# DIFFU - THERM® Cleaner BRE (cans)



# 1. Identification of the substance/mixture and of the company/undertaking:

Product identifier

**Trade name:** Cleaner **Article number:** BRE

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

Application of the substance / the preparation

As Cleaner at the penetration process by colours acc. to EN ISO 3452-1

[EN 571-1] (DIN 54 152 part 1) for finding surface cracks.

### Details of the supplier of the safety data sheet

### Manufacturer/Supplier

Helmut Klumpf

Technische Chemie KG

Industriestr. 15

D - 45699 Herten Phone.: +49(0)2366 1003 - 0 Fax: +49(0)2366 1003 - 11 Email: klumpf@diffu-therm.de

Emergency telephone number: a.m. or next Emergency phone:

### 2. Hazards identification

### Classification of the substance or mixture

### Classification according to Regulation (EC) No 1272/2008

GHS02 flame

Flam. Liq. 2 H225 Highly flammable liquid and vapour

GHS07 exclamation mark

Eye Irrit. 2 H319 Causes serious eye irritation.

STOT SE. 3 H336 Nay cause drowsiness or dizziness.

### Labelling according to Regulatdion (EC) No 1272/2008

The substance is classified an labeled according to the CLP regulation.





### Hazard pictograms GHS02, GHS07

#### Signal word Danger

### **Hazard statements**

H225 Highly flammable liquid and vapour.

H319 Causes serious eye irritation. H336 May cause drowsiness or dizziness.

EUH066 Repeated exposure may cause skin dryness or cracking.

### **Precautionary statements**

P210 Keep away from heat/sparks/open flames/hot surfaces. — No smoking.

P241 Use explosion-proof electrical/ventilating/lighting/equipment.

P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing.

Rinse skin with water/shower.

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

Remove contact lenses, if present and easy to do. Continue rinsing.

P405 Store locked up

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

### Other hazards

### Results of PBT and PvB assessment

PBT: Not applicable, vPvB: Not applicable

# 3. Composition/information on ingredients

**Chemical characterization: Substances Chemical characterization: Mixtures** 

Components:	Name of chemical	weight %
CAS: 78-93-3	butanone	100
EINECS: 201-159-0	GHS02 Flam. Liq. 2, H225; GHS07 Eye Irrit. 2, H319; STOT SE 3, H336	100

### 4. First aid measures

### **Description of first aid measures**

General information Take affected persons out of danger area and instruct to lie down.

### After inhalation

Supply fresh air. If required, provide artificial respiration. Keep patient worm. Consult doctor if symptoms persist. In case of unconsciousness bring patient into stabile side position for transport.

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### After skin contact

Instantly wash with water and soap and rinse thoroughly. If skin irritation continues, consult a doctor.

### After eye contact

Rinse opened eye for several minutes under running water. If symptoms persist, consult doctor.

### After swallowing

Do not induce vomiting; instantly call for medical help. In case of persistent symptoms consult doctor

# 5. Fire fighting measures

## Description of first aid measures

### Suitable extinguishing agents

water haze, water spray-jet, alcohol resistant foam.

use dry extinguishers like power, sand just for small fires.

For safety reasons unsuitable extinguishing agents Water with a full water jet.

Special hazards arising from the substance or mixture Carbon monoxide (CO)

Advice for fighters

**Protective equipment:** Wear self-contained breathing apparatus.

Additional information Cool endangered containers with water spray jet.

# 6. Accidental release measures

## Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation.

Keep away from ignition sources. Bring persons out of danger.

### **Environmental precautions:**

Do not allow product to reach sewage system or water bodies.

Prevent material from reaching sewage system, holes and cellars.

Inform respective authorities in case product reaches water or sewage system.

Dilute with much water. Prevent from spreading (e.g. by damming-in or oil barriers).

### Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Ensure adequate ventilation.

#### Reference to other sections

See Section 8 for information on personal protection equipment.

### 7. Handling and storage

# Handling:

### Precautions for safe handling

Use only in well ventilated areas.

Ensure good interior ventilation, especially at floor level. (Fumes are heavier than air)

### Information about protection against explosions and fires:

Keep ignition sources away – Do not smoke.

Protect against electrostatic charges.

### Conditions for safe storage, including any incompatibilities:

Keep away from sources of ignition.

### Storage

### Requirements to be by storerooms and containers:

Use only containers specifically permitted for this substance/product.

Information about storage in one common storage facility: Store away from oxidizing agents.

#### Further information about storage conditions:

Keep container tightly sealed.

Store in cool, dry conditions in well-sealed containers.

Protect form heat and direct sunlight.

# 8. Exposure controls/personal protection

### Additional information about design for technical systems:

No other information's, see point 7.

## Control parameters

	Components with critical values that require monitoring at the workplace:		
78-93-3 2 bu	anone (> 50%)		
WEL	Short-term value: 899 mg/m <sup>3</sup> , 300 ppm		
	Long-term value: 600 mg/m³, 200 ml/m³; Sk		

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### **Exposure controls**

## Personal protection equipment

# General protective and hygienic measures

Keep away from foodstuffs, beverages and food.

Instantly remove any soiled and impregnated garments.

Wash hands during breaks and at the end of the work.

Avoid contact with the eyes and skin.

### **Breathing equipment:**

In case of brief exposure or low pollution use breathing filter apparatus. In case of intensive or longer exposure use breathing apparatus that is independent of circulating air.

Protection of hands: Protective gloves.

### Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

### Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and

has to be observed.

**Eye protection:** Tightly sealed safety glasses. **Body protection:** Protective work clothing.

# 9. Physical and chemical properties

### Information on basic physical and chemical properties

**General Information** 

Appearance:

Form: fluid Colour: colourless Smell: characteristic

### Data relevant for safety:

Boiling point/Boiling range: 86 °C
Flash point: -4 °C
Ignition temperature: 515 °C

Danger of explosion: The Product is not explosive. However, formation of

explosive air/steam mixture is possible.

Critical values for explosion:

Lower e.l.:

Upper e.l.:

1,8 Vol.%

Upper e.l.:

11,5 Vol.%

Steam pressure at 20°C:

89 mbar

Density (20°C): 0,806 g/cm³
Solubility in water (20°C): 290 g/l

# 10. Stability and reactivity

### Reactivity

Chemical stability

Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.

Possibility of hazardous reactions: Possible formation of peroxide.

### 11. Toxicological information

## Information on toxicological effects

**Acute Toxicity:** 

LD/LC50 values that are relevant for classification:					
67-63-0 propan-2-ol					
Oral	LD50	4.570 mg/kg (rat)			
Dermal	LD50	13.400 mg/kg (rab)			
Inhaled	LD50	$30 \text{ mg/l (rat) } (6\text{h/LC}50 > 25.000 \text{ mg/m}^3 \text{ (steam)})$			

### **Primary irritant effect:**

on the skin: weak irritant effect

**on the eye:** Strong irritant with the danger of severe eye injury.

**Sensitization:** No sensitizing effect known.

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# 12. Ecological information

**Toxicity** 

Aquatic toxicity: No further relevant information available.

Additional ecological information:

**General notes:** 

Water hazard class 1 (assessment by list): slightly hazardous for water.

Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage system.

Results of PBT and vPvB assessment

**PBT:** Not applicable, **vPvB:** Not applicable

# 13. Disposal considerations

### Waste treatment methods

#### Recommendations

Must not be disposed of together with household garbage. Do not allow product to reach sewage system. Disposal must be made according the local authority regulations.

### European waste catalogue

07	00 00	WASTES FORM ORGAGNIC CHEMICAL PROCESSES
07	01 00	wastes from the manufacture, formulation, supply and use (MFSU) of basic organic chemicals
07	01 04*	other organic solvents, washing liquids and mother liquors

### **Uncleaned packaging:**

#### **Recommendations:**

Disposal must be made according to official regulations.

Empty contaminated packaging's thoroughly. They can be recycled after thorough and proper cleaning. **Recommended cleaning agent:** Water, if necessary with cleaning agent.

# 14. Transport information

# Land transport ADR/RID

Class: 3 UN-No.: 1193 Package Group: II

Identification: Ethyl methyl ketone

Classifications code: F 1 shipment category: 2 Label-no.: 3 Tunnel restriction code: D/E

Packing instruction: P 001, MP 19 Limited Quantities Only: 1L (LQ)

### Marine transport IMDG/GGVSee

UN-No.: 1193 Class: 3.2 Package Group: II

EMS-No.: F-E, S-D Label: 3 Marine Pollutant: no Label: --

Proper Shipping Name: Ethyl methyl ketone

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

Class/Division: 3 UN/ID-No.: 1193 Package Group: II, Label-No.: 3

Packing inst. Passenger aircraft: 305/Y305 Max. net/Package: 5 L / 1L Packing inst. Cargo aircraft: 307 Max. net/Package: 60 L

Proper Shipping Name: Ethyl methyl ketone

### 15. Regulatory information

# Safety, health and environmental regulations/legislation specific for the substance or mixture Labelling according to Regulation (EC) No 1272/2008

The substance is classified and labeled according to the CLP regulation.

### Relevant phrases

H225 Highly flammable liquid and vapour.

H319 Causes serious eye irritation.

H336 May cause drowsiness or dizziness.

EUH066 Repeated exposure may cause skin dryness or cracking.

### **National regulations**

# **Technical instructions (air):**

Class	Share in %
NK	100.0

Water hazard class: Water hazard class 1 (Assessment by list): slightly hazardous for water.

Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

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### 16. Other information

These date are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally contractual relationship.

### Department issuing data specification sheet:

Contact: Helmut. Klumpf Technische Chemie KG

### Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organization

ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

GefStoffV: Gefahrstoffverordnung (Ordinance on Hazardous Substances, Germany)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

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