

MATERIAL SAFETY DATA SHEET

1 - Preparation and company identification

Identification of the preparation 007935090710Pag for compressor 1234yf iso 46

Preparation use Compressor lubricant.

Company

Magneti Marelli Aftermarket Sp. z o.o.

Plac pod lipami 5, 40-472 Katowice, Poland
(Tel. +48326036107)

Emergency telephone 999/112

Business references [mail: checkstar@magnetimarelli.com](mailto:checkstar@magnetimarelli.com)

2 - Hazards identification

Main risks to health/environment No particular risks in normal working conditions. We recommend, however, to keep normal personal hygiene and to avoid frequent and prolonged contact. Use according to good working practice avoiding to disperse the product in the environment.

Hazards The substance is not regarded as hazardous according to the Directive 1999/45/EEC.

* 3 - Composition / Information on ingredients

Ingredients composition

67/548/CEE o 1999/45/CE

Reaction between Benzeneamine, N-phenyl with nonene (branched) No. EU: 253-249-4	<0.39 %	R53	01-2119488911-28
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No. 1272/2008/CE

Reaction between Benzeneamine, N-phenyl with nonene (branched) No. EU: 253-249-4	<0.39 %	Aquatic Chronic 4; H413	01-2119488911-28
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Please refer to section 16 for more information about R phrases referred to.

Components information The content of DMSO extract, determined with the IP 346/92 method is lower than 3% in weight.

Chemical composition Synthetic base oil with additives.

* 4 - First aid measures

First aid measures required to treat the symptoms.

Inhalation If exposed to high concentration of vapours and fogs move the person from contaminated area to well ventilated place. With labored breathing, provide oxygen. If respiratory arrest occurs make ventilation. If suspected inalathion, seek medical assistance.

Contact with the skin Remove contaminated clothes and wash with soap and plenty of water. If irritation persist, get medical attention.

Contact with the eyes Immediately flush eyes with plenty of water for a few minutes while keeping eyelids open. Get medical attention.

Ingestion Do not induce vomit to avoid aspiration through the respiratory tract. Get medical attention.

MATERIAL SAFETY DATA SHEET

5 - Fire-fighting measures

Fire-fighting equipment	Extinguish flames with foam, dry chemicals, CO ₂ .
Inappropriate extinguishers	Do not use direct water jets. Use water jets just to cool down surfaces exposed to fire.
Specific dangers in case of exposition to the chemicals, its combustion products or gases	Avoid breathing combustion fumes that, in case of fire, can form sulphur, phosphorus, nitrogen and unburnt hydrocarbon compounds and other derivatives potentially dangerous.
Specific protective equipment for fire-fighting personnel	Wear protective overalls with self-breathing equipment.

6 - Accidental release measures

Person - related safety precautions	Wear gloves and protective glasses. In case of spillage of considerable quantities into bordering place, avoid to breathe exhalations; air the environment or wear protective breathing apparatus. Remove any possible ignition sources.
Environmental precautions	Avoid to disperse and to drain the product on ground, into sewers and surface waters. If necessary inform the relevant local authorities.
Decontamination procedures	In case of significant amount of spilled product, control and transfer the product in suitable containers. Spillage on ground: Control spilled product with earth or sand. Clean up spilled product and dispose according to local regulations. Spillage in water: Border immediately the spillage. Remove spilled product from the surface with mechanical equipment.

7 - Handling and storage

Handling	Avoid direct contacts with the product. Do not breathe aerosol or product mist guaranteeing a suitable ventilation in working areas. Do not smoke and avoid any contact with ignition sources. Keep containers closed when not used.
Storage	Keep the product in original containers. Storage in a fresh place, away from heating sources and direct sun exposition. Avoid to accumulate electrostatic charge. Keep closed and covered the containers to avoid infiltrations of rain. Maintain suitable ventilation of the work place.
Empty containers	The containers contain product residues. Dispose the containers in safe ecological way according to the local regulations.

* 8 - Exposure controls / personal protection

According to data in our possession, any component presents no exposure limits in working place.

Exposure control	Avoid the formation of hazes or aerosol and use engineering controls, ventilation or localized aspiration if necessary.
Breathing equipment	Not necessary under normal working conditions. Keep oil hazes within the TLV-TWA limit of 5 mg/m ³ . (A.C.G.I.H. 2000). Use masks with filters for organic vapours in case of exposure superior to the fixed limits.
Hands and skin protection	Wear gloves and protective overalls; change immediately contaminated clothes and wash them thoroughly before use. We recommend to keep normal personal hygiene and of working clothes. Wear gloves only after having thoroughly washed your hands.
Eyes protection	Wear safety protective glasses where it is possible to be in contact with the product.

MATERIAL SAFETY DATA SHEET

9 - Physical and chemical properties

Physical status- :	Liquid
Colour- :	Colourless
Odour- :	Typical
pH :	5,5 - 7,5 (16,7% isopropanol/water, 10/6)
Water Solubility- :	Partially miscible
Density at 15°Ckg/l :	0,990
Kinematic Viscosity at 40°CcSt :	48,2
Flash Point (C.O.C.)°C :	205
Pour Point°C :	-39
Boiling pointPa :	decompose before boiling point

10 - Stability and reactivity

Reactivity and materials to avoid : Avoid contacts with strong acid, strong bases and oxidation agents. Avoid extreme heat and high energy sources of ignition.

Stability : Stable product in normal applications.

* 11 - Toxicological information

Chronic toxicity	Exposure to oil vapour that exceeds Professional Inhalation Limits can cause respiratory system irritations.
Skin contact	LD50 skin (rabbit) > 2000 mg/kg (estimated). Frequent and continuous contacts could degrease skin and cause dermatitis.
Eyes contact	It can cause light irritation.
Oral toxicity	LD50 (rats): > 2000 mg/kg (estimated). The product if ingested can irritate the digestive apparatus and induce vomiting, cause nausea and diarrhea.
Inhalation	Long term exposure to the product mist can cause irritation to the respiratory system.

* 12 - Ecological information

Mobility	Logarithm of the coefficient of distribution ottanolo/water is considered to be < 3.
Degradability	More than 90% of components are classified ad biodegradable (BOD28 > 60%).
Ecotoxicity	In compliance with EEC Regulations the product is not regarded as hazardous to the environment.
Accumulation	Not determined.

* 13 - Disposal considerations

General information	Do not dispel the environment. Comply with the current laws.
Disposal	Avoid to disperse the product on ground, into sewers and surface waters. Discharge the exhausted products and the containers through the authorized industries in compliance with the state and local regulations for disposal of this type of waste.

14 - Transport information

ADR-Classe:	Not dangeorus
IATA-Classe:	Not dangeorus
IMDG-Classe:	Not dangeorus

Transport name : PAG 46 for 1234YF

* 15 - Regulatory information

Reference Laws	This Safety Data Sheet complies with the Regulation 453/2010/EEC. Regulation (CE) 1272/2008 (GHS/CLP), D.E. 1999/45/CE, 2001/60/CE and related regulations on "Classification, labelling and packaging of substances and mixtures". Refer also to local laws.
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MATERIAL SAFETY DATA SHEET

* 16 - Other information

Relevant R and H phrases

R 53 May cause long-term adverse effects in the aquatic environment.

H413 May cause long lasting harmful effects to aquatic life.

Warning

The information presented in this Material Safety Sheet is based on data believed to be accurate as of the date this Material Safety Data Sheet was prepared. The purpose of this data sheet is to inform and assume a correct technological use of the product. Magneti Marelli Aftermarket does not take any responsibility resulting from any damage or injury resulting from abnormal use.