Safety Data Sheet (SDS) In compliance with EC 1907/2006 Article 31

1. PRODUCT AND COMPANY IDENTIFICATION

- Product Description: Gas Springs
- Primary use: Motion Control/ Assist
- Manufacturer: Winco Easylift BV
  Zutphenstraat 69c
  7575 EJ Oldenzaal
  The Netherlands
- Emergency Telephone +31-541-520044
- Contact Mr Clemens Janssen

2. PRODUCT CONTENT INFORMATION

Description: It is a closed system containing tube + piston rod + Seals + oil + nitrogen gas.

Dangerous Components: Void
Additional Information: Gas Springs contain up to a maximum of 0.25 litres of compressed gas (nitrogen) at a pressure of between 0 and 180 bar.

Composition / Information on Ingredients

For Nitrogen Gas: Component : Nitrogen (N2), CAS Number : 7727-37-9, Concentration (Volume) : 99,99 %

For Oil: Composition : Solvent refined paraffinic base oils and additives.

Hazardous components	EC Hazard Symbol	EC Risk Phrases.	Concentration
Mineral Oil	N	R22/52	80-90
Additives Methacrylate	N	R51/53	
Anti-wear, anticorrosion	N	R36/37/38	

3. HAZARDS IDENTIFICATION

The gas spring is filled with compressed nitrogen (colourless, odourless, inert inflammable gas).
Gas springs should not be heated or opened.

Information pertaining to particular dangers for man and environment:
Caution Pressurised Container.
Nitrogen is suffocating by replacing ambient oxygen.
Injection of oil through the skin resulting from contact with oil at high pressure constitutes a major medical emergency.
Oil is water polluting and some may be harmful to aquatic life.

Hazard Description:
In its manufactured state, and under normal and expected conditions of use, the product is not expected to cause any acute or chronic health effects. The health effects listed below are for

accidental release of gas or oil if the product is damaged.

Route of entry:

Skin contact	Handling of oil causes no particular hazard when appropriate personal protective equipment is used taking normal handling precautions.
Eye contact	Oil may cause irritation with prolonged contact.
Skin Absorption	This is not expected to be an entry route in to the body.
Ingestion	This is not expected to be an entry route in to the body.
Inhalation	This is not expected to be an entry route in to the body.

4. FIRST AID MEASURES

Skin Contact	Wash thoroughly with mild soap and water. Seek medical attention if irritation develops. Change clothes or shoes contaminated by the oil and launder thoroughly before reuse. (Never put rags contaminated by the oil into cloth pockets).
Eye Contact	Immediately flush thoroughly for at least 20 minutes. Seek medical attention if irritation persists
Inhalation	Provide fresh air. Keep victim quiet and warm. If breathing is difficult, oxygen may be administered. If breathing has stopped artificial respiration should be started immediately. Seek medical attention.
Ingestion	This is not expected to be an important route of entry in to the body. If large amounts of oil are ingested, do not induce vomiting. Seek medical attention immediately.

5. FIRE FIGHTING MEASURES.

Extinguishing Media	Use water fog, foam, dry chemical or carbon dioxide extinguisher or spray.
Fire Fighting Procedures	As in any fire, self-contained breathing apparatus should be used. Water containing oils should be prevented from being discharged into any waterway, sewer or drain.
Unusual Hazards	Small quantities of irritating and/ or toxic and/ or asphyxiate gases may be released during a fire. Sources of these gases are in very small quantities in each spring.
Hazardous Combustion	Oil may produce Carbon monoxide, metal oxides, and elemental oxides. Only a small amount of oil is present in each spring.
Condition under which ignition occurs	Exposure to fire may cause containers to rupture or explode. Non-flammable.
Additional Information	Remove items from incendiary zone, if possible. Cool endangered items with water spray.

6. ACCIDENTAL RELEASE MEASURES.

Person related safety precautions	Ensure adequate ventilation Keep away from ignition sources. Particular danger of slipping on leaked oil.
Measures for environmental protection	Do not allow oil to enter drainage system, surface or ground water. Do not allow accumulation of large quantities of gas in basements, work pits/ sewers, or

	other low lying areas where accumulation could be dangerous.
Measures for cleaning/ collecting	Absorb oil with liquid binding material (e.g. sand, sawdust, diatomite, universal binders) and dispose in suitable containers.

7. HANDLING AND STORAGE.

HANDLING:

Information for safe handling	Do not dent or pierce the spring, which contains a pressurised gas. Do not heat spring, which contains pressurised gas.
STORAGE	Store in a cool dry, ventilated area, preferably rod down. Do not store gas springs more than one year Store away from food stuffs. Local regulations concerning handling and storage of water polluting products have to be followed.

8. EXPOSURE CONTROL AND PERSONAL PROTECTION.

Components with limit values that required monitoring at the workplace

	7727-37-9 Nitrogen TLV Simple asphyxiate.
Personal protective equipment	General protective and hygienic measures: Wear suitable protective clothing at work. Avoid close or long term contact with skin. Do not carry cleaning cloths impregnated with oil in clothing pockets.
Breathing Equipment	Not required, local ventilation to ambient air.
Gloves	Not required, However good personal hygiene practices should be followed.
Eye	Normal industrial eye protection practices should be employed.
Other Equipment	Not required.

9. PHYSICAL AND CHEMICAL PROPERTIES.

General Information:
The product itself is a metal tube containing an extending piston rod, filled with nitrogen gas and a small amount of oil. The product itself has no noticeable odour.
The information below is for the gas and oil contained in the tube.

Gas spring

Surface roughness value	Ra = max.20µ
Dye thickness	30µ - 40µ
Corrosion endurance	250 hours

Oil

Density at 15ºC kg / m3	0,887
Flash point	140ºC
Viscosity (40ºC , cSt.)	68
Pour point	-45ºC

For Nitrogen Gas

Form	Compressed gas
Color	Colorless gas
Oder	No odor warning properties
Molecular weight	28,01g/mol
Relative vapour density	0,967 (Air=1)
Density	1,170 Kg/m3 (15 ºC, 1bar)
Specific volume	13,80 ft3/lb (0,8615 m3/kg) at 70 ºF (21 ºC)
Boiling point/range	-195,8 ºC (-321 ºF)
Critical temperature	-147 ºC (-233 ºF)
Melting point/range	-209,86 ºC (-346 ºF)
Water solubility	20 mg/l

10. STABILITY AND REACTIVITY

Chemical stability	Product is stable if stored and used within normal conditions.
Conditions to be avoided	Avoid storage above 50°C. Do not expose to strong acids or oxidising agents.
Reactivity	Product is stable.
Hazardous Decomposition Products	Product is stable.

11: TOXICOLOGICAL INFORMATION

When used and handled according to specifications this product does not have any harmful effects.

Nitrogen Gas	No known toxicological effects. High concentrations of Nitrogen gas act as an asphyxiant.
Suffocating Symptoms	Fast and hard breathing, fast tire, nausea/vomit and death after loss of conscious.
Oil	
Acute toxicity	Not applicable
Primary irritant effect:	
On Skin	No known irritant effect
On Eye	No known irritant effect
Sensitisation	No sensitising effect known.
Additional Information	The manufacturer does not indicate that any of the oil constituents are highly toxic at concentrations present in the product.

12: ECOLOGICAL INFORMATION

Nitrogen Gas

Nitrogen is made of by compressing and decomposing the air. It has no harmful effect on ecologic balance.

Oil

Do not allow to reach ground water, water bodies or sewage systems. Oil is harmful to aquatic organisms. The oil swims on water surface.

13. DISPOSAL CONSIDERATIONS

Prior to disposal of product, gas pressure should be relieved to atmosphere in a well-ventilated place, and hydraulic fluid drained by a qualified mechanic.
Recycling of product is the recommended method of disposal.
All wastes should be evaluated with regard to local regulations and disposed of accordingly.
It is the user's responsibility to dispose of all wastes in accordance with local, state and federal regulations, at properly permitted or authorised facilities.

14. TRANSPORT INFORMATION.

HS-Code Harmonized System code	870 880 20
UN ID No.	UN3164
Class	2,2
Label	2,2
Designation	Articles Pressurized pneumatic or Hydraulic containing non-flammable gas
Packing group ADR IMDG IATA	Void

Road Carriage – RID

Danger code	6A
Special provision	283 371 594

Exempt from ADR regulations as special provisioned

Sea Carriage - IMDG

EMS	F-C, S-V
Packing Group	2106
Marine pollutant	No
Special provision	283 371

Air Carriage – IATA / ICAO

Packing Instruction	208
Special Provision	A48 A114 A195

15. REGULATIONS

Product contains no ingredients listed in Regulations.
We sells this article in the EU in compliance with the current requirements of REACH.

16. OTHER INFORMATION

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 we cannot 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 product, some of which are uniquely within the user's knowledge and control, it is essential that the user evaluate the product to determine whether it is fit for a particular purpose.