

# Material Safety Data Sheet

acc. to ISO/DIS 11014

Printing date 09/03/2009

Reviewed on 09/03/2009

## 1 Identification of substance

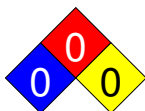
- **Product details**
- **Trade name: Zweirohrdämpfer**  
**Twin tube shock absorber**
- **Application of the substance / the preparation** Shock Absorber
- **Manufacturer/Supplier:**  
ThyssenKrupp Bilstein Tuning GmbH  
Milsper Straße 214  
D-58240 Ennepetal  
Tel: +49 2333-791- 0  
Fax: +49 2333-791-4900
- **Information department:**  
Tel: +49 2333-791-4780  
Email: Thomas.A.Woermann@thyssenkrupp.com
- **Emergency information:** Tel: +49 2333-791- 0

## 2 Composition/Data on components

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

## 3 Hazards identification

- **Hazard description:** Not applicable.
- **Information pertaining to particular dangers for man 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 international guidelines.
- **Classification system:**  
The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.
- **NFPA ratings (scale 0 - 4)**



Health = 0  
Fire = 0  
Reactivity = 0

- **HMIS-ratings (scale 0 - 4)**



Health = 0  
Fire = 0  
Reactivity = 0

## 4 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:** Generally the product does not irritate the skin.

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- **After eye contact:** If symptoms persist consult doctor.
- **After swallowing:** Swallowing is not considered to be a possible way of exposure.

### 5 Fire fighting measures

- **Suitable extinguishing agents:**  
The product itself does not burn.  
Use fire fighting measures that suit the environment.
- **Special hazards caused by the material, its products of combustion or resulting gases:**  
Formation of toxic gases is possible during heating or in case of fire.  
In case of fire, the following can be released:  
Carbon monoxide (CO)  
Nitrogen oxides (NOx)
- **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 receptacles with water spray.

### 6 Accidental release measures

- **Person-related safety precautions:**  
Ensure adequate ventilation  
Keep away from ignition sources
- **Measures for environmental protection:**  
Inform authorities in case of gas release.  
Do not allow to enter sewers/ surface or ground water.
- **Measures for cleaning/collecting:**  
Absorb with liquid-binding material (sand, diatomite, universal binders) and disposal in suitable containers.

### 7 Handling and storage

- **Handling:**
- **Information 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.
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**  
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 receptacle bursting.
- **Storage class:**  
2A (Compressed, liquidized and under pressure solved gases) according to VCI concept

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## 8 Exposure controls and personal protection

### · Components with limit values that require monitoring at the workplace:

7727-37-9 nitrogen

TLV Simple asphyxiant

· **Additional information:** The lists that were valid during the creation were used as basis.

### · 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 trough 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

### · General Information

<b>Form:</b>	Shock absorber, pneumatic / hydraulic Condensed gas
<b>Color:</b>	Colorless
<b>Odor:</b>	Odorless

### · Change in condition

**Melting point/Melting range:** Undetermined.

**Boiling point/Boiling range:** n.a. °C

· **Flash point:** Not applicable.

· **Auto igniting:** Product is not selfigniting.

· **Danger of explosion:** Product does not present an explosion hazard.

· **Density:** Not determined.

### · Solubility in / Miscibility with

**Water:** Insoluble.

### · Solvent content:

**Organic solvents:** 0.0 %

**Water:** 0.0 %

**VOC content:** 0.0 %

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· **Additional information:** The bonfire-test resulted in no flying away components.

## 10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:**  
No decomposition if used and stored according to specifications.
- **Dangerous reactions** Danger of receptacles bursting because of high vapor pressure if heated.
- **Dangerous products of decomposition:**  
None in case of intended use and storage in compliance with instructions.

## 11 Toxicological information

- **Acute toxicity:**
- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** No irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**  
When inhaling high concentrations narcotic symptoms are possible.  
The product is not subject to classification according to internally approved calculation methods for preparations:

## 12 Ecological information

- **General notes:**  
Water hazard class 1 (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 course or sewage system.

## 13 Disposal considerations

- **Product:**
- **Recommendation:** Contact manufacturer for recycling information.
- **Uncleaned packagings:**
- **Recommendation:** Dispose of packaging according to regulations on the disposal of packagings.

## 14 Transport information

- **Land transport ADR/RID (cross-border):**



- **ADR/RID class:** 2 6A Gases
- **UN-Number:** 3164
- **Label:** 2.2
- **Description of goods:** 3164 ARTICLES, PRESSURIZED, PNEUMATIC

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· **Remarks:** Special Provision: 283

· **Maritime transport IMDG:**



· **IMDG Class:** 2.2  
 · **UN Number:** 3164  
 · **Label:** 2.2  
 · **EMS Number:** F-C,S-V  
 · **Marine pollutant:** No  
 · **Propper shipping name:** ARTICLES, PRESSURIZED, HYDRAULIC  
 · **Remarks:** Special Provision: 283

· **Air transport ICAO-TI and IATA-DGR:**



· **ICAO/IATA Class:** 2.2  
 · **UN/ID Number:** 3164  
 · **Label:** 2.2  
 · **Propper shipping name:** ARTICLES, PRESSURIZED, HYDRAULIC  
 · **Remarks:** Special Provisions: A48, A114

## 15 Regulations

· **Sara**

· **Section 355 (extremely hazardous substances):**

None of the ingredient is listed.

· **Section 313 (Specific toxic chemical listings):**

None of the ingredients is listed.

· **TSCA (Toxic Substances Control Act):**

All ingredients are listed.

· **Proposition 65**

· **Chemicals known to cause cancer:**

None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.

· **Chemicals known to cause developmental toxicity:**

None of the ingredients is listed.

· **Carcinogeny categories**

· **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

· **IARC (International Agency for Research on Cancer)**

None of the ingredients is listed.

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· **NTP (National Toxicology Program)**

None of the ingredients is listed.

· **TLV (Threshold Limit Value established by ACGIH)**

None of the ingredients is listed.

· **AGW (German Maximum Workplace Concentration)**

None of the ingredients is listed.

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is listed.

· **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

· **Canadian substance listings:**

· **Canadian Domestic Substances List (DSL)**

All ingredients are listed.

· **Canadian Ingredient Disclosure list (limit 0.1%)**

None of the ingredients is listed.

· **Canadian Ingredient Disclosure list (limit 1%)**

None of the ingredients is listed.

· **Product related hazard informations:**

Although this product is not subject to identification regulations, we recommend that the safety suggestions are observed.

The product is not subject to identification regulations according to directives on hazardous materials.

· **Safety phrases:**

Keep in a cool place.

· **National regulations:**

· **Other regulations, limitations and prohibitive regulations**

The regulations concerning pressure vessels and gases under pressure have to be observed.

## 16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Department issuing MSDS:**

This Material Safety Data Sheet has been drawn up in cooperation with:  
DEKRA Umwelt GmbH, Hanomagstr. 12, D-30449 Hannover,  
Tel.: +49.511.42079-311.

· **\* Data compared to the previous version altered.**

USA