

SAFETY DATA SHEET



Version 15.2 replaces Version 15.1
Revision date: 30/10/2015
According to (EU) No. 2015/830

SECTION 1

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

- 1.1 Product identifier:** **SPOTCHECK® SKL-SP2 - aerosol**
- Relevant identified uses of the mixture and uses advised against:**
Relevant identified uses: Red penetrant used in Non Destructive Testing (NDT) 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: datasheets@magnaflux.co.uk
National contact: None appointed
- 1.4 Emergency telephone number:** T: +44 (0)1793 524566 (office hours)
Opening hours: Office hours (GMT) Monday - Thursday 8am - 5pm, Friday 8am - 4pm
Other comments: Emergency telephone service is provided in English only.

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: None
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:

Hazard Statement(s):

Precautionary Statement(s):

Supplementary Precautionary Statement(s):

Supplementary Hazard Information (EU)

Hazard Determining Component(s)

Danger

H222: Extremely flammable aerosol.

H229: Pressurised container: May burst if heated.

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

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

P251: Do not pierce or burn even after use.

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

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

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

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

EUH066: Repeated exposure may cause skin dryness or cracking.

Not applicable.

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.

Product may stain skin.

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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
HYDROCARBONS C12-C15 n-ALKANES, ISOALKANES, CYCLICS, <2% AROMATICS	-	920-107-4	01-2119453414-43-xxxx	< 50	Asp. Tox. 1, H304 (note 1)	EUH066
Hydrocarbons, C3-4-rich petroleum distillate petroleum gas (1.3 butadiene < 0.1%)	68512-91-4	270-990-9	(note2)	< 40	Press. Gas H280 Flam. Gas 1 H220	(note3)
1,2-Benzenedi-carboxylic acid, di-C8-C10-branched alkyl esters, C9-rich	68515-48-0	271-090-9	01-2119432682-41	< 10	Not classified	Has DNEL
Distillates (petroleum), hydrotreated light naphthenic	64742-53-6	265-156-6	01-2119480375-34-xxxx	< 10	Carc. 1B, H350 (note4); Asp. Tox. 1, H304	-
<ol style="list-style-type: none"> Mixtures classified as Asp. Tox. 1 H304 need not be labelled when placed on the market in aerosol containers or in containers fitted with a sealed spray attachment. Exempted from the obligation to register in accordance with art.2(7)(a) of REACH Regulation No 1907/2006 Not classified as carcinogen, less than 0.1% w/w 1,3 butadiene (EINECS no 203-450-8) The classification as a carcinogen need not apply because the hydrocarbon solvent present, contains less than 3% DMSO extract as measured by IP 346 (Dir. 2001/59/EC, Note L). 						

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 immediately.

Following skin contact:

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

Following eye contact:

Flush eyes with large amounts of water for at least 10 minutes. Seek medical attention if symptoms occur.

Following ingestion:

Unlikely route of exposure. Do NOT induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't enter the lungs. Never give anything by mouth to an unconscious person. Seek medical attention immediately.

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.

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- 4.2 Most important symptoms, both acute and delayed:**
Vapours may cause headache, fatigue, dizziness and nausea. Droplets of the product aspirated into the lungs through ingestion or vomiting may cause a serious chemical pneumonia. If swallowed, DO NOT induce vomiting due to aspiration risk posed by petroleum distillates.
- 4.3 Indication of any immediate medical attention and special treatment needed:**
Treat Symptomatically.

SECTION 5 FIREFIGHTING MEASURES

- 5.1 Extinguishing media:**
Suitable extinguishing media: Carbon dioxide, dry powder, alcohol-resistant foam, or water fog.
Unsuitable extinguishing media: Do not use water jet as an extinguisher as this will spread the fire.
- 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: Soot, smoke and oxides of carbon and nitrogen.
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.

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: Shut off ignition source. Avoid breathing vapours, mist or gas and ensure adequate ventilation. Vapours are likely to accumulate in low areas. Avoid contact with skin and eyes.
For emergency responders: Shut off 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:**
Eliminate sources of ignition. Take measures to prevent the build-up of electrostatic charge.

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	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.
	For cleaning up:	Large spills should be pumped (using an earthed explosion proof pump) into UN approved containers pending disposal. Dispose of waste according to local/national regulations
	Other information:	Allow residues to evaporate. Do not flush away residues with water.
	Reference to other sections:	No other information.
6.4	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. Avoid contact with skin and eyes. Do not breathe product mist or spray. 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/ventilating/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: Technical measures and storage conditions: Packaging materials: Requirements for storage rooms and vessels:	Store in a cool dry area away from heat and sources of ignition. Store in original container. Store locked up. 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.
7.3	Further information on storage conditions: Specific end use(s): Recommendations: Industrial sector specific solutions:	
		Use only for Non Destructive Testing (NDT) applications. See product data sheet for further information.

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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
Hydrocarbons C12 - C15 n-ALKANES, ISOALKANES, CYCLICS, < 2% AROMATICS	Supplier's recommendation	150	1200		
1,2-Benzenedicarboxylic acid, di-C8-C10-branched alkyl esters, C9-rich	Supplier's recommendation		5		
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.

DNEL - Hydrocarbons C12 - C15 n-alkanes, isoalkanes, cyclics, < 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 (skin)	Long term	Systemic	No-threshold effect and/or no dose-response information available

DNEL - 1,2-Benzenedicarboxylic acid, di-C8-C10-branched alkyl esters, C9-rich

End User	Exposure Route	Exposure Time	Effects	DNEL
Worker	Inhalation	Long term	Systemic	51.72 mg/m ³
Worker	Dermal (skin)	Long term	Systemic	366 mg/kg bw/day

DNEL - distillates (petroleum), hydrotreated light naphthenic

No data 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, cyclics, < 2% aromatics

No data available, testing technically not feasible

PNEC - distillates (petroleum), hydrotreated light naphthenic

No data available.

PNEC - 1,2-Benzenedicarboxylic acid, di-C8-C10-branched alkyl esters, C9-rich

Soil	30 mg/kg dw
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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.

Appropriate engineering controls:

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

Personal protection equipment:

Eye and face protection:

Safety glasses with side-shields conforming to EN166.

Skin protection - hand:

Protective gloves conforming to EN374 . Use chemical resistant gloves recommended by glove manufacturer as being suitable for kerosenes if hand exposure is unavoidable. Glove manufacturer's directions for use should be observed.

Use protective gloves made of: Nitrile, Neoprene, Polyvinyl chloride (PVC). As the product is a preparation, consult the glove manufacturer for exact breakthrough time.

Skin protection – other:

Wear impervious, flame resistant 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:

Use a respirator with appropriate canister type filter cartridge if spraying in confined or unventilated areas. For nuisance exposures use a chemical respirator with organic vapour cartridge. Use respiratory equipment with gas filter type A2P3 (EN141).

For higher level protection use type ABEK-P3 (EN141) 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 red 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):

-40 °C (aerosol propellant).

Evaporation rate (BuAC = 100):

<0.1

Flammability (solid, gas) (Limits in air):

No data available.

Upper/lower flammability or explosive limits:

1 - 6% (Vol %)

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Vapour pressure:	< 0.5 mm Hg @ 38 °C.
Vapour density (Air = 1):	> 1
Relative density:	0.85 g/cm ³
Solubility:	Negligible
Partition coefficient: n-octanol/water:	3.9 - 6 (distillates (petroleum), hydrotreated light naphthenic)
Auto-ignition temperature:	> 200 °C.
Decomposition temperature:	No data available.
Viscosity (ASTM D445):	3.3 mm ² /s @ 20 °C.
Explosive properties:	Not considered to be explosive.
Oxidising properties:	Does not meet the criteria for oxidising.

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

9.2 Other information:
No other information.

SECTION 10 STABILITY & REACTIVITY

10.1 Reactivity:	No hazardous reactions if stored and handled as prescribed.
10.2 Chemical stability	Stable under normal conditions of use and applications.
10.3 Possibility of hazardous reactions:	No hazardous reactions when stored and handled according to instructions.
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 storage and use. Smoke, soot and oxides of carbon and nitrogen 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 cracking or dryness.
Serious eye damage/irritation:	Based on the available data, the classification criteria are not met.
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:	Not considered to have carcinogenic properties because it contains less than 3% DMSO extract.
Reproductive toxicity:	Based on the available data, the classification criteria are not met.

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STOT single exposure:

Based on the available data, the classification criteria are not met.

STOT repeated exposure:

Based on the available data, the classification criteria are not met.

Aspiration hazard:

Mixtures from Aerosol Dispensers - need not be classified as Asp. Tox. 1 - H304 as the aerosol spray is fine and a pool of product may not be formed in the mouth.

Information on likely Routes of Exposure and Potential Health Effects:

Inhalation:

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.

Ingestion:

Not a likely route of entry, however, may be fatal if swallowed and enters airways. Droplets of the product aspirated into the lungs through ingestion or vomiting may cause a serious chemical pneumonia.

Eye contact:

May cause temporary discomfort.

Skin contact:

Causes skin irritation. EUH066: Repeated exposure may cause skin cracking or dryness.

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

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

Acute Toxicity – oral	LD50 (rat)	> 5000 mg/kg
Acute Toxicity – dermal	LD50 (rabbit)	> 5000 mg/kg
Acute Toxicity – inhalation	LC50 (rat)	> 4951 mg/l (vapours) 4 hours

Distillates (petroleum), hydrotreated light naphthenic

Acute Toxicity - oral	LD50 (rat)	> 5000 mg/kg
Acute Toxicity - dermal	LD50 (rabbit)	> 2000 mg/kg
Acute Toxicity - inhalation	LC50 (rat)	2.18 mg/l 4 hours

1,2-Benzenedicarboxylic acid, di-C8-C10-branched alkyl esters, C9-rich

Acute Toxicity – oral	LD50 (rat)	> 5000 mg/kg
Acute Toxicity – dermal	LD50 (rat)	> 3160 mg/kg
Acute Toxicity – inhalation	LC50 (rat)	4.4 mg/l (4 hours)

Other Information:

No other information.

SECTION 12

ECOLOGICAL INFORMATION

Based on data for component materials

12.1 Toxicity:

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

Fish	Onchorynchus mykiss	LC50	96 hours	1000 mg/l
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Distillates (petroleum), hydrotreated light naphthenic

Fish	Onchorynchus mykiss	LC50	96 hours	> 5000 mg/l
Fish	Pimephales promelas	NOEC	7 days	> 5000 mg/l
Aquatic Invertebrates	Daphnia magna	EC50	48 hours	> 1000 mg/l
Aquatic Invertebrates	Daphnia magna	NOEC	21 days	> 1000 mg/l
Algae	Scenedesmus subspicatus	LC50	96 hours	> 1000 mg/l
Microorganisms	Pseudomonas fluorescens	EC20	6 hours	> 1000 mg/l

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1,2-Benzenedicarboxylic acid, di-C8-C10-branched alkyl esters, C9-rich

Fish	Onchorhynchus mykiss	LC0	96 hours	0.16 mg/l
Fish	Oryzia latipes	NOEC	284 days	18.5 µg/l
Aquatic Invertebrates	Daphnia magna	EC0	48 hours	0.06 mg/l
Aquatic Invertebrates	Daphnia magna	NOEC	21 days	0.0036 mg/l
Aquatic Plants	Pseudokirchneriella subcapitata	NOEC	5 days	1.8 mg/l

- 12.2 Persistence and degradability:** Hydrocarbons C12- C15 n-alkanes, isoalkanes, cyclics, < 2% aromatics: is expected to biodegrade.
Distillates (petroleum), hydrotreated light naphthenic: is not readily biodegradable.
- 12.3 Bioaccumulative potential:** Hydrocarbons C12 - C15 n-alkanes, isoalkanes, cyclics, < 2% aromatics: no data available.
Distillates (petroleum), hydrotreated light naphthenic: Log Pow = 3.9 - 6.
Partition coefficient: n-octanol/water (log Kow): No data available.
Bioconcentration factor (BCF): This product is insoluble in water.
- 12.4 Mobility in soil:** This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
- 12.5 Results of PBT and vPvB assessment:**
- 12.6 Other adverse effects:** No data available.

SECTION 13 DISPOSAL CONSIDERATIONS

- 13.1 Waste treatment methods:** 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.
- Product/packing disposal:** 16 05 04* gases in pressure containers containing dangerous substances.
- Waste codes/waste designations according to LoW:**

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 local, state or national legislation.
Do not empty down the drain.
- Sewage disposal – relevant information:** Use a licensed waste contractor.
- Other disposal recommendations:**

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SECTION 14 TRANSPORT INFORMATION

14.1	UN number:	ADR/RID:	1950
		IMDG:	1950
		IATA:	1950
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:	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.		

SECTION 15 REGULATORY INFORMATION

15.1	<p>Safety, health and environmental regulations/legislation specific for the substance or mixture:</p> <p>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.</p> <p>Information according to 2013/10/EU and 2008/47/EC amendment of the aerosol directive 75/324/EEC. This data sheet is complied according Dir 2013/10/EU, 2008/47/EEC amendment of the aerosol directive 75/324/EEC.</p> <p>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. Mixtures classified as Asp. Tox. 1 H304 need not be labelled when placed on the market in aerosol containers or in containers fitted with a sealed spray attachment.</p> <p>National regulations (Germany): Wassergefährdungsklasse (water hazard class): WGK 1 – Low hazard to waters</p> <p>TechnischeAnleitungLuft (TA-Luft): Class 5.2.5 Organic substances, except dusts.</p>
15.2	<p>Chemical safety assessment: No chemical safety assessment has been carried out for this mixture by the supplier.</p>

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SECTION 16

OTHER INFORMATION

(i) Indication of changes:

This safety data sheet has been updated to meet the requirements of Regulation (EU) No. 2015/830 and Regulation (EC) No. 1272/2008. Removal of the Classification according to 67/548/EEC as amended & Directive 1999/45/EC.

Version 15.2 Also updated in Sections 3, 4, 8, 10, 11 and 16 due to updated safety information from our suppliers.

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 (<i>Accord européen relatif au transport international des marchandises Dangereuses par Route</i>)
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 (<i>Reglement International concernant le transport des marchandises Dangereuses par chemin de fer</i>)
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 (<i>Technische Anleitung zur Reinhaltung der Luft</i>)
vPvB	Very Persistent and Very Bioaccumulative
WEL	Workplace Exposure Limit
WGK	German Water Hazard Class (<i>Wassergefährdungsklasse</i>)

(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.
- REACH Directive (EC) 1907/2006.

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- (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 Method

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

H220: Extremely flammable gas.
H222: Extremely flammable aerosol.
H229: Pressurised container: May burst if heated.
H280: Contains gas under pressure; may explode if heated.
H304: May be fatal if swallowed and enters airways.
H350: May cause cancer.
EUH066: Repeated exposure may cause skin dryness or cracking.

Relevant precautionary statements (number and full text):

P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P211: Do not spray on an open flame or other ignition source.
P251: Do not pierce or burn even after use.
P410+P412: Protect from sunlight. Do not expose to temperatures exceeding 50 °C.
P280: Wear protective gloves/ protective clothing/ eye protection/ face protection.
P501: Dispose of containers and contents to hazardous waste or special waste collection point.
P333+P313: If skin irritation or rash occurs: get medical advice/attention.

- (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

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.

Revision summary: Revision Comments

Revision to take into account Regulation (EC) No 1272/2008 (CLP) and Regulation (EU) No 2015/830. Removal of the Classification according to 67/548/EEC as amended & Directive 1999/45/EC (CHIP4). Version 15.2 Also updated in Sections 3, 4, 8, 10, 11 and 16 due to updated safety information from our suppliers. Vertical lines on the left hand side indicate an amendment from the previous version.
30.10.15
15.2

Revision Date
Version