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

1.1. Product identifier

Powerflame Brennpaste

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

Use of the substance/mixture

Fuel and fire-lighting paste

1.3. Details of the supplier of the safety data sheet

Powerflame GmbH

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CH-8840 Einsiedeln

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Responsible for the safety data sheet: sds@gbk-ingelheim.de

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Indications of danger : Highly flammable

R-phrases:

Highly flammable.

2.2. Label elements

Danger symbols: F - Highly flammable



F - Highly flammable

R phrases

11 Highly flammable.

S phrases

02 Keep out of the reach of children.

07 Keep container tightly closed.

16 Keep away from sources of ignition - No smoking.

46 If swallowed, seek medical advice immediately and show this container or label.

2.3. Other hazards

Vapours may form explosive mixture with air.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical characterization

Mixture of the following substances with non-hazardous admixtures



Hazardous components

EC No	Chemical name	Quantity
CAS No	Classification	
Index No	GHS classification	
REACH No		
200-578-6	Ethanol	75 - 94 %
64-17-5	F R11	
603-002-00-5	Flam. Liq. 2; H225	
01-2119457610-43		
201-159-0	Butanone	2 %
78-93-3	F, Xi R11-36-66-67	
606-002-00-3	Flam. Liq. 2, Eye Irrit. 2, STOT SE 3; H225 H319 H336	
02-2119752535-35		

Full text of R- and H-phrases: see section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

Remove contaminated soaked clothing immediately.
If you feel unwell, seek medical advice.

After inhalation

Move to fresh air in case of accidental inhalation of vapours.
In the event of symptoms refer for medical treatment.

After contact with skin

Wash off immediately with soap and plenty of water.
Consult a doctor if skin irritation persists.

After contact with eyes

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
If eye irritation persists, consult a specialist.

After ingestion

Do not induce vomiting.
Rinse out mouth and give plenty of water to drink.
Never give anything by mouth to an unconscious person.
Summon a doctor immediately.
Induce vomiting only upon the advice of a physician.

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

Ingestion or inhalation of high concentrations may cause injuries to gastrointestinal tract, liver, kidneys and central nervous system.

Ingestion causes irritation of upper respiratory system and gastrointestinal disturbance

Contact with eyes may cause irritation.

Inhalation of vapours in high concentration can cause narcotic effects.

Repeated or prolonged exposure may cause skin irritation and dermatitis, due to degreasing properties of the product.

Attention. Beware, danger of aspiration.

The following symptoms may occur: Headache, Confusion, Dizziness, Unconsciousness

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

Treat symptoms.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Alcohol-resistant foam, dry chemical, carbon dioxide (CO₂), water-spray.

Extinguishing media which must not be used for safety reasons

Full water jet.

5.2. Special hazards arising from the substance or mixture

Fire may produce:

Carbon monoxide and carbon dioxide.



5.3. Advice for firefighters

Use breathing apparatus with independent air supply.
Protective suit.

Additional information

Keep away from sources of ignition - No smoking.
Vapours are heavier than air and spread along ground.
The vapour/air mixture is explosive, even in empty, uncleaned receptacles.
Cool containers at risk with water spray jet.
Fire residues and contaminated firefighting water must be disposed of in accordance with the local regulations.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Avoid contact with skin, eyes and clothing.
In case of insufficient ventilation, wear suitable respiratory equipment.
Ensure adequate ventilation.
Keep away sources of ignition.

6.2. Environmental precautions

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

6.3. Methods and material for containment and cleaning up

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder).
Shovel into suitable container for disposal.

6.4. Reference to other sections

Observe protective instructions (see Sections 7 and 8).
Information for disposal look up chapter 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Keep containers tightly closed in a cool, well-ventilated place.

Advice on protection against fire and explosion

Do not smoke - volatile.
Keep away from heat and sources of ignition.
Take precautionary measures against static discharges.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep container tightly closed in a dry, cool and well-ventilated place.

Advice on storage compatibility

Incompatible with:
Alkaline metals and earth alkaline metals.
Strong acids and oxidizing agents

Further information on storage conditions

Keep away from food, drink and animal feeding stuffs.

7.3. Specific end use(s)

Fuel and fire-lighting paste

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limits (EH40)

CAS No	Chemical name	ml/m ³	mg/m ³	F/ml	Category	Origin
78-93-3	Butan-2-one (methyl ethyl ketone)	200	600		TWA (8 h)	WEL
		300	899		STEL (15 min)	WEL
64-17-5	Ethanol	1000	1920		TWA (8 h)	WEL
		-	-		STEL (15 min)	WEL



Biological Monitoring Guidance Values (EH40)

CAS No	Chemical name	Parameter	Value	Test material	Sampling time
78-93-3	Butan-2-one	butan-2-one	70 µmol/L	urine	Post shift

8.2. Exposure controls

Occupational exposure controls

Ensure adequate ventilation, especially in confined areas.
Pay attention to explosion protection guidelines.

Protective and hygiene measures

Do not inhale vapours.
Wash hands before breaks and at the end of workday.
When using, do not eat, drink or smoke.
Avoid contact with skin, eyes and clothing.
Remove and wash contaminated clothes before re-use.

Respiratory protection

No personal respiratory protective equipment normally required.
In case of insufficient ventilation wear suitable respiratory equipment (gas filter type A).

Hand protection

Protective gloves resistant to chemicals made off butyl, minimum coat thickness 0,7 mm, permeation resistance (wear duration) approx. 480 minutes, i.e. protective glove <Butoject 898> made by www.kcl.de.

This recommendation refers exclusively to the chemical compatibility and the lab test conforming to EN 374 carried out under lab conditions.

Requirements can vary as a function of the use. Therefore it is necessary to adhere additionally to the recommendations given by the manufacturer of protective gloves.

Eye protection

Safety goggles with side protection.

Skin protection

Long sleeved clothing.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state: Viscous
Colour: Colourless
Odour: Alcoholic

Test method

Changes in the physical state

Boiling point: > 80 °C
Flash point: 15 °C
Lower explosion limits: 3,3 vol. %
Upper explosion limits: 18,9 vol. %
Ignition temperature: 486 °C
Vapour pressure: 6 hPa
(at 20 °C)
Density (at 20 °C): 0,81 - 0,84 g/cm³
Water solubility: Partially miscible
(at 20 °C)
Viscosity / dynamic: 13000 - 18000 mPa·s
Flow time: > 9 min 4 DIN EN ISO 2431
(at 15 °C)
Solvent content: > 90 %

SECTION 10: Stability and reactivity

10.1. Reactivity

No decomposition if stored and applied as directed.



10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Reactions with acids and strong oxidizing agents.

Reactions with alkali metals.

Reactions with earth alkali metals.

10.4. Conditions to avoid

Vapour/air mixtures are explosive at intensive warming.

Heating can release vapours which can be ignited.

10.5. Incompatible materials

Strong acids and oxidizing agents.

Alkaline metals and alkaline earth metals.

10.6. Hazardous decomposition products

Carbon monoxide and carbon dioxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity

Ethanol

LD50/oral/rat: 6200 - 15000 mg/kg

LD50/dermal/rabbit: 20000 mg/kg

LC50/inhalation/rat: 63000 ml/m³/4 h

Irritation and corrosivity

Skin irritation: Not classified.

Eye irritation: Not classified.

Sensitising effects

Not classified.

Severe effects after repeated or prolonged exposure

STOT - Single exposure: Not classified.

STOT - Repeated exposure: Not classified.

Aspiration hazard: Not classified.

Carcinogenic/mutagenic/toxic effects for reproduction

Carcinogenicity: Not classified.

Mutagenicity: Not classified.

Reproductive toxicity: Not classified.

Additional information on tests

Classification in compliance with the assessment procedure specified in the EC guidelines 1999/45/EG.

Empirical data on effects on humans

Ingestion or inhalation of high concentrations may cause injuries to gastrointestinal tract, liver, kidneys and central nervous system.

Ingestion causes irritation of upper respiratory system and gastrointestinal disturbance

Contact with eyes may cause irritation.

Inhalation of vapours in high concentration can cause narcotic effects.

Repeated or prolonged exposure may cause skin irritation and dermatitis, due to degreasing properties of the product.

Components of the product may be absorbed into the body through the skin.

SECTION 12: Ecological information

12.1. Toxicity

Ecological data are not available.

12.2. Persistence and degradability

Readily biodegradable (to OECD criteria)

12.3. Bioaccumulative potential

Low bio-accumulation can be estimated because of low log Po/w.

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

According to Regulation (EC) no. 1907/2006 (REACH) none of the substances, contained in this product are a PBT / vPvB substance.

12.6. Other adverse effects

Low hazard to waters.

Further information

Ecological injuries are not known or expected under normal use.
Do not flush into surface water or sanitary sewer system.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Advice on disposal

Can be incinerated, when in compliance with local regulations.
Where possible recycling is preferred to disposal.

Waste disposal number of waste from residues/unused products

070704 WASTES FROM ORGANIC CHEMICAL PROCESSES; wastes from the MFSU of fine chemicals and chemical products not otherwise specified; other organic solvents, washing liquids and mother liquors
Classified as hazardous waste.

Contaminated packaging

Empty containers should be taken for local recycling, recovery or waste disposal.
Contaminated packaging should be emptied as far as possible and after appropriate cleansing may be taken for reuse.
Packaging that cannot be cleaned should be disposed of like the product.

SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number: UN1993
14.2. UN proper shipping name: FLAMMABLE LIQUID, N.O.S. (Ethanol)
14.3. Transport hazard class(es): 3
14.4. Packing group: III
Hazard label: 3



Classification code: F1
Limited quantity: 5 L / 30 kg
Transport category: 3
Hazard No: 33
Tunnel restriction code: D/E

Inland waterways transport

14.1. UN number: UN1993
14.2. UN proper shipping name: FLAMMABLE LIQUID, N.O.S. (Ethanol)
14.3. Transport hazard class(es): 3
14.4. Packing group: III
Hazard label: 3



Classification code: F1
Limited quantity: 5 L / 30 kg

Marine transport

14.1. UN number: UN1993
14.2. UN proper shipping name: FLAMMABLE LIQUID, N.O.S. (Ethanol)
14.3. Transport hazard class(es): 3
14.4. Packing group: III

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Hazard label: 3



Limited quantity: 5 L / 30 kg
EmS: F-E, S-E

Other applicable information (marine transport)

Receptacle max. 30 L, IMDG Code subsection 2.3.2.3

Air transport

UN/ID number: UN1993
14.2. UN proper shipping name: FLAMMABLE LIQUID, N.O.S. (Ethanol)
14.3. Transport hazard class(es): 3
14.4. Packing group: III
Hazard label: 3



Special Provisions: A3
Limited quantity Passenger: Y344 / 10 L
IATA-packing instructions - Passenger: 355
IATA-max. quantity - Passenger: 30 L (*)
IATA-packing instructions - Cargo: 366
IATA-max. quantity - Cargo: 30 L (*)

Other applicable information (air transport)

(*) 3.3.3.2 IATA DGR

14.5. Environmental hazards

Dangerous for the environment: no

14.6. Special precautions for user

Take the usual precautions when handling with chemicals.

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

The transport takes place only in approved and appropriate packaging.

SECTION 15: Regulatory information

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

EU regulatory information

1999/13/EC (VOC): > 94,2 %

National regulatory information

Employment restrictions: Observe employment restrictions for young people. Observe employment restrictions for child bearing mothers and nursing.
Water contaminating class (D): 1 - slightly water contaminating

15.2. Chemical Safety Assessment

For this substance a chemical safety assessment has not been carried out.

SECTION 16: Other information

Full text of R-phrases referred to under sections 2 and 3

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

Full text of H-Statements referred to under sections 2 and 3

H225 Highly flammable liquid and vapour.
H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.



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Further Information

Data of items 4 to 8, as well as 10 to 12, do partly not refer to the use and the regular employing of the product (in this sense consult information on use and on product), but to liberation of major amounts in case of accidents and irregularities.

The information describes exclusively the safety requirements for the product(s) and is based on the present level of our knowledge.

The delivery specifications are contained in the corresponding product sheet.

This data does not constitute a guarantee for the characteristics of the product(s) as defined by the legal warranty regulations.

(n.a. = not applicable; n.d. = not determined)

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)