SAFETY DATA SHEET
FLAWFINDER DYE PENETRANT SPRAY

Section 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name: FLAWFINDER DYE PENETRANT SPRAY

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of substance / mixture: Dye penetrant.

1.3. Details of the supplier of the safety data sheet

Company name: ROCOL
ROCOL House
Swillington
Leeds
West Yorkshire
LS26 8BS
ENGLAND
Tel: +44 (0) 113 232 2700
Fax: +44 (0) 113 232 2740
Email: customer-service@rocol.com

1.4. Emergency telephone number

Emergency tel: +44 (0) 113 232 2600

Section 2: Hazards identification

2.1. Classification of the substance or mixture

Classification under CLP: Flam. Aerosol 1: H222; -: EUH208; -: H229

Most important adverse effects: Contains 1-phenylazo-2-naphthalenol. May produce an allergic reaction. Extremely flammable aerosol. Pressurised container: May burst if heated.

2.2. Label elements

Label elements:

Hazard statements: EUH208: Contains 1-phenylazo-2-naphthalenol. May produce an allergic reaction.
H222: Extremely flammable aerosol.
H229: Pressurised container: May burst if heated.

Hazard pictograms: GHS02: Flame

Signal words: Danger

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

[cont...]
SAFETY DATA SHEET
FLAWFINDER DYE PENETRANT SPRAY

P251: Do not pierce or burn, even after use.
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.
P285: In case of inadequate ventilation wear respiratory protection.
P280: Wear protective gloves/protective clothing/eye protection/face protection.

2.3. Other hazards

PBT: This product is not identified as a PBT/vPvB substance.

Section 3: Composition/information on ingredients

3.2. Mixtures

Hazardous ingredients:

MEDICINAL WHITE OIL - REACH registered number(s): 01-2119487078-27

<table>
<thead>
<tr>
<th>EINECS</th>
<th>CAS</th>
<th>PBT / WEL</th>
<th>CLP Classification</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>232-455-8</td>
<td>8042-47-5</td>
<td>-</td>
<td>Asp. Tox. 1: H304</td>
<td>&gt;50%</td>
</tr>
</tbody>
</table>

HYDROCARBON AEROSOL PROPELLANT (<0.1% 1,3-BUTADIENE) - REACH registered number(s): EXEMPT

<table>
<thead>
<tr>
<th>EINECS</th>
<th>CAS</th>
<th>PBT / WEL</th>
<th>CLP Classification</th>
<th>Percent</th>
</tr>
</thead>
</table>

ODOURLESS KEROSENE - REACH registered number(s): 01-2119456620-43

<table>
<thead>
<tr>
<th>EINECS</th>
<th>CAS</th>
<th>PBT / WEL</th>
<th>CLP Classification</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>926-141-6</td>
<td>64742-47-8</td>
<td>-</td>
<td>Asp. Tox. 1: H304; -: EUH066</td>
<td>10-20%</td>
</tr>
</tbody>
</table>

ACETONE - REACH registered number(s): 01-2119471330-49

<table>
<thead>
<tr>
<th>EINECS</th>
<th>CAS</th>
<th>PBT / WEL</th>
<th>CLP Classification</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>200-662-2</td>
<td>67-64-1</td>
<td>-</td>
<td>Flam. Liq. 2: H225; Eye Irrit. 2: H319; STOT SE 3: H336; -: EUH066</td>
<td>1.0-10%</td>
</tr>
</tbody>
</table>

HYDROTREATED NAPHTHENIC DISTILLATE (NOTE L <3% DMSO EXTRACTABLE COMPONENTS)

<table>
<thead>
<tr>
<th>EINECS</th>
<th>CAS</th>
<th>PBT / WEL</th>
<th>CLP Classification</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>265-097-6</td>
<td>64741-96-4</td>
<td>Substance with a Community workplace exposure limit.</td>
<td>Asp. Tox. 1: H304</td>
<td>1.0-10%</td>
</tr>
</tbody>
</table>

2-NAPHTALENOL, 1-[[4-(PHENYLAZO)PHENYL]AZO]-, AR-HEPTYL AR',AR"-ME DERIVS.

<table>
<thead>
<tr>
<th>EINECS</th>
<th>CAS</th>
<th>PBT / WEL</th>
<th>CLP Classification</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>296-120-8</td>
<td>92257-31-3</td>
<td>-</td>
<td>Repr. 2: H361f</td>
<td>1.0-10%</td>
</tr>
</tbody>
</table>

1-PHENYLazo-2-NAPHTALENOL

<table>
<thead>
<tr>
<th>EINECS</th>
<th>CAS</th>
<th>PBT / WEL</th>
<th>CLP Classification</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>201-635-8</td>
<td>85-83-6</td>
<td>-</td>
<td>Skin Sens. 1: H317; Muta. 2: H341</td>
<td>&lt;0.3%</td>
</tr>
</tbody>
</table>

Section 4: First aid measures

4.1. Description of first aid measures

Skin contact: Wash immediately with plenty of soap and water.
Eye contact: Bathe the eye with running water for 15 minutes.
Ingestion: Wash out mouth with water.
Inhalation: Remove casualty from exposure ensuring one's own safety whilst doing so. If conscious, ensure the casualty sits or lies down. If unconscious and breathing is OK,
place in the recovery position. If unconscious, check for breathing and apply artificial
derivation if necessary. If breathing becomes bubbly, have the casualty sit and provide
oxygen if available. Transfer to hospital as soon as possible.

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

Skin contact: There may be mild irritation at the site of contact.
Eye contact: There may be irritation and redness.
Ingestion: There may be irritation of the throat.
Inhalation: No symptoms.

Delayed / immediate effects: No data available.

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

Immediate / special treatment: Not applicable.

Section 5: Fire-fighting measures

5.1. Extinguishing media

Extinguishing media: Suitable extinguishing media for the surrounding fire should be used. Use water spray
to cool containers.

5.2. Special hazards arising from the substance or mixture

Exposure hazards: In combustion emits toxic fumes.

5.3. Advice for fire-fighters

Advice for fire-fighters: Wear self-contained breathing apparatus. Wear protective clothing to prevent contact
with skin and eyes.

Section 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions: Refer to section 8 of SDS for personal protection details. Turn leaking containers leak-aside up to prevent the escape of liquid. Mark out the contaminated area with signs and
prevent access to unauthorised personnel.

6.2. Environmental precautions

Environmental precautions: Do not discharge into drains or rivers. Contain the spillage using bunding.

6.3. Methods and material for containment and cleaning up

Clean-up procedures: Absorb into dry earth or sand. Transfer to a closable, labelled salvage container for
disposal by an appropriate method.

6.4. Reference to other sections

Reference to other sections: Refer to section 8 of SDS.

Section 7: Handling and storage
SAFETY DATA SHEET
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7.1. Precautions for safe handling

Handling requirements: Avoid direct contact with the substance. Ensure there is exhaust ventilation of the area. Avoid the formation or spread of mists in the air.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions: Store in a cool, well ventilated area. Keep container tightly closed. The floor of the storage room must be impermeable to prevent the escape of liquids.

Suitable packaging: Must only be kept in original packaging.

7.3. Specific end use(s)

Specific end use(s): No data available.

Section 8: Exposure controls/personal protection

8.1. Control parameters

Hazardous ingredients:

MEDICINAL WHITE OIL

Workplace exposure limits:

<table>
<thead>
<tr>
<th>State</th>
<th>8 hour TWA</th>
<th>15 min. STEL</th>
<th>8 hour TWA</th>
<th>15 min. STEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>UK</td>
<td>5 mg/m³</td>
<td>10 mg/m³</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

HYDROCARBON AEROSOL PROPELLANT (<0.1% 1,3-BUTADIENE)

<table>
<thead>
<tr>
<th>State</th>
<th>8 hour TWA</th>
<th>15 min. STEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>UK</td>
<td>1000 ppm</td>
<td>1250 ppm</td>
</tr>
</tbody>
</table>

ODOURLESS KEROSENE

<table>
<thead>
<tr>
<th>State</th>
<th>8 hour TWA</th>
<th>15 min. STEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>UK</td>
<td>1200 mg/m³</td>
<td>-</td>
</tr>
</tbody>
</table>

ACETONE

<table>
<thead>
<tr>
<th>State</th>
<th>8 hour TWA</th>
<th>15 min. STEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>UK</td>
<td>1210 mg/m³</td>
<td>3620 mg/m³</td>
</tr>
</tbody>
</table>

HYDROTREATED NAPHTHENIC DISTILLATE (NOTE L <3% DMSO EXTRACTABLE COMPONENTS)

<table>
<thead>
<tr>
<th>State</th>
<th>8 hour TWA</th>
<th>15 min. STEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>UK</td>
<td>5 mg/m³</td>
<td>10 mg/m³</td>
</tr>
</tbody>
</table>

DNEL/PNEC Values

Hazardous ingredients:

ACETONE

<table>
<thead>
<tr>
<th>Type</th>
<th>Exposure</th>
<th>Value</th>
<th>Population</th>
<th>Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>DNEL</td>
<td>Dermal</td>
<td>186</td>
<td>Workers</td>
<td>Local</td>
</tr>
<tr>
<td>DNEL</td>
<td>Inhalation</td>
<td>2420</td>
<td>Workers</td>
<td>Local</td>
</tr>
<tr>
<td>DNEL</td>
<td>Oral</td>
<td>62</td>
<td>Consumers</td>
<td>Systemic</td>
</tr>
</tbody>
</table>

[cont...]
SAFETY DATA SHEET
FLAWFINDER DYE PENETRANT SPRAY

PNEC  Fresh water  10.6  -  -
PNEC  Marine water  1.06  -  -
PNEC  Soil (agricultural)  33.3  -  -
PNEC  -  -  -  -

8.2. Exposure controls

Engineering measures: The floor of the storage room must be impermeable to prevent the escape of liquids.
Respiratory protection: Respiratory protection not required.
Hand protection: Protective gloves.
Eye protection: Safety glasses.
Skin protection: Protective clothing.
Environmental: No data available

Section 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

State: Aerosol
Colour: Red
Odour: Characteristic odour
Evaporation rate: Slow
Oxidising: Non-oxidising (by EC criteria)
Solubility in water: Not miscible
Viscosity: Non-viscous
Boiling point/range°C: No data available.
Melting point/range°C: No data available.
Flammability limits %: lower: No data available.
upper: No data available.
Flash point°C: <-60
Part.coeff. n-octanol/water: No data available.
Autoflammability°C: No data available.
Vapour pressure: No data available.
Relative density: < 1
VOC g/l: 355

9.2. Other information

Other information: No data available.

Section 10: Stability and reactivity

10.1. Reactivity

Reactivity: Stable under recommended transport or storage conditions.

10.2. Chemical stability

Chemical stability: Stable under normal conditions.

10.3. Possibility of hazardous reactions

Hazardous reactions: Hazardous reactions will not occur under normal transport or storage conditions.
Decomposition may occur on exposure to conditions or materials listed below.
10.4. Conditions to avoid

Conditions to avoid: Heat.

10.5. Incompatible materials

Materials to avoid: Strong oxidising agents. Strong acids.

10.6. Hazardous decomposition products

Haz. decomp. products: In combustion emits toxic fumes.

Section 11: Toxicological information

11.1. Information on toxicological effects

Hazardous ingredients:

**MEDICINAL WHITE OIL**

<table>
<thead>
<tr>
<th>Route</th>
<th>Species</th>
<th>LD50</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>DERMAL</td>
<td>RBT</td>
<td>&gt;2000 mg/kg</td>
<td></td>
</tr>
<tr>
<td>ORAL</td>
<td>RAT</td>
<td>&gt;5000 mg/kg</td>
<td></td>
</tr>
</tbody>
</table>

**ODOURLESS KEROSENE**

<table>
<thead>
<tr>
<th>Route</th>
<th>Species</th>
<th>LD50</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>DERMAL</td>
<td>RBT</td>
<td>&gt;5000 mg/kg</td>
<td></td>
</tr>
<tr>
<td>ORAL</td>
<td>RAT</td>
<td>&gt;5000 mg/kg</td>
<td></td>
</tr>
<tr>
<td>VAPOURS</td>
<td>RAT</td>
<td>&gt;5000 mg/l</td>
<td></td>
</tr>
</tbody>
</table>

**ACETONE**

<table>
<thead>
<tr>
<th>Route</th>
<th>Species</th>
<th>LD50</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>IVN</td>
<td>RAT</td>
<td>5500 mg/kg</td>
<td></td>
</tr>
<tr>
<td>ORL</td>
<td>MUS</td>
<td>3 gm/kg</td>
<td></td>
</tr>
<tr>
<td>ORL</td>
<td>RAT</td>
<td>5800 mg/kg</td>
<td></td>
</tr>
</tbody>
</table>

**HYDROTREATED NAPHTHENIC DISTILLATE (NOTE L <3% DMSO EXTRACTABLE COMPONENTS)**

<table>
<thead>
<tr>
<th>Route</th>
<th>Species</th>
<th>LD50</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>DERMAL</td>
<td>RBT</td>
<td>&gt;2000 mg/kg</td>
<td></td>
</tr>
<tr>
<td>ORAL</td>
<td>RAT</td>
<td>&gt;5000 mg/kg</td>
<td></td>
</tr>
</tbody>
</table>

**1-PHENYLAZO-2-NAPHTHALENOL**

<table>
<thead>
<tr>
<th>Route</th>
<th>Species</th>
<th>LD50</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>ORAL</td>
<td>RAT</td>
<td>&gt;1000 mg/kg</td>
<td></td>
</tr>
</tbody>
</table>

Toxicity values: No data available.

**Symptoms / routes of exposure**

- **Skin contact:** There may be mild irritation at the site of contact.
- **Eye contact:** There may be irritation and redness.
- **Ingestion:** There may be irritation of the throat.
- **Inhalation:** No symptoms.
- **Delayed / immediate effects:** No data available.
Section 12: Ecological information

12.1. Toxicity

Hazardous ingredients:

**MEDICINAL WHITE OIL**

<table>
<thead>
<tr>
<th>Component</th>
<th>Endpoint</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>MYSID SHRIMP (Mysis bahia)</td>
<td>96H LC50</td>
<td>&gt;500,000 mg/l</td>
</tr>
<tr>
<td>RAINBOW TROUT (Oncorhynchus mykiss)</td>
<td>96H LC50</td>
<td>&gt;400,000 mg/l</td>
</tr>
</tbody>
</table>

**ODOURLESS KEROSENE**

<table>
<thead>
<tr>
<th>Component</th>
<th>Endpoint</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALGAE</td>
<td>72H IC50</td>
<td>20 mg/l</td>
</tr>
<tr>
<td>Daphnia magna</td>
<td>48H EC50</td>
<td>&gt;250 mg/l</td>
</tr>
<tr>
<td>FISH</td>
<td>96H LC50</td>
<td>&gt;1000 mg/l</td>
</tr>
<tr>
<td>RAINBOW TROUT</td>
<td>96H LC50</td>
<td>&gt;1000 mg/l</td>
</tr>
</tbody>
</table>

**ACETONE**

<table>
<thead>
<tr>
<th>Component</th>
<th>Endpoint</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>BLUEGILL</td>
<td>LC50</td>
<td>8300 mg/l</td>
</tr>
</tbody>
</table>

**HYDROTREATED NAPHTHENIC DISTILLATE**

<table>
<thead>
<tr>
<th>Component</th>
<th>Endpoint</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALGAE</td>
<td>48H EC50</td>
<td>&gt; 100 mg/l</td>
</tr>
<tr>
<td>FISH</td>
<td>96H LC50</td>
<td>&gt; 100 mg/l</td>
</tr>
</tbody>
</table>

12.2. Persistence and degradability

Persistence and degradability: Not biodegradable.

12.3. Bioaccumulative potential

Bioaccumulative potential: Bioaccumulation potential.

12.4. Mobility in soil

Mobility: Readily absorbed into soil.

12.5. Results of PBT and vPvB assessment

PBT identification: This product is not identified as a PBT/vPvB substance.

12.6. Other adverse effects

Other adverse effects: Toxic to aquatic organisms. Toxic to soil organisms.

Section 13: Disposal considerations

13.1. Waste treatment methods

Disposal operations: Transfer to a suitable container and arrange for collection by specialised disposal company.

Recovery operations: No data available

Waste code number: 16 05 04
Disposal of packaging: Dispose of in a regulated landfill site or other method for hazardous or toxic wastes.

NB: The user's attention is drawn to the possible existence of regional or national regulations regarding disposal.

### Section 14: Transport information

14.1. UN number

**UN number:** UN1950

14.2. UN proper shipping name

**Shipping name:** AEROSOLS, FLAMMABLE

14.3. Transport hazard class(es)

**Transport class:** 2.1

14.4. Packing group

14.5. Environmental hazards

**Environmentally hazardous:** No

**Marine pollutant:** No

14.6. Special precautions for user

**Special precautions:** No special precautions.

**Tunnel code:** D

**Transport category:** 2

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

**Transport in bulk:** No data available.

### Section 15: Regulatory information

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

**Specific regulations:** Not applicable.

15.2. Chemical Safety Assessment

**Chemical safety assessment:** A chemical safety assessment has not been carried out for the substance or the mixture by the supplier.

### Section 16: Other information

**Other information:**

- according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830
- * indicates text in the SDS which has changed since the last revision.

**Phrases used in s.2 and s.3:**

- EUH066: Repeated exposure may cause skin dryness or cracking.
- EUH208: Contains 1-phenylazo-2-naphthalenol. May produce an allergic reaction.
- H220: Extremely flammable gas.
- H222: Extremely flammable aerosol.

[cont...]
SAFETY DATA SHEET
FLAWFINDER DYE PENETRANT SPRAY

H225: Highly flammable liquid and vapour.
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.
H317: May cause an allergic skin reaction.
H319: Causes serious eye irritation.
H336: May cause drowsiness or dizziness.
H341: Suspected of causing genetic defects.
H361f: Suspected of damaging fertility.

Legal disclaimer: The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. This company shall not be held liable for any damage resulting from handling or from contact with the above product.