



ZMYWACZ DO GAŹNIKA I ELEMENTÓW SILNIKA

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

- 1.1 Product identifier:** ZMYWACZ DO GAŹNIKA I ELEMENTÓW SILNIKA
- 1.2 Relevant identified uses of the substance or mixture and uses advised against:**
Relevant uses: Degreasing agent, cleaner for carburettors and engine parts.
Uses advised against: All uses not specified in this section or in section 7.3
- 1.3 Details of the supplier of the safety data sheet:**
Agencja Handlowa "BOLL" Wojciech Dalewski Spółka Jawna
ul. Chemiczna 3
65-713 Zielona Góra - Polska
Phone.: 68 451 99 99 - Fax: 68 451 99 00
technolog@boll.pl
- 1.4 Emergency telephone number:**

SECTION 2: HAZARDS IDENTIFICATION **

- 2.1 Classification of the substance or mixture:**
CLP Regulation (EC) No 1272/2008:
Classification of this product has been carried out in accordance with CLP Regulation (EC) No 1272/2008.
Aerosol 1: Flammable aerosols, Category 1, H222
Aerosol 1: Pressurised container: May burst if heated., H229
Aquatic Chronic 3: Hazardous to the aquatic environment, long-term hazard, Category 3, H412
Eye Irrit. 2: Eye irritation, Category 2, H319
STOT SE 3: Specific toxicity causing drowsiness and dizziness, single exposure, Category 3, H336

2.2 Label elements:

CLP Regulation (EC) No 1272/2008:

Danger



Hazard statements:

H222 - Extremely flammable aerosol
H229 - Pressurised container: May burst if heated
H319 - Causes serious eye irritation
H336 - May cause drowsiness or dizziness
H412 - Harmful 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, 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
P260: Do not breathe dust/fume/gas/mist/vapours/spray
P271: Use only outdoors or in a well-ventilated area
P273: Avoid release to the environment
P280: Wear protective gloves/protective clothing/eye protection/face protection
P301+P310: IF SWALLOWED: Immediately call a POISON CENTER/doctor
P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P331: Do NOT induce vomiting
P403: 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 regulations on hazardous waste or packaging and packaging waste respectively

** Changes with regards to the previous version

- CONTINUED ON NEXT PAGE -



ZMYWACZ DO GAŹNIKA I ELEMENTÓW SILNIKA

SECTION 2: HAZARDS IDENTIFICATION ** (continued)

Supplementary information:

EUH066: Repeated exposure may cause skin dryness or cracking

2.3 Other hazards:

Product fails to meet PBT/vPvB criteria

** Changes with regards to the previous version

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS **

3.1 Substance:

Non-applicable

3.2 Mixture:

Chemical description: active ingredient mixture with a propellant. Propellant: propane - butane

Components:

In accordance with Annex II of Regulation (EC) No 1907/2006 (point 3), the product contains:

| Identification | Chemical name/Classification | | Concentration |
|---|---|---|---------------|
| CAS: 141-78-6 EC: 205-500-4 Index: 607-022-00-5 REACH: 01-2119475103-46-XXXX | Ethyl acetate⁽¹⁾ | ATP CLP00 | 25 - <50 % |
| | Regulation 1272/2008 | Eye Irrit. 2: H319; Flam. Liq. 2: H225; STOT SE 3: H336; EUH066 - Danger | |
| CAS: 106-97-8 EC: 203-448-7 Index: 601-004-00-0 REACH: 01-2119474691-32-XXXX | Butane⁽¹⁾ | ATP CLP00 | 10 - <25 % |
| | Regulation 1272/2008 | Flam. Gas 1: H220; Press. Gas: H280 - Danger | |
| CAS: 64742-48-9 EC: 919-857-5 Index: Non-applicable REACH: 01-2119463258-33-XXXX | Hydrocarbons, C9-C11,n-alkanes, iso-alkanes, cyclics, <2% aromatics⁽¹⁾ | Self-classified | 10 - <25 % |
| | Regulation 1272/2008 | Asp. Tox. 1: H304; Flam. Liq. 3: H226; STOT SE 3: H336; EUH066 - Danger | |
| CAS: 74-98-6 EC: 200-827-9 Index: 601-003-00-5 REACH: 01-2119486944-21-XXXX | Propane⁽¹⁾ | ATP CLP00 | 10 - <25 % |
| | Regulation 1272/2008 | Flam. Gas 1: H220; Press. Gas: H280 - Danger | |
| CAS: 64742-95-6 EC: 918-668-5 Index: Non-applicable REACH: 01-2119455851-35-XXXX | Hydrocarbons, C9, aromatics (EC 200-753-7 <0,1%)⁽¹⁾ | Self-classified | 10 - <25 % |
| | Regulation 1272/2008 | Aquatic Chronic 2: H411; Asp. Tox. 1: H304; Flam. Liq. 3: H226; STOT SE 3: H335; STOT SE 3: H336; EUH066 - Danger | |
| CAS: 75-28-5 EC: 200-857-2 Index: 601-004-00-0 REACH: 01-2119485395-27-XXXX | Isobutane⁽¹⁾ | ATP CLP00 | 2,5 - <10 % |
| | Regulation 1272/2008 | Flam. Gas 1: H220; Press. Gas: H280 - Danger | |

⁽¹⁾ Voluntarily-listed substance failing to meet any of the criteria set out in Regulation (EU) No. 2015/830

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

** Changes with regards to the previous version

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures:

The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the SDS of this product.

By inhalation:

Remove the person affected from the area of exposure, provide with fresh air and keep at rest. In serious cases such as cardiorespiratory failure, artificial resuscitation techniques will be necessary (mouth to mouth resuscitation, cardiac massage, oxygen supply, etc.) requiring immediate medical assistance.

By skin contact:

- CONTINUED ON NEXT PAGE -



ZMYWACZ DO GAŹNIKA I ELEMENTÓW SILNIKA

SECTION 4: FIRST AID MEASURES (continued)

Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

By eye contact:

Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, in which case this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By ingestion/aspiration:

Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. Keep the person affected at rest. Rinse out the mouth and throat, as they may have been affected during ingestion.

4.2 Most important symptoms and effects, both acute and delayed:

Acute and delayed effects are indicated in sections 2 and 11.

4.3 Indication of any immediate medical attention and special treatment needed:

Non-applicable

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media:

If possible use polyvalent powder fire extinguishers (ABC powder), alternatively use foam or carbon dioxide extinguishers (CO₂). IT IS RECOMMENDED NOT to use tap water as an extinguishing agent.

5.2 Special hazards arising from the substance or mixture:

As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Advice for firefighters:

Depending on the magnitude of the fire it may be necessary to use full protective clothing and self-contained breathing apparatus (SCBA). Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...) in accordance with Directive 89/654/EC.

Additional provisions:

Act in accordance with the Internal Emergency Plan and the Information Sheets on actions to take after an accident or other emergencies. Eliminate all sources of ignition. In case of fire, cool the storage containers and tanks for products susceptible to combustion, explosion or BLEVE as a result of high temperatures. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:

Isolate leaks provided that there is no additional risk for the people performing this task. Evacuate the area and keep out those without protection. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Above all prevent the formation of any vapour-air flammable mixtures, through either ventilation or the use of an inert medium. Destroy any source of ignition. Eliminate electrostatic charges by interconnecting all the conductive surfaces on which static electricity could form, and also ensuring that all surfaces are connected to the ground.

6.2 Environmental precautions:

Avoid at all cost any type of spillage into an aqueous medium. Contain the product absorbed appropriately in hermetically sealed containers. Notify the relevant authority in case of exposure to the general public or the environment.

6.3 Methods and material for containment and cleaning up:

It is recommended:

Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:

See sections 8 and 13.

- CONTINUED ON NEXT PAGE -



ZMYWACZ DO GAŹNIKA I ELEMENTÓW SILNIKA

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:

A.- Precautions for safe manipulation

Comply with the current legislation concerning the prevention of industrial risks. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.

B.- Technical recommendations for the prevention of fires and explosions

Avoid the evaporation of the product as it contains flammable substances, which could form flammable vapour/air mixtures in the presence of sources of ignition. Control sources of ignition (mobile phones, sparks,...) and transfer at slow speeds to avoid the creation of electrostatic charges. Avoid splashes and pulverizations. Consult section 10 for conditions and materials that should be avoided.

C.- Technical recommendations to prevent ergonomic and toxicological risks

Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D.- Technical recommendations to prevent environmental risks

Due to the danger of this product for the environment it is recommended to use it within an area containing contamination control barriers in case of spillage, as well as having absorbent material in close proximity.

7.2 Conditions for safe storage, including any incompatibilities:

A.- Technical measures for storage

Minimum Temp.: 5 °C
Maximum Temp.: 20 °C
Maximum time: 24 Months

B.- General conditions for storage

Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):

Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:

Substances whose occupational exposure limits have to be monitored in the workplace

| Identification | Environmental limits | | |
|--|----------------------|---------|------------------------|
| | IOELV (8h) | 200 ppm | 734 mg/m ³ |
| Ethyl acetate CAS: 141-78-6 EC: 205-500-4 | IOELV (STEL) | 400 ppm | 1468 mg/m ³ |

DNEL (Workers):

| Identification | | Short exposure | | Long exposure | |
|---|------------|-------------------------------|-------------------------------|-------------------------------|-----------------------------|
| | | Systemic | Local | Systemic | Local |
| Ethyl acetate CAS: 141-78-6 EC: 205-500-4 | Oral | Non-applicable | Non-applicable | Non-applicable | Non-applicable |
| | Dermal | Non-applicable | Non-applicable | 48 - 78 mg/kg | Non-applicable |
| | Inhalation | 1453 - 1483 mg/m ³ | 1453 - 1483 mg/m ³ | 719 - 749 mg/m ³ | 719 - 749 mg/m ³ |
| Hydrocarbons, C9-C11,n-alkanes, iso-alkanes, cyclics, <2% aromatics CAS: 64742-48-9 EC: 919-857-5 | Oral | Non-applicable | Non-applicable | Non-applicable | Non-applicable |
| | Dermal | Non-applicable | Non-applicable | 285 - 315 mg/kg | Non-applicable |
| | Inhalation | Non-applicable | Non-applicable | 1485 - 1515 mg/m ³ | Non-applicable |
| Hydrocarbons, C9, aromatics (EC 200-753-7 <0,1%) CAS: 64742-95-6 EC: 918-668-5 | Oral | Non-applicable | Non-applicable | Non-applicable | Non-applicable |
| | Dermal | Non-applicable | Non-applicable | 10 - 40 mg/kg | Non-applicable |
| | Inhalation | Non-applicable | Non-applicable | 135 - 165 mg/m ³ | Non-applicable |

DNEL (General population):

- CONTINUED ON NEXT PAGE -



ZMYWACZ DO GAŹNIKA I ELEMENTÓW SILNIKA

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

| Identification | | Short exposure | | Long exposure | |
|---|------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|
| | | Systemic | Local | Systemic | Local |
| Ethyl acetate CAS: 141-78-6 EC: 205-500-4 | Oral | Non-applicable | Non-applicable | -10,5 - 19,5 mg/kg | Non-applicable |
| | Dermal | Non-applicable | Non-applicable | 22 - 52 mg/kg | Non-applicable |
| | Inhalation | 719 - 749 mg/m ³ | 719 - 749 mg/m ³ | 352 - 382 mg/m ³ | 352 - 382 mg/m ³ |
| Hydrocarbons, C9-C11,n-alkanes, iso-alkanes, cyclics, <2% aromatics CAS: 64742-48-9 EC: 919-857-5 | Oral | Non-applicable | Non-applicable | 285 - 315 mg/kg | Non-applicable |
| | Dermal | Non-applicable | Non-applicable | 285 - 315 mg/kg | Non-applicable |
| | Inhalation | Non-applicable | Non-applicable | 885 - 915 mg/m ³ | Non-applicable |
| Hydrocarbons, C9, aromatics (EC 200-753-7 <0,1%) CAS: 64742-95-6 EC: 918-668-5 | Oral | Non-applicable | Non-applicable | -4 - 26 mg/kg | Non-applicable |
| | Dermal | Non-applicable | Non-applicable | -4 - 26 mg/kg | Non-applicable |
| | Inhalation | Non-applicable | Non-applicable | 17 - 47 mg/m ³ | Non-applicable |

PNEC:

| Identification | | | | | |
|---|--------------|----------------------|-------------------------|----------------------|--|
| Ethyl acetate CAS: 141-78-6 EC: 205-500-4 | STP | 635 - 665 mg/L | Fresh water | -14,76 - 15,24 mg/L | |
| | Soil | -14,85 - 15,15 mg/kg | Marine water | -14,98 - 15,02 mg/L | |
| | Intermittent | -13,35 - 16,65 mg/L | Sediment (Fresh water) | -13,85 - 16,15 mg/kg | |
| | Oral | 185 - 215 g/kg | Sediment (Marine water) | -14,89 - 15,12 mg/kg | |

8.2 Exposure controls:

A.- General security and hygiene measures in the work place

As a preventative measure it is recommended to use basic Personal Protective Equipment, with the corresponding <<CE marking>> in accordance with Directive 89/686/EC. For more information on Personal Protective Equipment (storage, use, cleaning, maintenance, class of protection,...) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1.

All information contained herein is a recommendation which needs some specification from the labour risk prevention services as it is not known whether the company has additional measures at its disposal.

B.- Respiratory protection

| Pictogram | PPE | Labelling | CEN Standard | Remarks |
|--|-----------------------------------|---------------|---------------------|--|
| Mandatory respiratory tract protection | Filter mask for gases and vapours | CE CAT III | EN 405:2001+A1:2009 | Replace when there is a taste or smell of the contaminant inside the face mask. If the contaminant comes with warnings it is recommended to use isolation equipment. |

C.- Specific protection for the hands

| Pictogram | PPE | Labelling | CEN Standard | Remarks |
|---------------------------|---|---------------|---|--|
| Mandatory hand protection | NON-disposable chemical protective gloves | CE CAT III | EN 374-1:2003 EN 374-3:2003/AC:2006 EN 420:2003+A1:2009 | The Breakthrough Time indicated by the manufacturer must exceed the period during which the product is being used. Do not use protective creams after the product has come into contact with skin. |

"As the product is a mixture of several substances, the resistance of the glove material can not be predicted in advance with total reliability and has therefore to be checked prior to the application"

D.- Ocular and facial protection

| Pictogram | PPE | Labelling | CEN Standard | Remarks |
|---------------------------|-------------|--------------|---|---|
| Mandatory face protection | Face shield | CE CAT II | EN 166:2001 EN 167:2001 EN 168:2001 EN ISO 4007:2012 | Clean daily and disinfect periodically according to the manufacturer's instructions. Use if there is a risk of splashing. |



E.- Body protection

- CONTINUED ON NEXT PAGE -





ZMYWACZ DO GAŹNIKA I ELEMENTÓW SILNIKA

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

| Pictogram | PPE | Labelling | CEN Standard | Remarks |
|---|---|---|---|---|
|  Mandatory complete body protection | Disposable clothing for protection against chemical risks, with antistatic and fireproof properties |  | EN 1149-1,2,3 EN 13034:2005+A1:2009 EN ISO 13982-1:2004/A1:2010 EN ISO 6529:2001 EN ISO 6530:2005 EN ISO 13688:2013 EN 464:1994 | For professional use only. Clean periodically according to the manufacturer's instructions. |

F.- Additional emergency measures

| Emergency measure | Standards | Emergency measure | Standards |
|---|--------------------------------|--|-------------------------------|
|  Emergency shower | ANSI Z358-1 ISO 3864-1:2002 |  Eyewash stations | DIN 12 899 ISO 3864-1:2002 |

Environmental exposure controls:

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

Volatile organic compounds:

With regard to Directive 2010/75/EU, this product has the following characteristics:

| | |
|---------------------------|---------------------------------|
| V.O.C. (Supply): | 100 % weight |
| V.O.C. density at 20 °C: | 699 kg/m ³ (699 g/L) |
| Average carbon number: | 6,65 |
| Average molecular weight: | 110,31 g/mol |

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:

For complete information see the product datasheet.

Appearance:

| | |
|--------------------------|------------------|
| Physical state at 20 °C: | Liquid |
| Appearance: | Fluid |
| Colour: | Characteristic |
| Odour: | Characteristic |
| Odour threshold: | Non-applicable * |

Volatility:

| | |
|--|------------------|
| Boiling point at atmospheric pressure: | -45 °C |
| Vapour pressure at 20 °C: | 359998 Pa |
| Vapour pressure at 50 °C: | Non-applicable * |
| Evaporation rate at 20 °C: | Non-applicable * |

Product description:

| | |
|-------------------------------|------------------------|
| Density at 20 °C: | ≥699 kg/m ³ |
| Relative density at 20 °C: | 0,699 |
| Dynamic viscosity at 20 °C: | Non-applicable * |
| Kinematic viscosity at 20 °C: | Non-applicable * |
| Kinematic viscosity at 40 °C: | <20,5 cSt |
| Concentration: | Non-applicable * |
| pH: | Non-applicable * |

*Not relevant due to the nature of the product, not providing information property of its hazards.

- CONTINUED ON NEXT PAGE -



ZMYWACZ DO GAŹNIKA I ELEMENTÓW SILNIKA

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

| | |
|--|------------------|
| Vapour density at 20 °C: | Non-applicable * |
| Partition coefficient n-octanol/water 20 °C: | Non-applicable * |
| Solubility in water at 20 °C: | Non-applicable * |
| Solubility properties: | Immiscible |
| Decomposition temperature: | Non-applicable * |
| Melting point/freezing point: | Non-applicable * |
| Explosive properties: | Non-applicable * |
| Oxidising properties: | Non-applicable * |
| Flammability: | |
| Flash Point: | -97 °C |
| Flammability (solid, gas): | Non-applicable * |
| Autoignition temperature: | Non-applicable * |
| Lower flammability limit: | 0,6 % Volume |
| Upper flammability limit: | 11,5 % Volume |
| Explosive: | |
| Lower explosive limit: | Non-applicable * |
| Upper explosive limit: | Non-applicable * |
| 9.2 Other information: | |
| Surface tension at 20 °C: | Non-applicable * |
| Refraction index: | Non-applicable * |

*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:

No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability:

Chemically stable under the conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:

Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:

Applicable for handling and storage at room temperature:

| Shock and friction | Contact with air | Increase in temperature | Sunlight | Humidity |
|--------------------|------------------|-------------------------|---------------------|----------------|
| Not applicable | Not applicable | Risk of combustion | Avoid direct impact | Not applicable |

10.5 Incompatible materials:

| Acids | Water | Oxidising materials | Combustible materials | Others |
|--------------------|----------------|---------------------|-----------------------|-------------------------------|
| Avoid strong acids | Not applicable | Avoid direct impact | Not applicable | Avoid alkalis or strong bases |

10.6 Hazardous decomposition products:

See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO₂), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION **

11.1 Information on toxicological effects:

** Changes with regards to the previous version

- CONTINUED ON NEXT PAGE -



ZMYWACZ DO GAŹNIKA I ELEMENTÓW SILNIKA

SECTION 11: TOXICOLOGICAL INFORMATION ** (continued)

The experimental information related to the toxicological properties of the product itself is not available

Dangerous health implications:

In case of exposure that is repetitive, prolonged or at concentrations higher than the recommended occupational exposure limits, adverse effects on health may result, depending on the means of exposure:

A- Ingestion (acute effect):

- Acute toxicity : Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for consumption. For more information see section 3.
- Corrosivity/Irritability: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

B- Inhalation (acute effect):

- Acute toxicity : Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Based on available data, the classification criteria are not met. However, it contains substances classified as dangerous for inhalation. For more information see section 3.

C- Contact with the skin and the eyes (acute effect):

- Contact with the skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for skin contact. For more information see section 3.
- Contact with the eyes: Produces eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):

- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
IARC: Non-applicable
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

E- Sensitizing effects:

- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:

Exposure in high concentration can interfere with the central nervous system causing headache, dizziness, vertigo, nausea, vomiting, confusion, and in serious cases, loss of consciousness.

G- Specific target organ toxicity (STOT)-repeated exposure:

- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Skin: Repeated exposure may cause skin dryness or cracking

H- Aspiration hazard:

Based on available data, the classification criteria are not met. However, it does contain substances classified as dangerous for this effect. For more information see section 3.

Other information:

Non-applicable

Specific toxicology information on the substances:

| Identification | Acute toxicity | | Genus |
|---|----------------|-------------|--------|
| | LD50 oral | LD50 dermal | |
| Ethyl acetate CAS: 141-78-6 EC: 205-500-4 | 4100 mg/kg | 20000 mg/kg | Rat |
| | >20 mg/L (4 h) | | Rabbit |
| | | | |
| Butane CAS: 106-97-8 EC: 203-448-7 | >2000 mg/kg | >2000 mg/kg | |
| | >2000 mg/kg | | |
| | 658 mg/L (4 h) | | Rat |

** Changes with regards to the previous version

- CONTINUED ON NEXT PAGE -



ZMYWACZ DO GAŹNIKA I ELEMENTÓW SILNIKA

SECTION 11: TOXICOLOGICAL INFORMATION ** (continued)

| Identification | Acute toxicity | | Genus |
|---|-----------------|----------------|-------|
| | LD50 oral | LD50 dermal | |
| Propane CAS: 74-98-6 EC: 200-827-9 | >2000 mg/kg | >2000 mg/kg | |
| Hydrocarbons, C9-C11,n-alkanes, iso-alkanes, cyclics, <2% aromatics CAS: 64742-48-9 EC: 919-857-5 | LD50 oral | 5100 mg/kg | Rat |
| | LD50 dermal | >2000 mg/kg | |
| | LC50 inhalation | >20 mg/L (4 h) | |
| Hydrocarbons, C9, aromatics (EC 200-753-7 <0,1%) CAS: 64742-95-6 EC: 918-668-5 | LD50 oral | >2000 mg/kg | |
| | LD50 dermal | >2000 mg/kg | |
| | LC50 inhalation | >20 mg/L (4 h) | |
| Isobutane CAS: 75-28-5 EC: 200-857-2 | LD50 oral | >2000 mg/kg | |
| | LD50 dermal | >2000 mg/kg | |
| | LC50 inhalation | >5 mg/L (4 h) | |

** Changes with regards to the previous version

SECTION 12: ECOLOGICAL INFORMATION **

The experimental information related to the eco-toxicological properties of the product itself is not available

12.1 Toxicity:

| Identification | Acute toxicity | | Species | Genus |
|--|----------------|--------------------|-------------------------|------------|
| | LC50 | EC50 | | |
| Ethyl acetate CAS: 141-78-6 EC: 205-500-4 | LC50 | 230 mg/L (96 h) | Pimephales promelas | Fish |
| | EC50 | 717 mg/L (48 h) | Daphnia magna | Crustacean |
| | EC50 | 3300 mg/L (48 h) | Scenedesmus subspicatus | Algae |
| Hydrocarbons, C9, aromatics (EC 200-753-7 <0,1%) CAS: 64742-95-6 EC: 918-668-5 | LC50 | 1 - 10 mg/L (96 h) | | Fish |
| | EC50 | 1 - 10 mg/L | | Crustacean |
| | EC50 | 1 - 10 mg/L | | Algae |

12.2 Persistence and degradability:

| Identification | Degradability | | Biodegradability | |
|---|---------------|----------------|------------------|----------------|
| | BOD5 | COD | Concentration | Period |
| Ethyl acetate CAS: 141-78-6 EC: 205-500-4 | BOD5 | 1.36 g O2/g | Concentration | 100 mg/L |
| | COD | 1.69 g O2/g | Period | 14 days |
| | BOD5/COD | 0.81 | % Biodegradable | 83 % |
| Hydrocarbons, C9-C11,n-alkanes, iso-alkanes, cyclics, <2% aromatics CAS: 64742-48-9 EC: 919-857-5 | BOD5 | Non-applicable | Concentration | Non-applicable |
| | COD | Non-applicable | Period | 28 days |
| | BOD5/COD | Non-applicable | % Biodegradable | 80 % |

12.3 Bioaccumulative potential:

| Identification | Bioaccumulation potential | |
|---|---------------------------|----------|
| | BCF | Pow Log |
| Ethyl acetate CAS: 141-78-6 EC: 205-500-4 | BCF | 30 |
| | Pow Log | 0.73 |
| | Potential | Moderate |
| Butane CAS: 106-97-8 EC: 203-448-7 | BCF | 33 |
| | Pow Log | 2.89 |
| | Potential | Moderate |
| Propane CAS: 74-98-6 EC: 200-827-9 | BCF | 13 |
| | Pow Log | 2.86 |
| | Potential | Low |
| Isobutane CAS: 75-28-5 EC: 200-857-2 | BCF | 27 |
| | Pow Log | 2.76 |
| | Potential | Low |

12.4 Mobility in soil:

** Changes with regards to the previous version

- CONTINUED ON NEXT PAGE -



ZMYWACZ DO GAŹNIKA I ELEMENTÓW SILNIKA

SECTION 12: ECOLOGICAL INFORMATION ** (continued)

| Identification | Absorption/desorption | | Volatility | |
|---|-----------------------|----------------------|------------|----------------------------------|
| Ethyl acetate CAS: 141-78-6 EC: 205-500-4 | Koc | 59 | Henry | 13,58 Pa·m ³ /mol |
| | Conclusion | Very High | Dry soil | Yes |
| | Surface tension | 2,324E-2 N/m (25 °C) | Moist soil | Yes |
| Butane CAS: 106-97-8 EC: 203-448-7 | Koc | 900 | Henry | 96258,75 Pa·m ³ /mol |
| | Conclusion | Low | Dry soil | Yes |
| | Surface tension | 1,187E-2 N/m (25 °C) | Moist soil | Yes |
| Propane CAS: 74-98-6 EC: 200-827-9 | Koc | 460 | Henry | 71636,78 Pa·m ³ /mol |
| | Conclusion | Moderate | Dry soil | Yes |
| | Surface tension | 7,02E-3 N/m (25 °C) | Moist soil | Yes |
| Isobutane CAS: 75-28-5 EC: 200-857-2 | Koc | 35 | Henry | 120576,75 Pa·m ³ /mol |
| | Conclusion | Very High | Dry soil | Yes |
| | Surface tension | 9,84E-3 N/m (25 °C) | Moist soil | Yes |

12.5 Results of PBT and vPvB assessment:

Product fails to meet PBT/vPvB criteria

12.6 Other adverse effects:

Not described

** Changes with regards to the previous version

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods:

| Code | Description | Waste class (Regulation (EU) No 1357/2014) |
|-----------|---|--|
| 16 05 04* | gases in pressure containers (including halons) containing hazardous substances | Dangerous |

Type of waste (Regulation (EU) No 1357/2014):

HP3 Flammable, HP14 Ecotoxic, HP4 Irritant — skin irritation and eye damage, HP5 Specific Target Organ Toxicity (STOT) /Aspiration Toxicity

Waste management (disposal and evaluation):

Consult the authorized waste service manager on the assessment and disposal operations in accordance with Annex 1 and Annex 2 (Directive 2008/98/EC). As under 15 01 (2014/955/EC) of the code and in case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See paragraph 6.2.

Regulations related to waste management:

In accordance with Annex II of Regulation (EC) No 1907/2006 (REACH) the community or state provisions related to waste management are stated

Community legislation: Directive 2008/98/EC, 2014/955/EU, Regulation (EU) No 1357/2014

SECTION 14: TRANSPORT INFORMATION **

Transport of dangerous goods by land:

With regard to ADR 2017 and RID 2017:

** Changes with regards to the previous version

- CONTINUED ON NEXT PAGE -



ZMYWACZ DO GAŹNIKA I ELEMENTÓW SILNIKA

SECTION 14: TRANSPORT INFORMATION ** (continued)



- 14.1 UN number:** UN1950
14.2 UN proper shipping name: AEROSOLS, flammable
14.3 Transport hazard class(es): 2
Labels: 2.1
14.4 Packing group: N/A
14.5 Environmental hazards: No
14.6 Special precautions for user
Special regulations: 190, 327, 344, 625
Tunnel restriction code: D
Physico-Chemical properties: see section 9
Limited quantities: 1 L
14.7 Transport in bulk according to Annex II of Marpol and the IBC Code: Non-applicable

Transport of dangerous goods by sea:

With regard to IMDG 38-16:



- 14.1 UN number:** UN1950
14.2 UN proper shipping name: AEROSOLS, flammable
14.3 Transport hazard class(es): 2
Labels: 2.1
14.4 Packing group: N/A
14.5 Environmental hazards: No
14.6 Special precautions for user
Special regulations: 190, 277, 327, 344, 63, 959
EmS Codes: F-D, S-U
Physico-Chemical properties: see section 9
Limited quantities: 1 L
Segregation group: Non-applicable
14.7 Transport in bulk according to Annex II of Marpol and the IBC Code: Non-applicable

Transport of dangerous goods by air:

With regard to IATA/ICAO 2018:



- 14.1 UN number:** UN1950
14.2 UN proper shipping name: AEROSOLS, flammable
14.3 Transport hazard class(es): 2
Labels: 2.1
14.4 Packing group: N/A
14.5 Environmental hazards: No
14.6 Special precautions for user
Physico-Chemical properties: see section 9
14.7 Transport in bulk according to Annex II of Marpol and the IBC Code: Non-applicable

** Changes with regards to the previous version

SECTION 15: REGULATORY INFORMATION

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

Candidate substances for authorisation under the Regulation (EC) No 1907/2006 (REACH): Non-applicable
Substances included in Annex XIV of REACH ("Authorisation List") and sunset date: Non-applicable
Regulation (EC) No 1005/2009, about substances that deplete the ozone layer: Non-applicable

- CONTINUED ON NEXT PAGE -



ZMYWACZ DO GAŹNIKA I ELEMENTÓW SILNIKA

SECTION 15: REGULATORY INFORMATION (continued)

Article 95, REGULATION (EU) No 528/2012: Non-applicable

REGULATION (EU) No 649/2012, in relation to the import and export of hazardous chemical products: Non-applicable

Seveso III:

| Section | Description | Lower-tier requirements | Upper-tier requirements |
|---------|-------------|-------------------------|-------------------------|
| P3a | | 150 | 500 |

Limitations to commercialisation and the use of certain dangerous substances and mixtures (Annex XVII REACH, etc):

Shall not be used in:

- ornamental articles intended to produce light or colour effects by means of different phases, for example in ornamental lamps and ashtrays,
- tricks and jokes,
- games for one or more participants, or any article intended to be used as such, even with ornamental aspects.

Specific provisions in terms of protecting people or the environment:

It is recommended to use the information included in this safety data sheet as a basis for conducting workplace-specific risk assessments in order to establish the necessary risk prevention measures for the handling, use, storage and disposal of this product.

Other legislation:

The product could be affected by sectorial legislation

15.2 Chemical safety assessment:

The supplier has not carried out evaluation of chemical safety.

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:

This safety data sheet has been designed in accordance with ANNEX II-Guide to the compilation of safety data sheets of Regulation (EC) No 1907/2006 (Regulation (EC) No 2015/830)

Modifications related to the previous Safety Data Sheet which concerns the ways of managing risks.:

COMPOSITION/INFORMATION ON INGREDIENTS (SECTION 3, SECTION 11, SECTION 12):

- New declared substances
 - Butane (106-97-8)
 - Propane (74-98-6)
 - Isobutane (75-28-5)

CLP Regulation (EC) No 1272/2008 (SECTION 2, SECTION 16):

- Precautionary statements

TRANSPORT INFORMATION (SECTION 14):

- UN number
- Packing group

Texts of the legislative phrases mentioned in section 2:

H222: Extremely flammable aerosol
H319: Causes serious eye irritation
H336: May cause drowsiness or dizziness
H412: Harmful to aquatic life with long lasting effects
H229: Pressurised container: May burst if heated

Texts of the legislative phrases mentioned in section 3:

The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

CLP Regulation (EC) No 1272/2008:

Aquatic Chronic 2: H411 - Toxic to aquatic life with long lasting effects
Asp. Tox. 1: H304 - May be fatal if swallowed and enters airways
Eye Irrit. 2: H319 - Causes serious eye irritation
Flam. Gas 1: H220 - Extremely flammable gas
Flam. Liq. 2: H225 - Highly flammable liquid and vapour
Flam. Liq. 3: H226 - Flammable liquid and vapour
Press. Gas: H280 - Contains gas under pressure, may explode if heated
STOT SE 3: H335 - May cause respiratory irritation
STOT SE 3: H336 - May cause drowsiness or dizziness

- CONTINUED ON NEXT PAGE -



ZMYWACZ DO GAŹNIKA I ELEMENTÓW SILNIKA

SECTION 16: OTHER INFORMATION (continued)

Classification procedure:

Aerosol 1: Calculation method
Eye Irrit. 2: Calculation method
STOT SE 3: Calculation method
Aquatic Chronic 3: Calculation method
Aerosol 1: Calculation method

Advice related to training:

Minimal training is recommended in order to prevent industrial risks for staff using this product and to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:

<http://echa.europa.eu>
<http://eur-lex.europa.eu>

Abbreviations and acronyms:

ADR: European agreement concerning the international carriage of dangerous goods by road
IMDG: International maritime dangerous goods code
IATA: International Air Transport Association
ICAO: International Civil Aviation Organisation
COD: Chemical Oxygen Demand
BOD5: 5-day biochemical oxygen demand
BCF: Bioconcentration factor
LD50: Lethal Dose 50
LC50: Lethal Concentration 50
EC50: Effective concentration 50
Log-POW: Octanol-water partition coefficient
Koc: Partition coefficient of organic carbon

The information contained in this safety data sheet is based on sources, technical knowledge and current legislation at European and state level, without being able to guarantee its accuracy. This information cannot be considered a guarantee of the properties of the product, it is simply a description of the security requirements. The occupational methodology and conditions for users of this product are not within our awareness or control, and it is ultimately the responsibility of the user to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information on this safety data sheet only refers to this product, which should not be used for needs other than those specified.

- END OF SAFETY DATA SHEET -