

GAS STRUT**PRODUCT INFORMATION SHEET****SECTION 1: Identification of the substance/mixture and of the company/undertaking****1. 1. Product identifier**

Product form	:	Article
Trade name	:	Gas Strut
Product code	:	All gas struts, except those part numbers starting GS-G
SDS Number	:	112
Product use	:	Professional Use

1. 2. Relevant identified uses of the substance or mixture and uses advised against**1. 2. 1. Relevant identified uses**

Function or use category	:	Motion control component (gas strut)
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1. 2. 2. Uses advised against

Restrictions on use	:	Any use other than intended
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1.3. Details of the supplier of the safety data sheet

Camloc Motion Control Ltd
15 New Star Road
Leicester, LE4 9JD
United Kingdom
+44 (0) 116 274 3600 (Mon-Thu 08:00 – 17:15 GMT)
sales@camloc.com

1.4. Emergency telephone number

+44 (0)116 274 3600 (Mon-Thu 08:00 – 17:15 GMT)

SECTION 2: Hazards identification**2.1. Classification of the substance or mixture**

In accordance with the REACH Regulation (EC) No. 1907/2006 the manufactured item should be considered as an article and therefore not be classified according to Regulation (EC) 1272/2008 as amended.

2.2 Label elements

In accordance with the REACH Regulation (EC) No. 1907/2006 the manufactured item should be considered as an article and therefore not be labelled according to Regulation (EC) No. 1272/2008 as amended.

2.3. Other hazards

Other hazards which do not result in classification	:	Intensive, prolonged and repeated skin contact can lead to skin irritation. Do not allow escape uncontrolled into the environment. Mineral oil is not completely biologically degradable.
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SECTION 3: Composition/information on ingredients**3.1. Substances**

Not applicable.

3.2. Mixtures

Comments	:	Fluid under gas pressure within article
Comments	:	The gas strut contains compressed gas (nitrogen) at a pressure of ≤ 180 bar. The maximum product pressure and volume is 45 bar* l

The mixture does not contain any substances to be mentioned according to the criteria 3. 2 of REACH annex II.

SECTION 4: First aid measures

4.1 Description of first aid measures

General information	:	This product causes no risk or danger to persons and the environment if used as intended.
Inhalation	:	Not applicable.
Skin contact	:	Not applicable.
Eyes contact	:	Not applicable.
Ingestion	:	Not applicable.

4.2 Most important symptoms and effects, both acute and delayed

No additional information available.

4.3 Indication of any immediate medical attention and special treatment needed

Provide general supportive measures and treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media	:	Carbon dioxide (CO ₂). Dry powder. Foam. dry chemical powder. Water fog. Water spray
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

Fire hazard	:	Pressurised container. May burst if heated.
Reactivity in case of fire	:	Contents under pressure
Hazardous decomposition products in case of fire	:	Keep unnecessary personnel away

5.3 Advice for firefighters

Precautionary measures fire	:	Containers should be cooled with water to prevent vapour pressure build up
Firefighting instructions	:	Positive pressure self-contained breathing apparatus (SCBA) and structural fire-fighters protective clothing.
Protection during firefighting	:	Use standard firefighting procedures and consider the hazards of other involved materials. Do not attempt to act without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.
Other information	:	The fluid may burn, when heated to high temperatures. The flash point of the oil in the damper fluid is 190°C (375 °F).

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures	:	Stop leak if safe to do so. Keep unnecessary personnel away.
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6.1.1. For non-emergency personnel

Protective equipment	:	Wear recommended personal protective equipment. For personal protection, see section 8 of the SDS.
Emergency procedures	:	Ventilate spillage area. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.

6.1.2. For emergency responders

Protective equipment	:	Do not attempt to act without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
Emergency procedures	:	Stop leak if safe to do so

6.2. Environmental precautions

Avoid release to the environment. If fluid is released: Avoid discharge into drains, water courses or onto the ground. Prevent further leakage or spillage if safe to do so.

6.3. Methods and material for containment and cleaning up

- For containment : Stop the flow of material, if this is without risk.
- Methods for cleaning up : Mechanically recover the product. Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Wipe up with absorbent material (e.g. cloth, fleece).
- Other information : Dispose in accordance with all applicable regulations. Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection". For disposal of residues refer to section 13: "Disposal considerations". For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Additional hazards when processed : The gas strut as product unit: Pressurised container: May burst if heated. Do not pierce or burn, even after use
- Precautions for safe handling : Ensure good ventilation of the workstation. Wear personal protective equipment. If fluid is released: Avoid contact with eyes, skin, and clothing. Obtain special instructions before use. Avoid prolonged exposure.
- Hygiene measures : Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

- Storage conditions : Do not handle, store or open near an open flame, sources of heat or sources of ignition. Store in a dry place. Use care in handling/storage. Store in a well-ventilated place. Keep cool, do not exceed 50°C

7.3. Specific end use(s)

Gas strut as a motion control component

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1. National occupational exposure and biological limit values

No additional information available

8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

No additional information available

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Appropriate engineering controls:

Good standard of general ventilation. Ensure good ventilation of the workstation.

8.2.2. Personal protection equipment

8.2.2.1. Eye and face protection

Eye protection:

If fluid is released: Chemical goggles or safety glasses. Safety glasses

8.2.2.2. Skin protection

Skin and body protection:

If fluid is released: Wear suitable gloves (tested to EN374), coverall and eye protection

Hand protection:

Not normally needed. The choice of an appropriate glove does not only depend on its material but also on other quality features and is different from one producer to the other. The protective gloves to be used must comply with the specifications of EC directive 89/686/EEC and the resultant standard EN 374.

Other skin protection

Materials for protective clothing:

Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment

8.2.2.3. Respiratory protection

Respiratory protection:

Not normally needed. [In case of inadequate ventilation] wear respiratory protection.

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

Environmental exposure controls:

Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	Solid
Colour	:	Colourless
Appearance	:	Fluid under gas pressure within article
Odour	:	Odourless
Odour threshold	:	Not available
Melting point	:	Not available
Freezing point	:	Not applicable
Boiling point	:	Not available
Flammability	:	Non flammable
Explosive properties	:	Not explosive
Explosive limits	:	Not applicable
Lower explosive limit (LEL)	:	Not applicable
Upper explosive limit (UEL)	:	Not applicable
Flash point	:	>190°C (for the oil in gas strut fluid)
Auto-ignition temperature	:	Not applicable
Decomposition temperature	:	Not available
pH	:	Not available
pH solution	:	Not available
Viscosity, kinematic	:	13 – 150 mm ² /s (for the oil in the gas strut fluid)
Solubility	:	Insoluble
Log Know	:	Not available
Vapour pressure	:	Not available
Vapour pressure at 50°C	:	Not available
Density	:	0. 87g/cm ³ (for the oil in the gas strut fluid)
Relative density	:	Not applicable
Relative vapour density at 20°C	:	Not applicable
Particle size	:	Not available
Particle size distribution	:	Not available
Particle shape	:	Not available

Particle aspect ratio	:	Not available
Particle aggregation state	:	Not available
Particle agglomeration state	:	Not available
Particle specific surface area	:	Not available
Particle dustiness	:	Not available

9.2. Other information

9.2.1. Information with regard to physical hazard classes

No additional information available

9.2.2. Other safety characteristics

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

None under normal use.

10.4. Conditions to avoid

Avoid contact with high temperature.

10.5. Incompatible materials

Strong oxidizing agent.

10.6. Hazardous decomposition products

Carbon oxides (CO, CO₂). Nitrogen oxides.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity (oral)	:	Not classified
Acute toxicity (dermal)	:	Not classified
Acute toxicity (inhalation)	:	Not classified
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
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
Aspiration hazard	:	Based on available data, the classification criteria are not met

11.2. Information on other hazards

No additional information available

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	:	The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.
Hazardous to the aquatic environment, short-term (acute)	:	Not classified

Hazardous to the aquatic environment, long-term (chronic) : Not classified

12.2. Persistence and degradability

Gas strut

Persistence and degradability : No data is available on the degradability of this product.

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Endocrine disrupting properties

No additional information available

12.7. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods : Disposal must be done according to official regulations. Avoid discharge into drains, water courses or onto the ground. Dispose of contents/container in accordance with licensed collector's sorting instructions.

Product/Packaging disposal recommendations : Empty containers should be taken to an approved waste handling site for recycling or disposal. Dispose in a safe manner in accordance with local/national regulations. Pressurized units have to be degassed before disposal.

Additional information : Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose in accordance with all applicable regulations.

European List of Waste (LoW, EC 2000/532) : 16 01 21* - hazardous components other than those mentioned in 16 01 07 to 16 01 11 and 16 01 13 and 16 01 14

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / ADN / RID

14.1. UN number or ID number

UN-No. (ADR) : UN 3164
UN-No. (IMDG) : UN 3164
UN-No. (IATA) : UN 3164
UN-No. (ADN) : UN 3164
UN-No. (RID) : UN 3164

14.2. UN proper shipping name

Proper Shipping Name (ADR) : ARTICLES, PRESSURIZED, PNEUMATIC / HYDRAULIC
Proper Shipping Name (IMDG) : ARTICLES, PRESSURIZED, PNEUMATIC
Proper Shipping Name (IATA) : Articles, pressurized, pneumatic
Proper Shipping Name (ADN) : ARTICLES, PRESSURIZED, PNEUMATIC
Proper Shipping Name (RID) : ARTICLES, PRESSURIZED, PNEUMATIC

14.3. Transport hazard class(es)

	ADR	IMDG	IATA	ADN	RID
Transport hazard class(es)	2.2	2.2	2.2	2.2	2.2
Danger labels	2.2	2.2	2.2	2.2	2.2

14.4. Packing group

Packing Group (ADR) : Not applicable
Packing Group (IMDG) : Not applicable
Packing Group (IATA) : Not applicable
Packing Group (ADN) : Not applicable
Packing Group (RID) : Not applicable

14.5. Environmental hazards

Dangerous for the environment : No
Marine pollutant : No
Other information : No supplementary information available.

14.6. Special precautions for user

Overland transport

Classification code (ADR) : 6A
Special provisions (ADR) : 283, 371, 594
Limited quantities (ADR) : 120ml
Packing instructions (ADR) : P003
Tunnel restriction code (ADR) : E
EAC code : 2T

Transport by sea

Special provisions (IMDG) : 283, 371
Limited quantities (IMDG) : 120ml
Packing instructions (IMDG) : P003
EmS-No. (Fire) : F-C
EmS-No. (Spillage) : S-V
Stowage category (IMDG) : A

Air transport

PCA Excepted quantities (IATA) : E0
PCA Limited quantities (IATA) : Forbidden
PCA Limited quantity max net quantity (IATA) : Forbidden
PCA Packing instructions (IATA) : 208
PCA Max net quantity (IATA) : No limit
CAO Packing instructions (IATA) : 208
CAO Max net quantity (IATA) : No limit
Special provisions (IATA) : A48, A114, A195
ERG code (IATA) : 2L

Inland waterway transport

Classification code (ADN) : 6A
Special provisions (ADN) : 283, 371, 594
Limited quantities (ADN) : 120ml

Rail transport

Classification code (RID) : 6A
Special provisions (RID) : 283, 371, 594
Limited quantities (RID) : 120ml
Packing instructions (RID) : P003
Hazard identification number (RID) : 20

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

Not listed on the REACH Candidate List

Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

Other information, restriction and prohibition regulations: Not applicable.

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Indication of changes:

General.

Abbreviations and acronyms

ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
BCF	Bioconcentration factor
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC50	Median effective concentration
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
STP	Sewage treatment plant
TLM	Median Tolerance Limit
vPvB	Very Persistent and Very Bioaccumulative
OEL	Occupational Exposure Limit
RRN	REACH Registration no.
CAO	Cargo Aircraft Only
PCA	Passenger and Cargo Aircraft
TWA	Time Weighted Average. The average concentration of a chemical in air over the total exposure time- usually an 8-hour workday.
WES	Workplace Exposure Standard – The airborne concentration of a biological or chemical agent to which a worker may be exposed
VOC	Volatile organic compounds
ADG	Australian Dangerous Goods
STEL	Short-term Exposure Limit UN
RTDG	United Nations Recommendations on the Transport of Dangerous Goods

The information in this Safety Data Sheet is believed to be, to the best of our knowledge, correct and complete as of the date issued. However, Camloc Motion Control Ltd does not assume any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any product is the sole responsibility of the user. Given the variety of the factors that can affect a Camloc product, some of which are uniquely within the user's knowledge and control, it is essential that the user evaluate the Camloc product to determine whether it is fit for a particular purpose.