

SAFETY DATA SHEET



Version: 08
Revision date: 15/06/2012
According to (EC) No. 1907/2006 (REACH), Annex II - United Kingdom (UK)

1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND COMPANY / UNDERTAKING

- 1.1 Product identifier:** **Magnavis 7HF – aerosol.**
- 1.2 Relevant identified uses of the mixture and uses advised against:** Black magnetic ink used in Magnetic Particle Inspection (MPI).
- 1.3 Details of the supplier of the safety data sheet:** Magnaflux® (A Division of ITW Ltd), Faraday Road, South Dorcan Industrial Estate, Swindon, Wiltshire, SN3 5HE, UK.
- Telephone: +44 (0)1793 524566
Fax: +44 (0)1793 490459
Email: datasheets@magnaflux.co.uk
Web: www.eu.magnaflux.com
- 1.4 Emergency telephone number:** +44 (0)1793 524566 (Office hours).
(Office hours (GMT) Monday – Thursday 8:00am – 5:00pm, Friday 8:00am – 4:00pm).

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance:

According to Directive 67/548/EEC as amended & Directive 1999/45/EC:

Extremely flammable.

2.2 Label elements:

Hazard symbol(s):

F+, Extremely flammable.

Pictogram:



Risk phrase(s):

R12 Extremely flammable.

Safety phrase(s):

S9 Keep container in a well ventilated place.
S16 Keep away from sources of ignition – No smoking.
S23 Do not breathe vapour/spray.
S33 Take precautionary measures against static discharges.
S51 Use only in well ventilated areas.

2.3 Other hazards:

Pressurised container: protect from sunlight and do not expose to temperatures exceeding 50 °C. Vapours can form explosive mixtures with air.

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3. COMPOSITION INFORMATION ON INGREDIENTS

Ingredient name	EC No	CAS No	REACH registration number	% W/W	Symbol	R phrases*
Distillates (petroleum), hydrotreated light	265-149-8	64742-47-8	-	> 50	Xn	R65
Hydrocarbons, C3-4-rich petroleum distillate petroleum gas (1,3-butadiene < 0.1%)	270-990-9	68512-91-4	-	15-35	F+	R12

Other ingredients: Black magnetic oxide.

Note: Risk phrases in this section apply only to raw materials, not necessarily to finished products.

**See Section 16 for risk phrase text in full.*

4. FIRST AID MEASURES

4.1 Description of first aid measures:

General advice: If symptoms persist, seek medical attention. Show this safety data sheet to the doctor in attendance.

Eye contact: Flush eyes with large amounts of water for at least 10 minutes and seek medical attention if irritation persists.

Skin contact: Flush with water, use soap if available. Contaminated clothing should be washed before re-use.

Inhalation: Remove to fresh air. Keep at rest. If not breathing give artificial respiration. Seek medical attention if symptoms occur.

Ingestion: Unlikely route of exposure. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Seek medical attention if symptoms occur.

4.2 Most important symptoms and effects, both acute and delayed:

No delayed effects known.

4.3 Indication of any immediate medical attention and special treatment needed:

None known.

5. FIREFIGHTING MEASURES

5.1 Extinguishing media: Carbon dioxide, foam, dry chemical, water fog or spray.

5.2 Special hazards arising from the mixture: Evacuate immediate area. Shut off 'fuel' to fire. If possible keep unaffected containers cool with water spray. Aerosols may explode in a fire. Aerosol contents are extremely flammable releasing smoke, soot and oxides of carbon on combustion. Burning vapour may give off toxic fumes.

5.3 Advice for firefighters: Warn fire-fighters that aerosols are involved. Self contained breathing apparatus and full protective clothing must be worn if necessary.

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6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:

Shut off ignition sources and ensure adequate ventilation. Suitable protective equipment (including personal protective equipment referred to in Section 8 of the safety data sheet) should be worn to prevent any contamination of skin, eyes and personal clothing. Remove ignition sources and avoid breathing vapour/spray/mist.

6.2 Environmental precautions:

Prevent liquid from entering drains sewers and watercourses. Notify the Environment Agency or water authorities if a major spillage occurs. Prevent contamination of soil.

6.3 Methods and material for containment and cleaning up:

Eliminate sources of ignition. Ventilate surrounding area. Contain spilled liquid with sand or earth. Mop up or absorb onto with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local/national regulations (see Section 13). Large spills should be pumped (using an earthed explosion proof pump) into containers pending disposal according to local/national regulations (see Section 13). Take measures to prevent the build up of electrostatic charge.

6.4 Reference to other sections:

For Personal Protective Equipment see Section 8. For disposal information see Section 13.

7. HANDLING & STORAGE

7.1 Precautions for safe handling:

Aerosol contents are highly flammable and volatile. Keep away from sources of ignition – no smoking. Wear suitable protective clothing such as chemical resistant gloves, apron and goggles/face mask to protect from splashes. Avoid contact with the skin. Do not breathe product spray or mist. Ensure adequate exhaust ventilation when in use. Take measures to prevent the build-up of electrostatic charge.

7.2 Conditions for safe storage, including any incompatibilities:

Store in a cool dry area away from heat and sources of ignition. Recommended storage temperature: 10 °C to 30 °C. Keep containers out of direct sunlight. Keep containers closed when not in use. Rotate stock and check regularly for damaged items.

7.3 Specific end use(s):

Use only for Non Destructive Testing (NDT) applications.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Components with workplace control parameters:

Occupational exposure figures have been set for some of the components of this preparation based on EH-40 (latest revision) or manufacturers' recommendation.

TID = Total inhalable dust; **MRL** = Manufacturers' recommended limit; **WEL** = Workplace exposure limit

<u>Ingredient name</u>	<u>STD</u>	<u>LT Exp (8 Hrs)</u>	<u>ST Exp (15 Min)</u>
Distillates (petroleum), hydrotreated light	MRL	5 mg/m ³ (Oil mist)	10 mg/m ³ (Oil mist)

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8.2 Exposure controls:

Concentrations of product vapours and mists in the working atmosphere must be kept as low as is reasonably practicable. Exposure should be minimised by the use of appropriate containment, engineering control and ventilation measures. Where this is not possible, personal protective equipment should be worn as indicated below where appropriate.

Occupational exposure controls:

- Eye/face protection:** Safety glasses with side-shields conforming to EN166.
- Hand/skin protection:** Use chemical resistant gloves recommended by glove manufacturer as being suitable for kerosenes, if hand exposure is unavoidable. Marigold blue nitrile, Long Nitrosolve or Green Supersolve (breakthrough time 480 minutes, permeation rate 96 mg/m² after breakthrough, degradation level 2) are suitable, although other types may be more suitable in other circumstances.
The selected protective gloves are required to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.
- Body protection:** Impervious clothing, flame retardant antistatic protective clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
- Respiratory protection:** Use a respirator type ABEK (EN 14387) filter cartridge if spraying in confined or unventilated areas.

For nuisance exposures use type P1 (EU EN 143) particle respirator. For higher level protection use type ABEK-P3 (EU EN 143) respirator cartridges. Use respirators and components tested and approved under CEN standards.
- Environmental exposure controls:** Avoid any release to the environment.

9. PHYSICAL & CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:

APPEARANCE	:	Aerosol containing mobile black liquid.
ODOUR	:	Mild hydrocarbon.
pH	:	Neutral.
BOILING POINT	:	230 °C (liquid).
MELTING POINT	:	No data available.
FLASH POINT (PMCC)	:	-40 °C (Aerosol propellant).
FLAMMABILITY (Limits in Air)	:	1-6% (Vol %).
AUTOFLAMMABILITY	:	> 200 °C.
EXPLOSIVE PROPERTIES	:	No data available.
OXIDISING PROPERTIES	:	No data available.
VAPOUR PRESSURE	:	< 0.5 mm Hg @ 20 °C.
VAPOUR DENSITY (Air = 1)	:	> 1.
RELATIVE DENSITY	:	0.80 g/cm ³ .
SOLUBILITY IN WATER	:	Negligible.
PARTITION COEFFICIENT n-octanol/water	:	No data available.
EVAPORATION RATE (BuAc = 100)	:	< 0.1.
VISCOSITY (ASTM D-445)	:	2.5 cSt @ 38 °C.

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Note: Properties related to the bulk product only unless otherwise stated.

9.2 Other information:

No other information.

10. STABILITY & REACTIVITY

10.1 Reactivity:	No data available.
10.2 Chemical stability:	Stable under normal conditions of use and applications.
10.3 Possibility of hazardous reaction:	No data available.
10.4. Conditions to avoid:	Keep away from sources of ignition, hot surfaces, direct sun light and static discharge.
10.5. Incompatible materials:	Strong oxidising agents. Acids and alkalis.
10.6. Hazardous decomposition products:	None under normal conditions of storage and use. Smoke, soot and oxides of carbon on combustion.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:

Acute toxicity:	> 5000 mg/Kg Sprague Dawley rats – OECD Guideline 420 (Acute Oral Toxicity – Fixed Dose Method) (Petroleum distillates).
Skin corrosion/irritation:	Skin – rabbit – Not irritating – OECD Test Guideline 404 (Petroleum distillates).
Eye corrosion/irritation:	Eye – Rabbit – Non irritating – EPA OTS 798.4500 (Acute Eye Irritation) (Petroleum distillates).
Sensitisation:	Non sensitising – OECD Guideline 406 (Skin Sensitisation) (Petroleum distillates).
Repeated dose toxicity:	No effects known (Petroleum distillates).
Carcinogenicity:	No data available.
Germ cell mutagenicity:	No data available.
Toxicity for reproduction:	No data available.

Potential health effects:

Inhalation:	May be harmful if inhaled. Causes respiratory tract irritation.
Ingestion:	Not a likely route of entry, however, may be harmful if swallowed. Ingestion may cause irritation of the mouth, throat and digestive track. Small amounts of product aspirated into the respiratory system during ingestion or from vomiting may cause bronchopneumonia or pulmonary edema.
Eye contact:	May cause irritation due to strong solvent action.

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Skin contact: May be harmful if absorbed through skin. May cause skin irritation.

12. ECOLOGICAL INFORMATION

Based on data for component materials.

- 12.1 Toxicity:** LL50 – O. mykiss (Rainbow trout) – 2-5 mg/l – 96 h
OECD Guideline 203 (Petroleum distillates).
- 12.2 Persistence and degradability:** Readily biodegradable.
- 12.3 Bioaccumulative potential:** No data available.
- 12.4 Mobility in soil:** No data available.
- 12.5 Results of PBT and vPvB assessment:** This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
- 12.6. Other adverse effects:** No data available.

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods:

Dispose of waste and residues in accordance with local authority requirements. Seek the advice of an approved waste disposal contractor for disposal at a licensed facility in accordance with local, state or national legislation.

14. TRANSPORT INFORMATION

This product is packed in accordance with the Limited Quantity Provisions of ADR, IMDG, and IATA. These provisions allow transport of aerosols of less than 1 litre packed in cartons of less than 30 kg gross weight to be exempt from control providing that they are labelled in accordance with the requirements of these regulations to show that they are being transported as Limited Quantities.

14.1 UN number:

ADR/RID: 1950

IMDG: 1950

IATA: 1950

14.2 UN proper shipping name: AEROSOLS, flammable.

ADR/RID:

AEROSOLS, flammable.

IMDG:

AEROSOLS, flammable.

IATA:

AEROSOLS, flammable.

14.3 Transport hazard class(es):

ADR/RID: 2.1

IMDG: 2.1

IATA: 2.1

14.4 Packaging group:

ADR/RID: N/A

IMDG: N/A

IATA: N/A

14.5 Environmental hazards:

ADR/RID: No

IMDG: No

IATA: No

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14.6 Special precautions for user:

Not applicable.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code:

Not applicable.

15. REGULATORY INFORMATION

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture:

No data available.

15.2 Chemical safety assessment:

No Chemical Safety Assessment has been carried out for this mixture by the supplier.

16. OTHER INFORMATION

Risk phrases and safety phrases in full:

R12	Extremely flammable.
R65	Harmful: may cause lung damage if swallowed.
S9	Keep container in a well ventilated place.
S16	Keep away from sources of ignition – No smoking.
S23	Do not breathe vapour/spray.
S33	Take precautionary measures against static discharges.
S51	Use only in well ventilated areas.

Extra label elements according to Aerosol Dispenser Directive 75/324/EC:

Pressurised container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use. Do not spray on a naked flame or any incandescent material.

Preparations classified as harmful on the basis of an aspiration hazard need not be labelled as harmful with R65 when placed on the market in aerosol containers or in containers fitted with a sealed spray attachment. (EU-Directive 67/548 Annex VI 9.4).

Regulatory references:

- Chemical (Hazard Information & Packaging for Supply) Regulations 2009 Chemicals (CHIP 4).
- Commission regulation (EU) 453/2010.
- Control of Substances Hazardous to Health Regulations 2002.
- Dangerous Substances Directive 67/548/EEC as modified.
- Dangerous Preparations Directive 1999/45/EC.
- EC Directive 91/155/EEC.
- Hazardous waste regulations 2005.
- Health & Safety at Work Act 1974.
- Occupational Exposure Limits EH40/2005.
- REACH Directive (EC) 1907/2006.
- The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment (Amendment) Regulations 2011.

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DISCLAIMER

The information and recommendations contained herein are based upon data believed to be up-to-date and correct. However, no guarantee or warranty of any kind, express or implied, is made with respect to the information and recommendations contained herein. We accept no responsibility and disclaim all liability for any harmful effects that may be caused by (incorrect) use, handling, purchase, resale, or exposure to our product. Customers and users of our product must comply with all applicable health and safety laws, regulations, and orders. In particular, they are under an obligation to carry out a risk assessment for the particular work places and to take adequate risk management measures in accordance with the national implementation legislation of EU Directives 89/391/EEC and 98/24/EC.

Revision Summary: Replaces Rev 07 (04/01/2011). Safety Data Sheet update in compliance with the requirements of Regulation (EC) No. 1907/2006 and Regulation (EU) No. 453/2010.