



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

- **1.1 Product identifier**
- **Trade name:** ZWALUW 6-in-1 MULTI-LUBE 400ML
- **Article number:** 12009741
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
- **Application of the substance / the mixture** Lubricant
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
DEN BRAVEN
Denariusstraat 11
4903 RC Oosterhout
The Netherlands
Tel: + 31 (0)162-491000
Fax: +31 (0)162-421217
E-mail: info@denbraven.com
Internet: www.denbraven.com
- **Further information obtainable from:**
Product safety department.
info@denbraven.com
- **1.4 Emergency telephone number:**
info@denbraven.com
Tel: +31 (0)162-491000

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**
 -  GHS02 flame
 - Aerosol 1 H222-H229 Extremely flammable aerosol. Pressurised container: May burst if heated.
 - Asp. Tox. 1 H304 May be fatal if swallowed and enters airways.
- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**
The product is classified and labelled according to the CLP regulation.
- **Hazard pictograms**
 -  GHS02
- **Signal word** Danger
- **Hazard-determining components of labelling:**
Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cycloalkanes, <2% aromatics
- **Hazard statements**
H222-H229 Extremely flammable aerosol. Pressurised container: May burst if heated.
- **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, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 - P211 Do not spray on an open flame or other ignition source.
 - P251 Do not pierce or burn, even after use.
 - P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C.

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P501 Dispose of contents/container to hazardous or special waste collection point.

Additional information:

 EUH066 Repeated exposure may cause skin dryness or cracking.
 Buildup of explosive mixtures possible without sufficient ventilation.

2.3 Other hazards
Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

SECTION 3: Composition/information on ingredients

3.2 Chemical characterisation: Mixtures
Description: Mixture of substances listed below with nonhazardous additions.

Dangerous components:

EC number: 918-481-9 Reg.nr.: 01-2119457273-39-xxxx	Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cycloalkanes, <2% aromatics ⚠ Asp. Tox. 1, H304	50-<100%
CAS: 111-76-2 EINECS: 203-905-0	2-butoxyethanol ⚠ Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319	2.5-<5%
CAS: 124-38-9 EINECS: 204-696-9	carbon dioxide ⚠ Press. Gas L, H280	1.0-<2.5%

Regulation (EC) No 648/2004 on detergents / Labelling for contents

aliphatic hydrocarbons	≥ 30%
aromatic hydrocarbons, perfumes (COUMARIN)	< 5%

Additional information: For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures
After inhalation:

Supply fresh air; consult doctor in case of complaints.

Take affected persons into fresh air and keep quiet.

After skin contact:

Immediately wash with water and soap and rinse thoroughly.

Immediately remove any clothing soiled by the product.

After eye contact:

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

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

No further relevant information available.

SECTION 5: Firefighting measures

5.1 Extinguishing media
Suitable extinguishing agents:

Foam

Fire-extinguishing powder

Carbon dioxide

5.2 Special hazards arising from the substance or mixture

Can form explosive gas-air mixtures.

Formation of toxic gases is possible during heating or in case of fire.

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- Carbon monoxide and carbon dioxide
- **5.3 Advice for firefighters**
- **Protective equipment:** Wear self-contained respiratory protective device.
- **Additional information**
- Cool endangered receptacles with water spray.
- Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
- Wear protective equipment. Keep unprotected persons away.
- Ensure adequate ventilation
- Keep away from ignition sources.
- **6.2 Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **6.3 Methods and material for containment and cleaning up:**
- Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
- Ensure adequate ventilation.
- **6.4 Reference to other sections** See Section 13 for disposal information.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**
- Ensure good ventilation/exhaustion at the workplace.
- Avoid contact with skin and eyes.
- **Information about fire - and explosion protection:**
- Keep ignition sources away - Do not smoke.
- 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:**
- Observe official regulations on storing packagings with pressurised containers.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Protect from heat and direct sunlight.
- **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

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

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

CAS: 111-76-2 2-butoxyethanol

WEL	Short-term value: 246 mg/m ³ , 50 ppm Long-term value: 123 mg/m ³ , 25 ppm Sk, BMGV
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CAS: 124-38-9 carbon dioxide

WEL	Short-term value: 27400 mg/m ³ , 15000 ppm Long-term value: 9150 mg/m ³ , 5000 ppm
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- **Ingredients with biological limit values:**

CAS: 111-76-2 2-butoxyethanol

BMGV	240 mmol/mol creatinine Medium: urine Sampling time: post shift Parameter: butoxyacetic acid
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- **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
 Wash hands before breaks and at the end of work.
 Do not inhale gases / fumes / aerosols.
 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.
- **Recommended filter device for short term use:** Filter AX
- **Protection of hands:**



Protective gloves

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

- **Material of gloves**
 Nitrile rubber, NBR
 Recommended thickness of the material: ≥ 0.45 mm
- **Penetration time of glove material**
 ≥ 240 min
 The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:**



Tightly sealed goggles

- **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:	Yellowish
Odour:	Solvent-like
· pH-value:	Not determined.
· Change in condition	
Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	-10 °C
· Flash point:	Not applicable, as aerosol.
· Ignition temperature:	>200 °C
· Danger of explosion:	Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
· Explosion limits:	
Lower:	Not determined.
Upper:	Not determined.
· Vapour pressure:	Not determined.

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- | | |
|---|--|
| · Density at 20 °C: | 0.8194 g/cm ³ |
| · 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. |
| Organic solvents: | 72.3 % |
| VOC (EC) | 592.5 g/l |
| · 9.2 Other information | No further relevant information available. |

SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:**
Aldehyde
Carbon monoxide and carbon dioxide

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity** Based on available data, the classification criteria are not met.

· LD/LC50 values relevant for classification:

ATE (Acute Toxicity Estimates)

Oral	LD50	49580 mg/kg (rat)
Dermal	LD50	13400 mg/kg (rab)
Inhalative	LC50/4 h	368 mg/l

Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cycloalkanes, <2% aromatics

Oral	LD50	>2000 mg/kg (rat)
Dermal	LD50	>2000 mg/kg (rat)

CAS: 111-76-2 2-butoxyethanol

Oral	LD50	1480 mg/kg (rat)
Dermal	LD50	400 mg/kg (rab)
Inhalative	LC50/4 h	11 mg/l (ATE)

- **Primary irritant effect:**
- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation** Based on available data, the classification criteria are not met.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **STOT-single exposure** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.

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- **Aspiration hazard**
May be fatal if swallowed and enters airways.

SECTION 12: Ecological information

· 12.1 Toxicity

· Aquatic toxicity:

Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cycloalkanes, <2% aromatics

EC50/48 h	>1000 mg/l (daphnia)
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- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **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.

· European waste catalogue

16 05 04*	gases in pressure containers (including halons) containing hazardous substances
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15 01 04	metallic packaging
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- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

SECTION 14: Transport information

· 14.1 UN-Number

· ADR,RID,ADN, IMDG, IATA	UN1950
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· 14.2 UN proper shipping name

· ADR/RID/ADN	UN1950 AEROSOLS
· IMDG	AEROSOLS
· IATA	AEROSOLS, flammable

· 14.3 Transport hazard class(es)

· ADR/RID/ADN



· Class	2 5F Gases.
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· Label	2.1
· IMDG, IATA	
	
· Class	2.1
· Label	2.1
· 14.4 Packing group	
· ADR,RID,ADN, IMDG, IATA	Void
· 14.5 Environmental hazards:	
· Marine pollutant:	No
· 14.6 Special precautions for user	
· Danger code (Kemler):	Warning: Gases.
· EMS Number:	-
· Stowage Code	F-D,S-U
· Segregation 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. 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.
· 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code	
	Not applicable.
· Transport/Additional information:	
· ADR/RID/ADN	
· Limited quantities (LQ)	1L
· Excepted quantities (EQ)	Code: E0 Not permitted as Excepted Quantity
· Transport category	2
· Tunnel restriction code	D
· IMDG	
· Limited quantities (LQ)	1L
· Excepted quantities (EQ)	Code: E0 Not permitted as Excepted Quantity
· UN "Model Regulation":	UN 1950 AEROSOLS, 2.1

SECTION 15: Regulatory information

- 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- Directive 2012/18/EU
- Named dangerous substances - ANNEX I None of the ingredients is listed.
- Seveso category P3b FLAMMABLE AEROSOLS
- Qualifying quantity (tonnes) for the application of lower-tier requirements 5,000 t
- Qualifying quantity (tonnes) for the application of upper-tier requirements 50,000 t
- 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

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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**

H280 Contains gas under pressure; may explode if heated.

H302 Harmful if swallowed.

H304 May be fatal if swallowed and enters airways.

H312 Harmful in contact with skin.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H332 Harmful if inhaled.

· **Department issuing SDS:** Product safety department.

· **Contact:** Kees van Bommel / Pascal Timmermans

· **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)

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

Aerosol 1: Aerosols – Category 1

Press. Gas L: Gases under pressure – Liquefied gas

Acute Tox. 4: Acute toxicity – Category 4

Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

Asp. Tox. 1: Aspiration hazard – Category 1

· *** Data compared to the previous version altered.**

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