

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:** ZYGLO® ZP-9F - aerosol
- 1.2 Relevant identified uses of the mixture and uses advised against:**
Relevant identified uses: Solvent developer used in fluorescent and visible penetrant inspection.
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
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:** Aerosol 1 H222, H229
Health Hazard: Eye Irrit. 2 H319
STOT SE 3 H336
Environmental Hazard: None
Additional information EUH066

For full text of hazard statements and EU hazard statements see SECTION 16.

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2.2

Label Elements:

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

Hazard Pictograms:



Signal Word:

Danger

Hazard Statement(s):

H222: Extremely flammable aerosol.

H229: Pressurised container: may burst if heated.

H319: Causes serious eye irritation.

H336: May cause drowsiness or dizziness.

Precautionary Statement(s):

P210: Keep away from heat, sparks, open flames and hot surfaces. No smoking.

P211: Do not spray on an open flame or other ignition source.

P251: Do not pierce or burn, even after use.

P261: Avoid breathing vapours.

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

P410 + P412: Protect from sunlight. Do not expose to temperatures exceeding 50 °C.

Supplementary Precautionary Statement(s):

P264: Wash thoroughly after handling.

P271: Use only outdoors or in a well ventilated area.

P304 + P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes.

Remove contact lenses if present and easy to do – continue rinsing.

P337+P313: If eye irritation persists get medical advice/attention.

P303+P361+P353: IF ON SKIN (or hair):

Take off immediately all contaminated clothing. Rinse skin with water.

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

EUH066: Repeated exposure may cause skin dryness and cracking.

Acetone, Propan-2-ol

Supplementary Hazard Information (EU)

Hazard Determining Component(s)

2.3

Other hazards:

Pressurised container: protect from sunlight and do not expose to temperatures exceeding 50 °C.

Vapours can form explosive mixtures in air.

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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
Acetone	67-64-1	200-662-2	01-2119471330-49	55 – 80	Flam. Liq 2 H225 Eye Irrit. 2 H319 STOT SE3 H336	EUH066
Propan-2-ol	67-63-0	200-661-7	01-2119457558-25	< 25	Flam. Liq 2 H225 Eye Irrit. 2 H319 STOT SE3 H336	-
Pentaerythritol	115-77-5	204-104-9	01-2119473985-20	< 15	Not classified	Has WEL
Hydrocarbons, C3-4-rich petroleum distillate petroleum gas (1,3 butadiene < 0.1%)	68512-91-4	270-990-9	(1)	10-35	Press. Gas H280 Flam. Gas 1 H220	(2)
1. Exempted from the obligation to register in accordance with art.2(7)(a) of REACH Regulation No 1907/2006						
2. Not classified as carcinogen, less than 0.1% w/w 1,3 butadiene (EINECS no 203-450-8)						

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 unconscious place in the recovery position. If not breathing give artificial respiration.

Following skin contact:

Seek medical attention if symptoms occur. Immediately remove contaminated clothing. Flush with water, use soap if available. Contaminated clothing should be washed before re-use. Seek medical attention if irritation persists.

Following eye contact:

Flush eyes with large amounts of water for at least 10 minutes. Check for and remove any contact lenses if easy to do. Continue rinsing. Seek medical attention if irritation persists.

Following ingestion:

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

Self-protection of the first aider:

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:

Irritating to eyes. No delayed effects known.

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

None known.

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SECTION 5

FIREFIGHTING MEASURES

- 5.1 Extinguishing media:**
Suitable extinguishing media: Foam, carbon dioxide, dry powder or other inert material.
Unsuitable extinguishing media: Do not use water jet.
- 5.2 Special hazards arising from the substance or 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.
Hazardous combustion products: Smoke, soot and oxides of carbon. Burning vapour may give off toxic fumes.
- 5.3 Advice for fire-fighter:**
Warn firefighters that aerosols are involved.
Self contained breathing apparatus and full protective clothing must be worn.
Water spray should be used to cool containers.
Fire water run-off must not be allowed to contaminate ground, or enter drains, sewers or water courses.

SECTION 6

ACCIDENTAL RELEASE MEASURES

- 6.1 Personal precautions, protective equipment and emergency procedures:**
Suitable protective equipment (see Section 8) should be worn to prevent any contamination of skin, eyes and personal clothing.
For non-emergency personnel: Remove ignition sources. Avoid breathing vapours, mist or gas and ensure adequate ventilation.
For emergency responders: Remove ignition source. Avoid breathing vapours and ensure adequate ventilation. Keep unnecessary people at a safe distance.
- 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 product contaminating soil.
- 6.3 Methods and material for containment and cleaning up:**
Ventilate well. Eliminate sources of ignition. Take measure 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) and place in a UN approved container for disposal.
Large spills should be pumped (using an earthed explosion proof pump) into UN approved containers pending disposal. Dispose or waste according to local/national regulations.
For cleaning up: Rinse site with copious amounts of water, which should not be allowed into drains, sewers or watercourses.
- 6.4 Other information:** No other information.
Reference to other sections:
For Personal Protective Equipment see Section 8. For disposal information see Section 13.

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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. Avoid contact with skin and eyes. Do not breathe product spray or mist. Ensure adequate exhaust ventilation when in use. Aerosol contents are highly flammable and volatile. Keep away from sources of ignition - no smoking. Take measures to prevent the build-up of electrostatic charge. Equipment should be earthed. Use explosion proof electrical/ventilation/lighting equipment. Use only non-sparking tools. Wash thoroughly after handling.
- Measures to prevent fire:**
- Advice on general occupational hygiene:**
- 7.2 Conditions for safe storage, including any incompatibilities:** Store in original container in a cool dry area away from heat and sources of ignition.
Technical measures and storage conditions: Store in original container.
Packaging materials:
- Requirements for storage rooms and vessels:** Pressurised container: protect from sunlight and do not expose to temperatures exceeding 50 °C. Recommended storage temperature 10 °C to 30 °C.
 Rotate stock and check regularly for damaged items.
- Further information on storage conditions:**
- 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:

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 ³	ppm	mg /m ³
Acetone	UK	500	1210	1500	3620
	Germany (AGS)	500	1200	1000 (1)	2400 (1)
	Sweden	250	600	500 (1)	1200 (1)
	EU	500	1210		
Propan-2-ol	UK	400	999	500	1250
	Germany (AGS)	200	500	400 (1)	1000 (1)
	Sweden	150	350	250 (1)	600 (1)
Pentaerythritol (inhalable aerosol)	UK		10		20
	Sweden		5		
Pentaerythritol (respirable aerosol)			4		

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(1) 15 minutes average value

Data obtained from GESTIS International Limit Values, EH40, 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) – Acetone

End User	Exposure Route	Exposure Time	Effects	DNEL
Worker	Inhalation	Long term	Systemic	1210 mg/m ³
Worker	Inhalation	Short term	Local	2420 mg/m ³
Worker	Dermal (skin)	Long term	Systemic	186 mg/kg bw/day

Derived No Effect Level (DNEL) –Propan-2-ol

End User	Exposure Route	Exposure Time	Effects	DNEL
Worker	Inhalation	Long term	Systemic	500 mg/m ³
Worker	Dermal	Long term	Systemic	888 mg/kg/day

Derived No Effect Level (DNEL) – Pentaerythritol

End User	Exposure Route	Exposure Time	Effects	DNEL
Worker	Inhalation	Long term	Systemic	3.5 mg/m ³
Worker	Inhalation	Short term	Systemic	No hazard identified
Worker	Dermal	Long term	Systemic	1 mg/kg bw/day

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)

	Acetone	Propan-2-ol	Pentaerythritol
Water - Fresh Water	10.6 mg/l	140.9 mg/l	1 mg/l
Water - Marine Water	1.06 mg/l	140.9 mg/l	0.1 mg/l
Water - Intermittent release	21 mg/l	140.9 mg/l	1 mg/l
Sediment - Fresh water	30.4 mg/ kg dw	552 mg/kg	No data
Sediment - Marine water	3.04 mg/kg dw	552 mg/kg	No data
Soil	33.3 mg/kg dw	28 mg/kg	No data
Sewage Treatment plant	100 mg/l	2251 mg/kg	50 mg/l

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.
Provide eye wash station.

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 the glove manufacturer as being suitable for **acetone** if hand exposure is unavoidable. Protective gloves made of butyl rubber are

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	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, flame retardant antistatic protective 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. Use a respirator with appropriate canister type filter cartridge if spraying in confined or unventilated areas. Use respiratory equipment with gas filter type A2P3 (EN141). 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:	Aerosol containing mobile white liquid.
	Odour:	Solvent – alcoholic.
	Odour threshold:	No data available.
	pH:	Neutral.
	Melting point/freezing point:	No data available.
	Initial boiling point and boiling range:	57 °C.
	Flash point (PMCC):	-40 °C (aerosol propellant).
	Evaporation rate (BuAC = 100):	770.
	Flammability (solid, gas) (Limits in air):	No data available.
	Upper/lower flammability or explosive limits:	2 – 13% (Vol %)
	Vapour pressure:	18.5 mm Hg @ 20 °C.
	Vapour density (Air = 1):	> 1.
	Relative density:	0.83 g/cm ³ .
	Solubility:	100%.
	Partition coefficient: n-octanol/water:	No data available.
	Auto-ignition temperature:	> 400 °C.
	Decomposition temperature:	No data available.
	Viscosity (ASTM D445):	< 20 mm ² /s @ 20 °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.
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SECTION 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 reactions:	No data available.
10.4	Conditions to avoid:	Keep away from sources of ignition, hot surfaces, direct sunlight and static discharge.
10.5	Incompatible materials:	Strong oxidising agents. Acids and alkalis.
10.6	Hazardous decomposition materials:	None under normal conditions of use. Smoke, soot and oxides of carbon on combustion.

SECTION 11

TOXICOLOGICAL INFORMATION

11.1 **Information on toxicological effects:** based on data for component materials.

Acute toxicity - oral:	Based on the available data, the classification criteria are not met.
Acute toxicity – dermal:	Based on the available data, the classification criteria are not met.
Acute toxicity – inhalation:	Based on the available data, the classification criteria are not met.
Skin corrosion/irritation:	EUH066: Repeated exposure may cause skin dryness or cracking.
Serious eye damage/irritation:	Eye Irrit. 2 H319: Causes serious eye irritation.
Respiratory sensitisation:	Based on the available data, the classification criteria are not met.
Skin sensitisation:	Based on the available data, the classification criteria are not met.
Germ cell mutagenicity:	Based on the available data, the classification criteria are not met.
Carcinogenicity:	Based on the available data, the classification criteria are not met.
Reproductive toxicity:	Based on the available data, the classification criteria are not met.
STOT single exposure:	STOT SE3 H336: May cause drowsiness or dizziness. Affected organs: narcotic effects. Route of exposure: inhalation.
STOT repeated exposure:	Based on the available data, the classification criteria are not met.
Aspiration hazard:	Based on the available data, the classification criteria are not met.
Information on likely Routes of Exposure and Potential Health Effects:	
Inhalation:	Vapours may have a narcotic effect and may cause headache, fatigue, dizziness and nausea.
Ingestion:	Not a likely route of exposure. However, ingestion may cause irritation of the mouth, throat and digestive tract. Adsorption of large amounts may cause systemic effects.
Eye contact:	This mixture is classified as an eye irritant.

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Skin contact:

EUH066: Can cause defatting and dryness of skin, leading to cracking and eczema. Prolonged or repeated exposure may lead to dermatitis.

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

Acetone

Acute Toxicity – oral	LD50 (rat)	5800 mg/kg
Acute Toxicity – dermal	LD50 (rabbit)	> 7400 mg/kg
Acute Toxicity – inhalation	LC50 (rat)	76000 mg/l (vapours) 4 hours

Propan-2-ol

Acute Toxicity – oral	LD50 (rat)	4700 – 5800 mg/kg
Acute Toxicity – dermal	LD50 (rabbit)	13000 mg/kg
Acute Toxicity – inhalation	LC50 (rat)	19000 ppm/8hr

Pentaerythritol

Acute Toxicity – oral	LD50 (rat)	25 500 mg/kg
Acute Toxicity – inhalation	LD50 (rat)	NOEL > 11 mg/l

Other Information:

No other information.

SECTION 12

ECOLOGICAL INFORMATION

Based on data for component materials

12.1 Toxicity:

Acetone

Fish	Onchorhynchus mykiss	LC50	96 hours	5540 mg/l
Aquatic Invertebrates	Daphnia pulex	EC50	48 hours	8800 mg/l
Aquatic Invertebrates	Daphnia magna	EC10	28 days	2212 mg/l
Microorganisms	Activated sludge	EC10	30 mins.	1000 mg/l

Propan-2-ol

Fish	LC50	96h	9640 – 10400 mg/l
Daphnia	EC50	48h	7550 – 13299 mg/l
Algae	IC50	72h	> 1000 mg/l

Pentaerythritol

Fish	LC0	48h	> 5000 mg/l
Daphnia	EC50	24h	38 900 mg/l
Algae	EC3	7 days	16 500 mg/l
Bacteria	EC10	18h	18200 mg/l

12.2 Persistence and degradability:

Readily biodegradable.

12.3 Bioaccumulative potential:

This preparation does not contain any substances expected to be bioaccumulative.

Partition coefficient: n-octanol/water (log Kow):

-0.24 @ 20 °C (acetone)
+0.05 (propan-2-ol)
-1.7 (pentaerythritol)

Bioconcentration factor (BCF):

3 (acetone)

12.4 Mobility in soil:

Acetone and Propan-2-ol: will evaporate into the atmosphere from the surfaces of water and soil.

Pentaerythritol: Not expected to adsorb to the solid phase.

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- 12.5 **Results of PBT and vPvB assessment:** This mixture does not contain any substances that are assessed to be a PBT or vPvB.
- 12.6 **Other adverse effects:** No data available.

SECTION 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 national legislation.
- Product/packing disposal:** Empty containers may contain residual product and flammable vapours. Do not pierce or burn container even after use. Do NOT remove labels. Keep away from sources of ignition.
- Waste codes/waste designations according to LoW:** 16 05 04* gases in pressure containers 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).

- Waste treatment – relevant information:** 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
- Sewage disposal – relevant information:** Do not empty down the drain.
- Other disposal recommendations:** Use a licensed waste contractor.

SECTION 14 TRANSPORT INFORMATION

- 14.1 **UN number:** ADR/RID: UN1950
IMDG: UN1950
IATA: UN1950
- 14.2 **UN proper shipping name:** 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 **Packing group:** ADR/RID: N/A
IMDG: N/A
IATA: N/A
- 14.5 **Environmental hazards:** ADR/RID: No
IMDG: Marine Pollutant: No
IATA: No
- 14.6 **Special precautions for user:**
ADR/RID – Tunnel code: (D)
IMDG – EMS: F-D, S-U
IATA/ICAO – PAX: 203
IATA/ICAO – CAO: 203
- 14.7 **Transport in bulk according to Annex II of Marpol 73/78 and the IBC code:**
Not applicable.

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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 EU 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.

This data sheet is compiled according to Dir 2013/10/EU, 2008/47/EC amendment of aerosol directive 75/324/EEC.

Extra label elements: Pressured 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.

National regulations (Germany):

Wassergefährdungsklasse (water hazard class):

WGK1 - Low hazard to waters.

Technische Anleitung Luft (TA-Luft):

Class 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
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

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	(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
- 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
Aerosol. 1, H222, H229	Test
Eye Irrit. 2 H319	Calculation
STOT SE3 H336	Calculation

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

H220: Extremely flammable gas.
H222: Extremely flammable aerosol.
H225: Highly flammable liquid and vapour.
H229: Pressurised container: may burst if heated.
H280: Contains gas under pressure; may explode if heated.
H319: Causes serious eye irritation.
H336: May cause drowsiness and dizziness.

Hazard Class Category Code (full text):

Aerosol 1: Aerosol
Eye Irrit. 2: Serious eye damage/eye irritation
Flam. Gas. 1: Flammable gas
Flam. Liq. 2: Flammable liquid
Press. Gas: Gases under pressure
STOT SE3: Specific target organ toxicity - single exposure

Relevant precautionary statements (number and full text):

P210: Keep away from heat, sparks, open flames and hot surfaces. No smoking.
P211: Do not spray on an open flame or other ignition source.
P251: Do not pierce or burn, even after use.
P261: Avoid breathing vapours.
P271: Use only outdoors or in a well ventilated area.
P410 + P412: Protect from sunlight. Do not expose to temperatures exceeding 50 °C.
P280: Wear protective gloves / protective clothing / eye protection / face protection.
P304 + P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing.
P337+P313: If eye irritation persists get medical advice/attention.
P303+P361+P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.

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P264: Wash thoroughly after handling.

P501: Dispose of contents/containers 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.

DISCLAIMER

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Revision summary	Revision Comments	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	
	Revision Date		22.08.2018
	Revision Version		17.2