

SAFETY DATA SHEET

FirePal Kitchen

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

Date issued 28.09.2011

1.1. Product identifier

Product name FirePal Kitchen

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

Use of the substance/preparation Foam extinguisher
For extinguishing small fires in cooking oil and fat

Uses advised against Not evaluated

1.3. Details of the supplier of the safety data sheet

Company name GPBM Norge AS
Postal address Postboks 87 Furuset
Postcode 1001
City Oslo
Country NORWAY
Tel + 47 22 88 30 40
Fax + 47 22 88 30 50
E-mail frank.ottesen@gpbatteries.no
Website <http://www.gpbatteries.no>
Contact person Frank Ottesen

1.4. Emergency telephone number

Emergency telephone Only emergency call number: 112 or 999

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Press. Gas; H280
Regulation (EC) No 1272/2008
[CLP/GHS]

2.2. Label elements

Hazard Pictograms (CLP)



Signal word Warning

Hazard statements H280 Contains gas under pressure; may explode if heated.

Precautionary statements P410 + P403 Protect from sunlight. Store in a well-ventilated place.
P102 Keep out of reach of children.

Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even when empty.

2.3. Other hazards

Description of hazard Health: The product is not classified as hazardous to health.

	Fire and explosion: The product is not classified as flammable.
	Environment: The product is not classified as harmful to the environment.
Other hazards	See sections 5, 11 and 12 for complementary information. PBT/vPvB assessment has not been performed.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Component name	Identification	Classification	Contents
Caustic potash	CAS no.: 1310-58-3 EC no.: 215-181-3 Index no.: 019-002-00-8	C; R35 Xn; R22 Skin Corr 1A;H314 Acute tox. 4;H302	15 - 25 %
Acetic acid	CAS no.: 64-19-7 EC no.: 200-580-7	C; R10,R35 Flam. Liq. 3;H226 Skin Corr 1A;H314	10 - 20 %
Citric acid, monohydrate	CAS no.: 5949-29-1		5 - 15 %
Column headings	CAS no. = Chemical Abstracts Service; EU (EINECS or ELINCS number) = European inventory of Existing Commercial Chemical Substances; Ingredient name = Name as specified in the substance list (substances that are not included in the substance list must be translated, if possible). Contents given in; %, %wt/wt, %vol/wt, %vol/vol, mg/m3, ppb, ppm, weight%, vol%		
HH/HF/HE	T+ = Very toxic, T = Toxic, C = Corrosive, Xn = Harmful, Xi = Irritating, E = Explosive, O = Oxidizing, F+ = Extremely flammable, F = Very flammable, N = Environmental hazard		
Description of the mixture	The propellant (nitrogen) will never come out through the nozzle of the aerosol can.		
Component comments	The ingredients in section 3.2 have reacted and neutralization has occurred. After the neutralization reaction, potassium citrate and potassium acetate is formed. The product is not corrosive. See section 16 for explanation of H- and R-phrases listed above.		

SECTION 4: First aid measures

4.1. Description of first aid measures

General	Get medical attention if any discomfort continues. Do not give victim anything to drink if he is unconscious.
Inhalation	Fresh air and rest. Consult a doctor if symptoms should occur.
Skin contact	Immediately remove contaminated clothing. Wash skin thoroughly with soap and water for several minutes. Get medical attention if any discomfort continues. Wash contaminated clothes before reuse.
Eye contact	Make sure to remove any contact lenses from the eyes before rinsing. Immediately rinse with water for several minutes. Contact a physician.
Ingestion	Rinse mouth thoroughly with water and give large amounts of milk or water to people not unconscious. Induce vomiting, if person is conscious. Get medical attention if any discomfort continues. Contact physician if larger quantity has been consumed.

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

Acute symptoms and effects	Spray and vapour in the eyes may cause irritation and smarting. Skin contact may cause slight irritation.
----------------------------	--

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

Other Information	Treat symptomatically.
-------------------	------------------------

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media The product is a fire extinguishant.

5.2. Special hazards arising from the substance or mixture

Fire and explosion hazards The product is not classified as flammable. Aerosol containers can explode when heated, due to excessive pressure build-up.

Hazardous combustion products Carbon monoxide (CO). Carbon dioxide (CO₂). Oxides of nitrogen (NO_x)

5.3. Advice for firefighters

Fire fighting procedures Use water to keep fire exposed containers cool and disperse vapours.

Personal protective equipment Use fresh air equipment when the product is involved in fire. In case of evacuation, an approved protection mask should be used. See also section 8.

Other Information Extinguishing water must not be discharged into drains.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures Avoid inhalation. Provide adequate ventilation. Avoid contact with eyes and skin.

6.1.1. For non-emergency personnel

Protective equipment Use protective equipment as referred to in section 8.

6.1.2. For emergency responders

For emergency responders Use protective equipment as referred to in section 8.

6.2. Environmental precautions

Environmental precautions Do not allow to enter into sewer, water system or soil.

6.3. Methods and material for containment and cleaning up

Methods for cleaning Pick up large amounts of spills with absorbent materials like sand, diatomaceous earth or sawdust. After cleaning, wipe the surface with water. Collect in a suitable container and dispose as hazardous waste according to section 13.

6.4. Reference to other sections

Other instructions See also sections 8 and 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Handling Avoid contact with eyes and skin. Provide good ventilation. Do not eat, drink or smoke when using the product. Container must be kept tightly closed. Wash hands before breaks and before smoking, eating or drinking.

7.2. Conditions for safe storage, including any incompatibilities

Protective Measures

Storage To be stored at temperatures between -5 and 50 °C. Store in original packaging. Protect from direct sunlight. Store in a tightly closed container in a cool, well-ventilated place, protected from heat sources. Keep away from metals that react with water. Storage life 5 year(s).

7.3. Specific end use(s)

Specific use(s) See section 1.2.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure controls

Exposure limit values

Component name	Identification	Value	Year
potassium hydroxide	CAS no.: 1310-58-3 EC no.: 215-181-3	15 min.: 2 mg/m ³	2002

Exposure limits

Biological limits

DNEL / PNEC

8.2. Exposure controls

Appropriate environmental exposure control

Occupational exposure controls	Must not be handled in confined space without sufficient ventilation. The listed protective equipment is a recommendation. A risk assessment of the actual risk may lead to other requirements. Personal protection equipment should be chosen according to the GEN standards and in discussion with the supplier of the personal protective equipment. Eyewash facilities should be available at the workplace.
--------------------------------	---

Eye / face protection

Eye protection	Wear safety goggles if there is a risk of splash.
----------------	---

Skin protection

Hand protection	Use protective gloves that are suitable for the application, made of: Rubber (natural, latex). Butyl rubber. Neoprene. Nitrile. Polyvinyl chloride (PVC). teflon. or Viton rubber (fluor rubber). Unsuitable glove material: Polyvinyl alcohol (PVA). The most suitable glove must be chosen in consultation with the gloves supplier, who can inform about the breakthrough time of the glove material.
Skin protection (other than of the hands)	Wear appropriate protective clothing to protect against possible skin contact.

Respiratory protection

Respiratory protection	Normally not required. At work in confined or poorly ventilated spaces, respiratory protection with air supply must be used.
------------------------	--

Thermal hazards

Thermal hazards	No known thermal hazard exists.
-----------------	---------------------------------

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Aerosol.
Odour	Mild.
Colour	Colourless.
pH (as supplied)	Value: 7,0-8,5
Comments, pH (as supplied)	(value for the liquid part)
Melting point/melting range	Value: -5 °C
Comments, Melting point / melting range	(value for the liquid part)
Boiling point / boiling range	Value: 100 °C
Comments, Boiling point / boiling range	(value for the liquid part at 760 mm Hg)
Flash point	Value: > 98 °C
Comments, Flash point	(value for the liquid part)
Comments, Evaporation rate	Not determined.
Flammability (solid, gas)	The propellant is not combustible.
Vapour pressure	Value: > 3 bar (50°C)
Comments, Vapour pressure	(value for the propellant)
Specific gravity	Value: 1,2-1,4
Comments, Specific gravity	(value for the liquid part); ref: water = 1 (20 °C)

Solubility in water	Soluble (valid for the liquid part).
Comments, Partition coefficient: n-octanol / water	Not determined, not relevant for mixtures.
Comments, Spontaneous combustability	Not determined.
Comments, Decomposition temperature	Not determined.
Viscosity	Value: < 30 mN/m
Comments, Viscosity	(value for the liquid part)
Comments, Explosion limit	Not determined.
Oxidising properties	Not oxidising.

9.2. Other information

Comments, Explosion limit	Not determined.
Odour limit	Not determined.

Other physical and chemical properties

Physical and chemical properties	Critical temperature (nitrogen): -147 °C
Comments	No further relevant information is available.

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	No test data available.
------------	-------------------------

10.2. Chemical stability

Stability	The product is stable at the given use and storing conditions.
-----------	--

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions	No hazardous reactions known.
------------------------------------	-------------------------------

10.4. Conditions to avoid

Conditions to avoid	Avoid temperatures below -5 °C and exceeding +50 °C.
---------------------	--

10.5. Incompatible materials

Materials to avoid	Keep away from metals that react with water.
--------------------	--

10.6. Hazardous decomposition products

Hazardous decomposition products	Fire or high temperatures create: Carbon monoxide (CO). Carbon dioxide (CO ₂). Nitrous gases (NO _x).
----------------------------------	--

SECTION 11: Toxicological information

Toxicological Information:

Other toxicological data	Acetic acid: LD50 oral, rat: 3310 mg/kg LD50 dermal, rabbit: 1060 mg/kg LC50 inhalation (4h), rat: 11,4 mg/l Potassium hydroxide: LD50 oral, rat: 273 mg/kg
--------------------------	--

Other information regarding health hazards

Inhalation	Unlikely to be hazardous by inhalation because of the low vapour pressure of the substance at ambient temperature.
Skin contact	May cause slight irritation.
Eye contact	Moderately irritating.
Ingestion	May irritate and cause malaise.
Sensitisation	Based on available data, the classification criteria are not met.
Carcinogenicity	Based on available data, the classification criteria are not met.
Reproductive toxicity	Based on available data, the classification criteria are not met.

Mutagenicity	Based on available data, the classification criteria are not met.
Other Information	The product itself has not been tested. The classification is based on information about the ingredients. The product does not meet the criteria for classification as hazardous or irritant.

SECTION 12: Ecological information

12.1. Toxicity

Other ecological information

Ecotoxicity	<p>Acetic acid:</p> <p>LC50 96h (fish): 79 mg/l (Pimephales promelas) - harmful EC50 48h (Daphnia): 65 mg/l (D. magna) - harmful Log Pow: -0,23 (no bioaccumulation) Biodegradability: >60% (28 days OECD 301D)</p> <p>Citric acid:</p> <p>log Pow: 0 (no bioaccumulation) Biodegradability:>70% (28 days OECD 301D)</p> <p>Potassium hydroxide:</p> <p>LC50 96h (fish): 80 mg/l (Gambusia affinis) log Pow: <0 (no bioaccumulation)</p>
-------------	--

12.2. Persistence and degradability

Persistence and degradability	The product is expected to be biodegradable.
-------------------------------	--

12.3. Bioaccumulative potential

Bioaccumulative potential	Not expected to bioaccumulate.
---------------------------	--------------------------------

12.4. Mobility in soil

Mobility	The product is water soluble and may spread in water systems.
----------	---

12.5. Results of PBT and vPvB assessment

PBT assessment results	PBT / vPvB assessment not available as chemical safety assessment not is required / not is conducted for the substances in this product.
------------------------	--

12.6. Other adverse effects

Other adverse effects / Remarks	Do not allow to enter into sewer, water system or soil.
Environmental details, conclusion	The product is not classified as harmful to the environment.

SECTION 13: Disposal considerations

EWC waste code	<p>EWC: 160505 gases in pressure containers other than those mentioned in 16 05 04</p> <p>EWC: 150111 metallic packaging containing a dangerous solid porous matrix (for example asbestos), including empty pressure containers</p>
Product classified as hazardous waste	No

13.1. Waste treatment methods

Specify the appropriate methods of disposal	Dispose of waste in local landfill. The waste code (EWC-Code) is intended as a guide. The user must select a code if the use differs from the one mentioned above.
---	--

SECTION 14: Transport information

Land transport (ADR/RID/GGVSE)

Dangerous goods ADR	<p>UN no.: 1950</p> <p>Class: 2.2</p> <p>Proper shipping name: AEROSOLS</p> <p>Other applicable information.: Classification code 5A</p>
---------------------	--

Land transport (RID / GGVSE)

Dangerous goods RID	UN no.: 1950 Class: 2.2 Proper shipping name: AEROSOLS
---------------------	---

Sea transport (IMDG-Code/GGVSee)

Dangerous goods IMDG	UN no.: 1950 Class: 2.2 EmS: F-D, S-U Proper shipping name: AEROSOLS
----------------------	---

Air transport (ICAO-IATA/DGR)

Dangerous goods ICAO/IATA	UN no.: 1950 Class: 2.2 Proper shipping name: AEROSOLS, NON-FLAMMABLE
---------------------------	--

14.6. Special precautions for user

Special precautions for user	Not known.
------------------------------	------------

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Other applicable information.	Not relevant.
-------------------------------	---------------

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

References (laws/regulations)	CHIP Regulations. The Chemicals (Hazard Information and Packaging for Supply) Regulation. Bekendtgørelse nr.844 - Aerosoler. Regulation (EC) No 1907/2006 (REACH) Annex II: Safety data sheets. The Hazardous Waste (England and Wales) Regulations 2005 with amendments. EH40/2005, Workplace exposure limits 2005, with amendments. Dangerous Goods regulations The Safety Data Sheet is based on information provided by the producer.
-------------------------------	---

15.2. Chemical safety assessment

chemical safety assessment has been carried out	No
CSR required	No

SECTION 16: Other information

Classification according to Regulation (EC) No 1272/2008 [CLP/GHS]	Press. Gas; H280;
List of relevant R phrases (under headings 2 and 3).	R10 Flammable. R22 Harmful if swallowed. R35 Causes severe burns.
List of relevant H-phrases (Section 2 and 3).	H226 Flammable liquid and vapour. H280 Contains gas under pressure; may explode if heated. H302 Harmful if swallowed. H314 Causes Severe skin burns and eye damage.
List of relevant S-phrases (in section 3).	S1/2 Keep locked up and out of the reach of children. S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S36/37/39 Wear suitable protective clothing, gloves and eye/face protection. S45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
Further information	Acronyms: PBT: Persistent, Bioaccumulative and Toxic

	vPvB: very Persistent and very Bioaccumulative
Sources of key data used to compile the safety data sheet	Suppliers Safety data sheet dated: 24.09.2010
Supplier's notes	The information contained in this SDS must be made available to all those who handle the product.
Checking quality of information	This SDS is quality controlled by National Institute of Technology in Norway, certified according to the Quality Management System requirements specified in ISO 9001:2008.
Responsible for safety data sheet	GPBM Norge AS
Prepared by	Teknologisk Lab AB, Göteborg / Milvi Rohtla