with**	
Water:	Insoluble.
· **Partition coefficient (n-octanol/water):**	Not determined.
· **Auto-ignition temperature:**	Product is not selfigniting.
· **Decomposition temperature:**	Not determined.
· **Viscosity**	
Kinematic:	Active substance: 15 mm²/s @ 104°F (40 °C) (ISO 3104 / ASTM D445)
· **VOC content**	85 %
· **Other information:**	none

10 Stability and reactivity

· **Reactivity** None known if used as directed.
· **Chemical stability** Stable under recommended storage conditions.
· **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
· **Possibility of hazardous reactions** Reacts with strong oxidizing agents.
· **Conditions to avoid** No further relevant information available.
· **Incompatible materials:** No further relevant information available.
· **Hazardous decomposition products (in case of fire or oxidation):**
Carbon monoxide and carbon dioxide

(Contd. on page 5)

Safety Data Sheet
acc. to 29 CFR 1910.1200 (OSHA Hazcom 2012)

Trade name: Lubrifluid

(Contd. of page 4)

*
11 Toxicological information

· **Information on toxicological effects**
· **Acute toxicity:**
· **LD/LC50 values that are relevant for classification:**
> 2000 - < 5000 mg / kg (oral, rat)
> 5,100 mg/m³ 4h (inhalation, rat)

ATE (Acute Toxicity Estimates)		
Dermal	LD50	18832 mg/kg (rabbit)
Inhalative	LD50	642 mg/L

68649-11-6 1-Decene, dimer, hydrogenated		
Inhalative	LD50	11 mg/L (ATE)

· **Primary irritant effect:**
· **on the skin:** No irritant effect.
· **on the eye:** No irritating effect.
· **Sensitization:** No sensitizing effects known.
· **Additional toxicological information:**

· **Carcinogenic categories**

· **IARC (International Agency for Research on Cancer)**
None of the ingredients is listed in groups 1, 2A, or 2B.

· **NTP (National Toxicology Program)**
None of the ingredients are 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:** Do not allow product to reach ground water, water course or sewage system.
· **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.

· **Used containers**
· **Recommendation:** Disposal must be made according to official regulations.

*
14 Transport information

· **UN-Number**
· **DOT, IMDG, IATA** UN1950

(Contd. on page 6)

Safety Data Sheet
acc. to 29 CFR 1910.1200 (OSHA Hazcom 2012)

Trade name: Lubrifluid

(Contd. of page 5)

· **DOT**	Aerosols, flammable
· **IMDG**	AEROSOLS
· **IATA**	AEROSOLS, flammable

· **DOT**

· **Hazard Classification:**	2.1
· **Label**	2.1

· **IMDG, IATA**

· **Hazard Classification:**	2.1
· **Label**	2.1
· **DOT, IMDG, IATA**	not applicable

· **Environmental hazards**
· **Marine pollutant (according to IMDG):** No

· **Special precautions for user**	Warning: Gases
· **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/Additional information:**

· **DOT**

· **Remarks:**	Contains: hydrocarbons
· **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

· **IATA**	IATA Dangerous Goods Regulation (DGR) 56th Edition 2015
· **UN "Model Regulation":**	UN1950, Aerosols, 2.1

*
15 Regulatory information

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

· **SARA (Superfund Amendments and Reauthorization)**

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

None of the ingredients are listed.

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Safety Data Sheet
acc. to 29 CFR 1910.1200 (OSHA Hazcom 2012)

Issued on 05/03/2016 | Edition number 7 | Reviewed on 05/03/2016

Trade name: Lubrifluid

(Contd. of page 6)

· **Section 313 (Specific toxic chemical listings):**
This product does not contain a chemical that are listed in Section 313.

· **TSCA (Toxic Substances Control Act):**
All ingredients are listed on the U.S. TSCA inventory or exempt from premanufacture notice requirements.

· **California Proposition 65**
This product does not intentionally contain any chemicals known by the State of California to cause cancer and/or birth defects. Moreover, we do not routinely analyze its products for impurities which may be such chemicals.

· **Chemicals known to cause cancer:**
None of the ingredients are listed.

· **Chemicals known to cause reproductive toxicity for females:**
None of the ingredients are listed.

· **Chemicals known to cause reproductive toxicity for males:**
None of the ingredients are listed.

· **Chemicals known to cause developmental toxicity:**
None of the ingredients are listed.

· **Carcinogenic categories:**

· **EPA (Environmental Protection Agency)**
None of the ingredients are listed.

· **NIOSH-Carcinogen list**
None of the ingredients are listed.

· **California SCAQMD Rule 1144:** Not applicable.
· **GHS label elements** GHS label elements are issued under section 2.

*
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.

· **Regulations / approvals / other listings:**
All major components are U.S. FDA listed for H1 Lubricants, or correspond to the current Pharmacopoeia or food grade requirements.
All contents comply with current pharmacological or food grade standards.

· **H.R.2420:**
RoHS:
This product fulfill the H.R.2420 requirements in that the EDEE Act regulated materials are absent or their concentrations are significantly below regulatory thresholds.

· **IP346:**
The mineral oil used in this product passes IP346 for DMSO extractable PAH's (Polycyclic aromatic hydrocarbons).

· **BSE/TSE:**
This product adheres to the standards of TSE/BSE-free products, according to European Community directives 93/42/EEC and 2003/32/EC.
Materials and/or synthetically modified materials which are of animal origin from bovine, ovine, goats, cats, dogs, deer, elk and/or mink, are NOT included in this product.
This product is entirely free from latex containing materials.

· **NFPA ratings (scale 0-4)**

Health = 0
Fire = 4
Reactivity = 3

(Contd. on page 8)

Safety Data Sheet
acc. to 29 CFR 1910.1200 (OSHA Hazcom 2012)

Trade name: Lubrifluid

(Contd. of page 7)

· **HMIS ratings (0-4)**

HEALTH	0
FIRE	4
REACTIVITY	3

Health = 0
Fire = 4
Reactivity = 3

· **Department issuing SDS:** Product Stewardship

· **Editor's notice:**
The above mentioned data correspond to our present state of knowledge and experience. The safety data sheet serves as description of the products in regard to necessary safety measures. The indications have not the meaning of guarantees on properties.

· **Date of preparation / last revision** 05/03/2016 / 6

· **Abbreviations and acronyms:**
ICAO: International Civil Aviation Organisation
RoHS: Restriction of Hazardous Substances
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
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
ACGIH: American Conference of Governmental Industrial Hygienists
CAS: Chemical Abstracts Service (division of the American Chemical Society)
VOC: Volatile Organic Compounds (USA, EU)
ISO: International Organisation for Standardisation
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic chemicals
vPvB: very Persistent and very Bioaccumulative chemicals
NIOSH: National Institute for Occupational Safety and Health
OSHA: Occupational Safety and Health Administration
Flam. Aerosol 1: Aerosols – Category 1
Press. Gas: Gases under pressure – Compressed gas

· *** Data compared to the previous version altered.**
The asterisk (*) on the left side indicate the respective changes from the previous version.

SAFETY DATA SHEET

AQUA CARE - Spray

Section 1. Identification

GHS product identifier : AQUA CARE - Spray

Other means of identification : Not available.

Product type : Aerosol.

Relevant identified uses of the substance or mixture and uses advised against

Product use : Cleaner.

Area of application : Consumer applications, Professional applications.

Supplier's details : BIEN AIR USA, INC
5 CORPORATE PARK, SUITE 160
IRVINE CA 92606
USA
Telephone no.: 800-433-2436
Fax no.: 800-433-2436

e-mail address of person responsible for this SDS : info@chemical-check.de, k.schnurbusch@chemical-check.de

Emergency telephone number (with hours of operation) : 800-433-2436 BIEN AIR USA

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture : FLAMMABLE AEROSOLS - Category 1

GHS label elements

Hazard pictograms :

Signal word : Danger

Hazard statements : H222 - Extremely flammable aerosol.

Precautionary statements

General : P103 - Read label before use.
P102 - Keep out of reach of children.
P101 - If medical advice is needed, have product container or label at hand.

Section 2. Hazards identification

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

Response : Not applicable.

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

Disposal : Not applicable.

Supplemental label elements : Avoid contact with skin and clothing. Wash thoroughly after handling.

Hazards not otherwise classified : Prolonged or repeated contact may dry skin and cause irritation.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Other means of identification : Not available.

CAS number/other identifiers

CAS number : Not applicable.

Product code : Not available.

Ingredient name	Other names	%	CAS number
ethanol	ethanol	10-30	64-17-5

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.

Inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Skin contact : Wash skin thoroughly with soap and water or use recognized skin cleanser. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Section 4. First aid measures

Ingestion : Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : No known significant effects or critical hazards.

Inhalation : No known significant effects or critical hazards.

Skin contact : Defatting to the skin. May cause skin dryness and irritation.

Ingestion : No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact : Adverse symptoms may include the following:
irritation
redness

Inhalation : Adverse symptoms may include the following:
respiratory tract irritation
coughing

Skin contact : Adverse symptoms may include the following:
irritation
dryness
cracking

Ingestion : No specific data.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Specific treatments : No specific treatment.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : Use dry chemical, CO_2, alcohol-resistant foam or water spray (fog). Cool closed containers exposed to fire with water.

Unsuitable extinguishing media : Do not use water jet.

Specific hazards arising from the chemical : Extremely flammable aerosol. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Gas may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back, causing fire or explosion. Bursting aerosol containers may be propelled from a fire at high speed. Runoff to sewer may create fire or explosion hazard.

Section 5. Fire-fighting measures

Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
Toxic pyrolysis products

Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Remark : Heating may cause an explosion. Air/vapor mixtures may be explosive.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. In the case of aerosols being ruptured, care should be taken due to the rapid escape of the pressurized contents and propellant. If a large number of containers are ruptured, treat as a bulk material spillage according to the instructions in the clean-up section. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

Small spill : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8). Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use. Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing gas. Avoid breathing vapor or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Empty containers retain product residue and can be hazardous.

Advice on general occupational hygiene : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities : Store in accordance with local regulations. Store away from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Eliminate all ignition sources. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
ethanol	**ACGIH TLV (United States, 4/2014).** STEL: 1000 ppm 15 minutes. **OSHA PEL 1989 (United States, 3/1989).** TWA: 1000 ppm 8 hours. TWA: 1900 mg/m³ 8 hours. **NIOSH REL (United States, 10/2013).** TWA: 1000 ppm 10 hours. TWA: 1900 mg/m³ 10 hours. **OSHA PEL (United States, 2/2013).** TWA: 1000 ppm 8 hours. TWA: 1900 mg/m³ 8 hours.

Appropriate engineering controls : Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Section 8. Exposure controls/personal protection

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
If applicable: Butyl rubber gloves. neoprene/Polychloroprene gloves. Nitrile gloves. Protective hand cream.

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves. Recommended: Long-sleeved protective clothing. Safety shoes.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection : Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. Recommended: A respirator is not needed under normal and intended conditions of product use. Use appropriate respiratory protection if there is a risk of exceeding any exposure limits. Filter A2 P2. If operating conditions cause high vapor concentrations or the TLV is exceeded, use supplied-air respirator.

Section 9. Physical and chemical properties

Appearance

Physical state : Liquid. [Aerosol.]

Color : Colorless.

Odor : Fresh

Odor threshold : Not available.

pH : Not available.

Melting point : Not available.

Boiling point : Not available.

Flash point : Not available.

Evaporation rate : Not available.

Flammability (solid, gas) : Not applicable.

Section 9. Physical and chemical properties

Lower and upper explosive (flammable) limits : Lower: 3% (Dimethyl ether)

Vapor pressure : 470 to 570 kPa (3525.3 to 4275.4 mm Hg) [room temperature]
900 to 1000 kPa (6750.6 to 7500.6 mm Hg) [50°C]

Vapor density : Not available.

Relative density : Not available.

Solubility : Soluble in the following materials: cold water and hot water.

Solubility in water : Not available.

Partition coefficient: n-octanol/water : Not available.

Auto-ignition temperature : Not available.

Decomposition temperature : Not available.

SADT : Not available.

Viscosity : Not available.

Physical/chemical properties comments : VOC content: ~50% w/w

Aerosol product

Type of aerosol : Spray

Heat of combustion : 9.229 kJ/g (Estimated.)

Section 10. Stability and reactivity

Reactivity : No specific test data related to reactivity available for this product or its ingredients.

Chemical stability : The product is stable.

Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

Under normal conditions of storage and use, hazardous polymerization will not occur.

Conditions to avoid : Avoid all possible sources of ignition (spark or flame).
Keep away from heat.

Incompatible materials : Reactive or incompatible with the following materials: oxidizing materials.

Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
ethanol	LC50 Inhalation Vapor LD50 Dermal LD50 Oral	Rat Rabbit Rat	124700 mg/m³ >2000 mg/kg 7 g/kg	4 hours - -

Irritation/Corrosion

Section 11. Toxicological information

Product/ingredient name	Result	Species	Score	Exposure	Observation
ethanol	Eyes - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
	Eyes - Moderate irritant	Rabbit	-	100 microliters	-
	Eyes - Severe irritant	Rabbit	-	500 milligrams	-
	Skin - Mild irritant	Rabbit	-	400 milligrams	-

Sensitization

Product/ingredient name	Route of exposure	Species	Result
ethanol	skin	Guinea pig	Not sensitizing

Mutagenicity

Product/ingredient name	Test	Experiment	Result
ethanol	OECD 471 Bacterial Reverse Mutation Test	Subject: Bacteria	Negative
	OECD 475 Mammalian Bone Marrow Chromosomal Aberration Test	Subject: Mammalian-Animal	Negative

Carcinogenicity

Not available.

Classification

Product/ingredient name	OSHA	IARC	NTP
ethanol	-	1	-

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on the likely routes of exposure : Routes of entry anticipated: Oral, Dermal, Inhalation.

Potential acute health effects

Eye contact : No known significant effects or critical hazards.

Inhalation : No known significant effects or critical hazards.

Section 11. Toxicological information

Skin contact : Defatting to the skin. May cause skin dryness and irritation.

Ingestion : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Adverse symptoms may include the following:
irritation
redness

Inhalation : Adverse symptoms may include the following:
respiratory tract irritation
coughing

Skin contact : Adverse symptoms may include the following:
irritation
dryness
cracking

Ingestion : No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Product/ingredient name	Result	Species	Dose	Exposure
ethanol	Chronic NOAEL Oral	Rat - Female	1730 mg/kg / day	90 days

General : Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis.

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : No known significant effects or critical hazards.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Not available.

Other information : Not available.

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
ethanol	Acute LC50 275 mg/l	Algae - Chlorella vulgaris	72 hours
	Acute LC50 12900 mg/l	Algae - Selenastrum capricornutum	48 hours
	Acute LC50 25500 µg/l Marine water	Crustaceans - Artemia franciscana - Larvae	48 hours
	Acute LC50 12340 mg/l	Daphnia - Daphnia magna	48 hours
	Acute LC50 9248000 µg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
	Acute LC50 13000 mg/l	Fish - Oncorhynchus mykiss	96 hours
	Acute LC50 42000 µg/l Fresh water	Fish - Oncorhynchus mykiss	4 days
	Chronic NOEC 4.995 mg/l Marine water	Algae - Ulva pertusa	96 hours
	Chronic NOEC 0.375 ul/L Fresh water	Fish - Gambusia holbrooki - Larvae	12 weeks

Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
ethanol	301B Ready Biodegradability - CO_2 Evolution Test	97 % - 28 days	-	-

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
ethanol	-	-	Readily

Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
ethanol	-0.35	0.66 to 3.2	low

Mobility in soil

Soil/water partition coefficient (K_{OC}) : Not available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Do not puncture or incinerate container.

Section 14. Transport information

	DOT Classification	IMDG	IATA
UN number	UN1950	UN1950	UN1950
UN proper shipping name	Aerosols	AEROSOLS	Aerosols, flammable
Transport hazard class(es)	2.1 	2.1 	2.1 
Packing group	-	-	-
Environmental hazards	No.	No.	No.
Additional information	**Packaging instruction** **Passenger aircraft** Quantity limitation: 75 kg **Cargo aircraft** Quantity limitation: 150 kg **Special provisions** N82	**Emergency schedules (EmS)** F-D, S-U **Special provisions** 63, 190, 277, 327, 344, 959	**Passenger and Cargo Aircraft** Quantity limitation: 75 kg Packaging instructions: 203 **Cargo Aircraft Only**Quantity limitation: 150 kg Packaging instructions: 203 **Limited Quantities - Passenger Aircraft**Quantity limitation: 30 kg Packaging instructions: Y203 **Special provisions** A145, A167, A802

Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code : Not available.

Section 15. Regulatory information

U.S. Federal regulations : **United States inventory (TSCA 8b)**: Not determined.
Clean Air Act (CAA) 112 regulated flammable substances: dimethyl ether

Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs) : Not listed

Clean Air Act Section 602 Class I Substances : Not listed

Clean Air Act Section 602 Class II Substances : Not listed

Section 15. Regulatory information

DEA List I Chemicals (Precursor Chemicals) : Not listed

DEA List II Chemicals (Essential Chemicals) : Not listed

SARA 302/304

Composition/information on ingredients

No products were found.

SARA 304 RQ : Not applicable.

SARA 311/312

Classification : Fire hazard
Immediate (acute) health hazard

Composition/information on ingredients

Name	%	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
ethanol	10-30	Yes.	No.	No.	Yes.	No.

SARA 313

Not applicable.

State regulations

Massachusetts : The following components are listed: METHYL ETHER; ETHYL ALCOHOL

New York : None of the components are listed.

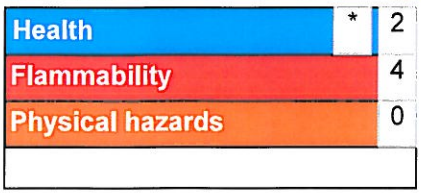
New Jersey : The following components are listed: DIMETHYL ETHER; METHANE, OXYBIS-; ETHYL ALCOHOL; ALCOHOL

Pennsylvania : The following components are listed: METHANE, OXYBIS-; DENATURED ALCOHOL

California Prop. 65

Section 16. Other information

Hazardous Material Information System (U.S.A.)



Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks Although HMIS® ratings are not required on SDSs under 29 CFR 1910. 1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

The customer is responsible for determining the PPE code for this material.

National Fire Protection Association (U.S.A.)

Section 16. Other information

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Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

History

Date of issue/Date of revision	:	07/16/2015
Date of previous issue	:	No previous validation
Version	:	1
Prepared by	:	Chemical Check GmbH
Key to abbreviations	:	ATE = Acute Toxicity Estimate BCF = Bioconcentration Factor GHS = Globally Harmonized System of Classification and Labelling of Chemicals IATA = International Air Transport Association IBC = Intermediate Bulk Container IMDG = International Maritime Dangerous Goods LogPow = logarithm of the octanol/water partition coefficient MARPOL 73/78 = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution) UN = United Nations
References	:	HCS (U.S.A.)- Hazard Communication Standard International transport regulations

Indicates information that has changed from previously issued version.

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.
Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.