

# 14HF

## Oil-based Fluorescent Magnetic Ink

MAGNAGLO® 14HF is an oil-based, ready-to-use fluorescent ink for wet method magnetic particle testing. It gives clear bright yellow/green indications when viewed in a darkened area under UV(A) of peak wavelength 365nm.



Used in conjunction with suitable magnetising equipment, 14HF will locate medium-fine surface and slightly sub-surface defects. 14HF is widely regarded as the test material of choice for aerospace applications.

### FEATURES

- Ready-to-use
- Clear, bright indications under UV light
- Low maintenance, oil-based suspension
- High sensitivity
- Excellent fluorescent contrast for quick identification and better inspection quality
- Excellent particle mobility
- Good dispersion stability
- Protects parts and equipment against corrosion
- Great concentration consistency
- Superior surface wetting
- Even surface coverage for better detection

### APPLICATIONS

**Defect location: surface and slightly subsurface**

#### Ideal for:

- Detecting very fine to fine discontinuities
- Critical applications
- After secondary processing
- In-service inspections
- High strength alloys

#### Ideal for:

- Inclusions
- Seams
- Shrink cracks
- Tears
- Laps
- Flakes
- Welding defects
- Grinding cracks
- Quenching cracks
- Fatigue cracks

### SPECIFICATION COMPLIANCE

- AMS2641
- AMS3044
- AMS3045
- AMS3046 (Aerosols only)
- ASME BPVC-V
- ASTM E709
- ASTM E1444/E1444M
- EN ISO 9934-2
- MIL-STD-2132
- Rolls Royce RRP 58004 (CSS 231)
- SAFRAN In 5300
- SNECMA DMR70-520

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## COMPOSITION

A suspension of magnetic particles in a high-flash, low-odour petroleum distillate.

## PRODUCT PROPERTIES

<b>Form and colour</b>	Brown liquid
<b>Flash point</b>	> 93°C
<b>SAE sensitivity</b>	8
<b>Particle size range</b>	5 - 12 µm
<b>Settlement volume</b>	0.15 - 0.25 ml

Like all Magnaflux materials, 14HF is closely controlled to ensure batch-to-batch consistency, optimum process control and inspection reliability.

## USER RECOMMENDATIONS

<b>NDT Method</b>	Magnetic Particle Testing, Fluorescent, Wet Method
<b>Storage temperature</b>	10°C to 30°C
<b>Usage temperature</b>	-5°C to 48°C
<b>Suspension vehicle</b>	Carrier II
<b>Magnetic particles</b>	14A, MG 410
<b>Cleaner</b>	SKC-S
<b>UV lamps</b>	EV6000, ST700
<b>Accessories</b>	Centrifuge Tube, MTU No.3 Test Block (EN ISO 9934-2)

## INSTRUCTIONS FOR USE

Clean the component before testing to reduce the risk of contamination and provide a suitable test surface.

Mix the ink thoroughly and keep it agitated during testing.

Apply the ink by spraying, flooding or immersion, depending on your chosen method (see below):

### Wet continuous method

Apply the ink to all surfaces of the component and apply a magnetising current. Remember to stop the flow of ink before the current is switched off, otherwise there is a risk that the force of the ink flood may wash away indications.

### Wet residual method

This method is generally less sensitive than the continuous method and is more susceptible to rapid particle depletion and bath contamination.

- Pre-magnetise the part to be tested.
- Immerse the part in a bath of the ink.
- Remove it and allow it to drain.
- Inspect the part.

During use, the magnetic content of any ink bath will become depleted so you will need to check your bath strength at least once each day. The most widely-used way of checking an ink's settlement volume is by using a graduated ASTM pear-shaped centrifuge tube.

When the settlement volume approaches the lower limit (0.15 ml), check the bath. If the bath appears contaminated, or if it has been in use for a long time, replace the contents. If it is still clean and uncontaminated, add some 14A powder.

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After inspection, remember to completely de-magnetise your component before cleaning, to ensure easy removal of any residual powder particles.

## PACKAGING AND PART NUMBERS



008A105 (x 10)



058C006 (x 4)



058C007

## HEALTH AND SAFETY

Review all relevant health and safety information before using this product. For complete health and safety information, refer to the Safety Data Sheets, which are available at [www.magnaflux.eu](http://www.magnaflux.eu)

# SAFETY DATA SHEET



Version 17.2 replaces Version 17.1  
Revision date: 22.08.2018  
According to (EU) No. 2015/830

## SECTION 1

### IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING

- 1.1 Product identifier:** **MAGNAGLO® 14HF**
- 1.2 Relevant identified uses of the mixture and uses advised against:**  
**Relevant identified uses:** Fluorescent magnetic ink used in Magnetic Particle Inspection (MPI).  
**Uses advised against:** This product is not recommended for any use other than the identified uses above.
- 1.3 Details of the supplier of the safety data sheet**  
**Manufacturer:** Magnaflux® (A Division of ITW Ltd)  
**Address:** Faraday Road, South Dorcan Industrial Estate, Swindon, UK  
**Postcode:** SN3 5HE  
**Telephone/fax number:** Telephone: +44 (0)1793 524566  
Fax: +44 (0)1793 490459  
Web: [www.eu.magnaflux.com](http://www.eu.magnaflux.com)  
**Email address of competent person responsible for SDS:** support.eu@magnaflux.com  
**National contact:** None appointed.
- 1.4 Emergency telephone number:** DURING OFFICE HOURS, CALL  
T: +44 (0)1793 524566 (English only)  
**Opening hours:** Office hours (GMT) Monday - Thursday 8am - 5pm, Friday 8am - 4pm  
OUT OF OFFICE HOURS, CALL  
T: +44(0)203 394 9866

## SECTION 2

### HAZARDS IDENTIFICATION

- 2.1 Classification of the substance or mixture:**  
**Classification according to Regulation (EC) No 1272/2008 (CLP):** **Physical and Chemical Hazard:** None  
**Health Hazard:** Asp. Tox. 1 H304  
**Environmental Hazard:** None  
**Additional information:** EUH066  
EUH208  
For full text of hazard statements and EU hazard statements see SECTION 16.

# SAFETY DATA SHEET

2.2

## Label Elements:

Labelling according to regulation (EC) No 1272/2008 [CLP]

## Hazard Pictograms:



## Signal Word:

Danger

## Hazard Statement(s):

H304: May be fatal if swallowed and enters airways.

## Precautionary Statement(s):

P301+P310: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician  
P331 : Do NOT induce vomiting

P405: Store locked up

P501: Dispose of contents/container to hazardous waste or special collection point.

P280: Wear protective gloves/protective clothing/eye protection/face protection.

P333+P313: If skin irritation or rash occurs: Get medical advice/attention.

## Supplementary Precautionary Statement(s):

EUH066: Repeated exposure may cause skin dryness and cracking.

## Supplementary Hazard Information (EU)

EUH208: Contains 2-hydroxy-4-(n-octyloxy) benzophenone. May produce an allergic reaction.

## Hazard Determining Component(s)

Hydrocarbons C12-C15 n-alkanes, isoalkanes, cyclics, < 2% aromatics.

2-hydroxy-4-(n-octyloxy) benzophenone

2.3

## Other hazards:

Spilled liquid could present a slip hazard.

## SECTION 3

### COMPOSITION / INFORMATION ON INGREDIENTS

#### 3.2 Mixtures

Ingredient Name	CAS No	EC No	REACH Registration Number	% Weight	Classification according to Regulation (EC) No 1272/2008 [CLP]	Additional information
Hydrocarbons C12-C15 n-alkanes, isoalkanes, cyclic, < 2% aromatics		920-107-4	01-2119453414	> 75	Asp. Tox. 1: H304	EUH066
2-hydroxy-4-(n-octyloxy) benzophenone	1843-05-6	217-421-2		< 0.2	Skin Sens. 1B H317 Aquatic Chronic 4 H413	None

*Note: Hazard statement(s) in this section apply only to raw materials, not necessarily to finished products.*

*\*See Section 16 for hazard statement(s) text in full.*

## SECTION 4

### FIRST AID MEASURES

4.1

## Description of first aid measures:

### General notes:

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

### Following inhalation:

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

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<b>Following skin contact:</b>	Flush with water, use soap if available. Contaminated clothing should be washed before re-use. If skin irritation or rash occurs: Get medical advice/attention.
<b>Following eye contact:</b>	Flush eyes with large amounts of water for at least 10 minutes. Seek medical attention if irritation persists.
<b>Following ingestion:</b>	Do NOT induce vomiting. If vomiting occurs, keep head low so that stomach contents don't enter the lungs. Never give anything by mouth to an unconscious person. Seek medical attention immediately.
<b>Self-protection of the first aider:</b>	No action shall be taken involving any personal risk or without suitable training. If it is suspected that the mixture is still present, wear appropriate personal protective equipment.

**4.2 Most important symptoms, both acute and delayed:**  
May cause lung damage if swallowed. No delayed effects known.

**4.3 Indication of any immediate medical attention and special treatment needed:**  
None known.

## SECTION 5 FIREFIGHTING MEASURES

<b>5.1 Extinguishing media:</b>	
<b>Suitable extinguishing media:</b>	Carbon dioxide, foam, dry chemical, water fog or spray.
<b>Unsuitable extinguishing media:</b>	Do not use water jet.
<b>5.2 Special hazards arising from the substance or mixture:</b>	Evacuate immediate area. If possible keep unaffected containers cool with water spray.
<b>Hazardous combustion products:</b>	Smoke, soot and oxides of carbon. Burning vapour may give off toxic fumes.
<b>5.3 Advice for fire-fighter:</b>	Self contained breathing apparatus and full protective clothing must be worn if necessary.

## SECTION 6 ACCIDENTAL RELEASE MEASURES

<b>6.1 Personal precautions, protective equipment and emergency procedures:</b>	
Suitable protective equipment (see Section 8) should be worn to prevent any contamination of skin, eyes and personal clothing.	
<b>For non-emergency personnel:</b>	Remove ignition sources. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Vapours are likely to accumulate in low areas.
<b>For emergency responders:</b>	Keep unnecessary people at a safe distance. Remove ignition sources. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Vapours are likely to accumulate in low areas.

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- 6.2 Environmental precautions:**  
Prevent liquid from entering drains, sewers and watercourses. Notify the Environment Agency or water authorities if a major spillage occurs.
- 6.3 Methods and material for containment and cleaning up:**  
Eliminate sources of ignition. Take measures to prevent the build-up of electrostatic charge.
- For containment:** Contain spillage, and then collect with non-combustible absorbent material (e.g. sand, earth, diatomaceous earth, vermiculite). Place in a container for disposal according to local/national regulations. Large spills should be pumped into containers pending disposal. Dispose of waste according to local/national regulations.
- For cleaning up:** Allow residues to evaporate. Do not flush away residues with water.
- Other information:** No other information.
- 6.4 Reference to other sections:**  
For Personal Protective Equipment see Section 8. For disposal information see Section 13.

## SECTION 7

## HANDLING & STORAGE

- 7.1 Precautions for safer handling:**  
**Protective Measures:** Wear suitable protective clothing such as chemical resistant gloves, apron and goggles/face mask to protect from splashes. Ensure adequate exhaust ventilation when in use.  
**Measures to prevent fire:** Avoid contact with skin and eyes. Do not breathe product spray or mist. Keep away from sources of ignition. Take measures to prevent the build-up of electrostatic charge.  
**Advice on general occupational hygiene:** Wash thoroughly after handling.
- 7.2 Conditions for safe storage, including any incompatibilities:**  
**Technical measures and storage conditions:** Store in a cool dry area away from heat and sources of ignition. Keep containers tightly closed when not in use.  
**Packaging materials:** Store in original container.  
**Requirements for storage rooms and vessels:** Store locked up. Recommended storage temperature 10 °C to 30 °C. Keep containers out of direct sunlight.  
**Further information on storage conditions:** Rotate stock and check regularly for damaged items.
- 7.3 Specific end use(s):** Use only for Non Destructive Testing (NDT) applications.  
**Recommendations:** See product data sheet for further information.  
**Industrial sector specific solutions:**

# SAFETY DATA SHEET

## SECTION 8

## EXPOSURE CONTROLS / PERSONAL PROTECTION

### 8.1 Control parameters:

#### Occupational exposure limit values:

Occupational exposure figures have been set for some of the components of this preparation based on GESTIS International Limit Values or manufacturers' recommendation.

Ingredient name	Country	Limit value - 8 hours		Limit value - short term	
		ppm	mg /m <sup>3</sup>	ppm	mg /m <sup>3</sup>
Hydrocarbons C12-C15 n-alkanes, isoalkanes, cyclic, < 2% aromatics	Supplier's recommendation	150	1200		

Data obtained from supplier's SDS

**Note:** Where no specific short-term exposure limit is listed, a figure three times the long-term exposure limit should be used.

**Derived No Effect Level (DNEL)** – Hydrocarbons C12-C15 n-alkanes, isoalkanes, cyclic, < 2% aromatics

End User	Exposure Route	Exposure Time	Effects	DNEL
Worker	Inhalation	Long term	Systemic	No threshold effect and/or no dose-response information available.
Worker	Inhalation	Short term	Local	No threshold effect and/or no dose-response information available.
Worker	Dermal	Long term	Systemic	No threshold effect and/or no dose-response information available.

**Note:** The Derived No Effect Level (DNEL) is an estimated safe level of exposure that is derived from toxicity data in accordance with specific guidance within the European REACH regulation. The DNEL may differ from an Occupational Exposure Limit (OEL) for the same chemical. OELs may be recommended by an individual company, a government regulatory body or an expert organization, such as the Scientific Committee for Occupational Exposure Limits (SCOEL) or the American Conference of Governmental Industrial Hygienists (ACGIH). OELs are considered to be safe exposure levels for a typical worker in an occupational setting for an 8-hour work shift, 40 hour work week, as a time weighted average (TWA) or a 15 minute short-term exposure limit (STEL). While also considered to be protective of health, OELs are derived by a process different from that of REACH.

**Predicted No Effect Concentration (PNEC)** - Hydrocarbons C12-C15 n-alkanes, isoalkanes, cyclic, < 2% aromatics

Water - Fresh Water	No data available, testing technically not feasible.
Water - Marine Water	No data available, testing technically not feasible.
Water - Intermittent release	No data available, testing technically not feasible.
Sediment - Fresh water	No data available, testing technically not feasible.
Sediment - Marine water	No data available, testing technically not feasible.
Soil	No data available, testing technically not feasible.
Sewage Treatment plant	No data available, testing technically not feasible.

### 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.

#### Appropriate engineering controls:

Provide adequate ventilation, including appropriate local extraction, to ensure that the defined occupational exposure limits are not exceeded.



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## Personal protection equipment:

### Eye and face protection:

Safety glasses with side-shields conforming to EN166.

### Skin protection - hand:

Protective gloves conforming to EN374-3. Use chemical resistant gloves recommended by glove manufacturer as being suitable for **kerosenes** if hand exposure is unavoidable.

Protective gloves made of **nitrile**, **neoprene** or **PVC** are suitable, although other types may be more suitable in other circumstances.

For prolonged exposure, recommended gloves with protective index 6, > 480 minutes permeation time according to EN374.

As the product is a preparation, consult the glove manufacturer for exact breakthrough time. Glove manufacturer's directions for use should be observed.

### Skin protection – other:

Wear impervious clothing. The type of protective equipment must be selected according to the concentration and amount of dangerous substance at the specific workplace.

### Respiratory protection:

If ventilation is insufficient, suitable respiratory protection must be provided. Chemical respirator with organic vapour cartridge. Use respiratory equipment with gas filter, type A2. EN 136/140/145/143/149.

For higher level protection use type ABEK-P3 (EU EN 143) respirator cartridges. Use respirators and components tested and approved under CEN standards.

### Thermal hazards:

Not applicable.

### Environmental exposure controls:

Avoid any release to the environment.

## SECTION 9

## PHYSICAL & CHEMICAL PROPERTIES

### 9.1

#### Information on basic physical and chemical properties:

Appearance:	Mobile brown liquid.
Odour:	Mild hydrocarbon.
Odour threshold:	No data available.
pH:	Neutral.
Melting point/freezing point:	No data available.
Initial boiling point and boiling range:	230 °C
Flash point (PMCC):	93 °C (minimum)
Evaporation rate (BuAC = 100):	< 0.1
Flammability (solid, gas) (Limits in air):	No data available.
Upper/lower flammability or explosive limits:	1.0 – 6.0 % (Vol%)
Vapour pressure:	< 0.5 mm Hg @ 20 °C
Vapour density (Air = 1):	> 1
Relative density:	0.80 g/cm <sup>3</sup>
Solubility:	Negligible.
Partition coefficient: n-octanol/water:	No data available.
Auto-ignition temperature:	> 200 °C

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Decomposition temperature:	No data available.
Viscosity (ASTM D445):	2.5 mm <sup>2</sup> /s @ 38 °C
Explosive properties:	No data available.
Oxidising properties:	No data available.

**Note: properties relate to the bulk product only unless otherwise stated.**

**9.2 Other information:**  
No other information.

## SECTION 10 STABILITY & REACTIVITY

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

## SECTION 11 TOXICOLOGICAL INFORMATION

<b>11.1</b>	<b>Information on toxicological effects:</b> based on data for component materials.	
	<b>Acute toxicity - oral:</b>	Based on the available data, the classification criteria are not met.
	<b>Acute toxicity – dermal:</b>	Based on the available data, the classification criteria are not met.
	<b>Acute toxicity – inhalation:</b>	Based on the available data, the classification criteria are not met.
	<b>Skin corrosion/irritation:</b>	EUH066: Repeated exposure may cause skin cracking or dryness..
	<b>Serious eye damage/irritation:</b>	Based on the available data, the classification criteria are not met.
	<b>Respiratory sensitisation:</b>	Based on the available data, the classification criteria are not met.
	<b>Skin sensitisation:</b>	EUH208: Contains 2-hydroxy-4-(n-octyloxy) benzophenone. May produce an allergic reaction.
	<b>Germ cell mutagenicity:</b>	Based on the available data, the classification criteria are not met.
	<b>Carcinogenicity:</b>	Based on the available data, the classification criteria are not met.
	<b>Reproductive toxicity:</b>	Based on the available data, the classification criteria are not met.
	<b>STOT single exposure:</b>	Based on the available data, the classification criteria are not met.
	<b>STOT repeated exposure:</b>	Based on the available data, the classification criteria are not met.

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<b>Aspiration hazard:</b>	Asp. Tox. 1 - H304: May be fatal if swallowed and enters airways.
<b>Information on likely Routes of Exposure and Potential Health Effects:</b>	
<b>Inhalation:</b>	May cause irritation to the respiratory system. Contains organic solvents which in case of overexposure may depress the central nervous system causing dizziness and intoxication.
<b>Ingestion:</b>	May be fatal if swallowed and enters airways. Small amounts of product aspirated into the respiratory system during ingestion or from vomiting may cause bronchopneumonia or pulmonary edema. Ingestion may cause irritation of the mouth, throat and digestive tract.
<b>Eye contact:</b>	May cause irritation.
<b>Skin contact:</b>	May be harmful if absorbed through skin. May cause skin irritation. EUH066: Repeated exposure may cause skin cracking or dryness. EUH208: Contains 2-hydroxy-4-(n-octyloxy) benzophenone. May produce an allergic reaction.

**Toxicity Test Results:** based on data for component materials, where available.

Hydrocarbons C12-C15 n-alkanes, isoalkanes, cyclic, < 2% aromatics

Acute Toxicity – oral	LD50 (rat)	> 5000 mg/kg (OECD 401)
Acute Toxicity – dermal	LD50 (rabbit)	> 5000 mg/kg (OECD 402)
Acute Toxicity – inhalation	LC50 (rat)	4951 mg/l (vapours) 4h (OECD403)

2-hydroxy-4-(n-octyloxy) benzophenone

Acute Toxicity – oral	LD50 (rat)	> 10000 mg/kg
Acute Toxicity – dermal	LD50 (rabbit)	No data
Acute Toxicity – inhalation	LC50 (rat)	20 mg/l/4h

**Other Information:** No other information.

## SECTION 12 ECOLOGICAL INFORMATION

**Based on data for component materials**

### 12.1 Toxicity:

Hydrocarbons C12-C15 n-alkanes, isoalkanes, cyclic, < 2% aromatics

Fish	Onchorhynchus mykiss	LC0	96h	1000 mg/l
Aquatic Invertebrates				No data available.
Aquatic Plants				No data available
Microorganisms				No data available

2-hydroxy-4-(n-octyloxy) benzophenone

Fish		LC50	96h	> 100 mg/l
Aquatic Invertebrates	Daphnia	EC50	48h	~ 50 mg/l
Aquatic Plants				No data available
Microorganisms	Activated sludge	EC50	3h	> 100 mg/l

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12.2	<b>Persistence and degradability:</b>	<b>Hydrocarbons C12-C15 n-alkanes, isoalkanes, cyclic, &lt; 2% aromatics</b> Expected to be biodegradable.
12.3	<b>Bioaccumulative potential:</b>	<b>Hydrocarbons C12-C15 n-alkanes, isoalkanes, cyclic, &lt; 2% aromatics</b> No data available.
	<b>Partition coefficient: n-octanol/water (log Kow):</b>	<b>Hydrocarbons C12-C15 n-alkanes, isoalkanes, cyclic, &lt; 2% aromatics</b> No data available.
	<b>Bioconcentration factor (BCF):</b>	<b>2-hydroxy-4-(n-octyloxy) benzophenone</b> ca. 6 No data available.
12.4	<b>Mobility in soil:</b>	This product is insoluble in water.
12.5	<b>Results of PBT and vPvB assessment:</b>	This mixture does not contain any substances that are assessed to be a PBT or vPvB.
12.6	<b>Other adverse effects:</b>	No data available.

## SECTION 13

## DISPOSAL CONSIDERATIONS

13.1	<b>Waste treatment methods:</b>	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 national legislation.
	<b>Product/packing disposal:</b>	Empty containers may contain residue and can be dangerous. Keep away from sources of ignition. Do NOT remove labels.
	<b>Waste codes/waste designations according to LoW:</b>	08 03 12* waste ink containing dangerous substances

NOTE: Waste codes are assigned based upon the most common uses for this material and may not reflect contaminants resulting from actual use. Waste producers need to assess the actual process used when generating the waste and its contaminants in order to assign the proper waste code(s).

<b>Waste treatment – relevant information:</b>	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 national legislation
<b>Sewage disposal – relevant information:</b>	Do not empty down the drain.
<b>Other disposal recommendations:</b>	Use a licensed waste contractor.

## SECTION 14

## TRANSPORT INFORMATION

14.1	<b>UN number:</b>	ADR/RID: - IMDG: - IATA: -
14.2	<b>UN proper shipping name:</b>	ADR/RID: Not dangerous goods. IMDG: Not dangerous goods. IATA: Not dangerous goods.

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14.3	<b>Transport hazard class(es):</b>	ADR/RID: - IMDG: - IATA: -
14.4	<b>Packing group:</b>	ADR/RID: - IMDG: - IATA: -
14.5	<b>Environmental hazards:</b>	ADR/RID: - IMDG: - IATA: -
14.6	<b>Special precautions for user:</b>	Not applicable.
14.7	<b>Transport in bulk according to Annex II of Marpol 73/78 and the IBC code:</b>	Not applicable.

## SECTION 15

### REGULATORY INFORMATION

- 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture:**  
**EU Regulations:**  
This data sheet complies with the requirements of Regulation (EC) No 1272/2008 on the classification, labelling and packaging of substances and mixtures.  
Safety data sheet as required by EC-Regulations 1907/2006 and REACH Annex II Amendment (EU) No. 2015/830.  
**Information according to 2013/10/EU and 2008/47/EC amendment of the aerosol directive 75/324/EEC.**  
Not applicable - this product is not an aerosol.  
**National regulations (Germany):**  
**Wassergefährdungsklasse (water hazard class):** WGK1 – Low hazard to waters.  
**TechnischeAnleitungLuft (TA-Luft):** Chapter 5.2.5 Organic Substances, except dusts
- 15.2 Chemical safety assessment:**  
No chemical safety assessment has been carried out for this mixture by the supplier.

## SECTION 16

### OTHER INFORMATION

- (i) **Indication of changes:**  
Version 17.2 updated in Section 1.3.  
  
Vertical lines on the left hand side indicate an amendment from the previous version.
- (ii) **Abbreviations and acronyms:**
- |           |   |
|-----------|---|
| ADR       | European Agreement concerning the International Carriage of Dangerous Goods by Road (Accord européen relatif au transport international des marchandises Dangereuses par Route) |
| CAS No.   | Chemical Abstracts Service number   |
| CEN       | European Committee for Standardisation  |
| CLP       | Classification, Labelling Packaging Regulation; Regulation (EC) No 1272/2008  |
| ECHA      | European Chemicals Agency   |
| EC50      | Half Maximal Effective Concentration  |
| EC number | EINECS and ELINCS number  |
| EINECS    | European Inventory of Existing Commercial Substances  |
| ELINCS    | European List of notified Chemical Substances   |
| GHS       | Globally Harmonized System  |
| IATA      | International Air Transport Association   |
| IMDG      | International Maritime Dangerous Goods  |
| LC50      | Lethal Concentration to 50% of a test population  |
| LD50      | Lethal Dose to 50% of a test population   |

# SAFETY DATA SHEET

MPI	Magnetic Particle Inspection
NDT	Non-Destructive Testing
OEL	Occupational Exposure Limit
PBT	Persistent, Bioaccumulative and Toxic Substance
PMCC	Pensky-Martens closed cup method
PPE	Personal Protection Equipment
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation EC (No) 1907/2006
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail (Reglement International concernant le transport des marchandises Dangereuses par chemin de fer)
SDS	Safety Data Sheet
STOT RE	Specific Target Organ Toxicity, Repeat Exposure
STOT SE	Specific Target Organ Toxicity, Single Exposure
TA-Luft	Technical Instructions on Air Quality Control (Technische Anleitung zur Reinhaltung der Luft)
vPvB	Very Persistent and Very Bioaccumulative
WEL	Workplace Exposure Limit
WGK	German Water Hazard Class (Wassergefährdungsklasse)

**(iii) Key literature and sources of data:**

- Supplier's safety data sheets for components listed in Section 3.
- European Chemicals Agency, <http://echa.europa.eu/>
- GESTIS International Limit Values Database, [http://limitvalue.ifa.dguv.de/Webform\\_gw.aspx](http://limitvalue.ifa.dguv.de/Webform_gw.aspx)
- Occupational Exposure Limits EH40/2005.
- Commission regulation (EU) 2015/830.
- Control of Substances Hazardous to Health Regulations 2002.
- Hazardous waste regulations 2005.
- Health & Safety at Work Act 1974.
- Regulation (EC) No. 1907/2006 (REACH).
- Regulation (EC) No. 1272/2008 (CLP)

**(iv) Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 (CLP):**

Classification according to Regulation (EC) No 1272/2008	Classification procedure
Asp. Tox. 1 H304	Calculation
EUH066	Calculation
EUH208	Calculation

**(v) Hazard statements (number and full text):**

H304: May be fatal if swallowed and enters airways

H317: May cause an allergic skin reaction

H413: May cause long lasting harmful effects to aquatic life

EUH066: Repeated exposure may cause skin dryness or cracking

EUH208: Contains 2-hydroxy-4-(n-octyloxy) benzophenone. May produce an allergic reaction.

**Hazard Class and Category Code (full text):**

Aquatic Chronic 4: Hazardous to the aquatic environment

Asp. Tox. 1: Aspiration hazard

Skin Sens. 1B: Respiratory/skin sensitisation

**Relevant precautionary statements (number and full text):**

P301+P310: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician

P331 : Do NOT induce vomiting

P405: Store locked up

P501: Dispose of contents/container to hazardous waste or special collection point.

**(vi) Training advice:**

Chemical hazard awareness training, incorporating labelling, Safety Data Sheets (SDS), Personal Protective Equipment (PPE) and hygiene. Chemical hazard risk assessment. Provide adequate information, instruction and training to operators.

# SAFETY DATA SHEET

## 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 amended by Directive 2014/27/EU.

<b>Revision summary:</b>	<b>Revision Comments</b>	This SDS is valid from the Revision Date. If you require a SDS for the product manufactured before the revision date please contact us at support.eu@magnaflux.com	
	<b>Revision Date</b>		22.08.2018
	<b>Version</b>		17.2