# Material Safety Data Sheet Bansbach Gas Spring according to Directive No. 1907/2006

## 1. Specification

Gas Springs of Bansbach easylift 50 West Drive, Melbourne, FL 32904, Phone number: 321-253-1999
Part number of the product / specification

## 2. Hazards identification

This preparation is not classified as dangerous according to Directive 1999/45/EG as amended and adapted.

This product is considered to be an article as defined in UN3164 49 CFR §172 " Class 2.2,
Regulation (EC) 1272/2008 (CLP Regulation).
Hazard classifications (contained within product):

**Nitrogen:** Compressed gas
Hazard statements: "HIGH PRESSURE DO NOT OPEN"

| | |
|---|---|
| Physical/chemical hazards | Not classified as dangerous. |
| Human health hazards | Not classified as dangerous. |
| Environmental hazards | Unlikely to be harmful to aquatic organisms. |
| Effects and symptoms | |
| Eyes | No significant health hazards identified. |
| Skin | No significant health hazards identified. |
| Inhalation | No significant health hazards identified. |
| Ingestion | No significant health hazards identified. |

## 3. Composition on ingredients

Bansbach Gas Springs consist mainly of steel, aluminum, nitrogen, oil and rubber (seal material).
This product does not contain any hazardous ingredients at or above regulated thresholds.

| Chemical name | % by weight |
|---|---|
| Zinc* | < 1 |
| Lead* | < 0.02 |

*depends on the gas spring specification

## 4. First-aid measures

If oil or gas (nitrogen) is released

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|---|---|
| Eye contact | In case of contact, immediately flush eyes with a copious amount of water for at least 15 minutes. Get medical attention if irritation occurs. |
| Skin contact | In case of contact, immediately flush skin with plenty of water. |
| | Remove contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention if irritation develops. |
| Inhalation Oil | If inhaled, remove to fresh air. Get medical attention if symptoms appear. |
| Gas | Any further inhalation of concentration of more than 75% can cause sickness, dizziness, breathlessness and spasm. Remove victim to uncontaminated area. |

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## 4. First-aid measures (cont.)

| | |
|---|---|
| Ingestion | Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately. |
| Notes to physician | Treatment should in general be symptomatic and directed to relieving any effects. |

## 5. Fire-fighting measures

| | |
|---|---|
| Extinguishing media | All extinguishants are allowed, they have to match with the fire. |
| Hazardous decomposition | These products are carbon oxides (CO (carbon monoxide), CO2 (carbon dioxide)). |
| Unusual hazards | Small quantities of irritating and / or toxic and / or asphyxiant gases may be released during a fire. |
| Special hazards by the material or the product itself, Ist combustion products or arising gases | Oil may produce carbon monoxide, metal oxides and other elemental oxides. Each gas spring contains only a small amount of oil. Fire damages the seals and therefore destroys the product. |

## 6. Accidental release measures

| | |
|---|---|
| Personal precautions | Steps to be taken if material is released or spilled: if the product is ruptured, oil may cause irritation to skin and eye, contact should be avoided. Skin contact: mit wash with soap and water. Eye contact: Flush thoroughly with water. |
| For the inhalation | Eye protection: not necessary, |
| Only in case of oil dust | In case of painting hazard, protective glasses. |
| Other equipment Not necessary | Gloves: not necessary; in case of further skin contact: gloves |
| Environmental precautions and cleaning method | Disposal see section 13 |
| Personal protection in case of a large spill | Protective glasses, full suit, boots, gloves. |

Bansbach gas springs do not contain that considerable quantity

## 7. Handling and storage

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|---|---|
| Handling | The gas spring may not be bent or damaged. |
| Storage | It should be stored in a cool, dry and well ventilated room. |

## 8. Exposure controls and personal protection

| | |
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| Occupational exposure limits Control measures | This product doesn't have any assigned exposures. |
| Hygiene measures | Wash hands after handling compounds and before eating, smoking, using lavatory, and at the end of the day. |

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## 8. Exposure controls and personal protection (cont.)

Personal protective equipment

| | |
|---|---|
| For the inhalation only in case of oil dust | Eye protection: not necessary, in case of painting hazard, protective glasses. |
| Other equipment not necessary | Gloves: not necessary; in case of further skin contact: gloves |

## 9. Physical and chemical characteristics

| Chemical name | % by weight |
|---|---|
| Zinc* | < 1 |
| Lead* | < 0.02 |

*depends on the gas spring specification

This product does not contain any hazardous ingredients at or above regulated thresholds.

**a) Physical characteristics of the gas:**

Boiling point: -196°C
Relative density (gas): 0.97 (air=1)
Solubility in water: 20mg/l
Formal characteristics: colourless, odourless

**b) Physical characteristics of the oil:**

Boiling point: >316°C
Relative density 15/4C: 0.876
Solubility in water: negligible
Melting point: >177°C
Vapour density: >2
Formal characteristics: light amber liquid with a mild odour

**c.) Physical characteristics of the rubber:**

Specific gravity: 1.31
Solubility in water: insoluble
Formal characteristics: black material with solid appearance and characteristic odour

## 10. Stability and reactivity

| | |
|---|---|
| Incompatibility with different substances | Reactive with oxidizing agents (oil). |
| Hazardous polymerization | Will not occur. |
| Hazardous decomposition products | None. |

## 11. Toxicological information

In case of oil release

Acute toxicity

Unlikely to cause more than transient stinging or redness if accidental eye contact occurs.

Unlikely to cause harm to the skin on brief or occasional contact but prolonged or repeated exposure may lead to dermatitis.

Unlikely to cause harm if accidentally swallowed in small doses, though larger quantities may cause nausea and diarrhea.

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## 11. Toxicological information (cont.)

At normal ambient temperatures this product will be unlikely to present an inhalation hazard because of its low volatility. May be harmful by inhalation if exposure to vapour, mists or fumes resulting from thermal decomposition products occurs.

Chronic toxicity

Chronic effects: There are no special effects or dangers known.

Effect and symptoms

- Eyes: No considerable health risks found out.
- Skin: No considerable health risks found out.
- Inhalation: No considerable health risks found out.
- Ingestion: No considerable health risks found out.

In case of gas release:

Toxicological information: There are no toxic effects of this product known.

## 12. Ecological information

Persistence/degradability: Inherently biodegradable

Mobility: Spillages may penetrate the soil causing ground water contamination (only in big quantities).

Bioaccumulative potential: This product is not expected to bioaccumulate through food chains in the environment.

Environmental hazards: Unlikely to be harmful to aquatic organisms.

Other ecological information: Spills may form a film on water surfaces causing physical damage to organisms. Oxygen transfer could also be impaired.

## 13. Disposal advice

Disposal advice: The used material is recyclable.
The disposal regulations have to be respected.

## 14. Transport information

According to the regulations 283/594 ADR, the clause 283 of the IMDG- codes and the special regulation A114 a.) to e.) of the IATA- DGR for hazardous goods, the product has not to be classified as a hazardous product.

Air Carriage - IATA/ ICAO

A48 Packaging tests are not considered necessary

| Proper Shipping Name | Class | UN ID No. | Packing Instruction |
|---|---|---|---|
| ARTICLES, PRESSURIZED PNEUMATIC Containing non-flammable gas | 2.2 | UN 3164 | 208 |

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## 14. Transport information (cont.)

UN3164 49 CFR §172 " Class 2.2
Articles, pressurized pneumatic or hydraulic containing non-flammable gas

**(4)** Accumulators intended to function as shock absorbers, struts, gas springs, pneumatic springs or other impact or energy-absorbing devices are not subject to the requirements of this subchapter provided each:

**(i)** Has a gas space capacity not exceeding 1.6 L and a charge pressure not exceeding 280 bar, where the product of the capacity expressed in liters and charge pressure expressed in bars does not exceed 80 (for example, 0.5 L gas space and 160 bar charge pressure);

**(ii)** Has a minimum burst pressure of 4 times the charge pressure at 20 °C for products not exceeding 0.5 L gas space capacity and 5 times the charge pressure for products greater than 0.5 L gas space capacity;

**(iii)** Design type has been subjected to a fire test demonstrating that the article relieves its pressure by means of a fire degradable seal or other pressure relief device, such that the article will not fragment and that the article does not rocket; and

**(iv)** Accumulators must be manufactured under a written quality assurance program which monitors parameters controlling burst strength, burst mode and performance in a fire situation as specified in paragraphs (f)(4)(i) through (f)(4)(iii) of this section. A copy of the quality assurance program must be maintained at each facility at which the accumulators are manufactured.

## 15. Regulatory information

Label requirements — Gas springs must have the following warning on the labels:
Do not open or damage – high pressure.

## 16. Other information

Note for the reader

All reasonably practicable steps have been taken to ensure this data sheet and the health, safety and environmental information contained in it is accurate as of the date specified below. No warranty or representation, express or implied is made as to the accuracy or completeness of the data and information in this data sheet. The data and advice given apply when the product is sold for the stated application or applications. You should not use the product other than for the stated application or applications without seeking advice from us. Iis the user's obligation to evaluate and use this product safely and to comply with all applicable laws and regualtions. Above all, please respect the important technical advices under www.bansbach.de. We, Bansbach easylift, shall not be responsible for any damage or injury resulting from use, other than the stated product use of the material, from any failure to adhere to recommendations, or from any hazards inherent in the nature of the material. Purchasers of the product for supply to a third party for use at work, have a duty to take all necessary steps to ensure that any person handling or using the product is provided with the information in this sheet. Employers have a duty to tell employees and others who may be affected of any hazards described in this sheet and of any precautions that should be taken.

| VERSION | Date of change | Section | Description of changes |
|---|---|---|---|
| Version 1.0 | 01/2018 | | First edition created to the recommendations as part of latest release of OSHA HazCom Standard 29 CFR 1910, GHS and EC 1907/2006 |
| Version 2.0 | 12/03/2021 | all | Whole document reviewed/revised for compliance to UN3164 49 CFR §172, current recommendations and amended where necessary. |