

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 03.02.2015

Version number 1

Revision: 03.02.2015

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier**Trade name:** Liquid Power Bio Spray**Article number:** PK.10.14**1.2 Relevant identified uses of the substance or mixture and uses advised against****Sector of Use** SU3 Industrial uses: Uses of substances as such or in preparations at industrial sites

SU21 Consumer uses: Private households / general public / consumers

SU22 Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

Process category

PROC7 Industrial spraying

PROC11 Non industrial spraying

Application of the substance / the mixture

Auxiliary

1.3 Details of the supplier of the safety data sheet**Manufacturer/Supplier:** Putoline Oil
Dollegoorweg 15
NL-7602 EC ALMELO
Tel.: +31 (0)546 818165**Further information obtainable from:**

Product safety department - vib@putoline.com

1.4 Emergency telephone number:

+31 (0)546 818165 (9 AM to 4 PM, Monday to Friday)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture**Classification according to Regulation (EC) No 1272/2008**

GHS02 flame

Flam. Aerosol 1 H222-H229 Extremely flammable aerosol. Pressurised container: May burst if heated.



GHS08 health hazard

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



GHS09 environment

Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.



GHS07

Skin Irrit. 2 H315 Causes skin irritation.

STOT SE 3 H336 May cause drowsiness or dizziness.

Classification according to Directive 67/548/EEC or Directive 1999/45/EC

Xi; Irritant

R38: Irritating to skin.



F+; Extremely flammable

R12: Extremely flammable.



N; Dangerous for the environment

R51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R67: Vapours may cause drowsiness and dizziness.

(Contd. on page 2)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 03.02.2015

Version number 1

Revision: 03.02.2015

Trade name: Liquid Power Bio Spray

(Contd. of page 1)

· **Information concerning particular hazards for human and environment:**

The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.
Warning! Pressurised container.

Has a narcotising effect.

· **Classification system:**

The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

· **2.2 Label elements**

· **Labelling according to**

· **Regulation (EC) No 1272/2008**

· **Hazard pictograms**

The product is classified and labelled according to the CLP regulation.



GHS02

GHS07

GHS08

GHS09

· **Signal word**

Danger

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

hydrocarbons, c6, isoalkanes, <5% n-hexane

· **Hazard statements**

H222-H229 Extremely flammable aerosol. Pressurised container: May burst if heated.

H315 Causes skin irritation.

H336 May cause drowsiness or dizziness.

H304 May be fatal if swallowed and enters airways.

H411 Toxic to aquatic life with long lasting effects.

· **Precautionary statements**

P101 If medical advice is needed, have product container or label at hand.

P102 Keep out of reach of children.

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P211 Do not spray on an open flame or other ignition source.

P251 Pressurized container: Do not pierce or burn, even after use.

P271 Use only outdoors or in a well-ventilated area.

P301+P310 IF SWALLOWED: Immediately call a doctor.

P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

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.

· **2.3 Other hazards**

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

· **3.2 Mixtures**

· **Description:** Active substance with propellant

· **Dangerous components:**

| | | |
|---|--|--------|
| EC number: 931-254-9 Reg.nr.: 01-2119484651-34 | hydrocarbons, c6, isoalkanes, <5% n-hexane ☒ Xn R65; ☒ Xi R38; ☒ F R11; ☒ N R51/53 R67 ----- ☒ Flam. Liq. 1, H224; ☒ Asp. Tox. 1, H304; ☒ Aquatic Chronic 2, H411; ☒ Skin Irrit. 2, H315; STOT SE 3, H336 | 25-50% |
| CAS: 106-97-8 EINECS: 203-448-7 Reg.nr.: 01-2119474691-32 | butane ☒ F+ R12 ☒ Flam. Gas 1, H220 | 25-50% |
| CAS: 74-98-6 EINECS: 200-827-9 Reg.nr.: 01-2119486944-21 | propane ☒ F+ R12 ☒ Flam. Gas 1, H220; Press. Gas C, H280 | 10-25% |
| CAS: 64742-54-7 EINECS: 265-157-1 Reg.nr.: 01-2119484627-25 | Distillates (petroleum), hydrotreated heavy paraffinic ☒ Xn R65 ☒ Asp. Tox. 1, H304 | 1-2.5% |
| · Regulation (EC) No 648/2004 on detergents / Labelling for contents | | |
| aliphatic hydrocarbons | | ≥ 30% |

· **Additional information:** For the wording of the listed risk phrases refer to section 16.

(Contd. on page 3)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 03.02.2015

Version number 1

Revision: 03.02.2015

Trade name: Liquid Power Bio Spray

(Contd. of page 2)

SECTION 4: First aid measures

- **4.1 Description of first aid measures**
- **After inhalation:** In case of unconsciousness place patient stably in side position for transportation.
- **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; call for medical help immediately.
- **4.2 Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **4.3 Indication of any immediate medical attention and special treatment needed** If swallowed or in case of vomiting, danger of entering the lungs.

SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:** CO₂, dry chemical, or foam. Water can be used to cool and protect exposed material.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **5.2 Special hazards arising from the substance or mixture** Formation of toxic gases is possible during heating or in case of fire.
- **5.3 Advice for firefighters**
- **Protective equipment:** Wear self-contained respiratory protective device.
Wear fully protective suit.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
- **6.2 Environmental precautions:** Wear protective equipment. Keep unprotected persons away.
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.
- **6.3 Methods and material for containment and cleaning up:** Ensure adequate ventilation.
Do not flush with water or aqueous cleansing agents
Remove from the water surface (e.g. skim or suck off).
- **6.4 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.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling** Ensure good ventilation/exhaustion at the workplace.
Open and handle receptacle with care.
- **Information about fire - and explosion protection:** Do not spray onto a naked flame or any incandescent material.
Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.
Pressurised 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.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** Store in a cool location.
Observe official regulations on storing packagings with pressurised containers.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Keep container tightly sealed.
Do not seal receptacle gas tight.
Protect from heat and direct sunlight.
- **7.3 Specific end use(s)** No further relevant information available.

(Contd. on page 4)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 03.02.2015

Version number 1

Revision: 03.02.2015

Trade name: Liquid Power Bio Spray

(Contd. of page 3)

SECTION 8: Exposure controls/personal protection

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

- **8.1 Control parameters**

- **Ingredients with limit values that require monitoring at the workplace:**

106-97-8 butane

| | |
|-----|---|
| WEL | Short-term value: 1810 mg/m ³ , 750 ppm Long-term value: 1450 mg/m ³ , 600 ppm Carc (if more than 0.1% of buta-1.3-diene) |
|-----|---|

- **DNEL (Derived No Effect Level) for workers:**

hydrocarbons, c6, isoalkanes, <5% n-hexane

| | | |
|------------|--------------------------------------|---------------------------------|
| Dermal | Long-term - systemic effects, worker | 13964 mg/kg bw/day (worker) |
| Inhalative | Long-term - systemic effects, worker | 5306 mg/m ³ (worker) |

- **Additional information:** The lists valid during the making were used as basis.

- **8.2 Exposure controls**

- **Personal protective equipment:**

- **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing
Do not inhale gases / fumes / aerosols.
Avoid contact with the skin.
Avoid contact with the eyes and skin.

- **Respiratory protection:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

- **Protection of hands:**



Wear gloves for the protection against chemicals according to EN 374.

Solvent resistant gloves

- **Material of gloves**

Nitrile rubber, NBR

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**

For continuous contact we recommend gloves with breakthrough time of more than 240 minutes with preference for > 480 minutes where suitable gloves can be identified. For short-term/splash protection we recommend the same, but recognise that suitable gloves offering this level of protection may not be available and in this case a lower breakthrough time may be acceptable so long as appropriate maintenance and replacement regimes are followed.

Glove thickness is not a good predictor of glove resistance to a chemical as it is dependent on the exact composition of the 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:**



Tightly sealed goggles (EN 166)

- **Body protection:**

Protective work clothing

SECTION 9: Physical and chemical properties

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

- **General Information**

- **Appearance:**

| | |
|----------------|------------------------------------|
| Form: | Aerosol |
| Colour: | According to product specification |
| Odour: | Characteristic |

- **Change in condition**

Boiling point/Boiling range: -44 °C

- **Flash point:** -97 °C

(Contd. on page 5)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 03.02.2015

Version number 1

Revision: 03.02.2015

Trade name: Liquid Power Bio Spray

(Contd. of page 4)

| | |
|---|---|
| · Flammability (solid, gaseous): | Not applicable. |
| · Self-igniting: | Product is not selfigniting. |
| · Danger of explosion: | Product is not explosive. However, formation of explosive air/vapour mixtures are possible. |
| · Explosion limits: | |
| Lower: | 1.1 Vol % |
| Upper: | 10.9 Vol % |
| · Vapour pressure at 20 °C: | 8300 hPa |
| · Density at 20 °C: | 0.635 g/cm ³ |
| · Solubility in / Miscibility with water: | Not miscible or difficult to mix. |
| · Partition coefficient (n-octanol/water): | Not determined. |
| · Solvent content: | |
| Organic solvents: | 91.1 % |
| · 9.2 Other information | No further relevant information available. |

SECTION 10: Stability and reactivity

- **10.1 Reactivity**
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** Reacts with strong oxidising agents.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity:**
- **Primary irritant effect:**
- **on the skin:** Irritant to skin and mucous membranes.
- **on the eye:** No irritating effect.
- **Sensitisation:** No sensitising effects known.
- **Additional toxicological information:** The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:
Irritant

SECTION 12: Ecological information

- **12.1 Toxicity**

- **Aquatic toxicity:**

hydrocarbons, c6, isoalkanes, <5% n-hexane

LL/EL/IL50 | 18.27 mg/l (fish)

- **12.2 Persistence and degradability** No further relevant information available.
- **Other information:** The product is difficultly biodegradable.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **Ecotoxicological effects:**
- **Remark:** Toxic for fish
- **Additional ecological information:**
- **General notes:** Also poisonous for fish and plankton in water bodies.
Toxic for aquatic organisms
Water hazard class 2 (German Regulation) (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.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

(Contd. on page 6)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 03.02.2015

Version number 1

Revision: 03.02.2015

Trade name: Liquid Power Bio Spray






(Contd. of page 5)

- 12.6 Other adverse effects No further relevant information available.

SECTION 13: Disposal considerations

- 13.1 Waste treatment methods
- Recommendation Must not be disposed together with household garbage. Do not allow product to reach sewage system.
- Uncleaned packaging:
- Recommendation: Disposal must be made according to official regulations.

SECTION 14: Transport information

| | |
|--|--|
| <ul style="list-style-type: none"> · 14.1 UN-Number · ADR,ADN, IMDG, IATA | UN1950 |
| <ul style="list-style-type: none"> · 14.2 UN proper shipping name · ADR/ADN · IMDG · IATA | 1950 AEROSOLS, ENVIRONMENTALLY HAZARDOUS AEROSOLS (HEXANES), MARINE POLLUTANT AEROSOLS, flammable |
| <ul style="list-style-type: none"> · 14.3 Transport hazard class(es) · ADR/ADN | <div style="display: flex; align-items: center; gap: 10px;">   </div> |
| <ul style="list-style-type: none"> · Class · Label | 2 5F Gases. 2.1 |
| <ul style="list-style-type: none"> · IMDG | <div style="display: flex; align-items: center; gap: 10px;">   </div> |
| <ul style="list-style-type: none"> · Class · Label | 2.1 2.1 |
| <ul style="list-style-type: none"> · IATA | <div style="display: flex; align-items: center; gap: 10px;">  </div> |
| <ul style="list-style-type: none"> · Class · Label | 2.1 2.1 |
| <ul style="list-style-type: none"> · 14.4 Packing group · ADR,ADN, IMDG, IATA | Void |
| <ul style="list-style-type: none"> · 14.5 Environmental hazards: · Marine pollutant: · Special marking (ADR/ADN): | Product contains environmentally hazardous substances: hydrocarbons, c6, isoalkanes, <5% n-hexane Yes Symbol (fish and tree) Symbol (fish and tree) |
| <ul style="list-style-type: none"> · 14.6 Special precautions for user · Danger code (Kemler): · EMS Number: | Warning: Gases. - F-D,S-U |
| <ul style="list-style-type: none"> · 14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code | Not applicable. |
| <ul style="list-style-type: none"> · Transport/Additional information: | <hr style="border-top: 1px dashed #000;"/> <ul style="list-style-type: none"> · ADR/ADN · Limited quantities (LQ) · Excepted quantities (EQ) · Transport category · Tunnel restriction code |
| <ul style="list-style-type: none"> · Limited quantities (LQ) · Excepted quantities (EQ) · Transport category · Tunnel restriction code | 1L Code: E0 Not permitted as Excepted Quantity 2 D |

(Contd. on page 7)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 03.02.2015

Version number 1

Revision: 03.02.2015

Trade name: Liquid Power Bio Spray

(Contd. of page 6)

| | |
|--|--|
| <ul style="list-style-type: none"> · IMDG · Limited quantities (LQ) · Excepted quantities (EQ) | 1L Code: E0 Not permitted as Excepted Quantity |
| <ul style="list-style-type: none"> · UN "Model Regulation": | UN1950, AEROSOLS, ENVIRONMENTALLY HAZARDOUS, 2.1 |

SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **National regulations:**
- **VOC-EU** 578.5 g/l
- **Waterhazard class:** Water hazard class 2 (Self-assessment): hazardous for water.
- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

SECTION 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.

- **Relevant phrases**
 - H220 Extremely flammable gas.
 - H224 Extremely flammable liquid and vapour.
 - H280 Contains gas under pressure; may explode if heated.
 - H304 May be fatal if swallowed and enters airways.
 - H315 Causes skin irritation.
 - H336 May cause drowsiness or dizziness.
 - H411 Toxic to aquatic life with long lasting effects.
 - R11 Highly flammable.
 - R12 Extremely flammable.
 - R38 Irritating to skin.
 - R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
 - R65 Harmful: may cause lung damage if swallowed.
 - R67 Vapours may cause drowsiness and dizziness.
- **Department issuing MSDS:** Product safety department.
- **Contact:** Product safety department
- **Abbreviations and acronyms:**
 - RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
 - ICAO: International Civil Aviation Organisation
 - 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
 - IATA: International Air Transport Association
 - GHS: Globally Harmonised System of Classification and Labelling of Chemicals
 - EINECS: European Inventory of Existing Commercial Chemical Substances
 - ELINCS: European List of Notified Chemical Substances
 - CAS: Chemical Abstracts Service (division of the American Chemical Society)
 - DNEL: Derived No-Effect Level (REACH)
 - Flam. Gas 1: Flammable gases, Hazard Category 1
 - Flam. Aerosol 1: Flammable aerosols, Hazard Category 1
 - Press. Gas C: Gases under pressure: Compressed gas
 - Flam. Liq. 1: Flammable liquids, Hazard Category 1
 - Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2
 - STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3
 - Asp. Tox. 1: Aspiration hazard, Hazard Category 1
 - Aquatic Chronic 2: Hazardous to the aquatic environment - Chronic Hazard, Category 2
- **Sources**
 - 67/548/EEC
 - 99/45/EEC
 - EC/453-2010