

Performance you can trust

FLAWFINDER DEVELOPER SPRAY NDT Crack Detection Spray

FLAWFINDER Non-destructive inspection system is designed to provide a fast reliable method for visual detection of cracks or flaws which would not normally be visible to the naked eye. Ideal for the inspection of welded joints, castings, forgings etc...

FLAWFINDER DEVELOPER is an aerosol applied white powder which is designed to draw the penetrant out of a flaw, and enhance the definition, to facilitate detection when used in conjunction with FLAWFINDER DYE PENETRANT and FLAWFINDER CLEANER SPRAYS.

Features

- Highly visible white powder for strong definitions.
- Detection can be carried out under natural or electric.
- Easily removed by solvent or water washing.
- Convenient and easy to use.

Directions for Use

- Shake aerosol well before use.
- Apply from a distance of 15-20cm.
- After use invert can and spray until nozzle is clear.

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F +44 (0) 113 232 2740
E customer-service@rocol.com
www.rocol.com

ROCOL House, Swillington, Leeds LS26 8BS

Registered Company No. 559693 VAT No. 742 0531 67
Registered Office: Admiral House, St Leonard's Road, Windsor, Berkshire SL4 3BL

ROCOL A division of **ITW** Ltd



BS EN ISO 9001
Certificate No. FM 12448



BS EN ISO 14001
Certificate No. EMS 67596



OHSAS 18001
Certificate No. OHS 78173



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The information in this publication is based on our experience and reports from customers. There are many factors outside our control or knowledge which affect the use and performance of our products, for which reason it is given without responsibility.

Application Method

1. Clean the area to be tested with FLAWFINDER CLEANER SPRAY (No.1) and wipe thoroughly with a tissue or a lint-free cloth to ensure the surface is clean, dry and free of contaminants.
2. When the surface is completely dry apply FLAWFINDER DYE PENETRANT SPRAY (No.2) to cover the test area and allow a minimum contact time of 10 mins. Finer definitions may require longer contact time.
3. Once the contact time has elapsed, the excess penetrant should be removed from the surface with a tissue or lint-free cloth wetted with FLAWFINDER CLEANER (No.1).

N.B. Do not spray the Cleaner directly onto the surface as the Penetrant could be flushed out of flaws.

4. Apply a THIN film of FLAWFINDER DEVELOPER SPRAY (No.3) to the test area and leave for a minimum of 10 mins for the Developer to draw up the retained Penetrant from any flaws or cracks.

5. Suspect areas should then be examined under natural or electric light for signs of flaws and/or cracks.

Cracks will show up as lines whilst porosity will appear as pin holes.

If the results are inconclusive repeat the process taking greater care when removing the excess penetrant.

Appearance	Very fine white powder
Propellant	Blend of hydrocarbon propellants
Solvent	Ketonic
Storage	Storage temperature should be kept below 50°C. Storage area should be out of direct sunlight
Pack Sizes – Part Codes	400ml – 63135

Date: Jan-09

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SAFETY DATA SHEET
FLAWFINDER DEVELOPER SPRAY

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Compilation date: 01/03/2013

Revision No: 8

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

1.1. Product identifier

Product name: FLAWFINDER DEVELOPER SPRAY

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

Use of substance / mixture: Developer.

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 CHIP: F+: R12; Xi: R36; -: R67

Most important adverse effects: Extremely flammable. Irritating to eyes. Vapours may cause drowsiness and dizziness.

2.2. Label elements

Label elements under CHIP:

Hazard symbols: Extremely flammable.

Irritant.



Risk phrases: R12: Extremely flammable.

R36: Irritating to eyes.

R67: Vapours may cause drowsiness and dizziness.

Safety phrases: S16: Keep away from sources of ignition - No smoking.

S23: Do not breathe spray.

[cont...]

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S25: Avoid contact with eyes.

S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S38: In case of insufficient ventilation, wear suitable respiratory equipment.

Precautionary phrases: Pressurized 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. Keep away from sources of ignition - No smoking. Keep out of the reach of children.

2.3. Other hazards

PBT: This substance is not identified as a PBT substance.

Section 3: Composition/information on ingredients

3.2. Mixtures

Hazardous ingredients:

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

EINECS	CAS	CHIP Classification	CLP Classification	Percent
270-704-2	68476-85-7	F+: R12	-	30-50%

ACETONE

200-662-2	67-64-1	F: R11; Xi: R36; -: R66; -: R67	Flam. Liq. 2: H225; Eye Irrit. 2: H319; STOT SE 3: H336; -: EUH066	30-50%
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SILICON DIOXIDE

231-545-4	7631-86-9	-	-	1-10%
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Section 4: First aid measures

4.1. Description of first aid measures

Skin contact: Wash immediately with plenty of soap and water. Consult a doctor.

Eye contact: Bathe the eye with running water for 15 minutes. Consult a doctor.

Ingestion: Wash out mouth with water. Do not induce vomiting. Consult a doctor.

Inhalation: Remove casualty from exposure ensuring one's own safety whilst doing so. Consult a doctor.

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

Skin contact: There may be irritation and redness at the site of contact.

Eye contact: There may be irritation and redness. The eyes may water profusely.

Ingestion: There may be soreness and redness of the mouth and throat. May cause dizziness.

Inhalation: There may be irritation of the throat with a feeling of tightness in the chest. Drowsiness or mental confusion may occur.

[cont...]

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

Section 5: Fire-fighting measures

5.1. Extinguishing media

Extinguishing media: Do not use water. Alcohol resistant foam. Carbon dioxide. Dry chemical powder. Use water spray to cool containers.

5.2. Special hazards arising from the substance or mixture

Exposure hazards: Extremely flammable. Forms explosive air-vapour mixture. In combustion emits toxic fumes of carbon dioxide / carbon monoxide.

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. Eliminate all sources of ignition.

6.2. Environmental precautions

Environmental precautions: Do not discharge into drains or rivers.

6.3. Methods and material for containment and cleaning up

Clean-up procedures: Do not use equipment in clean-up procedure which may produce sparks. 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

Section 7: Handling and storage

7.1. Precautions for safe handling

Handling requirements: Ensure there is sufficient ventilation of the area. Do not handle in a confined space. Smoking is forbidden.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions: Store in cool, well ventilated area. Keep away from sources of ignition. Keep away from direct sunlight. Ensure lighting and electrical equipment are not a source of ignition.

Suitable packaging: Must only be kept in original packaging.

7.3. Specific end use(s)

[cont...]

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Section 8: Exposure controls/personal protection

8.1. Control parameters

Hazardous ingredients:

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

Workplace exposure limits:

Respirable dust

State	8 hour TWA	15 min. STEL	8 hour TWA	15 min. STEL
UK	1000ppm 1750mg/m3	1250ppm 2180mg/m3	-	-

ACETONE

UK	1210 mg/m3	3620 mg/m3	-	-
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8.2. Exposure controls

Engineering measures: Ensure there is sufficient ventilation of the area. Ensure lighting and electrical equipment are not a source of ignition.

Respiratory protection: Respiratory protection not normally required for normal use in well ventilated areas. Respiratory protection should be used in enclosed spaces, with poor ventilation, for extended repeated use, or if workplace exposure limits may be exceeded. A dust mask with P2 particle filter is recommended

Hand protection: Neoprene gloves. Butyl gloves.

Eye protection: Safety glasses with side-shields.

Skin protection: Protective clothing.

Section 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

State: Aerosol

Colour: White

Odour: Characteristic odour

Evaporation rate: Fast

Oxidising: Non-oxidising (by EC criteria)

Solubility in water: Insoluble

Viscosity: Non-viscous

Boiling point/range°C: < 0

Melting point/range°C: < 0

Flash point°C: < -20

Relative density: 0.68

9.2. Other information

Other information: Not applicable.

Section 10: Stability and reactivity

[cont...]

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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.

10.4. Conditions to avoid

Conditions to avoid: Direct sunlight. Heat. Sources of ignition.

10.5. Incompatible materials

Materials to avoid: Strong oxidising agents. Strong reducing agents.

10.6. Hazardous decomposition products

Haz. decomp. products: In combustion emits toxic fumes of carbon dioxide / carbon monoxide.

Section 11: Toxicological information

11.1. Information on toxicological effects

Relevant effects for mixture:

Effect	Route	Basis
Irritation	OPT	Hazardous: calculated

Symptoms / routes of exposure

Skin contact: There may be irritation and redness at the site of contact.

Eye contact: There may be irritation and redness. The eyes may water profusely.

Ingestion: There may be soreness and redness of the mouth and throat. May cause dizziness.

Inhalation: There may be irritation of the throat with a feeling of tightness in the chest. Drowsiness or mental confusion may occur.

Section 12: Ecological information

12.1. Toxicity

Ecotoxicity values: Not applicable.

12.2. Persistence and degradability

Persistence and degradability: Only slightly biodegradable.

12.3. Bioaccumulative potential

Bioaccumulative potential: No bioaccumulation potential.

12.4. Mobility in soil

Mobility: Volatile.

[cont...]

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12.5. Results of PBT and vPvB assessment

PBT identification: This substance is not identified as a PBT substance.

12.6. Other adverse effects

Section 13: Disposal considerations

13.1. Waste treatment methods

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

14.4. Packing group

14.5. Environmental hazards

Environmentally hazardous: No

Marine pollutant: No

14.6. Special precautions for user

Section 15: Regulatory information

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

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

Other information: This safety data sheet is prepared in accordance with Commission Regulation (EU) No 453/2010.

Safety data sheet prepared in accordance with Commission Directive 2008/47/EC of 8 April 2008 amending, for the purposes of adapting to technical progress, Council Directive 75/324/EEC relating to aerosol dispensers

Compiled in accordance with REACH.

[cont...]

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Phrases used in s.2 and 3: EUH066: Repeated exposure may cause skin dryness or cracking.

H225: Highly flammable liquid and vapour.

H319: Causes serious eye irritation.

H336: May cause drowsiness or dizziness.

R11: Highly flammable.

R12: Extremely flammable.

R36: Irritating to eyes.

R66: Repeated exposure may cause skin dryness or cracking.

R67: Vapours may cause drowsiness and dizziness.

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.