



**Safety data sheet**  
according to 1907/2006/EC, Article 31

Printing date 30.01.2014

Version number 1

Revision: 30.01.2014

## 1 Identification of the substance/mixture and of the company/ undertaking

- **Product identifier**
  - **Trade name:** Twin tube shock absorber
  - **Relevant identified uses of the substance or mixture and uses advised against**  
No further relevant information available.
    - **Application of the substance / the mixture** Shock Absorber
- **Details of the supplier of the safety data sheet**
  - **Manufacturer/Supplier:**  
MAPCO Autotechnik GmbH  
Moosweg 1  
D-14822 Borkheide  
Tel.: +49 33845 - 600 30  
Fax: +49 33845 - 410 32
  - **Informing department:**  
Tel.: +49 33844 - 75 82 67  
E-Mail: [tstrietz@mapco.de](mailto:tstrietz@mapco.de)
  - **Emergency telephone number:** Tel.: +49 33845 - 600 30

## 2 Hazards identification

- **Classification of the substance or mixture**
  - **Classification according to Regulation (EC) No 1272/2008**



GHS04 gas cylinder

Press. Gas H280 Contains gas under pressure; may explode if heated.

- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC** void
- **Information concerning particular hazards for human and environment:**  
Warning! Pressurized container.  
Nitrogen is suffocating by replacing ambient oxygen.  
The product does not have to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.
- **Classification system:**  
The classification is in line with current EC lists. It is expanded, however, by information from technical literature and by information furnished by supplier companies.
- **Label elements**
  - **Labelling according to Regulation (EC) No 1272/2008**  
The product is classified and labelled according to the CLP regulation.

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- **Hazard pictograms**



GHS04

- **Signal word** Warning
- **Hazard statements**  
H280 Contains gas under pressure; may explode if heated.
- **Precautionary statements**  
P410+P403 Protect from sunlight. Store in a well-ventilated place.
- **Other hazards**
- **Results of PBT and vPvB assessment**
  - **PBT:** Not applicable.
  - **vPvB:** Not applicable.

### 3 Composition/information on ingredients

- **Chemical characterization: Mixtures**
- **Description:** The shock absorber contains hydraulic oil and small amounts of nitrogen.

- **Dangerous components:**

CAS: 7727-37-9	nitrogen	Press. Gas, H281	< 5%
EINECS: 231-783-9			

- **Additional information**

The twin tube shock absorbers contain 0.01 to 0.3 l compressed gas (nitrogen) at a pressure of 0 to 10 bar. The maximum product of pressure and volume is 3 bar \* l.

### 4 First aid measures

- **Description of first aid measures**
- **General information** No special measures required.
- **After inhalation**  
Provide fresh air. Keep victims quiet and warm.  
In case of unsteady breathing or apnoea induce artificial respiration.  
Call a doctor immediately.
- **After skin contact** The product is not skin irritating.
- **After eye contact** In case of permanent aches and pains please go and see the doctor.
- **After swallowing** Swallowing is not considered to be a possible way of exposure.
- **Information for doctor**
  - **Most important symptoms and effects, both acute and delayed**  
No further relevant information available.
  - **Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

### 5 Firefighting measures

- **Extinguishing media**
- **Suitable extinguishing agents**  
The product itself does not burn.  
Use fire fighting measures that suit the environment.

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- **Special hazards arising from the substance or mixture**  
Formation of toxic gases is possible during heating or in case of fire.  
Can be released in case of fire:  
Carbon monoxide (CO)  
Nitrogen oxides (NO<sub>x</sub>)
- **Advice for firefighters**
  - **Protective equipment:**  
In case of fire wear breathing equipment being independent of ambient air and suit provided full protection against chemicals.
- **Additional information**  
Remove fill mass from incendiary zone, if possible.  
Cool endangered containers with water spray jet.

### 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**  
Ensure adequate ventilation  
Keep away from ignition sources
- **Environmental precautions:**  
Inform authorities if gas escapes.  
Do not allow to enter drainage system, surface or ground water.
- **Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, universal binders) and disposal in suitable containers.
- **Reference to other sections**  
See Section 8 for information on personal protection equipment.

### 7 Handling and storage

- **Handling**
  - **Precautions for safe handling**  
Keep empty containers away from heat and ignition sources.  
Ensure good interior ventilation, especially at floor level. (Fumes are heavier than air).  
No special measures required.
  - **Information about protection against explosions and fires:** The product is not flammable
- **Conditions for safe storage, including any incompatibilities**
  - **Storage**
    - **Requirements to be met by storerooms and containers:**  
Store containers in a well aired place at a temperature of less than 50 °C.  
Store only undamaged original packaging drums.
    - **Information about storage in one common storage facility:**  
Keep away from combustible and/or inflammable materials.
    - **Further information about storage conditions:**  
Store in a cool place. Heat will increase pressure and may lead to the container exploding.
    - **Storage class**  
2A (Compressed, liquidized and under pressure solved gases) according to VCI concept
  - **Specific end use(s)** No further relevant information available.

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### 8 Exposure controls/personal protection

- **Control parameters**
  - **Components with limit values that require monitoring at the workplace:**  
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
  - **Additional information:**  
The lists that were valid during the compilation were used as basis.
- **Exposure controls**
  - **Personal protective equipment**
    - **General protective and hygienic measures** Wear suitable protective clothing at work.
    - **Breathing equipment:** Not required.
    - **Protection of hands:**  
Not required.  
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.  
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.  
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
    - **Material of gloves**  
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. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
    - **Penetration time of glove material**  
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
  - **Eye protection:** Not required.

### 9 Physical and chemical properties

- **Information on basic physical and chemical properties**
  - **General Information**
    - **Appearance:**
      - **Form:** Shock absorber, pneumatic / hydraulic  
Condensed gas
      - **Colour:** Colourless
      - **Odour:** odourless
  - **Change in condition**
    - **Melting point/Melting range:** Not determined
    - **Boiling point/Boiling range:** Not applicable
  - **Flash point:** Not applicable
  - **Inflammability (solid, gaseous)** Product is not inflammable.
  - **Self-inflammability:** Product is not selfigniting.
  - **Danger of explosion:** Product is not explosive.

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· <b>Density</b>	Not determined
· <b>Solubility in / Miscibility with</b> · <b>Water:</b>	Insoluble
· <b>Solvent content:</b> · <b>Organic solvents:</b> · <b>Water:</b>	0.0 % 0.0 %
· <b>Other information</b>	The bonfire-test resulted in no flying away components.

### 10 Stability and reactivity

- **Reactivity**
- **Chemical stability**
  - **Thermal decomposition / conditions to be avoided:**  
No decomposition if used and stored according to specifications.
- **Possibility of hazardous reactions**  
Danger of containers bursting because of high vapour pressure
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:**  
None in case of intended use and storage in compliance with instructions.

### 11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**
  - **Primary irritant effect:**
    - **on the skin:** No irritant effect.
    - **on the eye:** No irritant effect.
  - **Sensitization:** No sensitizing effect known.
- **Additional toxicological information:**  
When inhaling high concentrations narcotic symptoms are possible.  
The product is not subject to classification according to the calculation method of the General EC Classification Guidelines for Preparations as issued in the latest version.

### 12 Ecological information

- **Toxicity**
  - **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behaviour in environmental systems:**
  - **Bioaccumulative potential** No further relevant information available.
  - **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
  - **General notes:**  
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water.  
The product contains materials that are harmful to the environment.  
Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage system.

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- **Results of PBT and vPvB assessment**
  - **PBT:** Not applicable.
  - **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.



### 13 Disposal considerations

- **Waste treatment methods**
  - **Recommendation** Contact manufacturer for recycling information.

· <b>European waste catalogue</b>	
16 00 00	WASTES NOT OTHERWISE SPECIFIED IN THE LIST
16 05 00	gases in pressure containers and discarded chemicals
16 05 05	gases in pressure containers other than those mentioned in 16 05 04

- **Uncleaned packagings:**
  - **Recommendation:**  
Dispose of packaging according to regulations on the disposal of packagings.

### 14 Transport information

- |                                                                                     |                                       |
|-------------------------------------------------------------------------------------|---------------------------------------|
| <b>UN-Number</b>                                                                    | UN3164                                |
| · <b>ADR, IMDG, IATA</b>                                                            |                                       |
| <b>UN proper shipping name</b>                                                      | 3164 ARTICLES, PRESSURIZED, HYDRAULIC |
| · <b>ADR</b>                                                                        |                                       |
| · <b>IMDG, IATA</b>                                                                 | ARTICLES, PRESSURIZED, HYDRAULIC      |
| <b>Transport hazard class(es)</b>                                                   |                                       |
| · <b>ADR</b>                                                                        |                                       |
|  |                                       |
| · <b>Class</b>                                                                      | 2 6A Gases.                           |
| · <b>Label</b>                                                                      | 2.2                                   |
|                                                                                     |                                       |
| · <b>IMDG, IATA</b>                                                                 |                                       |
|  |                                       |
| · <b>Class</b>                                                                      | 2.2                                   |
| · <b>Label</b>                                                                      | 2.2                                   |
| <b>Packing group</b>                                                                | Void                                  |
| · <b>ADR, IMDG, IATA</b>                                                            |                                       |
| <b>Environmental hazards:</b>                                                       | No                                    |
| · <b>Marine pollutant:</b>                                                          |                                       |
| · <b>Special precautions for user</b>                                               | Warning: Gases.                       |

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· <b>Kemler Number:</b>	-
· <b>EMS Number:</b>	F-C,S-V
· <b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b>	Not applicable.
· <b>Transport/Additional information:</b>	
· <b>ADR</b>	
· <b>Limited quantities (LQ)</b>	120 ml
· <b>Transport category</b>	3
· <b>Tunnel restriction code</b>	E
· <b>UN "Model Regulation":</b>	UN3164, ARTICLES, PRESSURIZED, HYDRAULIC, 2.2

### 15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Labelling according to Regulation (EC) No 1272/2008**  
The product is classified and labelled according to the CLP regulation.
- **Hazard pictograms**



GHS04

- **Signal word** Warning
- **Hazard statements**  
H280 Contains gas under pressure; may explode if heated.
- **Precautionary statements**  
P410+P403 Protect from sunlight. Store in a well-ventilated place.
- **National regulations**
- **Water hazard class:**  
Water hazard class 1 (Self-assessment): slightly hazardous for water.
- **Other regulations, limitations and prohibitive regulations**  
The regulations concerning pressure vessels and gases under pressure have to be observed.
- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

### 16 Other information

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Relevant phrases**  
H281 Contains refrigerated gas; may cause cryogenic burns or injury.

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**· Department issuing data specification sheet:**

This Material Safety Data Sheet has been drawn up in cooperation with:  
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tel.: (+49) 511 42079 311, reach@dekra.com.

**· Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

Press. Gas: Gases under pressure: Compressed gas

Press. Gas: Gases under pressure: Refrigerated liquefied gas

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