



## 1. Identification of substance:

**Trade name:** Penetrant Red (water washable)

**Article number:** BDR - L

### Manufacturer/Supplier

Helmut Klumpf

Technische Chemie KG

Industriestr. 15

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### Advice:

Helmut Klumpf, Techn. Chemie KG, H. Klumpf

### Emergency advice:

Giftinformationszentrale Hamburg, Emergency phone: 040/6385 3345 or 3346

## 2. Hazards identification

### Hazards designation:

F+ Extremely flammable

### Information pertaining to particular dangers for man and environment:

R 12 Extremely flammable

## 3. Composition/information on ingredients

### Chemical characterization (preparation):

Description:

Penetrant with agent of based on glycol-ethers and a red organic dyes.

CAS-No.	Name of chemical	EINECS-number	EWG-no.	weight %	Symbols	R-phrases
106-97-8	n-butane	203-448-7	601-004-00-0	5 - 20	F+	12
74-98-6	propane	200-827-9	601-003-00-5	5 - 20	F+	12
9014-92-0	alkylphenol polyglycol ether			≤ 2	Xn	22, 36, 38
	xanthene dyes C. I. Solvent Red 49			≤ 2	Xn	22, 52, 53

## 4. First aid measures

### General information:

Remove contaminated soaked clothing immediately.

### After inhalation:

In the event of symptoms refer for medical treatment.

### After skin contact:

In case of contact with skin wash off with soap and water.

### After eye contact:

In case of contact with eyes rinse thoroughly with plenty of water and seek medical advice.

### After swallowing

Rinse out mouth and give plenty of water to drink.

Do not induce vomiting; instantly call for medical help. Instantly call for doctor

## 5. Fire fighting measures

### Suitable extinguishing material:

ABC powder, foam, carbon dioxide.

### Extinguishing material that must not be used for safety reasons:

Full water jet.

### Special exposure hazards extinguishing from the substance or preparation itself, combustible products or resulting gases:

None



**Special protective equipment for fire fighters:**

None

**Additional information's:**

Cool containers at risk with water spray jet.  
Danger for bursting of aerosols when heated for more than 50°C.  
Aerosols that burst in fire can be mightily shot away.

## 6. Accidental release measures

**Personal precautions:**

Ensure adequate ventilation.  
Keep away sources of ignition.

**Environmental precautions:**

Do not discharge into the subsoil/soil.  
Do not discharge into the drains/surface waters/groundwater.

**Methods for cleaning up/taking up:**

Take up with absorbent material  
(e.g. sand, sawdust, kieselguhr, general-purpose binder).

## 7. Handling and storage

**Handling:**

**Advice on safe handling:**

Provide good room ventilation even at ground level (vapours are heavier than air).  
Avoid formation of aerosols.

**Advice on protection against fire and explosion:**

Keep away from sources of ignition.  
Do not smoke.

**Storage:**

**Requirements for storage rooms and vessels:**

Filled aerosols must not be exposed to:

1. Heating of more than 50°C by sun beams or other heat sources.
  2. Storage in gates, passages, wells of staircases, buildings, floors, and lofts.
- Keep container in a well-ventilated place.

**Advice on storage compatibility:**

Do not store together with oxidizing agents.

**Further information on storage conditions:**

Keep container in a well-ventilated place.

**German storage group:** N/A

**Classification acc. to prescription:**

Aerosols (Aerosol containers) (TRG 300)

## 8. Exposure controls and personal protection

**Additional advice on system design:**

No further data, see item 7.

**Ingredients with occupational exposure limits to be monitored:**

CAS - NR.	Name of chemical	%	Code	Value	Unit
106-97-8	Butane	5 -20	MAK	1000 (2350)	ml/m <sup>3</sup> (mg/m <sup>3</sup> )
74-98-6	Propane	5 -20	MAK	1000 (1800)	ml/m <sup>3</sup> (mg/m <sup>3</sup> )

**Additional information's:**

None



**Personal protection equipment:**

**General protective and hygienic measures**

The usual precautionary measures should be adhered to in handling the chemicals. Keep away from foodstuffs, beverages and food. Instantly remove any soiled and impregnated garments. Wash hands during breaks and at the end for the work. Avoid contact with eyes and skin.

**Breathing equipment:**

Use breathing protection only when aerosol or mist is formed.

Use breathing protection in case of insufficient ventilation.

**Hand protection:**

Neoprene gloves

**Eye protection:**

Tightly fitting goggles

**Skin Protection:**

Light protective clothing.

**General protective measures:**

Avoid contact with eyes. Do not inhale aerosols.

## 9. Physical and chemical properties

**General Information:**

Form: Aerosol

Colour: red

Smell: almost odourless

**Data relevant for safety:**

(Product without power gas)

Boiling range: 195 - 230 °C (DIN 53 171)

Flash point: 94 °C (DIN 51 758)

Ignition temperature: > 220 °C (DIN 51 794)

Explosive properties: The Product is not explosive, but may form flammable/explosive vapour-air mixture.

Explosion limits Lower e.l.: 1,2 Vol.%

Upper e.l.: 11,6 Vol.%

Vapour pressure (20°C): < 0,7 mbar

Density (20°C): 0,99 g/cm<sup>3</sup> (DIN 51 757)

Solubility in water (20°C): 1.000 g/l

Viscosity (20°C): 6,05 mm<sup>2</sup>/s

## 10. Stability and reactivity

**Thermal decomposition / conditions to be avoided:**

No decomposition if used according to specifications.

**Materials to be avoided:**

Reacts with strong oxidizing agents.

**Dangerous reactions:**

No dangerous reactions known.

## 11. Toxicological information

**Acute Toxicity:**

**Irritability/Corrosiveness:**

**Skin:** slightly irritant

**Eye:** slightly irritant

**Sensitization:**

No sensitization known.



## 12. Ecological information

### Data on elimination (persistence and degradability):

Procedure: Activated charcoal adsorption

Danger class for water (WKG 1 German only) = slightly dangerous for water

### Behaviour in environment compartments:

Not known.

### Ecotoxicological effects:

No data are available.

### Behaviour in sewage plant:

When low concentrations are discharged correctly into adapted biological sewage treatment plants, interference with the degradation activity of activated sludge is not likely.

### General information's:

The behaviour of the product in sewage treatment plants has not been tested.

The information on this was derived from products of similar structure or composition.

## 13. Disposal considerations

### Product:

#### Recommendations:

Hand over to authorized disposal agency.

#### Waste code No.:

EAV: 14 06 03 term: Mixture of solvent

### Contaminated packaging:

#### Recommendations:

Container must be completely emptied and must not be opened by force.

Hand over to authorized disposal agency.

#### Waste code No.:

EAV: 15 01 10 term: Iron-metal containers with a contaminated rest of the contents

## 14. Transport information

### Land transport ADR

UN-Nr.: 1950 Identification: DRUCKGASPACKUNGEN

Class: 2 Package Group: --

Classifications code: 5 F shipment category: 2

Labelling of the Package: UN 1950 AEROSOLE Label-no.: 2.1

Packing instruction: P 204, MP 9 Max.. gross/Package: 50 kg

Limited of volume: LQ 2 Exemption after chapter 3.4.3: Package ≤ 30 kg

Labelling of the Package: diamond (100 x 100 mm) with UN 1950.

### Marine transport IMDG/GGVSee

UN-No.: 1950 Class: 2 Package Group: --

EMS-No.: F-D, S-U Label-no.: -- Marine Pollutant: -- Label: --

Proper Shipping Name: Aerosols (Limited Quantities Only) (Package ≤ 30 kg)

### Air transport ICAO-TI and IATA-DGR

Class/Division: 2.1 UN/ID-Nr.: 1950

Package Group: --, Label: Flammable gas

Packing inst. Passenger aircraft: 203/Y203 Max. netto/Package: 75 kg/30 kg

Packing inst. Cargo aircraft: 203 Max. netto/Package: 150 kg

Proper Shipping Name: Aerosols, flammable



## 15. Regulatory information

**Designation according to EC guidelines:**

The product has been classified and labelled in accordance with EC Directives / Ordinance on Hazardous Materials (GefStoffV)

**Code letter and hazard designation of product:**

F+ Extremely flammable

**Risk phrases:**

12 Extremely flammable

**Safety phrases:**

- 16 Keep away from sources of ignition - No smoking.
- 23 Do not breathe vapour/spray.
- 24 Avoid contact with skin.
- 33 Take precautionary measures against static discharges.

**Special labelling:**

Container is under pressure. Protect from sun and temperatures above 50°C. Do not open with force or incinerate even after use. Do not spray into flames or onto glowing objects.  
Keep away from sources of ignition - No smoking. Keep out of reach of children.  
Use only in well ventilated areas.

**TA-Air/classification, compound, remarks:** Class 3 (organic)

**Water hazard class:** WGK 1 slightly dangerous for water (self-classification)

## 16. Other information

**Restriction of occupation:**

Observe employment restrictions for young people.

**Recommended uses:**

As **PENETRANT** at the penetration process by colours acc. to EN ISO 3452-1 [EN 571-1] (DIN 54 152 part 1) for finding surface cracks.

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This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

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