

Material Safety Data Sheet



SAFETY DATA SHEET DASA DS-404

According to the REACH etc. (Amendment etc.) (EU Exit) Regulations 2020 No. 1577, as amended.

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

1.1. Product identifier

Product name DASA DS-404

Container size 500ml

UFI UFI: DPQV-Q0T5-X000-5NT1

EU REACH registration notes All chemicals used in this product have been registered under REACH where required.

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

Identified uses Adhesive. Use only as directed.

Uses advised against Flexible PVC due to the risk of plasticiser migration.

1.3. Details of the supplier of the safety data sheet

Supplier DASA International B.V.
Bergerweg 62
1815 AE Alkmaar
Netherlands

info@dasa-international.com
+31(0)72 5719917

1.4. Emergency telephone number

Emergency telephone DASA: +31(0)72-5719917 (Mon-Fri 09:00-17:00)

National emergency telephone number National Poisons Information Service (UK): 0844 892 0111 (healthcare professionals only)
NHS: 111 (members of the public)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (SI 2019 No. 720)

Physical hazards Aerosol 1 - H222, H229

Health hazards Not Classified

Environmental hazards Not Classified

2.2. Label elements

Hazard pictograms



Signal word Danger

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Hazard statements	H222 Extremely flammable aerosol. H229 Pressurised container: may burst if heated.
Precautionary statements	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. P271 Use only outdoors or in a well-ventilated area. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.
Supplemental label information	Please refer to Safety Data Sheet. Use only as directed.
Supplementary precautionary statements	P261 Avoid breathing vapour/ spray. P501 Dispose of contents/ container in accordance with national regulations.

2.3. Other hazards

This product does not contain any substances classified as PBT or vPvB.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

DIMETHOXYMETHANE	30-60%
CAS number: 109-87-5	EC number: 203-714-2
Classification	
Flam. Liq. 2 - H225	
PETROLEUM GASES, LIQUEFIED; PETROLEUM GAS (<0.1% 1,3 BUTADIENE)	30-60%
CAS number: 68476-85-7	EC number: 270-704-2
Classification	
Flam. Gas 1A - H220	
Press. Gas (Liq.) - H280	

The full text for all hazard statements is displayed in Section 16.

Composition comments	Liquefied petroleum gases (CAS: 68476-85-7) contains less than 0.1% w/w 1,3-butadiene, meaning that the full harmonised classification regarding Muta. 1B H340 and Carc. 1A H350 does not apply.
Ingredient notes	Where required, the acute toxicity estimate (ATE) for any substance is listed in Section 11.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information	Move affected person to fresh air at once. Show this Safety Data Sheet to the medical personnel.
Inhalation	Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Keep affected person under observation. If breathing stops, provide artificial respiration. Get medical attention immediately.
Ingestion	Rinse mouth thoroughly with water. Get medical attention. Do not induce vomiting.

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Skin contact	Remove contaminated clothing immediately and wash skin with soap and water. Get medical attention if any discomfort continues.
Eye contact	Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes. Get medical attention if irritation persists after washing. If adhesive bonding occurs, do not force eyelids apart.
Protection of first aiders	First aid personnel should wear appropriate protective equipment during any rescue.

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

General information	The severity of the symptoms described will vary dependent on the concentration and the length of exposure. Prolonged and repeated contact with solvents over a long period may lead to permanent health problems.
Inhalation	Coughing, chest tightness, feeling of chest pressure. May cause coughing and difficulties in breathing. Overexposure to organic solvents may depress the central nervous system, causing dizziness and intoxication and, at very high concentrations, unconsciousness and death.
Ingestion	Ingestion may cause severe irritation of the mouth, the oesophagus and the gastrointestinal tract.
Skin contact	Frostbite.
Eye contact	May irritate eyes. Profuse watering of the eyes.

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

Notes for the doctor	Show this Safety Data Sheet to the medical personnel. Vapours may cause headache, fatigue, dizziness and nausea. Difficulty in breathing. Avoid breathing vapours.
Specific treatments	If adhesive bonding occurs, do not force eyelids apart.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	Water spray, dry powder or carbon dioxide. Alcohol-resistant foam.
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Special hazards arising from the substance or mixture

Specific hazards	Containers can burst violently or explode when heated, due to excessive pressure build-up. Forms explosive mixtures with air. Vapours are heavier than air and may spread near ground and travel a considerable distance to a source of ignition and flash back.
Hazardous combustion products	Oxides of carbon. Acrid smoke or fumes.

5.3. Advice for firefighters

Protective actions during firefighting	Use water to keep fire exposed containers cool and disperse vapours. If a leak or spill has not ignited, use water spray to disperse vapours and protect men stopping the leak. Control run-off water by containing and keeping it out of sewers and watercourses.
Special protective equipment for firefighters	Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

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Personal precautions Wear protective clothing as described in Section 8 of this safety data sheet. Avoid contact with eyes and prolonged skin contact. Avoid breathing vapour/spray. Provide adequate ventilation.

For non-emergency personnel For the greatest protection, clothing should include anti-static overalls, boots and gloves.

For emergency responders For the greatest protection, clothing should include anti-static overalls, boots and gloves.

6.2. Environmental precautions

Environmental precautions Contain spillage with sand, earth or other suitable non-combustible material. Spillages or uncontrolled discharges into watercourses must be reported immediately to the Environmental Agency or other appropriate regulatory body.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up Eliminate all sources of ignition. No smoking, sparks, flames or other sources of ignition near spillage. Provide adequate ventilation. Absorb in vermiculite, dry sand or earth and place into containers. Avoid the spillage or runoff entering drains, sewers or watercourses. Collect spillage for reclamation or disposal in sealed containers via a licensed waste contractor. Avoid water contacting spilled material or leaking containers. Approach the spillage from upwind. Take precautionary measures against static discharge. Use only non-sparking tools.

6.4. Reference to other sections

Reference to other sections For personal protection, see Section 8. For waste disposal, see Section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions Keep away from heat, sparks and open flame. Static electricity and formation of sparks must be prevented. Wear protective clothing as described in Section 8 of this safety data sheet. Read and follow manufacturer's recommendations. Do not use in confined spaces without adequate ventilation and/or respirator. Do not eat, drink or smoke when using this product.

Advice on general occupational hygiene Do not eat, drink or smoke when using this product. Remove contaminated clothing and protective equipment before entering eating areas. Wash after use and before eating, smoking and using the toilet. Do not smoke in work area. Clean equipment and the work area every day.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions Store in tightly-closed, original container in a dry, cool and well-ventilated place. Protect from sunlight. Keep in a cool, well ventilated place.

Storage class Extremely flammable aerosol.

7.3. Specific end use(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.2.

SECTION 8: Exposure controls/Personal protection

8.1. Control parameters

Occupational exposure limits

DIMETHOXYMETHANE

Long-term exposure limit (8-hour TWA): WEL 1000 ppm 3160 mg/m³

Short-term exposure limit (15-minute): WEL 1250 ppm 3950 mg/m³

PETROLEUM GASES, LIQUEFIED; PETROLEUM GAS (<0.1% 1,3 BUTADIENE)

Long-term exposure limit (8-hour TWA): WEL 1000 ppm 1750 mg/m³

Short-term exposure limit (15-minute): WEL 1250 ppm 2180 mg/m³

WEL = Workplace Exposure Limit.

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DIMETHOXYMETHANE (CAS: 109-87-5)

DNEL	<p>General population - Dermal; Long term systemic effects: 5.7 mg/kg/day</p> <p>General population - Inhalation; Long term systemic effects: 39 mg/m³</p> <p>General population - Oral; Long term systemic effects: 9.6 mg/kg/day</p> <p>Workers - Inhalation; Long term systemic effects: 132 mg/m³</p> <p>Workers - Dermal; Long term systemic effects: 22 mg/kg/day</p>
PNEC	<p>- Fresh water; 14577 mg/l</p> <p>- Sediment (Freshwater); 13135 mg/kg/day</p> <p>- Sediment (Marinewater); 13135 mg/kg/day</p> <p>- Soil; 46538 mg/kg/day</p> <p>- marine water; 14577 mg/l</p> <p>- STP; 10000 mg/l</p>

8.2. Exposure controls

Protective equipment



Appropriate engineering controls

Provide adequate ventilation. Ensure that the direction of airflow is clearly away from the worker. Use approved respirator if air contamination is above an acceptable level. Observe any occupational exposure limits for the product or ingredients. The engineering controls also need to keep gas, vapour or dust concentrations below any lower explosive limits. Use explosion-proof electrical, ventilating and lighting equipment. Ensure operatives are trained to minimise exposure.

Personal protection

Wear protective clothing.

Eye/face protection

Tight-fitting safety glasses. Personal protective equipment that provides appropriate eye and face protection should be worn.

Hand protection

To protect hands from chemicals, wear gloves that are proven to be impervious to the chemical and resist degradation. It should be noted that liquid may penetrate the gloves. Frequent changes are recommended. It is recommended that gloves are made of the following material: Butyl rubber. The breakthrough time for any glove material may be different for different glove manufacturers. When used with mixtures, the protection time of gloves cannot be accurately estimated. Considering the data specified by the glove manufacturer, check during use that the gloves are retaining their protective properties and change them as soon as any deterioration is detected.

Other skin and body protection

Provide eyewash station. Avoid contact with skin. Wear suitable coveralls to prevent exposure to the skin.

Hygiene measures

Promptly remove any clothing that becomes contaminated. Wash promptly if skin becomes contaminated. When using do not eat, drink or smoke. Use appropriate hand lotion to prevent defatting and cracking of skin. Wash at the end of each work shift and before eating, smoking and using the toilet.

Respiratory protection

If ventilation is inadequate, suitable respiratory protection must be worn. In confined or poorly-ventilated spaces, a supplied-air respirator must be worn. Respiratory protection complying with an approved standard should be worn if a risk assessment indicates inhalation of contaminants is possible.
Short term Gas filter, type AX.

Thermal hazards

Spray will evaporate and cool rapidly and may cause frostbite or cold burns if in contact with skin.

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Environmental exposure controls Residues and empty containers should be taken care of as hazardous waste according to local and national provisions.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Aerosol.
Colour	Amber.
Odour	Ether.
Odour threshold	Data lacking.
pH	pH (concentrated solution): 7
Melting point	No information required.
Initial boiling point and range	Liquefied petroleum gases: -40 to -2°C Dimethoxymethane: 42°C
Flash point	A flash point method is not available but the major hazardous component, the liquefied petroleum gases, has a flash point of <-60°C with flammability limits of 10.9% vol. upper and 1.4% vol. lower.
Evaporation rate	Not available.
Evaporation factor	Not available.
Flammability (solid, gas)	Not available.
Vapour pressure	4 - 6 bar @ 20°C
Vapour density	Not available.
Relative density	Liquid base: 0.85 - 0.91 @ 20°C
Bulk density	Not available.
Solubility(ies)	Insoluble in water.
Partition coefficient	Dimethoxymethane: log Pow: 0
Auto-ignition temperature	Liquefied petroleum gases: 365°C
Decomposition Temperature	Not available.
Viscosity	Liquid base: 50 - 250 mm ² /s @ 20°C
Explosive properties	In use may form flammable/explosive vapour-air mixture.
Explosive under the influence of a flame	Yes
Oxidising properties	Does not meet the criteria for classification as oxidising.

9.2. Other information

Molecular weight	No information required.
Volatile organic compound	This product contains a maximum VOC content of 82 %.

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity There are no known reactivity hazards associated with this product.

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10.2. Chemical stability

Stability Stable at normal ambient temperatures and when used as recommended. Highly volatile.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions Will not polymerise. In use may form flammable/explosive vapour-air mixture.

10.4. Conditions to avoid

Conditions to avoid Avoid heat, flames and other sources of ignition. Containers can burst violently or explode when heated, due to excessive pressure build-up. Avoid the accumulation of vapours in low or confined areas.

10.5. Incompatible materials

Materials to avoid Strong acids.

10.6. Hazardous decomposition products

Hazardous decomposition products Does not decompose when used and stored as recommended.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity - oral

Summary Based on available data the classification criteria are not met.

Acute toxicity - dermal

Summary Based on available data the classification criteria are not met.

Acute toxicity - inhalation

Summary Based on available data the classification criteria are not met.

Skin corrosion/irritation

Summary Based on available data the classification criteria are not met.

Serious eye damage/irritation

Summary Based on available data the classification criteria are not met.

Respiratory sensitisation

Summary Based on available data the classification criteria are not met.

Skin sensitisation

Summary Based on available data the classification criteria are not met.

Germ cell mutagenicity

Summary Based on available data the classification criteria are not met.

Carcinogenicity

Summary Based on available data the classification criteria are not met.

Reproductive toxicity

Summary Based on available data the classification criteria are not met.

Specific target organ toxicity - single exposure

Summary Based on available data the classification criteria are not met.

Specific target organ toxicity - repeated exposure

Summary Based on available data the classification criteria are not met.

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Aspiration hazard

Summary Based on available data the classification criteria are not met.

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties There are no adverse health effects caused by endocrine disrupting properties.

11.2.2. Other information No information available.

Toxicological information on ingredients.

DIMETHOXYMETHANE

Toxicological effects The toxicity of this substance has been assessed during REACH registration.

Acute toxicity - oral

Notes (oral LD₅₀) 6423.0 , Oral, Rat

Acute toxicity - dermal

Notes (dermal LD₅₀) 5000.0 , Dermal, Rabbit

Skin corrosion/irritation

Skin corrosion/irritation Based on available data the classification criteria are not met.

Serious eye damage/irritation

Serious eye damage/irritation Based on available data the classification criteria are not met.

Respiratory sensitisation

Respiratory sensitisation Based on available data the classification criteria are not met.

Skin sensitisation

Skin sensitisation Based on available data the classification criteria are not met.

Carcinogenicity

Carcinogenicity Based on available data the classification criteria are not met.

Reproductive toxicity

Reproductive toxicity - fertility Based on available data the classification criteria are not met.

Specific target organ toxicity - single exposure

STOT - single exposure Based on available data the classification criteria are not met.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure Based on available data the classification criteria are not met.

Inhalation Irritating to respiratory system. Vapours may cause drowsiness and dizziness.

Ingestion Gastrointestinal symptoms, including upset stomach.

Skin contact Irritating to skin. Repeated exposure may cause skin dryness or cracking.

Eye contact The liquid may be irritating to eyes, respiratory system and skin.

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PETROLEUM GASES, LIQUEFIED; PETROLEUM GAS (<0.1% 1,3 BUTADIENE)

Toxicological effects	Information given is based on data of the components and of similar products.
<u>Acute toxicity - oral</u>	
Notes (oral LD₅₀)	Not applicable.
<u>Acute toxicity - dermal</u>	
Notes (dermal LD₅₀)	Not applicable.
<u>Acute toxicity - inhalation</u>	
Notes (inhalation LC₅₀)	LC ₅₀ >20 mg/l, Inhalation, Rat
<u>Skin corrosion/irritation</u>	
Skin corrosion/irritation	Not irritating.
<u>Serious eye damage/irritation</u>	
Serious eye damage/irritation	Not irritating.
<u>Respiratory sensitisation</u>	
Respiratory sensitisation	Not sensitising.
<u>Skin sensitisation</u>	
Skin sensitisation	Not sensitising.
<u>Germ cell mutagenicity</u>	
Genotoxicity - in vitro	This substance has no evidence of mutagenic properties.
<u>Carcinogenicity</u>	
Carcinogenicity	Carcinogenicity in humans is not expected.
<u>Reproductive toxicity</u>	
Reproductive toxicity - fertility	Based on available data the classification criteria are not met.
Reproductive toxicity - development	Does not contain any substances known to be toxic to reproduction.
<u>Specific target organ toxicity - single exposure</u>	
STOT - single exposure	A single exposure may cause the following adverse effects: Overexposure to organic solvents may depress the central nervous system, causing dizziness and intoxication and, at very high concentrations, unconsciousness and death.
<u>Specific target organ toxicity - repeated exposure</u>	
STOT - repeated exposure	Not classified as a specific target organ toxicant after repeated exposure.
<u>Aspiration hazard</u>	
Aspiration hazard	Based on available data the classification criteria are not met.
<u>Inhalation</u>	
Inhalation	May cause respiratory system irritation.
<u>Skin contact</u>	
Skin contact	Spray will evaporate and cool rapidly and may cause frostbite or cold burns if in contact with skin.

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Route of exposure Inhalation Skin and/or eye contact

SECTION 12: Ecological information

Ecotoxicity The product components are not classified as environmentally hazardous. However, large or frequent spills may have hazardous effects on the environment.

Ecological information on ingredients.**PETROLEUM GASES, LIQUEFIED; PETROLEUM GAS (<0.1% 1,3 BUTADIENE)**

Ecotoxicity Information given is based on data of the components and of similar products.

12.1. ToxicityEcological information on ingredients.**DIMETHOXYMETHANE**

Toxicity Not considered toxic to fish.

Acute aquatic toxicity

Acute toxicity - fish LC₅₀, 96 hours: 6,410 mg/l, Fish

Acute toxicity - aquatic invertebrates EC₅₀, 48 hours: >1200 mg/l, Daphnia magna

Acute toxicity - aquatic plants EC₅₀, 72 hours: >10000 mg/l, Scenedesmus subspicatus

PETROLEUM GASES, LIQUEFIED; PETROLEUM GAS (<0.1% 1,3 BUTADIENE)

Toxicity Not regarded as dangerous for the environment. The product is not believed to present a hazard due to its physical nature. Highly volatile.

12.2. Persistence and degradability

Persistence and degradability No data available.

Ecological information on ingredients.**DIMETHOXYMETHANE**

Persistence and degradability The product is readily biodegradable.

PETROLEUM GASES, LIQUEFIED; PETROLEUM GAS (<0.1% 1,3 BUTADIENE)

Persistence and degradability The product is readily biodegradable.

12.3. Bioaccumulative potential

Bioaccumulative potential No data available on bioaccumulation.

Partition coefficient Dimethoxymethane: log Pow: 0

Ecological information on ingredients.**PETROLEUM GASES, LIQUEFIED; PETROLEUM GAS (<0.1% 1,3 BUTADIENE)**

Bioaccumulative potential Bioaccumulation is unlikely.

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Proper shipping name (IMDG) AEROSOLS

Proper shipping name (ICAO) AEROSOLS

Proper shipping name (ADN) AEROSOLS

14.3. Transport hazard class(es)

ADR/RID class 2.1

ADR/RID classification code 5F

ADR/RID label 2.1

IMDG class 2.1

ICAO class/division 2.1

ADN class 2.1

Transport labels**14.4. Packing group**

Not applicable.

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant

No.

14.6. Special precautions for user

IMDG Code segregation group SG69, SW1, SW22

EmS F-D, S-U

ADR transport category 2

Emergency Action Code 2YE

Hazard Identification Number (ADR/RID) 23

Tunnel restriction code (D)

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

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

and the IBC Code

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

National regulations Control of Substances Hazardous to Health Regulations 2002 (as amended).
Health and Safety at Work etc. Act 1974 (as amended).

Guidance Workplace Exposure Limits EH40.
Approved Classification and Labelling Guide (Sixth edition) L131.

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Authorisations (SI 2020 No. 1577 Annex XIV) No specific authorisations are known for this product.

Restrictions (SI 2020 No. 1577 Annex XVII) No specific restrictions on use are known for this product.

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16: Other information

Classification procedures according to SI 2019 No. 720	Aerosol 1 - H222, H229: Weight of evidence.
Issued by	Technical Department
Revision date	09/05/2023
Revision	2.2
Supersedes date	19/03/2021
SDS number	21304
Hazard statements in full	H220 Extremely flammable gas. H222 Extremely flammable aerosol. H225 Highly flammable liquid and vapour. H229 Pressurised container: may burst if heated. H280 Contains gas under pressure; may explode if heated.

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.