



1. Identification of substance:

Trade name: Cleaner

Article number: BRE

Manufacturer/Supplier

Helmut Klumpf

Technische Chemie KG

Industriestr. 15

D - 45699 Herten Phone.: (02366) 1003 - 0 Fax: (02366) 1003 - 11 e-mail: klumpf@diffu-therm.de

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 Highly flammable

Xi Irritating

Information pertaining to particular dangers for man and environment:

R 11 Highly flammable

R 36 Irritating to eyes

R 66 Repeated exposure may cause skin dryness or cracking.

R 67 Vapours may cause drowsiness and dizziness.

3. Composition/information on ingredients

Chemical characterization (preparation):

Hazardous ingredients:

CAS-No.	Name of chemical	EINECS-number	EWG-no.	weight %	Symbols	R-phrases
78-93-3	2-Butanone	201-159-0	606-002-00-3	50 - 100	Xi, F	11, 36 66, 67

power gas: Carbon dioxide CO₂

4. First aid measures

General information:

After inhalation:

Ensure supply of fresh air.

In the event of symptoms refer for medical treatment.

After skin contact:

In case of contact with skin wash off with water.

After eye contact:

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

After swallowing

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

5. Fire fighting measures

Suitable extinguishing material:

ABC powder, alcohol-resistant 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).

Additional information's:

7. Handling and storage

Handling:

Advice on safe handling:

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

Advice on protection against fire and explosion:

Keep away from sources of ignition.

Do not smoke.

Take precautionary measures against static discharges.

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.

Classification acc. to prescription:

Aerosols (Aerosol containers) (TRG 300)

8. Exposure controls/personal protection

Additional advice on system design:

No other information's, see point 7.

Ingredients with occupational exposure limits to be monitored:

CAS - NR.	Name of chemical	%	Code	Value	Unit	peak limited category
78-93-3	2-Butanon	50 - 100	MAK	200 (590)	ml/m ³ (mg/m ³)	II, 1
			BAT	5 mg/l		



Additional information's:

None

Personal protection equipment:

Respiratory protection:

Respiratory protection in the event of aerosol or mist formation.

Short term: filter apparatus, combination filter A - P 1.

If ventilation insufficient, wear respiratory protection apparatus.

Hand protection:

Not necessary

Eye protection:

Tightly fitting goggles

General protective measures:

Do not inhale aerosols. Avoid contact with eyes.

Avoid prolonged and/or repeated contact with skin.

Hygiene measures:

At work do not eat, drink, smoke, or take drugs.

Remove soiled or soaked clothing immediately.

Cloths contaminated with product should not be kept in trouser pockets.

9. Physical and chemical properties

General Information

Form: Aerosol

Colour: colourless

Smell: characteristic

Data relevant for safety:

(Product without power gas)

Boiling temperature: 79 °C (DIN 53 171)

Flash point: < 0 °C (DIN 51 758)

Ignition temperature: > 514 °C (DIN 51 794)

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

Explosion limits Lower e.l.: 1,8 Vol.%

Upper e.l.: 11,5 Vol.%

Vapour pressure (20°C): 101 mbar

Density (20°C): 0,804 g/cm³ (DIN 51 757)

Solubility in water (20°C): 290 g/l

10. Stability and reactivity

Conditions to avoid:

No decomposition if used correctly.

No reactions by normal use.

Materials to avoid:

No hazardous reactions known.

Hazardous decomposition products:

No hazardous decomposition products known.

11. Toxicological information

Toxicity test:

Acute Toxicity (LD/LC₅₀-values relevant to classification):

Component	Method	Value	Species
2-Butanone	oral	3.300 mg/kg	Rat
	dermal	5.000 mg/kg	Rabbit



Irritability/Corrosiveness:

Skin: Not irritant

Eye: irritant

Sensitization:

No sensitization known.

12. Ecological information

Data on elimination (persistence and degradability):

The product is readily biodegradable.

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

Behaviour in environment compartments:

Not known.

Ecotoxicological effects:

No data are available.

Further information/ecology:

CSB-Value: 1860 mg/ml or mg substance.

BSB₅-Value: 1220 mg/ml or mg substance.

General information's:

Do not discharge product unmonitored into the environment.

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

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: 2.1
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 for product:

Xi Irritating
F Highly flammable

Risk - phrases:

11 Highly flammable
36 Irritating to eyes
66 Repeated exposure may cause skin dryness or cracking.
67 Vapours may cause drowsiness and dizziness.

Safety - phrases:

16 Keep away from sources of ignition - No smoking.
23 Do not breathe vapour/spray.
25 Avoid contact with eyes.
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)

16. Other information

Restriction of occupation:

Observe employment restrictions for young people.

Recommended uses:

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.

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.