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

1.1. Product identifier

Product name

Druckluftspray WS-3100-400 (025)

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

Relevant identified uses

Aerosol propellant gas.

Uses advised against

No information.

1.3. Details of the supplier of the safety data sheet

Supplier

Wekem GmbH Address: Emilie-Winkelmann-Str. 2, D-59192 Bergkamen, Germany Phone: +49-(0)-23 89-40 30 10 Fax: +49-(0)-23 89-40 30 111 E-mail: vertrieb@wekem.de

1.4. Emergency telephone number

Emergency

112

Supplier

Tel.: +49 (0) 2389 403010

SECTION 2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 (CLP)

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

2.2 Label elements

2.2.1. Labelling according to Regulation (EC) No 1272/2008 [CLP]



Signal word: Danger

H222 Extremely flammable aerosol.

- H229 Pressurised container: May burst if heated.
- 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 no expose to temperatures exceeding 50 °C/122°F.



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2.2.2. Contains:

- -
- 2.2.3. Special provisions

Special hazards are not known or expected.

2.3. Other hazards

No information.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances

For mixtures see 3.2.

3.2. Mixtures

Name	CAS EC Index	%	Classification according to Regulation (EC) No 1272/2008 (CLP)	Specific Conc. Limits	REACH Registration No.
isobutane [C, S]	75-28-5 200-857-2 601-004-00-0	50-100	Flam. Gas 1; H220 Press. Gas; H280		01-2119485395-27
propane ^[U]	74-98-6 200-827-9 601-003-00-5	25-50	Flam. Gas 1; H220 Press. Gas; H280		01-2119486944-21

Notes for substances:

С	Some organic substances may be marketed either in a specific isomeric form or as a mixture of several isomers.
	In this case the supplier must state on the label whether the substance is a specific isomer or a mixture of isomers.
S	This substance may not require a label according to Article 17 (see Section 1.3 of Annex I) (Table 3).
U	 When put on the market gases have to be classified as 'Gases under pressure', in one of the groups compressed gas, liquefied gas, refrigerated liquefied gas or dissolved gas. The group depends on the physical state in which the gas is packaged and therefore has to be assigned case by case. The following codes are assigned: Press. Gas (Comp.) Press. Gas (Liq.) Press. Gas (Ref. Liq.) Press. Gas (Diss.) Aerosols shall not be classified as gases under pressure (See Annex I, Part 2, Section 2.3.2.1, Note 2).

SECTION 4. FIRST AID MEASURES

4.1. Description of first aid measures

General notes

When in doubt or if feeling unwell seek medical assistance. Show the safety data sheet and label to the physician.

Following inhalation

Leave contaminated area - breathe fresh air. If symptoms develop and persist, seek medical attention.

Following skin contact

Areas of the body that have come into contact with the product must be rinsed with water and soap. If symptoms develop and persist, seek medical attention.

Following eye contact

Immediately flush eyes with running water, keeping eyelids apart. If irritation persists, seek professional medical attention.

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Following ingestion

Not likely.

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

Inhalation

Because of breathing vapours at high concentrations symptoms like headache, dizziness, nausea and unconsciousness. Difficulties with breathing.

Skin contact

Rapid evaporation of the liquid may cause frostbite.

Eye contact

Contact with eyes can cause irritation (redness, tearing, pain). May cause frostbite.

Ingestion

Not likely.

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

SECTION 5. FIREFIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing media

Carbon dioxide (CO_2) . Fire extinguishing powder. Water spray. Extinguish large fires with water spray or alcohol-resistant foam.

Unsuitable extinguishing media

Full water jet.

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products

Vapours and air can form explosive mixtures. In case of a fire toxic gases can be generated; do not inhale gases/smoke. In the event of fire the following can be generated: carbon monoxide (CO), carbon dioxide (CO₂).

5.3. Advice for firefighters

Protective actions

In case of fire or heating do not breathe fumes/vapours. Closed container exposed to heat and fire can cause increased pressure and explosion. Vapours can travel to a source of ignition and flash back. Cool containers at risk with water spray. If possible remove containers from endangered area. No action shall be taken involving any personal risk or without suitable training.

Special protective equipment for firefighters

Firefighters should wear appropriate protective clothing for firefighters (including helmets, protective boots and gloves) (EN 469) and self-contained breathing apparatus (SCBA) with a full face-piece (EN 137).

Additional information

Contaminated firefighting water and fire residues must be disposed of in accordance with the local regulations.

SECTION 6. ACCIDENTAL RELEASE MEASURES

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6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Protective equipment

Use personal protective equipment (Section 8).

Emergency procedures

Ensure adequate ventilation. Keep away from sources of ignition and/or heat; No smoking! Prevent access to unprotected personnel. Prevent access to unauthorised personnel. Avoid contact with skin and eyes. Do not breathe gas.

6.1.2. For emergency responders

Use personal protective equipment. Prevent accumulation of vapours with water spray.

6.2. Environmental precautions

Prevent the gas from spreading to places where accumulation of it could be dangerous (sewage system, surface depressions, etc.) Prevent from reaching sewage system, holes and cellars.

6.3. Methods and material for containment and cleaning up

6.3.1. For containment

6.3.2. For cleaning up

Ventilate the premises.

6.3.3. Other information

6.4. Reference to other sections

See also Sections 8 and 13.

SECTION 7. HANDLING AND STORAGE

7.1. Precautions for safe handling

7.1.1. Protective measures

Measures to prevent fire

Ensure adequate ventilation. Vapours and air form explosive mixtures. Protect from open fire and other sources of ignition or heat. Do not smoke. Take precautionary measures against static discharges. Ignitable mixtures can form in the empty container. Use explosively safe equipment (ventilators, lighting, working instruments and devices,...); Use spark-proof tools. Do not spray on a naked flame or incandescent material.

Measures to prevent aerosol and dust generation

Ensure good ventilation and extraction.

Measures to protect the environment

Other measures

Make sure that all applicable workplace limits are observed.

7.1.2. Advice on general occupational hygiene

Use good personal hygiene practices – wash hands at breaks and when done working with material. Do not eat, drink or smoke while working. Avoid contact with skin and eyes. Do not breathe gas.

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7.2. Conditions for safe storage, including any incompatibilities

7.2.1. Technical measures and storage conditions

Follow safe storage practices for packed compressed gas as described by the Compressed Gas Association or the relevant agency in the country where the product is used. Keep in cool place. Keep in a dry place. Store in well-ventilated, explosion-proof areas. Keep away from sources of ignition - no smoking. Protect against heat and direct sunlight. Handle and open the container carefully. Keep away from flammable substances. Keep away from self-igniting materials. Keep away from oxidising substances. Keep away from food, drink and animal feeding stuffs. Storage temperature < 50°C.

7.2.2. Packaging materials

Store only in original container.

7.2.3. Requirements for storage rooms and vessels

7.2.4. Storage class

7.2.5. Further information on storage conditions

7.3. Specific end use(s)

Recommendations

Industrial sector specific solutions

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

8.1.1. Occupational exposure limit values

No information.

8.1.2. Information on monitoring procedures

BS EN 14042:2003 Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents. BS EN 482:2012+A1:2015 Workplace exposure. General requirements for the performance of procedures for the measurement of chemical agents. BS EN 689:2018 Workplace exposure. Measurement of exposure by inhalation to chemical agents. Strategy for testing compliance with occupational exposure limit values.

8.1.3. DNEL/DMEL values

No information.

8.1.4. PNEC values

No information.

8.2. Exposure controls

8.2.1. Appropriate engineering control

Substance/mixture related measures to prevent exposure during identified uses

Use good personal hygiene practices – wash hands at breaks and when done working with material. Do not eat, drink or smoke while working. Avoid contact with eyes and skin. Do not breathe gas. Do not breathe vapours/aerosols.

Technical measures to prevent exposure

Provide good ventilation and local exhaust in areas with increased concentration.

8.2.2. Personal protective equipment

Eye and face protection

Safety googles (EN 166).

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Hand protection

Protective gloves (EN 374). 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. The product consists of various substances, therefore the resistance of gloves can not be calculated and has to be tested before use. The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Skin protection

Protective antistatic clothing EN 1149 (1:2006, 2:1998 and 3:2004, 5:2008), protective antistatic shoes (EN 20345:2012). Choose body protection according to the activity and possible exposure.

Respiratory protection

In case of insufficient ventilation wear suitable respiratory protection. In case of insufficient ventilation wear mask with filter AX (EN 14387). 'High/elevated concentrations' means that the occupational exposure limit values have been exceeded. For dust/gas/ vapor concentrations above the applicable filter limit, in case of oxygen concentrations below 17% or in vague conditions, autonomous self-contained breathing apparatus should be used, according to standard EN 137, EN 138.

Thermal hazards

8.2.3. Environmental exposure controls

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

-	Physical state:	liquid; aerosol
-	Colour:	colourless
-	Odour:	characteristic

Important health, safety and environmental information

-	рН	No information.
-	Melting point/freezing point	No information.
-	Initial boiling point/boiling range	-42 – 0 °C
-	Flash point	ca80 °C
-	Evaporation rate	No information.
•	Flammability (solid, gas)	ca. 365 °C
•	Explosion limits (vol%)	1,5 – 10,9 vol %
•	Vapour pressure	1200 – 7500 hPa at 20 °C
•	Vapour density	No information.
-	Density	Density: 0,548 g/cm ³ at 20 °C
-	Solubility	Water : < 0,1 g/l at 20 °C
•	Partition coefficient	No information.
•	Auto-ignition temperature	No information.
	Decomposition temperature	No information.
•	Viscosity	No information.
•	Explosive properties	Product is not self igniting. In use, may form flammable/explosive vapour-air mixture.
	Oxidising properties	Not oxidising.

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9.2. Other information

-	Weight organic solvents	550 g/l (VOC) 100 % (VOC)
-	Remarks:	

SECTION 10. STABILITY AND REACTIVITY

10.1. Reactivity

Vapours / aerosols and propellants may form explosive mixture with air.

10.2. Chemical stability

Product is stable under normal conditions of use, recommended handling and storage conditions.

10.3. Possibility of hazardous reactions

Uncleaned empty containers may contain product gases which form explosive mixtures with air.

10.4. Conditions to avoid

Mechanical influences (e.g. pressure, friction, impact, shock). Protect from heat, direct sunlight, open fire, sparks. Because of the high vapour pressure, containers are liable to burst if temperature rises. Do not smoke. Take precautionary measures against static discharges.

10.5. Incompatible materials

Strong oxidising agents. Peroxide.

10.6. Hazardous decomposition products

Carbon dioxide; Carbon monoxide.

SECTION 11. TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

(a) Acute toxicity

No information.

(b) Skin corrosion/irritation

Name	Species	Time	Result	Method	Remark
For product			Non-irritant.		

(c) Serious eye damage/irritation

Name	Species	Time	Result	Method	Remark
For product			Non-irritant.		

(d) Respiratory or skin sensitisation

Additional information: No sensitising effects known.

(e) (Germ cell) mutagenicity

No information.

(f) Carcinogenicity

No information.

(g) Reproductive toxicity

No information.

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Summary of evaluation of the CMR properties

The product is not classified as carcinogenic, mutagenic or toxic for reproduction.

(h) STOT-single exposure

No information.

(i) STOT-repeated exposure

Name	Exposure route	Туре	Species	Time	Organ	Value	Result	Method	Remark
For product	inhalation	-					Vapours may cause narcotic effects.		high vapours concentrations

(j) Aspiration hazard

No information.

SECTION 12. ECOLOGICAL INFORMATION

12.1. Toxicity

12.1.1. Acute (short-term) toxicity

12.1.2. Chronic (long-term) toxicity

No information.

No information.

12.2. Persistence and degradability

12.2.1. Abiotic degradation, physical- and photo-chemical elimination

No information.

12.2.2. Biodegradation

No information.

12.3. Bioaccumulative potential

12.3.1. Partition coefficient

No information.

12.3.2. Bioconcentration factor (BCF)

No information.

12.4. Mobility in soil

12.4.1. Known or predicted distribution to environmental compartments

No information.

12.4.2. Surface tension

No information.

12.4.3. Adsorption/Desorption

No information.

12.5. Results of PBT and vPvB assessment

No evaluation.

12.6. Other adverse effects

The product contains no absorbable organic halogens (AOX).

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12.7. Additional information

For product

Handle in accordance with good working practices so that the product is not released into the environment.

SECTION 13. DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

13.1.1. Product / Packaging disposal

Waste chemical

Dispose of in accordance with applicable waste disposal regulation. Disposal must be made according to official regulations: deliver it to authorised collector/remover/transformer of hazardous waste.

Waste codes / waste designations according to LoW

16 05 04* - gases in pressure containers (including halons) containing dangerous substances

Packaging

Dispose of in accordance with applicable waste disposal regulation. Deliver completely emptied containers to approved waste disposal authorities.

Waste codes / waste designations according to LoW

15 01 11* - metallic packaging containing a dangerous solid porous matrix (for example asbestos), including empty pressure containers

13.1.2. Waste treatment-relevant information

13.1.3. Sewage disposal-relevant information

13.1.4. Other disposal recommendations

SECTION 14. TRANSPORT INFORMATION

14.1. UN number

UN 1950

- 14.2. UN proper shipping name AEROSOLS
- 14.3. Transport hazard class(es)

2

- 14.4. Packing group Not applicable.
- 14.5. Environmental hazards NO.
- 14.6. Special precautions for user

Limited quantities

1 L

Tunnel restriction code

(D)



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IMDG flashpoint

-80 °C, c.c.

IMDG EmS

F-D, S-U

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Goods may not be carried in bulk in bulk containers, containers or vehicles.

SECTION 15. REGULATORY INFORMATION

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

- Regulation (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (including last amendment Commission Regulation (EU) 2015/830)

- Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures

<u>15.1.1. Information according 2004/42/EC about limitation of emissions of volatile organic compounds</u> (VOC-guideline)

Not applicable.

15.1.2. Special instructions

Observe the restrictions on the employment of minors.

15.2. Chemical Safety Assessment

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

SECTION 16. OTHER INFORMATION

Indication of changes

Abbreviations and acronyms

- ATE Acute Toxicity Estimate
- ADR European Agreement concerning the International Carriage of Dangerous Goods by Road
- ADN European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
- CEN European Committee for Standardisation
- C&L Classification and Labelling
- CLP Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
- CAS# Chemical Abstracts Service number
- CMR Carcinogen, Mutagen, or Reproductive Toxicant
- CSA Chemical Safety Assessment
- CSR Chemical Safety Report
- DMEL Derived Minimal Effect Level
- DNEL Derived No Effect Level
- DPD Dangerous Preparations Directive 1999/45/EC
- DSD Dangerous Substances Directive 67/548/EEC
- DU Downstream User
- EC European Community
- ECHA European Chemicals Agency
- EC-Number EINECS and ELINCS Number (see also EINECS and ELINCS)
- EEA European Economic Area (EU + Iceland, Liechtenstein and Norway)
- EEC European Economic Community
- EINECS European Inventory of Existing Commercial Substances
- ELINCS European List of notified Chemical Substances
- EN European Standard
- EQS Environmental Quality Standard
- EU European Union Euphrac - European Phrase Catalogue

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EWC - European Waste Catalogue (replaced by LoW - see below) GES - Generic Exposure Scenario GHS - Globally Harmonized System IATA - International Air Transport Association ICAO-TI - Technical Instructions for the Safe Transport of Dangerous Goods by Air IMDG - International Maritime Dangerous Goods IMSBC - International Maritime Solid Bulk Cargoes IT - Information Technology IUCLID - International Uniform Chemical Information Database IUPAC - International Union for Pure Applied Chemistry JRC - Joint Research Centre Kow - octanol-water partition coefficient LC₅₀ - Lethal Concentration to 50 % of a test population LD₅₀ - Lethal Dose to 50% of a test population (Median Lethal Dose) LE - Legal Entity LoW - List of Wastes (see http://ec.europa.eu/environment/waste/framework/list.htm) LR - Lead Registrant M/I - Manufacturer / Importer MS - Member States MSDS - Material Safety Data Sheet **OC** - Operational Conditions OECD - Organization for Economic Co-operation and Development **OEL** - Occupational Exposure Limit OJ - Official Journal **OR** - Only Representative OSHA - European Agency for Safety and Health at work PBT - Persistent, Bioaccumulative and Toxic substance PEC - Predicted Effect Concentration PNEC(s) - Predicted No Effect Concentration(s) PPE - Personal Protection Equipment (Q)SAR - Qualitative Structure Activity Relationship REACH - Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006 RID - Regulations concerning the International Carriage of Dangerous Goods by Rail **RIP - REACH Implementation Project** RMM - Risk Management Measure SCBA - Self-Contained Breathing Apparatus SDS - Safety data sheet SIEF - Substance Information Exchange Forum SME - Small and Medium sized Enterprises STOT - Specific Target Organ Toxicity (STOT) RE - Repeated Exposure (STOT) SE - Single Exposure SVHC - Substances of Very High Concern **UN** - United Nations vPvB - Very Persistent and Very Bioaccumulative Key literature references and sources for data

List of relevant H phrases

H220 Extremely flammable gas.

H280 Contains gas under pressure; may explode if heated.

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NS Consuly;	Provided correct labelling of the product				
	Compliance with the local legislation				
100% BOANAN TEE	Provided correct classification of the product				
Quality assured	Provided adequate transport data				
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The information of this SDS is based on the present state of our knowledge and meets the requirements of EU and national laws. The user's working conditions however, are beyond our knowledge and control. The product is not to be used for purposes other than those specified under Section 1 without a written permission. It remains the responsibility of the user to ensure that the necessary steps are taken to meet the laws and regulations. Handling of the product may only be done by people above 18 years of age, who are satisfactorily informed of how to do the work, the hazardous properties and necessary safety precautions. The information given in this SDS is to describe the product only in terms of health and safety requirements and should not, therefore, be construed as guaranteeing specific properties.